

"The Development of Universal Telephone Service  
in Ireland 1880 - 1993"

Submission for Doctor of Arts

by

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January 1998

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## Declaration

I hereby certify that this material, which I now submit for assessment on the programme of study leading to the award of Doctor of Arts is entirely my own work and has not been taken from the work of others save to the extent that such work has been cited and acknowledged within the text of my work.

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## Abstract

This research examines the development of universal service in Ireland over the period from 1880 to 1993. Universal service is a key element of telecommunications policy. Its precise meaning is the subject of dispute between differing political outlooks but its objectives are essentially understood as socially-oriented, promoting the diffusion of telecommunications technologies beyond that achieved by the market, and facilitating access to those same technologies at affordable rates.

Differences over the precise meaning of universal service are also the result of the long history of universal service. Although the term itself is a twentieth century one, it has been argued that its fundamental tenets are embodied in particular policy objectives and in particular the long established concept of public service.

Thus this research has examined the history of the concept in Ireland over the period of a century with a view to understanding how the current working definition of universal service has been arrived at. The research looks in depth at the development and diffusion of the telephone across Ireland. It describes how the telephone network has expanded from the cities to reach the entire geographical extent of Ireland. It also examines the factors which have driven and the factors which have constrained the development of the telephone network: the overall economic condition of the country, the respective influences of industry, agriculture and society at large, the development of new telecommunication technologies and the perception of the role of the telephone on the part of those with the greatest influence on its expansion: the private companies, governments departments and state agencies which have been charged with the operation of the telephone service. In short this research seeks to identify the specific political, economic, social and technological factors that shaped the development of the telephone system in Ireland.

In the final chapters, the research describes universal service as it is in Ireland of the 1990s, concluding that ultimately the scope of universal service policy in Ireland has been severely constrained both by economic factors (the cost of providing the service) and a political unwillingness to effectively recognise the social role of the telephone. Thus whilst the research considers how new information and communication technologies will affect future conceptions of universal service, it argues that the philosophy underlying the

provision of the “plain old telephone service” in Ireland falls far short of the ideal of universal service.



## Acknowledgements

I should like to start by offering my deepest thanks to my supervisor Dr. Paschal Preston, whose guidance, counsel and considerable patience have contributed more than he will ever know to this thesis. I suspect I owe him at least a good dinner.

Thomas Wall, the unsung hero of Telecom Eireann's archives, proved to be a key resource for some of the material from the early history of the telephone. I'm extremely grateful for his apparently unending willingness to answer my queries.

Aphra, with whom I shared an office for more than four years has seen this thesis grow from its humble foundations into the heavyweight doorstop it has now become. Her willingness to listen to my half-formed hypotheses, along with her coffee-making and just general niceness lightened the burden of work and cannot go unacknowledged. I'm sure we'll share another office in the future.

The proof-readers of this research have transformed it from a sprawling chaos into a relatively glitch-free zone: to Ciara, Aphra, Maeve Quinn, John McMahon (for always saying "yes" even when he thought I was wrong), Paul Healy (in particular for his unstinting work on the troublesome "footnote font question") and eternal gratitude.

My parents, perhaps unwittingly, put me on the path to this research when they agreed to fund "just one more" year of university education in 1991. Without that year, the thesis would never have been a possibility, so my thanks to them.

There are probably a thousand others who knowingly or otherwise have contributed their ideas, time or even just some good grammar to this work. To everyone who's not mentioned by name or I can't remember at this particular moment: thank youse.

Any finally....

To Ciara, for persisting with me through three and a half long years of "thesising". She has put up the kind of behaviour that would have driven lesser mortals to gibbering insanity and done so with a smile. Her love and encouragement has made the impossible possible.

**Dedication**

For my mother, with all my love

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## ACRONYMS

CEC	Commission of the European Communities
DD	Dail Debates
DTMF	Dual Tone Multi Frequency
FCC	Federal Communications Commission
GII	Global Information Infrastructure (US)
GNP	Gross National Product
IDA	Industrial Development Authority
ITU	International Telecommunication Union
ISPO	Information Society Project Office (EU)
NAD	National Archive Document
NESC	National Economic and Social Council
NII	National Information Infrastructure (US)
NPB	National Planning Board
NTC	National Telephone Company
NTIA	National Telecommunications and Information Administration (US)
OECD	Organisation for Economic Co-operation and Development
P&T	Posts and Telegraphs (Department of)
PTO	Public Telephone Operator
(E)RDF	(European) Regional Development Fund
SLC	Subscriber Line Charge
TCI	Telephone Company of Ireland
USO	Universal Service Obligation
UTC	United Telephone Company



**CHAPTER ONE**  
**INTRODUCTION**

## 1.1 The concerns of this thesis.

Universal Service is a concept which has been applied to the provision of broadcasting and to those services provided by public utilities. This research however is concerned with universal service only as it relates to telecommunications.<sup>1</sup> In this context universal service is generally taken to represent an obligation placed on the national telephone operator (be it privately or publicly owned - Telecom Eireann in the case of Ireland) to offer a telecommunications service on equal terms to all applicants regardless of their geographical location within that operator's service area. Indeed the status of a protected monopoly, that until recent decades was enjoyed by most national telephone operators, was/is implicitly (and on occasion explicitly) conditional on the operator's undertaking of this commitment.<sup>2</sup>

Why has this obligation been placed upon national telephone operators? The answer lies in the definition of what universal service is. This issue is covered in detail in chapter 2, but in brief, universal service has been defined and justified on two grounds: the politico-philosophical approach and the economic good approach. The politico-philosophical approach argues that access to telecommunications is a prerequisite for full participation in modern societies and as such is a right rather than a privilege. The economic good approach argues that the overall utility of each individual telephone increases as more subscribers are added to the telephone network<sup>3</sup> and that it is thus in the interest of all users that the number of subscribers be raised to the highest level possible.

To seek a more concrete definition of what universal service is it is necessary to engage with a debate which has been ongoing since the invention of electrical means of communication. Although individual countries/organisations have adopted specific criteria by which universal

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<sup>1</sup> Except to the extent that the major argument in favour of universal telephone service - the citizenship thesis - also informs rationale for a universal public broadcasting service. See Chapter 2 for a discussion of the various objectives of universal service.

<sup>2</sup> The notion of "common carrier" that was applied to AT&T in the United States following the 1934 Communication Act contained an explicit statement of this condition.

<sup>3</sup> This is also related to the now virtually abandoned assumption that the telephone service was a natural monopoly: if all subscribers could be served by a single infrastructure, then there was no need for competing infrastructure. Indeed to permit competing infrastructures would have driven up the cost of service provision unnecessarily. Hence telecoms infrastructures *were* considered natural monopolies.

service may be measured, there is no universally accepted definition of the concept. The specific political, economic, historical and social backgrounds in different countries have led to differing national conceptions. Furthermore, recent (i.e. the last two and a half decades) technological developments have, by changing the very definition of the term "telecommunications", further complicated the process of arriving at a definite conception of universal service. Whilst by the start of the 1970s in the US, it could reasonably be said that "universal service" referred to the universal provision of a basic piece of equipment - the rotary dial handset and the provision of a basic service (the ability to make telephone calls transmitting voice signals) - the development of digital technology together with improved carrier systems (optical cable replacing copper wire for example) has expanded the information transmitting capacity of the telecommunications infrastructure. This has led directly to the emergence of advanced telecommunications services accessible over telephone lines. As these technologies become more prevalent, there is an emerging concern that society may become divided into those with access to such new technologies and those without, described as the 'info-haves' and 'info-have-nots'. This prompts the question of whether the universal service concept should be adjusted to take account of these new technologies, an issue which is taken up in the closing chapter of this thesis.

In short, at a time of enormous technological, political and economic change, universal service is no longer a fixed concept (if indeed it ever was), nor definable as a technical standard.<sup>4</sup> Rather it is a politicised and therefore flexible concept, the definition of which varies according to the political economic environment in which the subject is being debated.

The research on which this thesis is based seeks to examine the development and evolution of universal service provision in Ireland over the past century or more. In Ireland the concept of universal service is, and has been, at best opaque. Conceptions of universal service which are taken as given in other western countries often simply do not apply in Ireland.<sup>5</sup> Thus one of

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<sup>4</sup> A fact acknowledged in the 1996 US Telecommunications Act which describes universal service as an "*evolving* level of telecommunications services." (Italics added) See the US Telecommunications Act of 1996, Section 254 (C), paragraph 1.

<sup>5</sup> For example, a discussion which followed a paper delivered by this researcher at a meeting of the EMTEL Research Network in May 1996 at the University of Sussex, indicated that many at the meeting took for granted that the conception of universal service which dominated in their area of Northern Europe (basically common carriage) was a generally accepted definition. After some debate

the major goals this research has simply been to arrive at a description of what that conception consists of in the Irish context. The term is not mentioned in any piece of national legislation relating to telecommunications (despite the fact that the major piece of legislation governing Irish telecommunications today was written in 1983 - nearly fifty years after the passing of the 1934 US Communications Act, which is widely held to have extended the concept of universal service to telephone service provision).<sup>6</sup> Thus in the Irish case, as I will indicate in subsequent chapters, any conception of universal service that does exist can only be inferred.

This research has sought to do this by identifying those political, economic, historical, social and technological factors which have shaped the conception of universal service that is specific to modern Ireland. It traces the development of universal service from the establishment of the first telephone exchange in Dublin in 1880 until September 1993, the point at which Telecom Eireann introduced the most substantial changes in the telephone tariff structure for 7 years. These changes were largely driven by Telecom Eireann's stated policy of "rate-rebalancing". As the following chapter on definitions of universal service will indicate, the introduction of such rebalancing, which typically reduces the cost of long-distance calls and increases the cost of local calls, has critical implications for the future financing of the universal service obligation, and thus for the universal service concept itself. Despite this, the September 1993 changes failed to engender any public debate on universal service in Ireland. To this time, has there *never* been such a debate in Ireland.<sup>7</sup>

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the meeting concluded that in fact "definitions" of universal service were in fact culturally and indeed temporally specific.

<sup>6</sup> Even the most recent piece of Irish telecommunications legislation, the Telecommunications (Miscellaneous Provisions) Act, 1996, fails to use the term "universal service" despite the fact that one of the major objectives of the Act was to establish a regulatory authority independent of government.

<sup>7</sup> To some extent this reflects an element of Irish political culture noted by several analysts: a low level of "subjective competence" (the sense of having the capacity to influence the political process) on the part of Irish citizens. Surveyed in 1976, only 53% felt they could do something about unjust local legislation and only 43% about an unjust national law. Rather than simply reflecting a lack of self-confidence however, it might be argued that this simply reflects the reality of Irish political structures. See Raven, John, C.T. Whelan, Paul A. Pfretschner and Donald M. Borock (1976), Political Culture in Ireland: The Views of Two Generations (Dublin: Institute of Public Administration), p. 26.

Thus to sum up, the research reported by this thesis examines three areas:

(i) To what extent has universal service, or the notion that access to telecommunications services is a citizenship right, emerged as an explicit element in Irish telecommunications policy? Furthermore, how and why did the conception of universal service alter over the course of the last century?

(ii) What, in practical, concrete terms does universal service refer to with regard to the modern Irish telecommunications service? What philosophy currently underlies the provision of universal telephone service in Ireland and is there/has there been a gap between theory and practice at various stages of the history of telephony in Ireland?

(iii) Finally, looking at both the past and present of universal service in Ireland, what implications may be drawn about not merely the future of universal service in Ireland, but also about the future role of communications in Ireland? Will the “information society” in Ireland actually mean anything for *society* as opposed to the economy?

## 1.2 The approach adopted

It is important to stress that for the bulk of the period covered by this research, the specific term “universal service” has had little meaning in the Irish context (although the phrase was coined as early as 1907 by Theodore Vail, then president of American telecommunications giant, AT&T). This renders problematic any project to trace the development of the concept. Although there is an emerging acknowledgement that as the national telecommunications operator, Telecom Eireann has responsibility for the provision of “universal service”,<sup>8</sup> there is not now nor has there ever been any explicit or measurable definition of what universal service is or should be in Ireland. Indeed, as I will argue below, the legislation which covered telecommunications in Ireland through most of the period covered by this research - the 1869 Telegraph Act - placed no obligations whatsoever on the national telecommunications operator. Instead it merely placed the exclusive privilege of providing telecommunications

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<sup>8</sup> See for example, Sean McMahon (1995), "Competition and Telecommunication Infrastructure in Ireland", *Telecommunications Policy*, Vol. 19, No. 4, p 302.

services in the hands of the state.<sup>9</sup> Only the introduction, in 1983, of the Postal and Telecommunication Services Act forced Irish legislators to reconsider the role and duties of the national telecommunications operator. Whilst assigning some duties to the state-sponsored body (Telecom Eireann) which took over the provision of telecommunications service in Ireland in 1984, this Act nevertheless failed to place any specific, *measurable* public service obligations on the new company. Indeed it appears that the same act specifically protects the Irish PTT from the consequences of failing to provide service.<sup>10</sup> Irish legislation is not unique in this respect: the difficulty in pinning down a definition of what constitutes universal service has made it difficult if not impossible to legislate a fixed standard by which one could judge whether or not universal service had been achieved.<sup>11</sup>

One possible method of measuring the development of the universal service concept would be to decide at the outset on measurable technical criteria and to assess the extent to which those criteria have been achieved. This would involve some work of definition which, as has been pointed out above, is a complex (and arguably impossible) task. Furthermore, there is a risk of carrying out unhistorical research by applying contemporary criteria to historical situations: the danger of saying "once X% penetration has been achieved, universal service has been established. Anything short of this is not universal service".

In this research I have adopted an alternative approach. I have sought to establish general dimensions associated with the universal service concept and to examine the development and diffusion of the telephone service with regard to these. They comprise:

- a) Affordability
- b) Geographical spread of the network infrastructure in terms of access to the system.

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<sup>9</sup> Although in practice, the privilege was licensed to private companies until the nationalisation of the telephone service in 1911.

<sup>10</sup> See Section 88, subsection 1 of Postal and Telecommunications Services Act, 1983: "...the company shall be immune from all liability in respect of any loss or damage suffered by a person...by reason of... failure or delay in providing, operating or maintaining a telecommunications service." This will be discussed in more detail in the relevant chapters.

<sup>11</sup> This lack of specificity in terms of a universal service objective in Ireland has led to a pragmatic rather than ideological approach towards the provision of the telephone in Ireland: one of the central theses of this research.

- c) Growth in number of i) residential ii) business subscribers (and by extension, some consideration of telephony in relation to changing consumption norms).
- d) Growth in the level of household penetration of the telephone.<sup>12</sup>
- e) Quality of service (including continuity of service).

At the same time a series of related questions have underpinned the body of this work. Have there been competing conceptions (implicit or otherwise) of the role of telephone service over the last century? Has the telephone service been conceived of as a social service, an infrastructural service, part of a military communications network or in some other manner? Which of these conceptions has had the most influence on Irish telecommunications policy? What factors have influenced this conception? To what extent was it perceived as a luxury, non-essential item or one central to the conduct of every day life? In short: who and what was/is the telephone for?

Finally, since the telephone service lay in the hands of the state for the greatest length of the period covered by this research, how the telephone service was conceived of by the official decision and policy-makers of the state will be of most critical interest to this research. The state, after all, decided how far universal service would actually go regardless of any abstract concepts of what universal service *should* be.

This research on the development of universal service provision and policy is based on the case of Ireland, a later developing nation, situated on the western periphery of the European continent. As such according to some (albeit contested) theories of the role of telecommunications, Ireland may be more dependent than most other European countries on a developed international communications network, in order to lessen the vicissitudes of geographical location. One point to stress from the outset is that, despite the emphasis placed on maintaining external links for reasons of economic growth (especially from the 1960s), there has been remarkably little debate on the development of telecommunications in Ireland. Only when the service reached a crisis born of rapidly growing demand and waiting lists, long waiting periods and an increasingly expensive service in the late 1970s was there any kind of sustained debate in the public sphere regarding the telephone service. This is perhaps not

unusual given that political traditions in Ireland do not readily encourage public debate regarding strategic policy-making (under which definition telecommunications comfortably falls). Irish decision-making structures are highly centralised and the policy-making process cloaked in secrecy.<sup>13</sup> Thus public debates have tended in Irish history to focus on questions of morality, religion, politics (as opposed to policy) and indeed history itself.

The fact that this research sought to cover a long time period meant that of necessity it would have to rely on historical documents for, at the very least, the earlier time period covered. In addition, at the outset of the research, the possibility of conducting direct interviews with persons working in the area of telecommunications or telecommunications policy in Ireland was considered, with a view to elucidating what conception of universal service informs recent and current Irish telecommunications policy. In fact several informal interviews were conducted with Telecom Eireann personnel, former Posts and Telegraphs personnel, and officials at the Department of Communications on the understanding that they would not be quoted. While these were helpful in confirming or refuting several of my initial tentative hypotheses, they ultimately confirmed that there was little of any substance to discuss on the subject of universal service in Ireland. Since, as this research will indicate in late chapters, the concept was either unheard of or vaguely defined, it was difficult if not impossible to conduct a discussion on the subject, as interviewer and interviewee frequently brought quite different conceptions of the term to any such discussion. Furthermore, it was clear that the very act of raising the subject to some extent prompted interviewees to directly address the topic for the first time. Thus the actual act of conducting the research was in part shaping the subject under consideration, giving rise to the researcher's suspicion that the content of answers were influenced by what the interviewees felt was the "correct" rather than accurate answer. Finally, and perhaps most importantly, the political sensitivity of the subject meant that it was, almost by definition, impossible to convince the interviewees to go "on the record" with accurate personal opinions as to what universal service actually consisted of in the Irish context.

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<sup>12</sup> In fact it seems to be generally agreed that household penetration is *the* key marker of universal service achievement.

<sup>13</sup> Reflected for example in the absence of published ministerial diaries giving accounts of how cabinet discussions take place in Ireland - there have been only two in the last 25 years - both detailing the same administration (*At the Cutting Edge* by Gemma Hussey and *All in a Life* by Garret Fitzgerald).



As a result, since this research was ultimately more interested in what universal service actually consisted of rather than what interviewees with a stake in the industry would like to believe (or more accurately, would have liked me to believe), the decision was taken to rely on documentary materials, outlining basic data on key indicators such as geographical diffusion of the telephone and levels of penetration, and relating these to public or private statements of official telecommunications policy.

Hence at the commencement of this work, this researcher carried out a detailed review of political, cultural and social histories of Ireland in the late 19<sup>th</sup> and 20<sup>th</sup> centuries. The total absence of any explicit reference to the role of telecommunications in Irish society, culture or the economy therein reflected the scarcity of public debate on telecommunications policy in Ireland. Furthermore there have been very few histories of communication focusing specifically on Ireland. Those that have, have focused on transport (rail and roads) or the mass media (print, broadcasting, cinema) to the almost complete exclusion of telecommunications. For this reason, this research has had to depend almost exclusively on primary documents to put together a picture of telecommunications in Ireland over the last 120 years. These included British Parliamentary debates, Dail Eireann Debates from 1922 onwards, National Archive Documents (largely internal Department of Posts and Telegraphs memos), trade union records, business organisation records, and where appropriate newspaper articles. These have been augmented with secondary material - largely on the subject of universal service and on Irish social and economic history since 1880.

### **1.3 The motivation for this work**

From the outset it should be stated that this research has been unable to find very much by way of published substantial English-language histories of universal service provision or policy development or related concepts. Thus one of the motivations for the research was to contribute something towards filling this gap - examining how the conception of universal service has changed in a single country and seeking to isolate the factors influencing changes - with a view to offering some basis for comparison to other researchers on the same topic.

Universal service has become a critical issue over the last decade as a result of changes in the political economy of telecommunications (which in themselves were influenced by changes in the more general political-economic climate - in particular the emergence of neo-liberalism as the dominant political ideology). Of most direct relevance to Ireland have been developments in European Union legislation relating to telecommunications, influenced in turn by the three major telecommunication industries deregulations/privatisations of the early 1980s, those of NTT in Japan, AT&T in the United States and British Telecom in the UK. The European Community, in its legislation dating from the Green Paper on telecommunications in 1987, appears to have accepted the political-economic orthodoxy which prompted these deregulations/privatisations, i.e. that state monopoly control of national telecommunications industries was inherently inefficient, leading to unnecessarily high charges and delaying the development of new telecommunications services. Accordingly, the cure for these ills has been the introduction of competition into all European telecommunications markets. For the Commission this would serve to deepen and promote the process of EU economic and industrial integration. Certainly competition *has* gradually been introduced into the national markets of Europe, commencing with the end of state telecommunication monopolies on the provision of telecommunications equipment, and then spreading to service provision (although basic voice telephony will not be open to competition until 1998<sup>14</sup>). Even the field of basic telecommunications infrastructure (be it cabled or wireless) is opening up to competition.<sup>15</sup>

This acceptance of the primacy of the market in deciding the future of national and international telecommunications coincides with a growth in the role of private companies in the telecommunications markets of the world. A glance at the top 40 international

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<sup>14</sup> Ireland initially secured a 5 year extension on this date on the grounds that as a peripheral economy with a small telecommunications sector, it would need this breathing space to prepare for full competition. It is no longer clear, however, how much of the derogation Telecom Eireann will avail of: in June 1996, Telecom Eireann entered a "strategic partnership" with KPN/Telia, which involved selling 20% of Telecom to the new partners. The deal also permits KPN/Telia to purchase an additional 15% for not less than £IR200 million by 1999. Logically the longer Telecom avails of the derogation, the more valuable it will become (since it will retain an effective monopoly on fixed voice telephony). However, the securing of the derogation is predicated on the fact that Telecom needs time to prepare for competition - it has been argued (in particular by potential competitors in the fixed voice market, Esat Telecom) that Telecom Eireann already has one of the most advanced telecommunications infrastructures in Europe and that it doesn't therefore need the derogation.

<sup>15</sup> For example, Esat Digifone, winner of the (disputed) second mobile phone licence in Ireland entered into a £100 million deal with LM Ericsson to build an infrastructure of mobile telephony

telecommunications carriers in the world as of 1993 indicates that 16 of them are either entirely in private hands or have the majority of their shares in private hands (including 7 of the top 10).<sup>16</sup> Telecom Eireann, a company with an annual turnover of just under £1 billion,<sup>17</sup> ranks 35<sup>th</sup>.<sup>18</sup> Telecom Eireann itself has gone down this route: in June 1996 the Government agreed the sale of 35% of the company to a KPN/Telia consortium in a deal characterised as allowing Telecom Eireann to both reduce some of its debt burden and to establish a partnership with an established international telecommunications operator (both KPN and Telia are members of Unisource, an international telecommunications network).

The consequences of European legislation for Irish telecommunications will be considerable. Most PTTs have argued that the introduction of competition also introduces the possibility of “cream-skimming” by new competitors.<sup>19</sup> Thus new competitors will enter the market but since they seem unlikely to face the same universal service obligations faced by incumbent PTTs they will be able to pick and choose their customers. This would almost certainly mean an exclusive focus on the most lucrative customers (typically commercial clients with a high traffic volume<sup>20</sup>). This may threaten the method of funding that hitherto has typically financed the apparently loss-making universal service obligation, since in the past the funds earned from these more lucrative routes have been used to subsidise the losses resulting from the provision of service to high-cost customers. Although it should be noted that the claim that the fulfilment of universal service obligations is necessarily a loss-making proposition is a contested one,<sup>21</sup> Telecom Eireann has nonetheless argued that in a fully competitive market it

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base stations that would compete with the Eircell's (A subsidiary of Telecom Eireann) existing infrastructure. (See *Irish Times Business* page, 2/5/96).

<sup>16</sup> Telecommunications Industry Task Force (1995), Telecommunications, Employment and Growth. (Dublin: Forbairt), p. 47.

<sup>17</sup> Telecom Eireann (1995), Annual Report and Accounts for the Year Ended 30 March 1995. p. 29. Exact figure is £979 million.

<sup>18</sup> Telecommunications Industry Task Force, (1995), Telecommunications, Employment and Growth. (Dublin: Forbairt), p. 47.

<sup>19</sup> In fact this is more than a possibility: in the fixed (as opposed to mobile) telephony market, Telecom Eireann have faced limited competition in international/long distance voice and fax telephony from Esat Telecom and TCL Telecom, both of whom have exclusively looked for corporate customers (since December 1992 in the case of Esat and November 1994 in case of TCL).

<sup>20</sup> This would certainly describe the clientele of the two companies currently permitted to compete with Telecom Eireann for bulk customers, Esat and TCL.

<sup>21</sup> Although it is frequently asserted that long-distance traffic cross-subsidises local calls, it has been argued that the process of ascribing costs to long-distance and local calls is far from objective and involves some normative decision-making. Indeed the “stand-alone” costing approach pioneered by

will be doubly disadvantaged vis-à-vis new competitors since a) it will still have to provide what it characterises as loss-making services to some customers as a result of the universal service obligation and b) its ability to cover those losses through cross-subsidisation will be undermined.<sup>22</sup> Indeed the Irish Government has, on behalf of Telecom Eireann, appealed to the European Commission for a derogation on the liberalisation of the Irish voice telephony market on precisely these grounds.<sup>23</sup> Prospective entrants to the Irish telecommunications market argue that as the incumbent telecoms provider, Telecom Eireann would still enjoy a substantial advantage over any new competitor as a consequence of its history of service provision and its possession of an extant telecommunications network. This contention is undermined by two factors: a) in global terms, as has been pointed out above, Telecom Eireann is very small when compared its prospective international competitors<sup>24</sup> and b) the ONP (Open Network Provision) principles integral to all EU telecommunications legislation since 1987 are designed to ensure that extant and future telecommunications infrastructures in Europe will be accessible to all telecommunications service providers. As a consequence, new entrants to the industry would not be forced to construct a parallel infrastructure. Hence the possession by incumbents of extant telecommunications infrastructure does not necessarily constitute any real advantage.

In short, Telecom Eireann as the incumbent provider, “saddled” with the universal service obligation will find that obligation harder and harder to finance, unless the current method of doing so is radically altered. Yet there has been no public discussion in Ireland of how universal service will be affected by the liberalisation of the national market. Where debate

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William Melody (amongst others) in the 1970s, argued that if services were allocated costs according to what they would cost if provided separately, then local services subsidised other services. See Geoff Mulgan (1990), “The Myth of Cost-Based Pricing”, *Intermedia*, Vol. 18, No. 1, pp. 21 - 27.

<sup>22</sup> In fact Telecom Eireann argue that this is already occurring as a result of the limited competition from Esat and TCL, both private companies which lease lines from Telecom Eireann and offer service to bulk users. In the 1994 Annual Report Telecom Eireann Chairman Ron Bolger complained: “Having invested in and built our networks over the last ten years, we now see our competitors cherry picking the more lucrative areas of our business.” Telecom Eireann Annual Report and Accounts for the year ended 31 March 1994, p. 8.

<sup>23</sup> See CEC (1996), *Decision of 27 November 1996 concerning the additional implementation periods requested by Ireland for the implementation of Commission Directives 90/388/EEC and 06/2/EC as regards full competition in the telecommunications markets*. EC OJ No. L 41, pp. 8 - 21.

<sup>24</sup> Which has also been used as part of the justification for selling off of part of Telecom Eireann into private hands: in an internationally competitive telecoms market, Telecom Eireann will need to be in partnership with, rather than competition with, at least one of the global-scale operators (e.g. AT&T) or consortiums (e.g. Unisource).

has occurred it has focused on the employment consequences for Telecom Eireann of competition. Successive Irish governments have appeared to accept (by virtue of their silence on the issue) that EU legislation will safeguard the universal service objective. This is indicative of Ireland's general approach towards the EU which may be characterised as highly dependent and reactive (as opposed to proactive) in relation to EU policy developments. Given the relatively limited financial and knowledge resources of the government communications department in one of the European Union's smallest member states, this approach is understandable. Yet the resulting complacency with regard to universal service seems particularly dangerous, in light of the criticism that references to universal service in EU documents serve mainly to placate those concerned that the introduction of competition will threaten the public service objectives of telecommunications.<sup>25</sup> Hence a primary aim for this research is to provide a theoretical basis from which to proactively formulate a view, from the perspective of a smaller EU nation, on what shape universal service should take in the European context.

Yet, there is a more general reason why the study of universal service has become a key issue in the mid-1990s. When this research commenced in 1993, universal service was (particularly in Europe) merely one issue amongst many in general debates on telecommunications policy. Since then however, the term has been increasingly foregrounded as debate has intensified on what shape the Information Society will take.<sup>26</sup> That we are moving towards such a society is taken as a given in these debates, which tend to be informed by a technologically determinist outlook. Voice, text, video and data can now all be coded into digital bits and transmitted via the same distribution systems, be they twisted copper pairs, co-axial cable, or fibre optic cable. This has speeded up the convergence of previously separate industries (telecommunications, broadcasting and computing) that arguably commenced in the 1870s.<sup>27</sup>

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<sup>25</sup> See for example Sean O'Siochrú (1995), Universal Service in the Global Information Society: Problems and Prospects. Paper delivered at the ITU TELECOM '95 conference.

<sup>26</sup> For example: "Fair access to the infrastructure will have to be guaranteed to all, as will provision of universal service, the definition of which must evolve in line with the technology." High Level Group on the Information Society (1994), Europe and the global information society (The Bangemann Report). (Brussels: CEC), p. 6.

<sup>27</sup> See Ithiel de Sola Pool (1983), Technologies of Freedom. (Cambridge, Massachusetts: Belknap Press), chapter 3. Pool argues that the infant Bell company sought to offer two services - telegraphy and telephony - over the same infrastructure but were blocked by anti-trust laws.

Media conglomerates offer visions of "electronic hearths"<sup>28</sup>, single technology platforms placed in the domestic environment, which combine the function of the television, telephone and personal computer. These platforms will, it is promised, offer individuals a hitherto unimagined level of access to information and increased opportunities to participate in the democratic process. Both the National Telecommunications and Information Administration (NTIA) in the United States and the European Union are promoting this information superhighway/infobahn (ISH/IB) in terms of how it will facilitate the very process of being a citizen and more generally improve the quality of life.<sup>29</sup> Thus, presented as a public good (as the telephone was before) the ISH/IB, raises many of the same issues as the telephone before it. Key amongst these is universal service.

The fact that the discussion of universal service now occurs in the realm of the Information Society, however, raises the stakes. In the debate over the universal provision of the telephone, it has always been possible to make an argument that citizenship (that is membership of a given society) and phone ownership were not coterminous.<sup>30</sup> This argument is significantly harder to make when talking of an Information Society, i.e. a society where citizenship is conceived of actually being constituted by access to information and information technology. In this context, if one does not have access to that technology then, by definition, one cannot

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<sup>28</sup> See for example Evan I. Schwartz (1995), "People are supposed to pay for this stuff", *Wired* (UK Edition, No. 1.04, July/August 1995).

<sup>29</sup> See for example The Bangemann Report: "The widespread availability of new information tools and services will present fresh opportunities to build a more equal and balanced society and to foster individual accomplishment. The information society has the potential to improve the quality of life of Europe's citizens, the efficiency of our social and economic organisation and to reinforce cohesion." (p. 6.). Speaking at a conference in October 1995 in Bremen, James McConnaughey of the NTIA commented, "Given the technological convergence of computers and communications, and the emergence of information as a means of fostering economic and social well-being, the traditional reliance on telephone penetration may now be inadequate as a metric of universal service...A fundamental goal of the Clinton Administration is to expand the universal service concept to ensure that information resources are available to all at affordable prices". From "Universal Service" by James McConnaughey, in The Social Shaping of the Information Highways - Comparing the NII and the EU Action Plan, (Report on an international conference at Bremen, October 5th - 7th, 1995), p. 81.

<sup>30</sup> Largely because of the fact that the telephone took so long to become a ubiquitous instrument in the Western World. Looking at Ireland in 1945 when a population of just under 3 million people was served by just over 30,000 main phone lines, it would have been hard to argue that citizenship depended on access to the telephone. However as the phone became more ubiquitous and possession of a telephone became taken for granted, society began to be ordered according to that assumption. See for example Philip Dyer's figures indicating the role of the telephone in accessing information

be part of that society. Thus if the Information Society, as it has been marketed, is to include everyone now considered to be part of society, then it will be necessary to mandate by law guaranteed universal access to information and communication technologies: particularly as the hardware necessary to access the ISH/IB (personal computers) is significantly more expensive than that required for the technology currently most associated with universal service: the telephone (and there is plenty of evidence that income is a deciding factor in preventing people from becoming subscribers to what is, compared to personal computing, a relatively cheap technology<sup>31</sup>). In short, it is already considered necessary to legally mandate universal telephone service, in a society where it is nonetheless possible to argue that telephone access is *not* a prerequisite for societal participation. Given this, how much more important will it be to mandate universal service with regard to a relatively expensive technology (PCs), access to which will be considered a prerequisite for functioning as a citizen in that society?

At government level at least, Ireland has embraced the notion of the Information Society<sup>32</sup> and it is this fact which makes a detailed examination of universal service as it currently stands in Ireland critically important. Despite vague references to the socially transformative powers of an Information Society (usually couched in terms of a process of increased "democratisation" of society), both the NTIA and EU agree that the Information Society should be driven by the market.<sup>33</sup> The contradiction inherent in this line of persuasion - that social transformation will be brought about by the representatives of that institution (capitalism) which would appear to have a vested interest in maintaining the societal status quo - is not addressed. Yet, critical theorists such as Herbert Schiller have long adverted to the inherent contradiction of having the development of a public good driven by the needs of the private sphere (business).

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relating to social welfare rights in Re-Thinking Telephony. The Social and Spatial Consequences of Non-Connection (Centre for Urban Geography Studies, University of Newcastle).

<sup>31</sup> See for example: Jorge Reina Schement, (1995), "Beyond Universal Service: Characteristics of Americans without Telephones, 1980 - 1993", *Telecommunications Policy*, Vol. 19, No. 6. pp. 477 - 485.

<sup>32</sup> "...We cannot escape the information age, even if we wanted to - and I can assure you that the Government has no wish to do so but rather to espouse it." Ruairi Quinn, Minister for Finance at the ICTU Conference on "Preparing Ireland for the Information Age": 22/3/1996. From the text of a press release issued by the Government Information Services.

<sup>33</sup> The very first line of The Bangemann Report is "This Report urges the European Union to put it's faith in market mechanisms as the motive power to carry us into the Information Age", High Level

Referring to the increasing economic importance of the ICT industries, Schiller has argued that:

“Contrary to the notion that capitalism has been transcended, long prevailing imperatives of a market economy remain as determining as ever in the transformations occurring in the technological and informational spheres.”<sup>34</sup>

The point is that unless one accepts the economic good conception of universal service,<sup>35</sup> there is little reason to believe that commercial interest will seek to promote universal service objectives. Yet if we are to rely on the EU to protect the universal service obligation we are depending on an institution which wishes to let precisely the needs of the market drive the Information Society. Even in looking at Irish pronouncements on the Information Society, it's apparent that the needs of commerce outweigh those of citizenship. The Department of Industry and Commerce-appointed Information Society Secretariat (18 of whose 20 members were from “the business community”) sought submissions on “Ireland and the Information Society” explicitly couched in terms of the “context of the economy”. There's no reference to any sense of what new technologies and information transmission systems might have for Irish “society” in the more general sense of the word.<sup>36</sup> Even when such pronouncements do address the issues relating to the exclusion and the Information Society, they still often use

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Group on the Information Society (1994), Europe and the global information society (The Bangemann Report). (Brussels: CEC), p. 3.

<sup>34</sup> Herbert Schiller (1981), Who Knows?: Information in the Age of the Fortune 500 (Norwood, New Jersey, Ablex), p. xii. Indeed it might be argued that the very notion of the Information Society found its genesis in the fact that marketing of new technologies has moved from the sphere of work into the home (as the business market nears saturation). Thus the notion of the “Information Society” becomes simply a marketing tool, designed to encourage the purchasing for use in the domestic environment of technologies originally designed for business applications. For Schiller, to consider that the Information Society is anything other than simply the latest phase of capitalism is incredible since it is illogical to expect the very forces that have generated information and IT to be superseded by what they have created. See chapter on Schiller in Frank Webster (1995), Theories of the Information Society. (London: Routledge).

<sup>35</sup> And as this research points out in the closing chapter there is a danger to so doing even if it does achieve a universal telephone provision.

<sup>36</sup> Of course exactly what “society” is raises difficulties: the Penguin Dictionary of Sociology offers the “commonsense category in which society is equivalent to the boundaries of nation-states.” (p. 395). But in talking about sociology it refers more to the “study of the bases of social membership” (p. 396). Whatever the definition it seems fair to suggest that “economy” and “society” are not coterminous in their meanings.



language which undermines this intent: citizens are addressed as “clients”<sup>37</sup> and “customers”.<sup>38</sup>

Hence there is a need to examine the conception of universal service that prevails with regard to the telephone in Ireland at present since it may have determining effect on how universal service is conceived in an “information age”. The risk for society is that universal service now and in the future may be conceived in such a way as to see citizens as consumers rather than citizens, undermining the very fabric of political society. Hence universal service is of key policy importance at present.<sup>39</sup> This research then seeks to examine how the definition that currently prevails in Ireland was arrived at and how it might be affected by current and future developments.

#### **1.4 Structure and outline of thesis and chapters.**

This research is divided into ten chapters. Chapters two and three offer a literature review and basic theoretical underpinning of the main body of the thesis (chapters four to eight). Chapter two reviews the basic conceptions and theories of universal service, tracing the development of the concept from the late 19th century, and examining the changing conceptions of universal service in the 1980s and 1990s. Chapter three offers a basic political and economic history of Ireland from 1880 to 1993, with a view to contextualising telecommunications policy (particularly in relation to economic policy).

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<sup>37</sup> Ruairí Quinn, then Minister for Finance at the ICTU Conference on "Preparing Ireland for the Information Age" 22/3/1996. From page 8 of a press release issued by the Government Information Services.

<sup>38</sup> *Ibid.*, page 10. See also the Irish government internet site at <http://www.irlgov.ie>. As of June 1996, the Taoiseach had written in his page "The Internet offers my Government colleagues and I an exciting and new opportunity to communicate with a rapidly growing number of users in Ireland and abroad. Delivering a quality customer service is a priority for my Department." This use of language has been picked up in the national press: "A customer service? The language of shopping malls and customer service has replaced that good old-fashioned term - *citizens*." See Michael Cunningham, "The State We're In" *Irish Times*, May 27, 1996.

<sup>39</sup> Schement argues that universal service is not simply a single government policy, rather "it is the guiding principle of the information society." Jorge Reina Schement (1995), "Beyond Universal Service: Characteristics of Americans without telephones, 1980-1993", *Telecommunications Policy* Vol. 19, No. 6, pp. 477-485.

As noted above, the main body of the research is contained in chapters four to eight. These chapters trace the historical development of universal service in Ireland from 1880 to 1993 in periods of roughly twenty years (although chapter four covers 1880 to 1921 whilst chapter eight focuses on the thirteen year period up to 1993). Each chapter commences a general description of the evolution of the telephone service in the period covered, describing the physical state of the network and relating this to key developments in the political, organisational, personnel, and legislative frameworks within which the service progressed. Each chapter will also trace the conception both of the telephone as a communications technology in Ireland and of the role of the organisation providing service (i.e., whether a commercially or socially oriented service). These will be integrated together at the close of each chapter into a conclusion assessing what “definition” (if any) of universal service prevailed in each period. (Furthermore, the primary data contained in the appendices is an important part of the “story” told by this research. The appendices may be used to contextualise the conclusions reached in individual chapters.)

Chapter nine summarises the previous five chapters, drawing together the main themes of the research and identifying the key factors and historical moments in the development of both the Irish telephone service and the universal service concept. This will also offer an outline of the historical shape of universal service over the period covered by this research.

Chapter ten takes the conclusions of the previous chapter and considers them in the light of ongoing changes in Irish and European telecommunications policy. It stresses the importance of developing a coherent philosophy not merely of universal service but also of the role of communications in a modern society, *in advance* of changing the legislative/regulatory framework within which the “plain old telephone service” and new information communications technologies are provided. Failure to do, it argues, will allow the logic of the *fait accompli* to define this role.

# **CHAPTER TWO**

## **UNIVERSAL SERVICE**

## 2.1 Introduction

**"universal** *adj.* 1. of or typical of the whole of mankind or nature. 2. common to or proceeding from all in a particular group. 3. applicable to or affecting many individuals, conditions or cases. 4. existing or prevailing everywhere...

**service** *n.* 1. an act of help or assistance. 2. an organised system of labour and material aids used to supply the needs of the public, *telephone service*. 3. something that is used in serving food and drink. 4. the state of availability for user by the public..."

From Collins Concise Dictionary,  
2nd Edition, 1988.

"Perhaps no other regulatory goal has been so extensively discussed without an established definition as universal service."<sup>1</sup>

Establishing the meaning of universal service is a semiotic nightmare. If a language system is strictly defined as a set of arbitrary but agreed signs and signifiers, then the term "universal service" is practically without meaning. Dictionary definitions of "universal" and "service" have little to do with the operational definition: the service may not exist everywhere and may not supply the needs of the public. Two individuals may debate the subject of "universal service" but hold quite different conceptions of what "universal service" refers to. Equally two individuals may use different terms - "universal service" and "public service" - but refer to the same concept. (The significance of the distinction between "universal service" and "public service" for understanding differences in US and European approaches to telecommunications policy is discussed below.) Language systems are not immutable, however - the interpretations

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<sup>1</sup> Larry Pressler & Kevin V. Schieffer (1987), "A Proposal for Universal Telecommunications Service", *Federal Communications Law Journal*, Vol. 40, No. 3. The same quote starts two sections, both entitled "Defining Universal Service" in Frederick William (1991), The New Telecommunications: Infrastructure for the Information Age. (New York: The Free Press), p. 202 and John D Borrows, Phyllis A. Bernt & Raymond W. Lawton (1994), Universal Service in the United States: Dimensions of the Debate, Diskussionsbeitrag Nr. 124. (Bad Honnef: Wissenschaftliches Institut für Kommunikationsdienste), p. 4.

of words or phrases are frequently the site of dispute as opposing groups struggle for control of meaning and thus the boundaries within which debate can occur. The struggle to "define" universal service is a perfect and politically significant example of this. As universal service policies and practices have evolved over the course of a century, the term itself has increasingly become a site of conflict between right and left wing political viewpoints and political economic models. These opposing viewpoints offer different rationales for "universal service" based alternately on the logic of economic efficiency and the social role of communications. The result is different "definitions" of the concept. Since it is precisely these competing conceptions that this research seeks to examine in the Irish case, with a view to ascertaining which notions have implicitly or explicitly informed the diffusion of the telephone here, there is little value in attempting to arrive at a single definitive version of universal service. Nonetheless there is a need to mark out the territory under discussion.

## 2.2 Mapping the territory

One statement on which there is general consensus can be made to the effect that universal service is a *public policy goal* that "exist(s) in every developed country."<sup>2</sup> Beyond that the various "definitions" of universal service are situated on a continuum stretching from minimalist to maximalist interpretations of the concept: at the minimalist end, universal service simply means guaranteeing **access** to telecommunications facilities on an **equal** basis. A maximalist definition, however, would encompass the requirement to provide an affordable (possibly subsidised), continuous telecommunications service of an agreed minimum level of quality to all citizens regardless of their geographical location.

The minimalist definition, although frequently described as "universal service" is actually closer to the concept of "common carriage". Whilst the two terms are not synonymous,<sup>3</sup> they

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<sup>2</sup> Eli Noam (1994), "Beyond Liberalisation III: Reforming Universal Service", *Telecommunications Policy*, Vol. 18, No. 9, pp. 687-704. See also Michael Tyler, William Letwin & Christopher Roe (1995), "Universal Service and Innovation in Telecommunications Services", *Telecommunications Policy*, Vol. 19, No. 1, pp. 3-20: "...most countries recognise some concept of universal service as a policy goal." (p. 4.)

<sup>3</sup> "...'universal service obligation', is the requirement of a carrier to reach every willing user and desired destination, wherever located, while common carriage refers to service obligations toward users *given a physical plant*." Eli Noam (1994), "Beyond liberalisation II: The Impending Doom of Common Carriage", *Telecommunications Policy*, Vol. 18, No. 6, pp. 435-452, p. 436.

do share some common features. Common carriage refers to service obligations towards users, in the case where physical plant is already extant:

"Common carriage principles...(are) intended to guarantee that no customer seeking service upon reasonable demand, willing and able to pay the established price, however set, would be denied lawful use of the service or would otherwise be discriminated against."<sup>4</sup>

Common carriage might thus simply be described as a form of consumer protection or citizenship right, seeking to ensure that a given company treats different customers on the same basis. However in the field of telecommunications, the role of common carriage obligations may be somewhat more significant for it requires that, as in the original conception of universal provision in the case of the postal service, a telephone service provider offer service to a given subscriber at the same rates as other subscribers, regardless of the actual cost to the service provider of providing service. Hence despite the fact that the cost of providing service to an urban subscriber and a rural subscriber may be quite different (given that connecting the rural subscriber is likely to require the laying of more cable), the service provider must charge both subscribers the same rental.

Compared to the fairly passive nature of common carriage, the maximalist version of universal service takes a far more proactive approach. At this point the political significance of universal service becomes clear - the minimalist approach requires relatively little state intervention and thus tends to appeal to a more conservative political and economic outlook. The maximalist approach would require the identification of telephone service provision as an element of social welfare policy and a great deal of state intervention since a "perfect" version of universal service (i.e. 100% telephone penetration) would have to include the following standards:

1. Geographical ubiquity. Service would have to be provided regardless of the distance of the applicant from the nearest exchange and of the effect of local terrain.

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<sup>4</sup> Ibid., p. 436.

2. Affordable tariffs. Service would have to be provided regardless of the income level of the applicant. (Implicitly this means that service might have to be provided free-of-charge for certain categories of users).

3. Quality of service. This can be interpreted in several different ways and clearly depends upon prevailing technological standards and consumption norms. But in the 1990s context and given an ideal world it would include: a set maximum fault tolerance, set length of repair times, set waiting times, access to any service beyond POTS (ISDN etc.) and detailed information on the working of the telephone service (itemised billing, access to phone directory and instruction on the use of more complex/enhanced services).

4. Continuous service (24 hour). This is included to take account of the argument that public telephones provide universal access to the phone. However if one accepts the social justification for universal telephone service (see below) that in a modern society, access to telecommunications service is "essential for full membership of the social community",<sup>5</sup> then not merely must the individual have access to the telecommunications network but others must be able to access that individual via the network. Since a public phone box fulfils only half that requirement, the implication may be that the individual must have access to a phone in their own residence.<sup>6</sup>

Were the conditions above to be fulfilled, truly **universal** service would exist for everybody, everywhere at any time. It should be noted that in some cases the maximalist definition of universal service may require that the core concept of minimalist universal service - equity - be dispensed with. This is a necessary corollary of guaranteeing service regardless of the subscriber's income. Unless the service provider were to agree to provide the service at no cost

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<sup>5</sup> OECD (1991), Universal Service and Rate Restructuring in Telecommunications, Information Computer Communication Policy Document No. 23, p. 25.

<sup>6</sup> There are three further points against the argument that public telephones fulfil universal service obligations. One, in rural areas in particular, there is no guarantee that there will be a phone within walking distance. Two, given that it's less secure than a domestic phone, a public phone box is significantly more likely to be out of order. Three, the move in Ireland to replace coin-operated call-boxes with public phones that will only accept a special phone card (or less frequently a major credit card), although likely to reduce the level of vandalism, restricts access among those on a low income, "unable to tie up their discretionary spending in advance of making a call". See Graham Murdock & Peter Golding, (1989), "Information Poverty and Political Inequality: Citizenship in the Age of Privatised Communications", *Journal of Communication*, Vol. 39, No. 3, pp. 180-195, p. 186.

(the only way in which affordability can be guaranteed) to all subscribers, free or subsidised service would have to be provided on a selective basis, probably based on means testing. Since, however, those receiving the phone for free would be receiving it on more favourable terms than other subscribers, not all citizens would receive equal treatment. Hence equality of treatment is not necessarily a feature of the maximalist definition.

### **2.3 Why Universal Service in the Case of Telecommunications?**

Perhaps a more useful question than 'what is universal service?' is 'why is it a goal of public policy?' Once we understand the various rationales underlying the universal service concept, we can better understand what the concept of universal service with regard to the telephone might refer to in a real world context.<sup>7</sup>

There are two strands of thought underlying the justification of universal service with regard to the telephone. Although both can be discussed separately, at some point it becomes impossible to discuss one in isolation from the other. These two strands are the unique characteristics of a two-way communications network as an economic good and the social role of any telecommunications system.

#### **2.3.1 The Unusual Qualities of Telecommunications Networks as Economic Goods.**

Hadden & Lenert<sup>8</sup> argue that of their nature, switched or wired networks, such as the telephone network, should be considered a shared resource of the public community. They argue that at a very basic level, such networks use facilities owned by the public (hence the need for service providers to acquire right-of-ways for their wire or cable networks). Furthermore, noting that economists "call goods 'public' whose utility for one is not infringed

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<sup>7</sup> It is important to note that the concept of universal service has also been applied to the output of Public Service Broadcasting - that is, it should be possible for all citizens to receive public service broadcasting. As this chapter argues, however, radio and television exhibit a different diffusion pattern from the telephone due to inherent differences in the two technologies. There is, thus, little insight to be gained from applying the PSB concept of universal service to that of communications.

<sup>8</sup> Susan G. Hadden, & Edward Lenert (1995), "Telecommunications Networks are Not VCRs: the Public Nature of New Information Technologies for Universal Service", *Media, Culture and Society*, Vol. 17, No. 1, pp. 121-140.



by other's use", they argue that telephone is "a still more public kind of good, whose utility is actually increased by others' use."<sup>9</sup>

They continue that telecommunications networks also constitute infrastructure, which may be defined as "the basic facilities...and installations needed for the growth and function of a country, community or organisation."<sup>10</sup> That is to say, infrastructure facilitates the efficient running of the economy and the functioning of the social system. As such infrastructure creates *positive externalities* or "good effects" that occur as a result of the infrastructure. Thus, whilst the builders of a telephone infrastructure may have set out to simply build an infrastructure they have also made it possible for other businesses to exist and operate. Obviously those who created the original infrastructure would prefer to capture and sell these positive externalities. In practice, however, this is often impossible with infrastructure. As a result, the infrastructure provider has no incentive to make a socially optimal level of investment, that is a level of investment that will result in overall benefits for society as a whole. Thus the potential presence of positive externalities may result in underinvestment in infrastructure. To take a US example:

"We all benefit from the legacy of our interstate highway system, which provided money to pave roads in New York and North Dakota alike. Consider what would have happened if we had not established a national highway policy after World War II. Instead, let's say we just licensed right of way to entrepreneurs, as was done in the 1980s with cellular telephony. We would have gotten some kind of interstate highway system, built by entrepreneurs. Granted, maybe it would have been built for less money. But the pricing and national coverage of this highway system would have resembled today's cellular telephone network. Certain parts of the country, such as the north-east megalopolis, would have developed four lane roads fairly quickly. Other regional roadways such as the I-5 corridor linking Seattle to Los Angeles, would have developed organically as well. But less well trafficked areas would probably have been served by gravel roads for many years."<sup>11</sup>

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<sup>9</sup> Hadden & Lenert, op. cit., p. 131.

<sup>10</sup> *American Heritage Dictionary* (1979). Cited in Hadden & Lenert, op. cit., p. 128.

<sup>11</sup> Rob Glaser (1995), "Universal Service Does Matter", *WIRED* (US Edition) 3.01.

To put this in simpler terms, the existence of a telephone infrastructure is generally held to be a part of the general infrastructure that is a prerequisite for economic development in any given country.<sup>12</sup> Some researchers hold that, to improve the nation's general economic well-being it makes sense to invest in the development of the telecommunications infrastructure. This is particularly held to be the case if that nation is geographically peripheral in the context of an increasingly international/global economy. Yet despite the strong correlation between the level of telephone penetration and Gross National Product, it is difficult to state definitively which causes growth in the other. (The issue has been much debated in the communication and development research field and the chain of effects is still in dispute.) Nonetheless there is an intimate link so that, at least in the context of a country like Ireland in the 1980s or 1990s, it would be possible to say that any ongoing general economic growth is unlikely to continue if the telephone network does not also develop, (especially in light of the identification by the Irish Industrial Development Authority (IDA) of telemarketing and teleservices as employment growth areas<sup>13</sup>).

In short, some of the relevant research literature suggests that, looked at from a holistic societal perspective, a socially optimal level of investment in telecommunications will lead to a larger overall return to that society.<sup>14</sup> Since this will not happen if a private profit-oriented firm builds the infrastructure, public participation in its creation is justified.

However if one accepts that the telephone network constitutes infrastructure, then its unique characteristics as an economic good in fact actively militate against its receiving the socially optimal level of investment in the absence of a universal telephone service policy. To understand why, and what these unique characteristics are, it is necessary to briefly refer to classic diffusion theory.

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<sup>12</sup> See for example: Heather Hudson (1984), *When Telephones Reach the Village*, (Norwood, New Jersey: Ablex Publishing Company). Hudson's work argues that telecommunications can lead to improvements in health and education facilities in lesser developed countries.

<sup>13</sup> Paul O'Kane, "Telecom sector could provide 9,000 jobs", *Irish Times*, 18 July 1995.

<sup>14</sup> Cronin and Hebert embark on an ambitious attempt to model the effect of the development of the telecommunications network on the costs of American industry, seeking to measure the positive externalities accruing from telephone development. They argue that between 1963 and 1991, per-unit production cost in American industry dropped by up to 8% in some sectors as a result of the development of telecommunications networks. To the extent that the resulting saving was passed onto their customers, the drop in business costs constituted a society-wide benefit. See Francis J.

### 2.3.2 Diffusion Theory and the Telephone.

At some level, any discussion of universal telephone service is a discussion of the diffusion of the telephone. The orthodox model outlining how innovations diffuse, advanced by Everett M. Rodgers,<sup>15</sup> posits that an innovation "is communicated through certain channels over time among the members of a social system".<sup>16</sup> A few innovative members of that society ("early adopters") adopt the new technology and prompt others to follow. These in turn encourage still others to adopt the new technology. "Since each additional individual who adopts the new technology has more contacts, the rate of adoption can be predicted to increase geometrically."<sup>17</sup> Rodgers' basic diffusion curve exhibits precisely this characteristic flattening out as it reaches 100% diffusion<sup>18</sup> ("the last few holdouts"<sup>19</sup>). (See diagram overleaf.)

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Cronin & Paul L. Hebert (1994), "Inequities in the benefits and costs of telecommunication across stakeholder groups", *Telecommunications Policy*, Vol. 18, No. 4, pp. 306-320.

<sup>15</sup> Everett M. Rodgers (1983), *Diffusion of Innovations* (3rd Edition), (New York: The Free Press).

<sup>16</sup> *Ibid.*, p. 11.

<sup>17</sup> Susan G. Hadden & Edward Lenert (1995), "Telecommunications Networks are Not VCRs: the Public Nature of New Information Technologies for Universal Service", *Media, Culture and Society*, Vol. 17, No. 1, pp. 121-140, p. 124.

<sup>18</sup> Rodgers, *op. cit.*, p. 11.

<sup>19</sup> Hadden & Lenert, *op. cit.*, p. 124. In fact with the exception of a dip in the 1930s the diffusion curve for telephone penetration in the US between 1920 and 1990 almost exactly mirrors the "natural" trajectory postulated by Rodgers' general diffusion model. For this author this might suggest that the pursuit of universal service objectives can make the telephone and other wire-networked, interactive technologies diffuse along the lines of standard goods. See Jorge Reina Schement (1995), "Beyond Universal Service: Characteristics of Americans without Telephones, 1980-1983", *Telecommunications Policy*, Vol. 19, No. 6, pp. 477-485, p. 480.

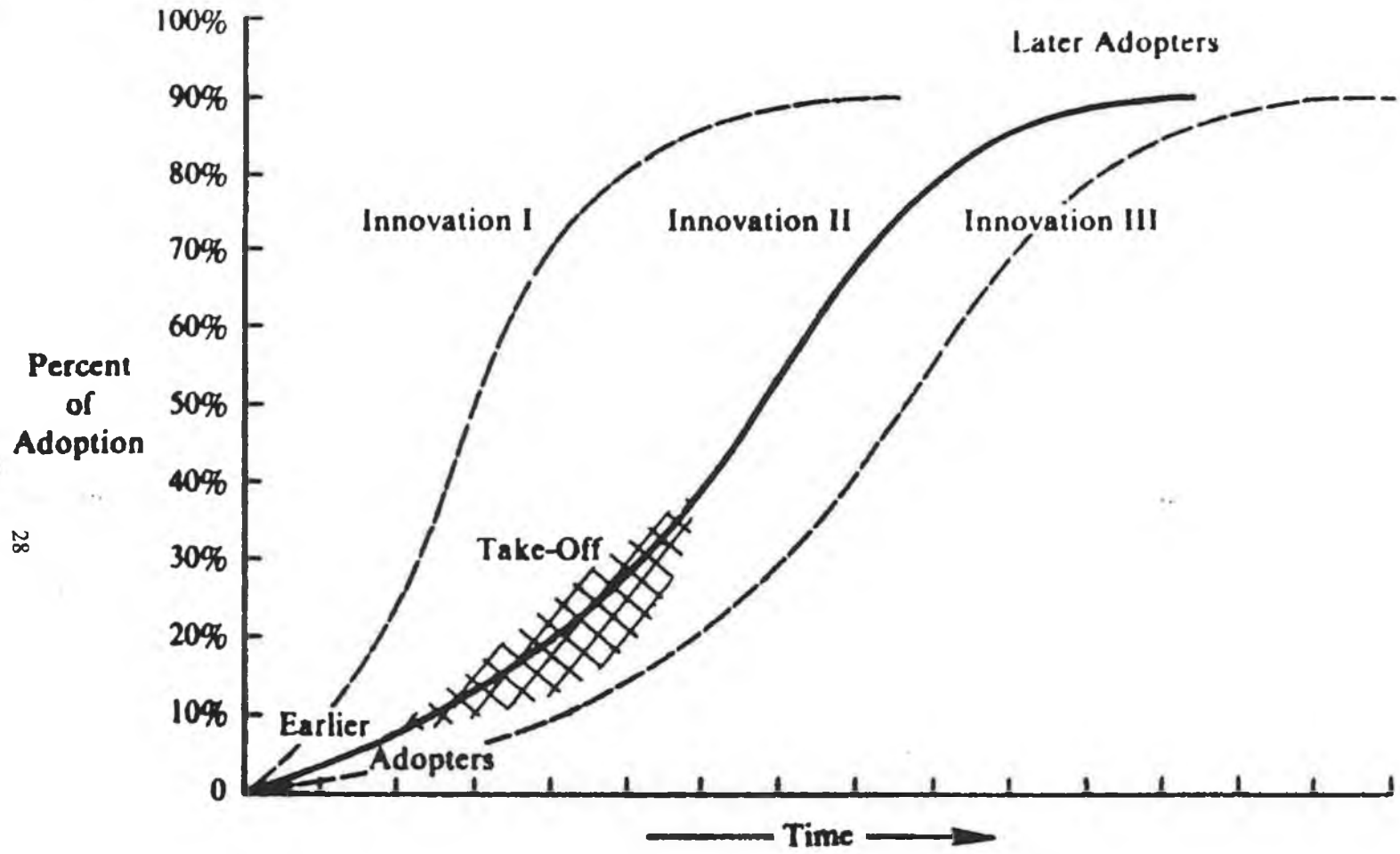


Figure 2.1: Rodgers' Diffusion Curve

(Source: Everett M. Rodgers (1983), Diffusion of Innovations (3rd Edition). (New York: The Free Press.)

Rodgers' model, identifying as it does the cumulative actions of many individuals as the main engine of diffusion, is a classic statement of Adam Smith's dictum that the invisible hand of the market guides the economy. Thus if classic diffusion theory were applied to the telephone it would suggest that its failure to achieve the kind of levels of penetration enjoyed by some consumer goods such as the television (and the substantial differences in the historical patterns of telephone diffusion between countries) is simply due to a lack of consumer demand (the "invisible hand"). However, Rodgers' model of diffusion is predicated on the assumption that the nature of the innovation is such that the individual consumer can, in isolation, decide whether or not to acquire a new technology.<sup>20</sup> Thus it assumes that such an instrument can be adopted "almost simultaneously by many people"<sup>21</sup> regardless of external forces.

The telephone, however, differs from most technologies in two unique but critical ways. Firstly it is a (predominantly wired) networked technology. Secondly, it is an interactive technology. As a result of these features, the telephone would, if left to diffuse according to the logic of the invisible hand of the market, exhibit a diffusion curve quite different from that postulated by Rodgers. Why?

Hadden and Lenert make the point that technologies that rely on a wired network can only spread incrementally: each new part of any network must branch from an existing part. Thus in Ireland of the 1880s, for example, it would have been impossible to connect a potential subscriber living in one of the counties surrounding Dublin without first laying cable to reach that customer. Yet the economics of wired networks make it unlikely that service providers will extend their infrastructure simply on demand. The initial or "sunk" costs of establishing a network (cable laying and exchange-building) are high - therefore in the initial phases of network development it makes sense to build this infrastructure in the most densely populated areas (cities) since there's a large potential customer base in the vicinity of the extant infrastructure. Here the marginal cost of adding subscribers already close to the extant infrastructure will be low.

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<sup>20</sup> In fact there is surprisingly little discussion of the role that characteristics inherent to a technology might play in shaping its own diffusion. Instead Rodgers tend to focus on questions of: whether the technology will be perceived as better than existing technologies performing roughly the same function; whether the functions of the technology will be compatible with the functions of the society that may or may not adopt it; and how complex the technology is. See Rodgers, *op. cit.*, pp. 15-16.

<sup>21</sup> *Ibid.* pp. 15-16.

On the other hand the marginal cost of connecting a more remote customer before the network had reached him/her via "natural" expansion would be high since the same fixed costs involved in connecting many subscribers in a densely populated area will have to be expended to reach perhaps just one subscriber. In fact in the case where there is only one potential subscriber, fixed costs are also the marginal costs. From the service provider's perspective, this would mean a high outlay for a limited return. Thus in the absence of any requirement to provide service, the service provider is, in this case, unlikely to agree to provide service on demand.

Thus unlike, say, the television, the decision to install a telephone is not solely in the hands of the potential subscriber. A prerequisite is that the network bypasses his/her house, a decision that lies in the hands of the service provider. In short, that the geographical diffusion of the telephone occurs gradually<sup>22</sup> rather than instantaneously is largely technologically determined (especially with regard to wired telephone networks).<sup>23</sup>

Moving to the significance of the interactive nature of telephone: it is conceivable that a consumer in a remote area (as in the example above) could pay the substantial capital cost of extending the network his/herself. This is unlikely since any individual who pays to have the network extended will bear the entire once-for-all cost of extending the network to that area: any later adopters in the same area will not face the same costs. The rational economic actor will therefore wait until someone else in the same area has a phone installed.

Nonetheless perhaps the potential customer will consider the telephone so useful that they will accept the fact that others would later benefit from their initial expenditure. Yet the fact that the telephone is an interactive medium makes this extremely unlikely: Eli Noam notes that "an increasing number of subscribers adds to the positive utility of the network - the more people

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<sup>22</sup> For example, in the case study examined by this research, it took 50 years to extend even the most threadbare network to every Irish county. Even when this was achieved, it's unlikely that service was available in more than 20%-25% of the physical area of the state.

<sup>23</sup> Clearly a political decision to could be immediately taken to universally extend the geographical reach of the telephone regardless of cost but given the enormous cost of implementing such a decision together with the fact that in its early stages the telephone is unlikely to be perceived as sufficiently useful to justify such expenditure, such a decision is unlikely.

can be reached, the more useful is the network."<sup>24</sup> The corollary of this however is that the utility of the phone will be relatively low for Rodgers' early adopters: the fact that the infrastructure does not bypass the home means that the network as a whole is likely to be still in its infancy (i.e. there will be few subscribers for the new subscriber to call). The relative unattractiveness of being connected is thus likely to slow the initial diffusion of the network.

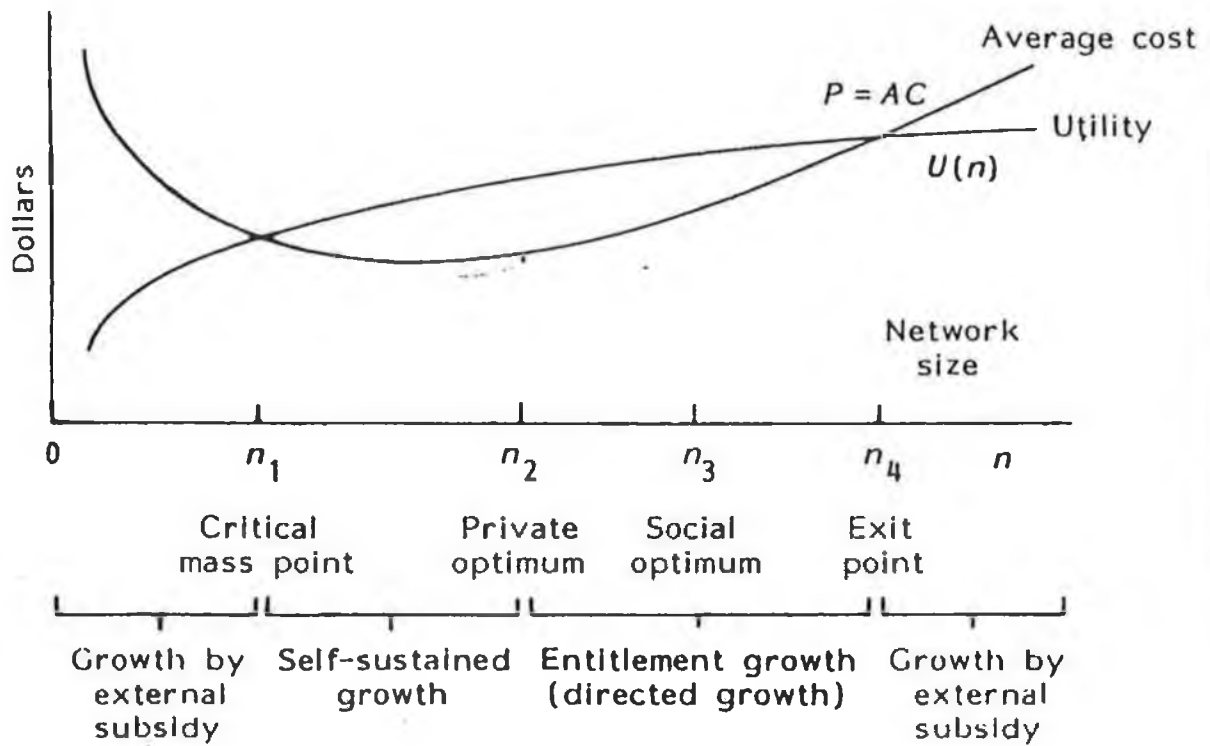
In short in its initial phase of development, the fact that the telephone is a wire-networked, interactive technology is likely to act as a block to its expansion. In fact these characteristics might stop the network from ever reaching the "critical mass" of subscriber numbers and geographical spread critical to the network achieving a socially optimal level of development. Hence there is an economic justification for pursuing universal telephone service as a public policy goal.

For a fuller explanation, it might be useful to examine a model of how the phone might diffuse. The section above argues that applying the standard model of the diffusion of innovations does not make sense in the context of an interactive networked technology. The utility of the telephone network to early adopters is relatively low, whilst the cost of joining the network is relatively high. Both militate against rapid diffusion. Given that, how will the network diffuse? (See diagram overleaf.)

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<sup>24</sup> Eli Noam (1994), "Beyond Liberalisation III: Reforming Universal Service", *Telecommunications Policy*, Vol. 18, No. 9, pp. 687-704, p. 668.

**Figure 2.2: Eli Noam's Network Diffusion Curve**



(Source: Eli Noam (1994), "Beyond Liberalisation III: Reforming Universal Service." *Telecommunications Policy*, Vol. 18, No. 9, pp. 435-452.)



Given the high fixed cost of building the network, the average cost of connecting a single customer at the outset when there are only a few subscribers is relatively high. Meanwhile the small number of total subscribers means that the utility of the network for subscribers in the early days is relatively low. The goal then is to add more customers to both amortise the cost for the company (whilst reducing the average cost for the customers) and to increase the overall utility of the network. To this end the phone provider could either a) charge early adopters a below-cost price to artificially stimulate demand (anticipating that as subscribers joined, the average cost of connection would drop to the initially artificial price<sup>25</sup>) or b) find users who will find the telephone instrument valuable even when linked to only one or a few other sets.<sup>26</sup> Either strategy will see the network grow gradually, leading to both a reduction in average costs and an increase in the utility of the network. This will continue until the number of subscribers reaches what Noam calls a "critical mass point",<sup>27</sup> where the average (per subscriber) cost of service falls below the utility (or value) of a single telephone instrument. In short the value of the telephone will be greater than its cost. Thereafter, as Noam points out, the network will essentially grow on its own. As it does so the average cost will continue to drop, encouraging still more new subscribers to become connected. Thus the value of the network will continue to increase as will the gap between average cost and utility.

At some point, however, as the network continues to expand into less densely populated areas, the per capita cost of connecting new subscribers will begin to increase. This point in the development of the network, the point at which the gap between average cost and utility is the widest, is the private optimum - the point at which the network offers the best value for money for the existing subscribers. Left to its own devices the network will not expand beyond this level. If however the service provider is faced with some imperative to continue expanding the service (such as the requirement that it pursue universal service objectives), it can continue to

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<sup>25</sup> This precisely the approach adopted by France Telecom when launching their uniquely successful Minitel service. Initially terminal equipment was distributed for free until the market "reached the critical mass for developing autonomously." See European Information Technology Observatory (1996), *EITO Annual Report '96*, (Germany: EITO), p. 158.

<sup>26</sup> It might be argued that the former strategy, by reducing the cost to that level at which demand can become effective, will lead to more rapid growth than the latter tactic. In point of fact, however, history indicates that most early service providers followed the second path. Ithiel de Sola Pool argues that "the natural clients" of most companies promoted the phone in its early phase were "Businesses or professional people who had to maintain regular communication among limited operating points..." Ithiel De Sola Pool (1983), *Forecasting the Telephone: A Retrospective Technology Assessment of the Telephone*, (Norwood, New Jersey: Ablex Publishing Corporation).

do so without making a loss by raising the average price charged for service provision (i.e., cross-subsidisation). However expansion of the network (in terms of both subscriber numbers and physical infrastructure) beyond the private optimum will only continue until such time as the utility of the network measured in financial terms is equivalent to the average cost. After this point, if the service provider finances continued expansion by means of continued cross-subsidisation, the average cost of the telephone will exceed its value (utility), prompting existing subscribers to seek to circumvent the existing network (perhaps by looking to another service provider). Thus expansion of the network after this point is only likely to continue if the average cost to the service provider (and thus to the existing subscribers) is kept at an artificially low level by direct subsidy. The fact that non-connection at this point is more likely to be a result of low income rather than infrastructural underdevelopment emphasises the need for subsidy. If this is forthcoming, however, 100% per cent penetration should eventually be achieved.<sup>28</sup>

This then is a theoretical model of the diffusion of the telephone. It suggests that market provision alone will not lead to universal service. On the contrary, the logic of the market would see the expansion of the network stop long before it reached anything like ubiquity. Thus there is a need for the state to intervene where the market fails if universal service is to be achieved. Yet it is at this point that the question of why any state should pursue universal telephone service arises and where in answer to that question second justification for pursuing universal service with regard to the telephone as public policy enters.

(Before continuing, however, -it should be noted that there is a second element that might also be termed an "economic" justification or universal service - the economic benefits that accrue to the universal service provider. Although this may seem contradictory given the assumption that the universal service is an obligation precisely because it must be provided at a loss, there is nonetheless evidence that the direct cost of providing universal service may be partially obviated by the indirect benefits of doing so. For example, the 1995 Analysys Report for Oftel - "The Costs, Benefits and Funding of Universal Service in the UK" - argues that British Telecom receives intangible benefits as a result of its universal service obligation. The Report

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<sup>27</sup> Noam, op. cit., p. 688.

<sup>28</sup> Actual 100% penetration may never occur since there may be an element of the population which actively chooses to remain unconnected, regardless of their financial position.

suggests that BT's corporate reputation is enhanced as a result of its perceived commitment to society through pursuing universal service objectives.<sup>29</sup> Furthermore, the Report argues that universal service activities strengthen marketing and brand recognition for BT: the fact that BT is required to pursue universal service means that potential customers know they can order the telephone service wherever they may be, a marketing advantage which would be weakened "if it became known that service is not available to everybody."<sup>30</sup> Perhaps the most interesting aspect of the economic benefits deriving from universal service provision results from the fact of changing customer life-cycles. Analysys point out that even if BT were able to calculate which customers were uneconomic in a given year, that they would have no way of telling which of these would remain uneconomic in future years: "For example, a family's residential line could cross the line from loss to profit as a result of children growing up and starting to use the telephone more".<sup>31</sup> The report notes that in other businesses, notably banking, it is accepted that up to 40%<sup>32</sup> of customer accounts may be uneconomic at any given time.

Despite these benefits, however, the report nonetheless concludes that BT still faces a net cost of somewhere between £4 million and £40 million<sup>33</sup> in serving uneconomic customers and proceeds to consider mechanisms whereby BT might be compensated for these losses. The report thus falls far short of suggesting that it is financially in BT's interests to pursue Universal Service objectives.)

#### 2.4 The Social Role of the Telephone

Whilst the section above makes it clear that it is possible to argue for universal service policy support on the grounds of economic efficiency, it is nonetheless the case that in much of the literature, the argument for universal telephone service has stressed the growing social role of the telephone.<sup>34</sup> Thus the economic rationale offered above is often put forward as a secondary

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<sup>29</sup> Analysys Ltd. (1995), *The Costs, Benefits and Funding of Universal Service in the UK*, (London: OFTEL), p. 9.

<sup>30</sup> *Ibid.*, p. 10.

<sup>31</sup> *Ibid.* p. 11.

<sup>32</sup> *Ibid.*, p. 26.

<sup>33</sup> *Ibid.*, p. iii.

<sup>34</sup> See for example Hadden & Lenert *op. cit.*; Dyer *op. cit.*; Graham, Cornford & Marvin, *op. cit.*; Murdock & Golding, *op. cit.*; Murdock *op. cit.*; Robert S. Fortner (1995), "Excommunication in the Information Society," *Critical Studies in Mass Communication*, Vol. 12, June 1995, pp. 133-154.

justification for universal service, explaining why this technology will not diffuse widely of its own account. Of itself, the economic rationale fails to justify the maximalist (100% penetration) version of universal service. The social rationale outlined below, however, argues that any universal telephone service policy should not simply seek to apply equal standards to the current subscriber base but that those without telephones should be actively sought out and connected to the network. Furthermore the social argument implies that in the absence of any other means of funding, telephone access should, as with any other social service, be centrally funded out of tax revenue.<sup>35</sup> While Eli Noam's model (above), for example, justifies the pursuit of universal telephone service in order to achieve a socially optimal level of penetration (i.e. making an investment to achieve a net gain for society as a whole<sup>36</sup>) that social optimum is below 100% penetration. Are there socially oriented grounds upon which to justify further expansion of the telephone network?

In a January 1997 report for DG XIII of the European Commission, the research company, Analysys, conclude that that there is broad agreement amongst not merely consumer groups and regulatory authorities but also incumbent telecommunication operators and their competitors, that a fundamental principle of universal service be that the service is essential.<sup>37</sup> For these groups "essential" means that the service:

"should have a high penetration among the population (penetration of at least 75% was suggested by a number of interviewees); and being without that service would constitute a social or economic disadvantage."<sup>38</sup>

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<sup>35</sup> A conclusion ultimately shared by such relatively conservative research organisations as Analysys. See C. Blackman & M. Dennead (1996), A New Era for EU Telecoms Regulation. (London: Analysys Publications). Quoted in Analysys (1997), The Future of Universal Service in Europe. (London: Analysys Publications), pp. 135-136.

<sup>36</sup> Hadden & Lenert cite a study carried out by accountants on the positive externalities resulting from the existence of telecommunications infrastructure in New Jersey, USA. The study identifies "a wide range of benefits in education, health care and related essential public activities", all of which indirectly facilitate the efficient functioning of the economy. Hadden & Lenert, op. cit., pp. 129-130. Study cited: Deloitte and Touche (1991), New Jersey Telecommunications Infrastructure Study. (Jan.): I-21/I-24.

<sup>37</sup> Analysys (1997), The Future of Universal Service in Telecommunications in Europe. Analysys Report Number 97013, (London: Analysis Publications), p. v.

<sup>38</sup> Ibid.

These are basically the same principles that this research argues are prerequisites for comprehending the social role of the telephone:

- a) understanding the extent to which the telephone is already a "consumption norm", (i.e., a pervasive technology), and
- b) given a), understanding the possible social, economic and political effects of lack of access to such a taken-for-granted technology.

Looking at the social function in more detail, Graham et al<sup>39</sup> argue that access to the telephone is vital for "intrinsic reasons",<sup>40</sup> facilitating the connection of friends, relatives and family.<sup>41</sup> This function is particularly critical in an increasingly mobile society where changing work patterns contribute to the increasing geographical dispersal of families. The telephone's function as an extension of "informal networks of support"<sup>42</sup> has long been recognised - as early as 1933, a U.S. study on contemporary social trends, noted that the telephone contributed to social cohesion by augmenting a sense of community for both rural and urban dwellers: thus "To be without a telephone or a telephone listing is to suffer a curious social isolation in a telephonic age."<sup>43</sup> Furthermore as the general level of telephone penetration in mainstream society increases, so the relative isolation of "the unphoned" increases.

The detrimental effects of non-connection extend beyond the family unit. Graham et al note that non-connection "tends to compound other disadvantages related to poverty, unemployment and access to goods and services."<sup>44</sup> Since the telephone might facilitate a way to escape this, non-connection because of low-income will tend to contribute to an ongoing low level of income.<sup>45</sup> Again, as telephone penetration increases, the gap between the

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<sup>39</sup> Stephen Graham, James Cornford, & Simon Marvin (1996), "The Socio-economic Benefits of a Universal Telephone Network: A demand-side View of Universal Service," *Telecommunications Policy*, Vol. 20, No. 1, pp. 3-10.

<sup>40</sup> Ibid., p. 6.

<sup>41</sup> According to Graham et al, (op. cit., p. 6) these calls account for 75% of all domestic calls.

<sup>42</sup> Graham Murdoch (1986), "Poor Connections: Income Inequality and the 'Information Society'", in Peter Golding (ed.) *Excluding the Poor*, (London: Child Poverty Action Group), pp. 70-83.

<sup>43</sup> President's Research Committee on Social Trends (1933), *Recent Social Trends in the United States*, (New York: McGraw-Hill), p. 198. Cited in Hadden & Lenert, op. cit.

<sup>44</sup> Graham, Cornford and Marvin, op. cit., p. 7.

<sup>45</sup> Noting that "almost 12% of unemployed adults (in the US) do not have telephone service", the chairman of the US Federal Communications Commission, Reed Hundt, has argued that "this makes

connected and the unconnected becomes relatively more significant, contributing to the development of a two-tiered society. In a society where access to the phone is increasingly taken for granted, the phone is increasingly considered as the physical infrastructure of society. The unconnected are thus literally disconnected from society.<sup>46</sup> Thus Robin Mansell notes: "If telecommunication networks are regarded as being analogous to the nervous system of society, then in principle, they should be all-pervasive, just as oral and paper-based networks of communication have been."<sup>47</sup>

Yet while the promotion of social cohesion is in itself a worthy motive for pursuing universal telephone service, there is an even more compelling socially-oriented reason for so. This may be termed the politico-philosophical justification or the "citizenship thesis". A 1991 OECD report<sup>48</sup> discussing the various ways of defining universal service described access to telecommunications services as a basic right of all *citizens*, "essential for full membership of the social community, and a basic element of the right to freedom of expression and communication".<sup>49</sup>

But what role does the telephone play in facilitating the "full membership of the social community" or citizenship? To answer, one must first briefly consider what citizenship is. T.H. Marshall's classic study, "Citizenship and Social Class",<sup>50</sup> identifies three basic dimensions to citizenship - civil, political and social. The first, civil, is largely concerned with the right of the individual to freedom of action within the sphere of civil society. The second, political, focuses on the right of citizens to participate in the exercise of political power, that

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it infinitely more difficult to seek employment." Speech by Reed Hundt, Chairman FCC to the Deloitte and Touche Consulting Group at Telecompetition '95, December 5, 1995.

<sup>46</sup> Research carried out by Mueller and Schement in Camden, New Jersey provides direct evidence of this. Examining non-subscribers, the researchers divided their survey group into a) those who had had a phone but had been disconnected and b) those who had never had a phone. Although the second group valued the telephone less than the television, a log of their daily activities indicated that this group tended to be "less active and interconnected with the surrounding society." Milton Mueller & Jorge Reina Schement (1995), A Profile of Telecommunications Access in Camden, New Jersey: A Report Prepared for Bell Atlantic, p. 16. Submitted to the NTIA Notice of Inquiry on Universal Service June 21, 1995.

<sup>47</sup> Robin Mansell (1993), The New Telecommunications, (London: Sage), p.1. This language recalls that of Marshall McLuhan especially in the subtitle to Understanding Media: "The Extensions of Man".

<sup>48</sup> OECD (1991), Universal Service and Rate Restructuring in Telecommunications. Information Computer Communication Policy No. 23.

<sup>49</sup> *Ibid.*, p 25.

is in the decision-making process. Marshall then points to a third set of citizenship rights, which he argues are a product of the 20th century- social rights, "the struggle to secure a basic standard of life and well-being for all through the institutionalisation of the welfare state."<sup>51</sup> For Marshall, the securing of social rights, is a prerequisite for the exercise of civil and political rights since "poverty is a powerful mechanism for excluding people from these entitlements."<sup>52</sup>

For many commentators access to communications and information facilities should be included among these social rights. Murdoch and Golding identify three main kinds of relations between communications and citizenship:

"First, people must have access to the information, advice and analysis that will enable them to know what their rights are in other spheres and allow them to pursue these rights effectively. Second, they must have access to the broadest possible range of information, interpretation and debate on areas that involve political choices, and they must be able to use communications facilities in order to register criticism, mobilise opposition and propose alternative courses of action. And third, they must be able to recognise themselves and their aspirations in the range of representations offered within the central communications sectors and be able to contribute to developing those representations."<sup>53</sup>

As a corollary, Murdoch and Golding argue that any communications and information system should "guarantee universal access to the services that can ensure the exercise of citizenship regardless of income or area of residence."<sup>54</sup> Yet as information is increasingly codified, more and more services, both public and private, are now available over the telephone.<sup>55</sup> It might be claimed that access to this information, advice and analysis is not dependent on the telephone,

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<sup>50</sup> T.H. Marshall, (1949), Citizenship and Social Class, (Cambridge: Cambridge University Press).

<sup>51</sup> Murdoch & Golding, op. cit., p. 182.

<sup>52</sup> Ibid., p. 182.

<sup>53</sup> Ibid., p. 184.

<sup>54</sup> Ibid., p. 184.

<sup>55</sup> To take a British example (since none are available from Ireland). An Information Providers Survey conducted by LB Newham in an unidentified UK City Council, noted that of a total of 742,320 queries made to the Housing Department, 470,175 were made by phone. Figures from Draft

that, for example, face-to-face contact is substitutable for telephone contact. Graham et al argue, however, that "Access to all information, goods and services is increasingly being geared to people with access to telephones in the public, private and voluntary sectors."<sup>56</sup>

Murdoch and Golding agree:

"The telephone is...a major point of access to the professional information services of organisations like Citizen's Advice Bureaus, voluntary and community groups, and welfare rights agencies. Indeed as public funding for these organisations has been steadily whittled away, forcing some to close branches or limit their hours, telephone access has become more important than ever."<sup>57</sup>

Yet as Murdoch and Golding point out, it is precisely those low income groups which are most likely to need to make enquiries of such organisations, that are least likely to be able to afford access to the phone.

That there is a strong correlation between income and access to the phone is not merely intuitive but inarguable.<sup>58</sup> In one American case study<sup>59</sup> Mueller and Schement cite household income as the *principal factor* accounting for different levels of telephone penetration between different groups. In a more widespread examination of the relationship between income, ethnicity and telephone penetration, Schement notes that of those households earning \$5,000 or less per annum, the level of penetration was between 63.9% and 79.5% (depending on the race of the household in question). Of those households earning \$75,000 or more per annum, the level of penetration was between 98.9% and 100% (again depending on the race of the

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report on Project ATTACH Information Providers Survey conducted by LB /Newham Leisure Services. Data provided by Maren Hartmann, EMTEL Research Network, University of Sussex.

<sup>56</sup> Graham, Cornford & Marvin, op. cit., p. 6. See also Graham Murdock (1986), "Poor connections: income inequality and the 'information society'", in Peter Golding (ed.) Excluding the Poor, (London: Child Poverty Action Group), pp. 70-83.

<sup>57</sup> Graham Murdoch & Peter Golding (1989), "Information Poverty and Political Inequality: Citizenship in the Age of Privatised Communications", *Journal of Communication* Vol. 39, No. 3, pp. 180-195.

<sup>58</sup> In point of fact some American research indicates that there is also a correlation between race and levels of telephone penetration. Given that this research is focused on the Irish context, arguably the most racially homogenous society in Western Europe, it has not been considered useful to pursue this dimension in this thesis. See Milton Mueller & Jorge Reina Schement (1995), A Profile of Telecommunications Access in Camden, New Jersey: A Report Prepared for Bell Atlantic, p. 7. Submitted to the NTIA Notice of Inquiry on Universal Service June 21, 1995.



household in question).<sup>60</sup> He concludes: "Telephone penetration is directly correlated with income... a family's ability to stay above the poverty line significantly increases its chances of staying connected to the telephone network."<sup>61</sup> In any case even if it were possible to argue that the telephone is not *essential* to access citizenship information, there remains the argument that it is the most cost-efficient means of doing so- thus the non-connection of those social groups most reliant on welfare services, increases the economic costs of service provision faced by social service providers.<sup>62</sup>

In effect then access to the information that facilitates citizenship is increasingly dependent on telecommunications technology, the provision of which is increasingly in the hands of private companies and thus provided according to the logic of the market: thus "political rights are the victim of the vicissitudes of the marketplace and its inegalitarian structure."<sup>63</sup>

There is a still larger issue at stake in considering the citizenship thesis. Speaking in the American context, Schement argues that:

"Universal service derives its significance from a promise rooted in the nature of the political system. All Americans are issued equal access to basic channels of communications because the citizens of a democracy need to be able to communicate in order to avail themselves of the information necessary to make reasoned political choices. And, given the communication orientation embedded in that conception of democracy articulated by the founding fathers, the pledge of equal access is not only logical, but absolutely necessary to the conduct of a free and open society."<sup>64</sup>

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<sup>59</sup> Mueller & Schement, op. cit., pp. 8-9.

<sup>60</sup> Jorge Reina Schement (1995), "Beyond universal service: Characteristics of Americans without telephones, 1980-1993", *Telecommunications Policy*, Vol. 19, No. 6. pp. 477-485, p. 482.

<sup>61</sup> Ibid., pp. 479-480. Looking at the UK, Analysys quote UK Central Statistics Office figures which adds weight to the theory that income and telephone penetration levels are causally related. Only 69.6% of those households in the lowest decile (10%) income group have telephones compared to 99.7% of those in the highest decile. See CSO (1995), *Family Spending Survey, 1994-95*, (HMSO: London). Quoted in Analysys (1997), *The Future of Universal Service in Telecommunications in Europe*, (London: Analysys), p. 156.

<sup>62</sup> See for example Graham, Cornford & Marvin, op. cit., p. 9 : "...there is often an inverse correlation between the reliance of social groups on welfare services and their access to telephones. As well as creating social costs, this creates economic costs for social service providers..."

<sup>63</sup> Murdoch & Golding, op. cit., p. 193.

<sup>64</sup> Schement, op. cit., p. 484.

As the telephone becomes increasingly ubiquitous, it is increasingly part of that process of communications necessary for full participation in the decision-making processes that characterise any democracy. In short, it becomes a novel but increasingly important component of what Jurgen Habermas characterised as "the Public Sphere", that public space where all citizens can rationally discuss the public issues of the day with a view to influencing the actions of government. To the extent that "unconnectedness" keeps any citizen outside the public sphere, especially in relation to the practical enjoyment and pursuit of many citizenship rights or entitlements in the late 20th century, anything short of universal telephone service is a failure of democracy.

Nor does access to the telephone simply become increasingly critical for the purposes of exchanging political information: it also becomes more necessary for many other forms of exchanges and communications between society's members defined as citizens, workers, employees, members of families and many other forms of communities and collectivities.

If one accepts this, then the process of defining universal service is somewhat altered - no longer is it about deciding on what technical standard should and shouldn't be included. Rather the focus shifts to a different question: what level of service is necessary to ensure the operation of an equal and democratic society? Thus, this research favours a maximalist conception of universal service, one which justifies connecting all members of a given society to the telephone network on the grounds that the "unconnected" will otherwise become increasingly detached from full participation in that society and since they will find it increasingly difficult to access information on their rights as citizens, effectively be excluded from that society.

## **2.5 Working Definitions**

As noted above, for practical purposes there is no "correct" definition of universal service. It is a dynamic concept that must be related to changing technological conditions and consumption norms as well as social networking and political contexts. Despite the existence of partisan conceptions of what universal service should be, working definitions (i.e. what

universal service actually consists of in any given country at any given time) tend to be compromises between "the goal of efficiency defined in the neo-classical way and social policy measures."<sup>65</sup> Given this initial dimension of the conception guiding this research, it is now useful to address the evolution of the concept and its related practices and policies. In particular, what were the circumstances in which the concept of universal service emerged and how did it shape the working definition of universal telephone service?

### 2.5.1 The Growth and Development of Universal Service 1876 - 1970.

The phrase "universal service" first appeared in print in 1907<sup>66</sup> when Theodore Vail, then president of AT&T, introduced it as the company's primary corporate goal. Yet Vail's original concept of universal service, shaped by the specific techno-economic and political framework in which the telephone developed in the United States, is quite different from the modern "expression of liberal egalitarianism".<sup>67</sup> The dearth of capital available to the infant Bell Company lead the company (then headed by Bell's father-in-law Gardner Hubbard) to franchise the rights to develop the telephone to companies across the United States.<sup>68</sup> As a consequence the American telephone "network" initially developed as a series of unconnected islands of communication.<sup>69</sup> Change came in 1885 when Vail joined the Bell Telephone Company as general manager. Looking at Western Union's dominance of the U.S. telegraphs industry, he ascribed its commanding position to its being the first to develop a nationally interconnected network. Thus Vail embarked upon the interconnection of the existing Bell Company franchisees with a view to constructing a nationally interconnected telephone

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<sup>65</sup> Johannes M. Bauer (1994), "Conceptual Frameworks for the Design of Telecommunications Policy" in Steinfield et al (eds.) *Telecommunications in Transition*, (Thousand Oaks, California: Sage), p. 27.

<sup>66</sup> AT&T Annual Report 1907, pp. 17-18. Cited in Milton Mueller, "Universal Service in Telephone History", *Telecommunications Policy*, Vol. 17, No. 5, p. 353.

<sup>67</sup> Mueller, op. cit., p. 353.

<sup>68</sup> "Five years after the telephone patent had been issued to Bell, there were local telephone companies throughout the Northeast, the South and the Midwest, in cities, towns, villages and farms." Herbert Dordick (1990), "The Origins of Universal Service", *Telecommunications Policy*, Vol. 14, No. 3, pp. 223-231, p. 230.

<sup>69</sup> "Anyone with \$200 and a talent for tinkering was given a licence to construct a telephone system." *Ibid.*, p. 229.

network: in the sense that he was seeking to build a geographically ubiquitous network, Vail began to push for a specific form of "universal" telephone service as early as 1885.<sup>70</sup>

The concept was further refined as a result of Vail's manoeuvring to secure monopoly status for the Bell Company (now AT&T) in the 1900s and 1910s. The expiration of the original Bell patents in 1893 and 1894 had seen a plethora of independent service providers enter the market. Following the Bell Company's refusal to permit interconnection with its existing network, the independents switched to a strategy of competition: since the value of any single telephone network lay in the number of subscribers available to it, the independent telephone companies sought to surpass the Bell Company's subscriber base, expanding rapidly into those smaller and medium size towns which the Bell network had hitherto ignored. The Bell Company was forced to respond, vastly increasing its own rate of establishing exchanges. Milton Mueller convincingly argues that the dramatic increase in the rate of American telephone diffusion between 1895 and 1920 (from 251,994 telephones in 1895 to 13,411,400 in 1920, a growth rate of over 5,300%) was due to the quarter century of "access competition" between the Bell company and non-interconnected telephone companies.

In 1907 however, Vail began to espouse the "universal service doctrine" in AT&T's annual reports. As Mueller notes, these were as much political pamphlets as business documents, sent to thousands of newspapers and opinion leaders: "In the reports Vail hammered away at the thesis that only a system that was universal, interdependent and intercommunicating could realise the telephone's potential."<sup>71</sup> Competition amongst service providers, argued Vail, would lead to competing technical standards, blocking interconnection and reducing the overall utility of the network to individual subscribers.<sup>72</sup> Thus we arrive at Vail's understanding of universal service - *universal technical standards*, enabling all telephone *users* (i.e. those who already had a phone) to communicate with one another. Thus in its original incarnation,

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<sup>70</sup> "To Vail at this time, "universal service" was the interconnection of these local exchanges; "universal" implied everywhere rather than everyone." Dordick, op. cit., p. 230.

<sup>71</sup> Mueller, op. cit., p. 363.

<sup>72</sup> This is part of the "natural monopoly" debate - those who argued for a Post Office take-over of the United Kingdom telephone system in the 1880s and 1890s argued that competition in service provision would mean an unnecessary duplication of infrastructure, leading in turn to unnecessarily high prices for subscribers. This was again informed by the fact that in the UK as in the US, telephony developed as a series of isolated islands communications - in the absence of trunk lines,

universal service meant system compatibility and interconnection of systems rather than any socially-motivated commitment to extend service to everyone.

In essence Vail successfully argued that telephone service provision was a *natural monopoly*, and that AT&T was best placed to become the mandated monopoly service provider. Natural monopoly refers to an industry that, owing to economies of scale, is more cost-efficient if run by one large monopoly service provider rather than several competing companies. If that monopoly operates under government regulation, (so as not to abuse its position), the assumption is that the benefits of the monopolist's greater cost efficiency will be passed onto the consumer in the form of lower charges than would be the case in a competitive market.<sup>73</sup> In the case of telephone service provision, the standard logic holds that competition in service provision means competition in infrastructure provision. Since, however, the same infrastructure could serve all customers, the construction of competing infrastructures will unnecessarily raise the costs of competing firms, a cost which would be passed onto customers.

The United States Congress accepted Vail's argument, permitting AT&T to absorb the independents through sublicensing, and passing the Willis-Graham Act in 1921 to protect the resulting monopoly from anti-trust legislation. Thus, Frederick Williams notes that early regulation of telecommunications in the U.S. was seen as "a means to consolidate the industry and avoid wasteful and inefficient resource allocation."<sup>74</sup>

Until the early to mid 1980s, much of the debate on universal service took as a given that monopoly telecommunications service provision was a prerequisite for the pursuit of the universal service objective "with the monopolist's profits used to support some of its end

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one city could not speak to another - hence competition was more likely to be localised rather than companies attempting to dominate in niche areas of a single national market.

<sup>73</sup> "The reason most generally advanced for monopoly provision of the telephone service is that customers benefit from the cost savings that occur. The source of these savings is the economies of scale and scope. Economies of scale occur because production gains increase with size such that one firm can provide service to an area at a lower cost than two or more (smaller) firms." John D. Borrows, Phyllis A. Bernt & Raymond W. Lawton (1994), Universal Service in the United States: Dimensions of the Debate, Diskussionsbeitrag Nr. 124. (Bad Honnef: Wissenschaftliches Institut für Kommunikationsdienste), p. 47.

<sup>74</sup> Frederick Williams (1991), The New Telecommunications: Infrastructure for the Information age. (New York: The Free Press), p. 203.

users, especially residential and rural customers."<sup>75</sup> But given Mueller's convincing thesis that the only thing guaranteed by AT&T with regard to universal service between 1907 and 1975 was "the interconnection of all localities and telephone users into a single system" (system compatibility), there is room to question the extent to which monopoly service provision contributed to universal telephone service.

The 1934 US Communications Act is most frequently cited as the basis for the modern construction of universal service objectives, its pre-amble calling for government regulation "to make available, so far as possible, to all people of the United States, a rapid, efficient, nation-wide, and world-wide, wire and radio communication service with adequate facilities at reasonable charge."<sup>76</sup> Milton Mueller has noted, however, that the Act makes no reference to the term universal service and has thus argued that "there is nothing in the text of the Act which can be construed as mandating or even suggesting a policy of subsidising telephone penetration."<sup>77</sup> Yet looking at the substance of the Act, Mueller's contention appears somewhat wide of the mark. The 1934 Act designated RCA, AT&T and Western Union as "common carriers" in their respective fields of radio, telephony and telegraphy, as a trade-off for guaranteeing them a monopoly position in their markets. As noted above, common carriage requires that service providers offer all customers their services at the same price regardless of the cost of service provision. Furthermore the Act established the Federal Communications Commission as a regulatory body to ensure that the designated common carriers fulfilled their obligations.<sup>78</sup>

The net effect was that AT&T charged for service on the basis of average costings - "Thus high-cost residential customers explicitly benefited from an average price that was made possible only by the inclusion of low-cost customers in the 'cost pool'."<sup>79</sup> In effect, high-cost

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<sup>75</sup> Eli Noam (1994), "Beyond Liberalisation III: Reforming Universal Service", *Telecommunications Policy*, Vol. 18, No. 9, pp. 687-704, p. 687.

<sup>76</sup> Communications Act of 1934, 47 U.S.C.A. 151 et seq.

<sup>77</sup> Mueller, op. cit., p. 354.

<sup>78</sup> Although to some extent, how the 1934 Communications Act should have been interpreted is a moot point. The fact remains that initiatives such as the U.S. Rural Electrification Administration's decision to fund (via subsidised loans) telephone service in from 1949 onwards are in keeping with the objectives set out in the preamble of the Act.

<sup>79</sup> John D. Borrows, Phyllis A. Bernt & Raymond W. Lawton (1994), Universal Service in the United States: Dimensions of the Debate, Diskussionsbeitrag Nr. 124. (Bad Honnef: Wissenschaftliches Institut für Kommunikationsdienste).

subscribers (typically rural) were cross-subsidised by low-cost subscribers (typically urban).<sup>80</sup> De facto then, the 1934 Communications Act together with the fact that telephone service provision was in the hands of a monopoly, played a critical part in the development of universal service, establishing as it did the basis for funding the universal service objective - cross-subsidisation of high-cost customers by a service provider operating in a monopoly market, with the supernormal profits earned from low-cost customers. Thereafter, "rapid efficiency gains in long-haul telecommunications provided an opportunity to shift costs from local service (constituting the bulk of residential calls) to long-distance without substantial increases in long-distance rates."<sup>81</sup> Consequently local rates dropped, bringing "telecommunications to those who could not otherwise afford it."<sup>82</sup> Thus by the early 1950s, universal service policy in the United States consisted of the following:

"Within this giant regulated monopoly (AT&T) it was possible to have a structure of cross subsidies. Rate-averaging for rural customers could be supported by urban funds. Funds from long distance and business-use funds could keep residential rates low."<sup>83</sup>

A similar history in the European context is harder to present, not merely because one must consider the development of the concept across many countries but also because a different

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<sup>80</sup> "One factor which seems to have an effect on the cost of providing telephone service is the density of subscribers. Other things being equal, it costs more to provide service the lower the density of subscribers. Thus rural areas, where density is generally low, have higher costs of providing service on average than urban areas." Joseph P. Fuhr (1990), "Telephone subsidisation of rural areas in the USA", *Telecommunications Policy*, Vol. 14, no. 3, pp. 183-188, p. 183.

<sup>81</sup> Francis J. Cronin & Paul L. Hebert (1994), "Inequities in the benefits and costs of telecommunications across stakeholder groups", *Telecommunications Policy*, Vol. 18, No. 4, pp. 306-320, p. 307. Milton Mueller, amongst others regards the "Ozark plan", implemented in 1971, as a particular significant example of this, shifting, as it did, "ever-larger portions of the local non-traffic sensitive plant to be recovered from interstate (long-distance revenues)." See Mueller, op. cit., p. 355.

<sup>82</sup> Cronin & Hebert., op. cit., p. 308.

<sup>83</sup> Frederick Williams (1991), *The New Telecommunications: Infrastructure for the Information Age*, (New York: The Free Press), p. 205. It should be acknowledged that this is not an uncontroversial view of the history of universal service. In a March 1997 article, Milton Mueller again argued that the 1934 Communications Act did not mandate any universal service obligation and furthermore that cross-subsidies within AT&T had only a marginal impact on telephone penetration: "Jurisdictional separations did not begin to have a real impact on local telephone rates until 1965. Household penetration was already 80% around that time, and was growing by several percentage points each year." See Milton Mueller (1997), "'Universal service' and the New Telecommunications Act: Mythology Made Law", published in the March 1997 issue of *Communications of the ACM*.

term has traditionally been used in Europe to describe a similar concept. Lucien Rapp<sup>84</sup> argues that "universal service" is an Anglo-Saxon construct which "correlates to the commercial objective set by American operators with respect to the high level of coverage of the American territory at rates and with a quality satisfactory to the user."<sup>85</sup> In short universal service is only an objective in a commercially oriented market. Since most European states either acquired or established state telecommunications monopolies around the turn of the century<sup>86</sup> (typically after a disappointing experience with private operators<sup>87</sup>), the European telecommunications industry has, for the bulk of the 20th century, been in the hands of publicly owned operators for whom commercial objectives were (in theory at least) secondary to those of public service. In considering the history of universal service in Europe up till the 1970s and 1980s then, one must consider "public service" objectives.

In general the same principles that underpinned universal service in the US until the 1970s - natural monopoly and the cross-subsidisation of high cost customers by the profits earned from low cost subscribers - largely shaped the development of public service in Europe.<sup>88</sup> However, whilst the Anglo-Saxon "universal service" concept has always been sufficiently concrete to permit some assessment of the extent to which the universal service obligation was being fulfilled, the same was not true of the European public service obligation. As the role of the state expanded over the course of the 20th Century, the duties implicitly placed upon the

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<sup>84</sup> Lucien Rapp (1996), "Public service or universal service," *Telecommunications Policy*, Vol. 20, No. 6, pp. 391-397.

<sup>85</sup> *Ibid.*, p. 395. Rapp credits Jills Hills with the description of universal service as a social construct, citing a reference to her work in Jacques Arlandis, (1993), *Communication & Strategies*, Vol. 10, No. 38.

<sup>86</sup> Although there are exceptions - in Denmark, the State Telephone company (P&T) co-existed with private companies serving mutually exclusive regions until 1990. See: Mads Christoffersen, (1994), "Development of Telecommunications in Denmark 1881-1994." Paper presented at COST 248 workshop, Lund, Sweden, 13-14 April 1994.

<sup>87</sup> Charles Steinfield (1994), "An Introduction to European Telecommunications" in Steinfield et al (eds.), *Telecommunications in Transition*, (Thousand Oaks, California: Sage Publications), p. 5. Although Steinfield stresses that the belief that publicly owned operations would provide a better service than had hitherto been experienced as the main reason for nationalisation he also points to considerations of national security and to the fact that a telecoms monopoly would provide a secure source of revenue.

<sup>88</sup> With regard to natural monopoly, as early as 1890 the Duke of Marlborough had argued that: "There is also the question whether, if this work is to be given to any public company, it is to be made the subject of competition. If so, there must be some limit to the competition, otherwise you will have numerous lines running side by side...Even if you are going to have two companies, you will have one person who is a member of one company and another person who is a member of



PTOs by virtue of the fact that they were state organs, increased concomitantly. Yet while there has been a general acknowledgement that state monopoly providers have had a duty to develop the telephone network beyond that level that would be justified by market demand alone, precise measures of what public service entailed have rarely been articulated.<sup>89</sup> This is precisely because the service provider is (albeit sometimes indirectly) the state which is, by definition, held to represent the best interests of all citizens. The amorphous concept of "public service" with which European Public Telephone Operators (PTOs) were charged with providing was not necessarily synonymous with universal service. Rather the precise definition of public service altered according to "changing political and/or administrative priorities and perceptions."<sup>90</sup> As one Commission document acknowledged in 1993:

"As long as telecommunications services were provided under direct State authority and as long as the TO, in dealing with users, benefited from certain legal immunities under national law, a definition in general terms, even though imprecise, of the notion of universal service could appear to have been sufficient."<sup>91</sup>

The implications of the distinction between universal service and public service are manifold and varied. Arguably the fact that standards must be both defined and met in order to fulfil the universal service obligation makes it preferable to the vagaries of public service. Yet Lucien Rapp makes the point that universal service is passive compared with public service. He argues that universal service seeks to make public intervention to correct social and economic inequalities unnecessary by "striving to obtain a price affordable to all, whatever one's particular situation."<sup>92</sup> Yet implicit in the notion of affordable rates is the assumption of a universal minimum income level sufficient to pay for service provision. Since there's little evidence that the process of calculating social welfare payments (theoretically the minimum

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another company desiring to communicate...(but)...unable to do so because that person belongs to a different company." *Hansard's Parliamentary Debates* 3rd Series, Vol. 342, p. 846. 14/3/1890.

<sup>89</sup> There is a certain irony in the fact that the need to establish regulations governing the operations of a private telecommunications service monopoly may result in a far more explicit description of universal service objectives than would be the case with state provision where classic state theory basically states that whatever the state is doing must, by definition, be in the best interests of the people.

<sup>90</sup> *Ibid.*

<sup>91</sup> CEC (1993), Developing Universal Service for Telecommunications in a Competitive Environment, COM(93) 542 Final, p. 6.

<sup>92</sup> Rapp, *op. cit.*, p. 394.

income level in any given society<sup>93</sup>) includes the cost of telephone service, such an assumption appears incorrect. Against this, Rapp argues that public service acknowledges real-life economic inequalities amongst citizens and actively seeks to provoke discriminatory rates amongst users "so as to even things out in order to encourage access to the service by the largest number and to compensate for substantive disparities."<sup>94</sup> Understanding these distinctions is critical for understanding the emergence since the 1970s of universal service in European telecommunications regulation.

### **2.5.2 Universal Service in a competitive telecommunications market.**

Until the 1970s, universal service was not a major issue in telecommunications policy debates in either the U.S. or Europe. Hadden & Lenert note that prior to the AT&T divestiture in 1982, "the policy of universal telephone service was neither complicated nor controversial."<sup>95</sup> Given the vagueness (or non-existence in Europe) of the concept up to that point this is hardly surprising. When considered at all, the general assumption appears to have been that levels of telephone penetration would simply continue to gradually increase. The issue came to prominence as a result of the global changes in telecommunications markets, regulatory environments and technologies over the course of the 1970s and 1980s. The development of many new electronic technologies and service possibilities coupled with the growing perception that telecommunications represented a "new frontier" for profitable investment in an expanding information economy, has, in an increasingly neo-liberal political context, prompted major regulatory change in telecommunications markets across the world since the 1970s: the introduction of liberalisation (i.e. the introduction of competition) and privatisation<sup>96</sup> (the selling off of public utilities on the stock market). And it is the introduction of competition into telecommunications service provision which has, by undermining the basis upon which the universal service objective has been pursued, forced a major re-examination of the concepts of universal and public service.

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<sup>93</sup> "Theoretically", since there are those who fall outside the social welfare net - vagrants, indigents, etc.

<sup>94</sup> Rapp, *op. cit.*, p. 394.

<sup>95</sup> Hadden & Lenert, *op. cit.*, p. 121.

<sup>96</sup> Between 1984 and 1996 44 former PTOs were privatised. See ITU Telecommunications Privatisations Database at "<http://www.itu.int/ti/publications>".

It is ironic that the very innovation cited as threatening universal service is precisely what has prompted (indeed required) the search for a more concrete definition of universal service and a reconsideration of what logic underlies universal telephone provision: "Competition forces us to redefine a concept hitherto containing very little substance."<sup>97</sup> Doubt had been cast on the validity of the thesis that telecommunications service provision was a natural monopoly from the 1950s. By the 1960s it was clear that AT&T's equipment wasn't quite as vulnerable to foreign attachments as the company argued,<sup>98</sup> undermining the logic underlying the company's natural monopoly status. The development of satellite communications in the 1950s and 1960s raised the possibility that perhaps even the core of the AT&T monopoly - infrastructure provision - might not necessarily be a natural monopoly.

It wasn't until the emergence of neo-liberalism as the dominant western political-economic ideology in 1970s, however, that telecommunications regulation was altered to permit new service providers (lead in the US by MCI<sup>99</sup>) to make inroads into AT&T's monopoly on service provision. Free of the requirement incumbent on AT&T to contribute to the retention of the local network, MCI and other new entrants were able to undercut AT&T in the long-line market, the market which AT&T (under the approving eye of the Federal Communications Commission) had increasingly used over the course of the 20th century to cross-subsidise the local service.<sup>100</sup> Thus the funding via cross-subsidisation of "universal

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<sup>97</sup> Marc Dandelot (1993), *Documentation Française*. Cited in Jacques Arlandis, (1993) "Universal Service: key issues for the next decade". Paper presented at Euro CPR, October 20-22, 1993, Scotland.

<sup>98</sup> To take the example of Hush-a-phone. AT&T's monopoly had been originally justified on the grounds that only one company could ensure universally compatible technical standards. Thus AT&T had a monopoly throughout the field of telecoms service provider, including the provision of terminal equipment (that is the actual phone instruments themselves). However in the 1960s the Hush-a-phone company patented and began to market a plastic cup-like device which fitted over the standard AT&T telephone receiver, reducing the level of noise extraneous to the speaker's own voice. AT&T took the Hush-a-phone company to court on the grounds that their monopoly had been infringed.

<sup>99</sup> In 1971 the FCC permitted MCI to offer unregulated data transmission for private use. In 1976 customers selling spare capacity on lines leased from AT&T were permitted to interconnect with the public network. Finally in 1978, the FCC removed all regulatory blocks to MCI's entry into the field of long-line voice transmission.

<sup>100</sup> Mueller, op. cit., p. 355. For Mueller it was the advent of competition that led to the modern egalitarian interpretation of universal service, as AT&T sought to defend their monopoly position on the grounds that only monopoly provision could enable the cross-subsidisation of connecting and providing service to high-cost users: "The challenge of new entry forced the system, to develop an explicit rationale for the system perspective in order to defend itself in the political arena. In the

service...could not withstand the strain of competition in the long-distance market."<sup>101</sup> Indeed concern that AT&T would respond to long-line competition by using profits from its monopoly in the local loop to cross-subsidise low long-line rates, resulted in the 1982 decision to force AT&T to divest itself of its 22 wholly owned local operating companies.

The "inevitable" outcome of competition in long-line service provision was to make increasingly untenable the essentially political decision to ascribe the costs of maintaining the local network to charges on long-line services. AT&T successfully put it to the FCC that to continue to cross-subsidise the local network with long distance charges would give heavy telecommunications users the incentive to bypass the public network, thereby leaving both the long-line companies and the previous Bell operating companies with a declining customer base, making it even harder to fund universal service. Thus the deliberate "substantial inefficiencies"<sup>102</sup> imposed upon the long-line network gave way, under pressure from competition, to a move towards a mechanism that "better aligned costs with prices".<sup>103</sup> With the subsidy from long distance gone, there was a need to find a new way to recover the cost of local service. The solution put forward by the FCC was the imposition of a subscriber line charge (SLC), a non-traffic sensitive, flat-rate fee, charged to the customers "as payment for access to a long-distance carrier".<sup>104</sup> Thus individual subscribers were effectively made responsible for the cost of the local loop.

The introduction of a flat-rate fee favoured heavy users (generally businesses) of long-distance lines, since the reduction in long-line tariffs, made possible by switching the cost of maintaining the local loop to individual subscribers, meant that their overall costs were reduced. For the residential subscriber who typically made less use of long-distance lines, the introduction of the SLC generally meant an increase in their overall costs. This was particularly significant for low-income subscribers, who tended to be infrequent users of long-distance lines: the imposition of the SLC, far from being offset by the reduction in long-distance rates, actually threatened their financial ability to stay on the network. It was in

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struggle the concept of universal service was reconstructed and linked to the practices of a regulated monopoly." Mueller, *op. cit.* p. 366.

<sup>101</sup> Cronin & Hebert, *op. cit.*, p. 308.

<sup>102</sup> *Ibid.*, p. 308.

<sup>103</sup> *Ibid.*

<sup>104</sup> *Ibid.*

response to this that in 1984, the FCC introduced the Lifeline programme, which offered a reduction in the SLC to those households that met state-defined criteria for those in need of assistance.<sup>105</sup> Three years later the FCC offered an additional programme called Link-Up to provide funds to offset the connection charge to low-income users.<sup>106</sup>

There remained a problem however - the contribution from the SLC to those local companies with high Non-Traffic- Sensitive costs relative to the number of subscribers they had (typically those companies serving areas with a low population density) was not sufficient to cover the costs of service provision. Thus the FCC instituted Common Carrier Line (CCL) charges and the Universal Service Fund. Both CCL charges and the USF are funded by interexchange carriers (the charges are usage sensitive). The funds are deposited with the National Exchange Carrier Association which dispenses funding to those local companies with higher-than-average NTS costs (USF funding goes to those companies with very high - defined as in excess 115% of the national average - NTS costs).<sup>107</sup>

The net effect in the United States of the introduction of competition and the re-regulation of universal service provision is difficult to state conclusively. US data suggests that 92.4% of American households had telephones in 1983; 93.6% had in 1991. In real terms, this means that nearly 5.8 million American households did not have a telephone in 1991. Given the rate of growth in the ten years up to 1983, this represents a definite slowdown in the increase of penetration. Nonetheless it is difficult to definitively state whether this is due to effects associated with the introduction of competition or whether penetration was simply hitting a "natural" barrier. As with any commercially offered service, it will become harder to maintain the take-up rate of the telephone as all but the lowest income households acquire service. Thus "the closer a state's penetration level is to 100%, the less response the state is likely to get

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<sup>105</sup> *Ibid.*

<sup>106</sup> *Ibid.* In their New Jersey case study, Mueller and Schement note however that "not a single respondent" to their survey had ever heard of the Linkup programme. Furthermore its efficacy was related to the level of funding provided by individual states. The \$20 reduction (from \$40) in the connection fee was not considered significant, particularly in light of the fact that the \$20 was recovered gradually over the following 12 months - in effect the Linkup programme was reduced to an advance credit scheme. Mueller & Schement, *op. cit.*, p. 15.

<sup>107</sup> Much of this data is based on the account given in Cronin & Hebert, *op. cit.*, pp. 308-309.

through programs (sic) to promote telephone subscription."<sup>108</sup> Nonetheless it does rather undermine the European Commission's optimistic but rather insubstantial argument that competition can augment universal service.<sup>109</sup>

It was the 1985 European Court of Justice decision that telecommunications services were subject to EC competition law under Article 59 of the Treaty of Rome that forced the European Commission to consider the impact of competition. The Commission's outlook on the subject became public in June 1987 with the publication of the seminal Green Paper on Telecommunications which offered a detailed blueprint for the deregulation/liberalisation of the European telecommunications market. (It also marked the beginning of the European Union's - and in particular the European Commission's - dominance of national telecommunications policy-making in the EU member states.<sup>110</sup>) The main objective of the Green Paper was the "development of market conditions that would provide European consumers with more extensive and higher quality services at a lower cost."<sup>111</sup> For some, however, the real significance of the Green Paper on telecommunications lay in the evidence it provides that the Commission, not national governments, was "in the driving seat on telecommunications."<sup>112</sup> One writer argued in 1989 that the extent to which the objectives of the Green Paper were achieved would "be an indication of how far governments and business in the EC really are committed to following through the logic (and advantages) of the internal market."<sup>113</sup> Subsequent EU telecommunications legislation suggests that the commitment is whole-hearted: successive directives, communications and resolutions have gradually whittled away at national telecommunications monopolies to the extent where even basic voice

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<sup>108</sup> Brooks Albery (1995), "What level of dialtone penetration constitutes 'universal service'?", *Telecommunications Policy*, Vol. 19, No. 5, pp. 365-380, p. 368.

<sup>109</sup> European Council (1994), Council Resolution of 7 February 1994 on Universal Service Principles in the Telecommunications Sector, (94/C 48/01, OJ C 48/1, 16.2.94) This is particularly the case in US context where a growing number of households means that although the overall percentage level of connection has increased, the actual number of households without telephone service has remained static since 1984.

<sup>110</sup> See for example, Preston, Paschal (1995), "Competition in the telecommunication infrastructure", *Telecommunications Policy*, Vol. 19, No. 4, pp. 253-271. The question of EU versus nation state influence in the field of telecommunications policy and regulation - in particular the Post-Maastricht impact of subsidiarity - is considered in more detail in chapter three and chapter eight.

<sup>111</sup> Raymond Akwule (1992), Global Telecommunication - The Technology, Administration and Policies, (Boston: Focal Press ), p. 134.

<sup>112</sup> Margaret Sharp (1989), "The Community and New Technologies" in Lodge, Juliet (ed.), The European Community and the Challenge of the Future, (London: Pinter.), p. 212.

telephony and infrastructure (originally left as monopolies in the Green Paper) will, as of 1998, be opened to competition.

Although quick to embrace liberalisation, the European Commission and the member states were slow to address the implications of liberalisation for the pursuit of public service objectives. It is important to note that the logic underlying the creation of a common European policy on universal service was to ensure agreement on a universal understanding (and practical application) of universal service so as to avoid the situation whereby some operators in a single European telecommunications market were required to provide a level of service more onerous than their competitors (thus undermining their competitiveness). As one EU document notes: "The creation of an environment in which operators can compete on an equal basis presupposes a comparable level of universal service obligations throughout the Community."<sup>114</sup> Incumbent PTOs were unwilling to bear sole responsibility for what they suggested was a costly public service obligation whilst new market entrants "cherry-picked" the profitable markets. The PTOs thus sought a levelling of the telecommunications playing field, demanding either that they receive some subsidy for fulfilling the public service obligation or that the obligation be shared with the new entrants. Inevitably this meant defining what public service actually constituted and what it cost.

In Europe the move to universal service was not without its growing pains. In the US, the existence of some conception of universal service prior to the introduction of competition meant that the shift towards guaranteeing universal service provision in a competitive market was to some extent a technical issue addressable by programmes such as those outlined above (Universal Service Fund, Lifeline Fund, etc.). The EU however had to develop a conception of universal service from scratch. Thus whilst in America, AT&T's long history as a regulated private monopoly meant that a framework for calculating the costs of universal service (separations and settlements payments) preceded the introduction of competition, the absence of any detailed regulatory oversight for European PTOs meant that the relationship between

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<sup>113</sup> Ibid.

<sup>114</sup> Proposal for a Council Resolution on Universal Service Principles in the Telecommunications Sector. Attached to: CEC (1993), Developing Universal Service for Telecommunications in a Competitive Environment COM(93) 542 Final, p. 6.

service costs and tariffs had largely been a matter "for internal consideration."<sup>115</sup> Indeed to the extent that the costings were subject to government approval, their allocation was effectively a political decision,<sup>116</sup> a practice that was, by definition, incompatible with a liberalised telecommunications market. In short the Green Paper's introduction of competition demanded a major shift in the "culture" of the European PTOs, away from the theoretically limitless obligations of public service towards the more finite and therefore "costable" universal service obligation.

Furthermore that conception had to be designed in such a way as to be applicable in all member states, despite the fact that hitherto, the pursuit of public service obligations had resulted in very different levels of service: for example, whilst by 1975 household telephone penetration in Ireland had only reached 22%, in Sweden the figure was already 108%.<sup>117</sup> Whilst these disparities began to even out in the 1980s there remained substantial differences between penetration levels in member states when the Green Paper was published.

The inevitable consequence was that initial efforts at defining universal service obligations resulted in requirements that were "essentially passive,"<sup>118</sup> and did very little to place any measurable obligations on the shoulders of service providers. For example, the description contained within the 1987 Green Paper, essentially did no more than describe the status quo, suggesting only that basic telephone service be:

1. Provided with general geographic coverage.
2. Provided on demand to all users on reasonably the same

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<sup>115</sup> *Ibid.*, p. 13.

<sup>116</sup> See for example: Jill Hills (1989), "Universal Service: Liberalisation and privatisation of Telecommunications", *Telecommunications Policy*, Vol. 13, No. 1, pp. 129-144, p. 130.

<sup>117</sup> ITU Stars Database, July 1996 release. Cited in Analysys (1997), *The Future of Universal Service in Telecommunications in Europe*, (London: Analysys), p. 155.

<sup>118</sup> An OECD assessment of the Green Paper in 1991 criticised its failure to address the question of affordability in considering universal service. See OECD (1991), *Universal Service and Rate Restructuring in Telecommunications*, Information Computer Communication Policy, No. 23, p. 26.



terms regardless of the users' location within the service providers territory or franchise area and the cost of connection to the network."<sup>119</sup>

Yet the increasing influence of liberalisation - in particular the pressure "to move toward a greater cost orientation of tariffs,"<sup>120</sup> prompting the "rebalancing" of telephone tariffs across Europe, and thus undermining the funding of universal service - along with pressure from both the European Parliament and the Council of Ministers,<sup>121</sup> forced the European Commission to take a more considered approach. However, rather than develop specific universal service legislation, the Commission sought to superimpose universal service on existing legislative proposals, namely those concerning Open Network Provision (ONP) principles. ONP principles, however, were originally intended to ensure that competing service providers did not throw up artificial obstacles to the interconnection of their networks. Since they were not designed to proactively encourage access, the European Commission's application of them to universal service was unlikely to do anything but reinforce the passivity of the Green Paper's conception of universal service obligations. This is evident in the Commission's first major Communication on universal service, *Developing Universal Service for Telecommunications in a Competitive Environment*, which takes ONP principles as a starting point for universal service.

The Communication followed the decision of June 16 1993 by the Council of Telecommunications Ministers to fully liberalise the voice telephony market by 1998. In doing so, however, the 12 ministers had also "underlined the importance of maintaining universal service."<sup>122</sup> Thus the main purpose of the Communication was to initiate a process of agreeing

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<sup>119</sup> Universal Service and Rate Restructuring in Telecommunications. Information Computer Communication Policy, No. 23, OECD 1991, p. 28.

<sup>120</sup> Included in a Council resolution on the development of the common market for telecommunications services and equipment. Johannes M. Bauer & Charles Steinfield, "Telecommunications Initiatives of the European Communities", in Steinfield et al (eds.) Telecommunications in Transition, (Thousand Oaks, California: London), p. 55.

<sup>121</sup> With regard to EU negotiations on telecommunications liberalisation and ONP between 1987 and 1990, Bauer and Steinfield note that "whereas the Commission argued in favour of open markets, influential members of the telecommunication Council of Ministers placed a higher weight on public service goals." Johannes M. Bauer & Charles Steinfield, "Telecommunications Initiatives of the European Communities", in Steinfield et al (eds.) Telecommunications in Transition, (Thousand Oaks, California: London), p. 58.

<sup>122</sup> "Green light for liberalisation of vocal telephony," *XIII Magazine News Review*, No. 2/93.

a universal service definition. The resulting document is interesting largely because it (perhaps unwittingly) draws attention to, but fails to reconcile, some of the inherent contradictions faced by EU member states in seeking to move from public service to universal service. In its general discussion of the rationale for universal service, the Communication advances both an economic justification for maintaining and expanding universal service and incorporates aspects of the politico-philosophic approach, stating that universal service is an "essential condition" not merely "for maximising the contribution of the telecommunications sector to overall economic growth," but also for "social well-being and cohesion in the Community".<sup>123</sup> Furthermore, the Proposal for a Council Resolution attached to the Communication adds that "the essence of universal service" is "access to and the provision of a defined minimum service of specified quality to all users at an affordable price, irrespective of their geographical location."<sup>124</sup>

Yet when the Communication comes to a practical definition of what the universal service concept includes "on the basis of ONP"<sup>125</sup>, the socially oriented language disappears and is replaced by the following list:

1. the basic provision of service;
2. quality of service;
3. tariff-principles i.e. cost-orientation of tariffs, combined with tariff flexibility  
(which allows, for example, specially targeted tariff schemes for low income groups);
4. dispute resolution mechanisms;
5. Special public service features (for example operator services and emergency services);
6. Certain Community-wide service features.<sup>126</sup>

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<sup>123</sup> CEC (1993), Developing Universal Service for Telecommunications in a Competitive Environment COM(93) 542 Final.

<sup>124</sup> Proposal for a Council Resolution on Universal Service Principles in the Telecommunications Sector. Attached to Ibid.

<sup>125</sup> CEC (1993), Developing Universal Service for Telecommunications in a Competitive Environment COM(93) 542 Final, p. 7.

<sup>126</sup> Ibid.

The most notable absence is the question of the scope of universal service. References to “basic provision of service” and “quality of service” are meaningless without some reference to the extent to which service must be provided. Indeed, overall it’s hard to see anything in the list above that would not be considered normal commercial service requirements.

Furthermore, when setting out the basic elements of universal service elsewhere in the document, the wording consistently refers to the rights of “users.” “*Users* should have a right of access to and use of the service. *Users* should have a contract specifying the service to be provided.”<sup>127</sup> (Italics added). Yet this appears to ignore those who are not yet users and may be excluded from the telephone network. Thus the Commission’s conception of universal service here is the minimalist common carriage conception: equal rather than universal access. All those who pass that financial threshold sufficient to enable them to become a subscriber will be treated equally, but no account is taken of those below. In effect then the Commission conception here seems to ignore the politico-philosophic approach, a fact the same document explicitly draws attention to when it describes as “fundamental objectives of a *public service* policy” (Italics added) the following:

- "Universality i.e. access *for all* at an affordable price
- Equality i.e. access independent of geographical location
- Continuity i.e. continuous provision, at a defined quality.”<sup>128</sup> (Italics added)

The insistence on retaining ONP as the basis for USO since the 1993 Communication has ensured that a more proactive public service orientation to universal service has not appeared in any EU legislation. Looking at that EU ONP legislation which arguably has most relevance for universal service<sup>129</sup> - the December 1995 Directive on the Application of Open Network

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<sup>127</sup> Proposal for a Council Resolution on Universal Service Principles in the Telecommunications Sector, p. 21. Attached to Developing Universal Service for Telecommunications in a Competitive Environment COM(93) 542 Final, 15th November 1993.

<sup>128</sup> *Ibid.*, p. 19.

<sup>129</sup> The subsequent Commission Communication Universal Service for Telecommunications in the Perspective of a Fully Liberalised Environment, arguably the Commission’s most detailed discussion of universal service points to the ONP Voice Telephony Directive as the source of the “current concept of universal service.” See CEC (1996), Universal Service for Telecommunications in the Perspective of a Fully Liberalised Environment COM(96) 73 Final, p. 3.

Provision (ONP) to Voice Telephony<sup>130</sup> - there is little in the directive itself that requires service providers or national regulatory agencies to actively promote access to the basic telecommunications services. Article 3 of the directive simply requires the provision of a fixed public telephone network and a voice telephony service so that users may “obtain on request a connection to the fixed public telephone network.”<sup>131</sup> Where questions of actively facilitating access do arise, the directive simply acknowledges the right of individual national regulatory agencies to impose requirements aimed at achieving universal access if they so wish (reflecting the subsidiarity principle established in the EU’s Maastricht agreement). For example:

“Without prejudice to application of the principle of cost orientation, national regulatory authorities may impose on telecommunications organizations tariff constraints relating to the objectives of universal telephone-service accessibility, including town and country planning aspects.”<sup>132</sup>

Simply leaving national regulators such options is some distance from actually promoting universal access principles. In short, both the theory and practice of ONP have severely limited the possibility of expanding the scope and meaning of universal service in EU legislation.

In general, the European Commission expresses the view that liberalisation is not incompatible with the provision of universal service, and that in fact its provision is best guaranteed by “market forces...in most cases.”<sup>133</sup> EU documents (including the 1993 Communication on Universal Service Principles discussed above) argue that even the move to cost-oriented tariffs, which typically increase local call costs, will help to shore up universal service. Furthermore, the EU decision to adopt an approach of gradual (as opposed to immediate and total) liberalisation of the European telecommunications market, is intended "to

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<sup>130</sup> Directive 95/62/EC of the European Parliament and of the Council of 13 December 1995 on the Application of Open Network Provision (ONP) to Voice Telephony. *EC Official Journal* No. L 321, pp. 6-24.

<sup>131</sup> *Ibid.*

<sup>132</sup> *Ibid.*, p. 14.

<sup>133</sup> Proposal for a Council Resolution on Universal Service Principles in the Telecommunications Sector. Attached to CEC (1993), Developing Universal Service for Telecommunications in a Competitive Environment COM(93) 542 Final.

guarantee the financial viability of existing telecommunications administrations in order for them to fulfil their public service obligations.<sup>134</sup> Yet, despite these assurances, what is most notable about the status of EU documents on universal service is their status compared with documents on introducing competition into various areas of the telecommunications markets. (Indeed, as noted above, ensuring a level playing field in the competitive market is one of the major reasons for arriving at a common European policy on universal service). With regard to liberalising the telecommunications services market and implementing the ONP provision, the Commission or Council will usually opt for a Decision or a Directive, legal instruments, which legally bind member states to implement the policy objectives contained within through national legislation. In contrast, the most comprehensive documents on universal service have been non-binding Communications, which have left actual implementation of measures to protect the universal service objective to the discretion of individual member states. The difference in status says much about the relative priorities of introducing competition and protecting universal service in the eyes of the Commission.<sup>135</sup>

## 2.6 Conclusion

It may seem ironic that it is precisely at the point in time when the telephone begins to approach universal household penetration, (80% and upwards) in most of the developed world, that universal service should become a key issue of telecommunications policy. Yet while it has been generally argued that changing market conditions undermining the cross-subsidisation of universal service have brought the issue to the fore the very fact that penetration rates are nearing 100% increases the importance of the issue.

As the level of telephone penetration increases, and as the phone thus becomes more ubiquitous, so the relative isolation resulting from non-connection becomes all the more acute.

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<sup>134</sup> Laurence Caby and Charles Steinfield in "Trends in the liberalisation of European Communications" in Steinfield et al Telecommunications in Transition, (Thousand Oaks, California: Sage Publications), p. 40.

<sup>135</sup> For example: whilst the preamble to the December 1995 ONP directive, acknowledges that "voice telephony has become important for social and economic reasons, and everyone in the Community should have the right to subscribe to this service," the Directive itself, as noted above, does not follow through the logic of this statement. See Directive 95/62/EC of the European Parliament and of the Council of 13 December 1995 on the application of open network provision (ONP) to voice telephony, Official Journal of the European Communities, No. L.321, p. 6.

(This relationship between the extent of the telephone's diffusion and its social significance is implied by the 1997 Analysys report referred to in section 2.4 above.) Thus, from a socially oriented perspective, universal service would have been significantly less of an issue at a point when penetration was at a low: looking at Ireland in 1935, for example, it would have been difficult to speak in terms of social exclusion as a result of non-connection to the telephone service when there were only 24,000 (approx.) subscribers (three quarters of which were businesses).<sup>136</sup>

More significantly, however, it is perhaps inevitable that as the telephone approaches ubiquity it will become harder and harder to attract new subscribers. The upward curve of Everett Rodgers' model of diffusion referred to above, flattens out as it approaches 100%, as "the last few holdouts" reluctantly submit and acquire the item in question. However this model implicitly classifies this group as having *decided* not to acquire the technology (implying that it was within their financial means to acquire it). In the real world, the fact remains that, as with any commodity which costs money, it will be harder for those on a low income to afford telecommunications services than those on a higher income. It is undeniable that there are enormous income differentials in modern society. Thus, as all but the lowest income groups acquire the phone, it will become harder to maintain annual increases in the level of penetration. Schement, for example, notes that between 1946 and 1970, telephone penetration in the US grew by 39%, reaching 90% in 1970. Between 1970 and 1994 it grew by 4%. Thus, he concludes that "Clearly there are difficulties involved in reducing the last 10%."<sup>137</sup>

Hence before proceeding to consider the history of universal telephone service in Ireland, it is important to consider that the nature of non-connection may be changing. Much of the debate on universal service still assumes that it is primarily an issue of connecting rural subscribers distant from the nearest exchange. Although this doubtless continues to account for a substantial proportion of the unphoned, there is increasing evidence that the "unconnected" are

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<sup>136</sup> Jill Hills makes the point that, in its infancy, the telephone far from fostering social cohesion, reinforced existing residential class patterns "because only those with sufficient income could afford the telephone". , Jill Hills (1989), "Universal service: Liberalisation and privatisation of telecommunications", *Telecommunications Policy*, Vol. 13, No. 1, pp. 129-144, p. 133.

<sup>137</sup> Schement, *op. cit.*, p. 482. Obviously it would have been impossible to sustain the growth rate of the previous 24 years between 1970 and 1994 since this would mean a penetration rate in excess of 100%. (Technically possible if homes were to have more than one line but far in excess of universal service).

no longer primarily located in remote areas, cut off from the network by virtue of distance. Increasingly the "unphoned" are likely to be situated in low-income urban areas, where the network infrastructure is actually at its densest.<sup>138</sup> However, constructing the problem of achieving universal service as one of connecting rural dwellers remote from an exchange, will see solutions offered that address that particular construction of the problem. Hence, two authors from DG XIII of the European Commission offer that:

" Alternative technical solutions are often employed by innovative companies to bring about dramatic reductions in the costs of providing service. A case in point is the application of mobile technology to rural telephony, and this promises new approaches to solving universal service problems."<sup>139</sup>

Similarly, US Vice-President Al Gore has argued that:

"Constellations of hundreds of satellites in low earth orbit may soon provide telephone or data services to any point on the globe. Such systems could make universal service both practical and affordable."<sup>140</sup>

In effect the problem of providing universal service is rendered a technical puzzle - what new technology will permit the service provider to offer service to subscribers distant from the exchange at a reasonable cost? Yet as noted above, as near total penetration is achieved, the problem of providing service becomes less a technical one and more one related to the income levels of the unconnected. Indeed the distant rural customer approach implicitly constructs the universal service obligation as one of simply offering a geographically ubiquitous service. Although this is an element of the universal service obligation, it ignores the question of

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<sup>138</sup> "...the geographical and social extent of the unphoned phenomenon is now, quite clearly, a key problem in our marginalised urban areas." Dyer, Philip *The Guardian* 8 June 1995.

<sup>139</sup> Cor Berben and Bernard Clements (1995), "The European framework for competition in telecommunications: The benefits for peripheral countries", *Telecommunications Policy*, Vol. 19, No. 4, pp. 273- 283, p. 276. A similar argument is made by Michael Tyler et al (1995), "Universal service and innovation in telecommunications services", *Telecommunications Policy*, Vol. 19, No. 1, pp. 3-20.

<sup>140</sup> Al Gore (1994), "Forging a new Athenian Age of Democracy", *Intermedia*, Vol. 22, No. 2, pp. 4-7.

providing service to everyone. Hence the need for a coherent thought-through philosophy of universal service.



**CHAPTER THREE**

**IRELAND 1880-1993**

**A POLITICAL AND**

**ECONOMIC OVERVIEW**

### 3.1 Introduction

National infrastructure development does not occur in a vacuum. Any attempt to outline a history of the development of the telephone in Ireland without first outlining the political culture and economic context could not offer any real understanding or useful insights about that development. This chapter considers the specificities of Irish politics and the Irish economy since the 19<sup>th</sup> century. It traces the health of the economy and how different elements of the economy have been prioritised at different points in time. This chapter also draws attention to some features of Irish political culture which, although not unique to Ireland, have given a particular cast to telecommunications development. It offers a brief overview of the history of the administration of Ireland but also examines the general policy-making process, specifically considering the influence of clientalism and Ireland's membership of European Union on that process. Based on this initial review, the chapter concludes by suggesting some hypotheses about how the specificities of Irish politics and the economy may have shaped the diffusion of the telephone network in Ireland and the development of universal service.

#### 3.2.1 Ireland 1880 - 1922

The defining influence on the Irish economy and Irish politics until at least 1922 was the relationship with Britain (even after 1922 the UK remained the dominant external influence on Ireland). Although nominally under English control since the Norman conquest in the 12th century, Ireland only finally became an English province with the Tudor subjugation of Ireland in the 16th century and the plantations - the introduction of English and Scottish settlers - that followed in the 16th and 17th centuries. As a result, from medieval times Irish politics and economic and cultural life have been "dominated by, and oriented to, England."<sup>1</sup> Effectively a colonised nation, Ireland was the periphery to the British core. Peripherality was a function of geography anyway - Ireland is situated on the fringe of the British Isles, which in turn is on the edge of Europe. But this geographical peripherality has long been mirrored by an economic peripherality. Chubb concludes that Ireland evolved "within a sub-region in the

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<sup>1</sup> Basil Chubb (1992), The Government and Politics of Ireland, (3rd edition) (London: Longman), p. 4.

shadow of a powerful centre,”<sup>2</sup> and as a consequence its “economic development remains incomplete.”<sup>3</sup>

Despite its peripheral position, Ireland nonetheless underwent “a period of sustained, rapid, socio-economic development”<sup>4</sup> between 1660 and 1820. In this context, the 1800 Act of Union which, in addition to making a single political unit of Britain and Ireland, effectively established a free trade area between the two countries, seemed a reasonable deal for Ireland. Yet most of the industries which had driven earlier economic growth went into a terminal decline in the 19th century, especially in the latter half. The conclusion of the Napoleonic wars brought economic recession to the entire British Isles. Yet whilst mainland Britain emerged from recession by 1819, “the Irish economy remained stagnant.”<sup>5</sup>

Although there may have been structural deficiencies in the Irish industrial economy - Ireland was not favoured with “the essential minerals of the industrial revolution,”<sup>6</sup> and the population expansion of the first half of the 19th century occurred in the absence of any growth in national income - its decline in the 19th century owed much to the political and economic proximity to a British mainland that was going through the Industrial Revolution. “The development of an industrial society in the British Isles touched such (remote) areas last and least; the further west, the more delayed and smaller were its effects.”<sup>7</sup> As “early, mercantilist, cottage-industry capitalism”<sup>8</sup> progressed into factory capitalism in the UK, scale of production became of critical importance to the success or failure of a given industry. Many of the small towns in pre-Famine Ireland had extensive industries: breweries, distilleries, ropeworks and tanneries were numerous, whilst paper mills and ironworks operated in large towns. However these industries, geared towards the needs of the domestic

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<sup>2</sup> Ibid., p. 2.

<sup>3</sup> Ibid., p. 2.

<sup>4</sup> Raymond Crotty (1979), “Capitalist Colonialism and Peripheralisation: The Irish Case” in Dudley Seers, Bernard Schaffer and Marja-Liisa Kiljunen (eds.), Underdeveloped Europe: Studies in Core - Periphery Relations. (New Jersey: Humanities Press).

<sup>5</sup> E.R.R. Green (1968), “Industrial Decline in the Nineteenth Century” in L.M. Cullen (ed.) The Formation of the Irish Economy, (Cork: Mercier Press), p. 92.

<sup>6</sup> Chubb, Government, p. 11.

<sup>7</sup> Ibid., p. 11.

<sup>8</sup> Crotty, op cit., p. 226.

market, could not compete with the economies of scale of those industries at the core.<sup>9</sup> Increasingly, imports from Britain depressed Irish non-export industries and industrial production in the United Kingdom of Britain and Ireland, was increasingly concentrated at the core (England),<sup>10</sup> whilst the Irish economy increasingly focused on land intensive production, particularly cattle-rearing.

The development of a communications network in 19th century Ireland initially exacerbated the deleterious effects of the British Industrial Revolution on the Irish economy. The spread of the railway network contributed to a commercial revolution outside Dublin, bringing goods relatively cheaply to provincial retailer and wholesalers. The effect on local industry, however, was ruinous:

“Goods from farther afield entailed stiffer competition faced by local industrial firms and crafts. The railway was bound therefore to reveal the existing weakness of small industrial firms, and, once crafts elsewhere were converted to a factory basis, to quicken the decline of the surviving crafts in small Irish towns. The industrial base in the small town was therefore in danger.”<sup>11</sup>

In many European economies the railway was regarded as “a powerful engine of economic development,”<sup>12</sup> allowing local firms to develop an export capacity. By the time the railways began to introduce competition to Irish provincial areas in the 1850s, however, there was already a concentration of large-scale firms on the British mainland. Already in a position of having to play “catch-up”, the population collapse from 1845 to 1851 meant declining sales,<sup>13</sup>

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<sup>9</sup> Although economies of scale made goods imported from Britain cheaper, in some cases the Industrial Revolution had a more direct effect on Irish industry. In textiles, which was the first major Irish industry to decline in the 19th century, the rise of flax-spinning by power and the cotton-weaving by powerloom meant that it was difficult for Irish firms simply to get supplies of yarn and cotton. See Green, *op cit*, pp. 94-95.

<sup>10</sup> “The headlong pace of development in England was rapidly concentrating industry in areas where coal and iron were available and with ready access to markets.” Green, *op cit*, p. 92.

<sup>11</sup> L.M. Cullen (1987), The Formation of the Irish Economy Since 1660, (London: B.T. Batsford), p. 144.

<sup>12</sup> J.J. Lee (1968). “The Railways in the Irish Economy” in L.M. Cullen The Formation of the Irish Economy, (Cork: Mercier Press), pp. 79-80.

<sup>13</sup> Although usually seen as a predominantly rural catastrophe, the Famine did have a knock-on effect on urban dwellers. Mary E. Daly points out that in the aftermath of the Famine, farmers enjoyed two decades of relative rural prosperity as the size of holdings increased. Urban workers did

reducing the availability of investment capital that smaller Irish firms would have needed to expand their operations to benefit from anything like the economies of scale that firms based in England's industrial heartland benefited from. As Lee again puts it: "Before 1850 economic development had been hindered by an underdeveloped transport network. Since 1850 Ireland has been an underdeveloped economy with a highly developed transport system."<sup>14</sup>

Those firms that did survive were, as a rule, export-oriented. Development of export markets allowed some industrial firms to reach a scale of production which would make their costs competitive, and hence enable them to survive on the home market against foreign competition.

When economic prospects picked up again in the 1890s, it was export industry that continued to perform the best. Industry, by 1907, contributed roughly a third of the total net output of Irish agriculture and industry, making Ireland a relatively industrialised country by contemporary standards. The bulk of net output rested, however, on a narrow base: three categories - linen spinning and weaving, brewing, distilling and aerated waters, shipbuilding and engineering - which accounted for eighty per cent of total net industrial output. Such industry was increasingly concentrated on the east coast of the country: isolated firms in small Irish towns lacked direct foreign contact; local facilities for the specialist needs of financing, insuring and handling export consignment did not exist; and the arrangement of such services for small or irregular consignment proved expensive. Even in the declining milling industry, it was the large-scale firms emerging in the ports that were able to withstand competition from imported flour. The port mills had an advantage over inland mills where exports were concerned. A similar story was evident in brewing - Dublin brewers (themselves increasingly dominated by Guinness) produced about 75% of the total Irish output, and accounted for 96% of exports at the outset of the 20th century.<sup>15</sup>

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not experience a similar windfall: instead since Irish industry (largely based in towns) was mainly geared for the domestic market, the effect of the Famine was to reduce that market from 8.5 million to 6.5 million people in a six year period (1845-1851). The population then dropped by a further 2 million between 1851 and 1911 to 4.5 million, largely due to emigration. Mary E. Daly (1981) A Social and Economic History of Ireland Since 1800. (Dublin: Educational Company), p. 85.

<sup>14</sup> Lee, *op cit.*, p. 87.

<sup>15</sup> Cullen, Ireland Since 1660, pp. 156-157.

Thus, only firms in Dublin and Belfast and isolated large-scale firms elsewhere found it practicable to enter the export field. The position of Belfast is worth emphasising since the city itself and surrounding hinterland had been the site of a remarkable expansion in the 19<sup>th</sup> century. In 1800, Belfast's 20,000 inhabitants made it one quarter the size of Cork but by the 1890s, Belfast was larger than Dublin with over 400,000 inhabitants.<sup>16</sup> This growth, due initially to the development of the linen industry, was consolidated in the 1890s and 1900s by the spectacular success of the city's shipyards (which led in turn to a further increase in Belfast's population to 600,000 by 1911).<sup>17</sup> By the turn of the century, probably one third of Irish net industrial output originated in Belfast or its immediate hinterland as did roughly two-thirds of total industrial exports including processed food and drink. In 1907, £19.1 million of the total Irish exports of non-food manufactures of £20.9 million, were in categories predominantly produced in the Belfast region."<sup>18</sup> Even in food manufacturing exports, Belfast occupied a dominant position in tobacco, whiskey, aerated water, milling exports and ham.

In short then, over the course of the 19th century, small-scale industrial production located outside Dublin and Belfast declined dramatically to the extent where, as Mary E. Daly notes, the character of most Irish towns in the late 19th century was non-industrial: "the bank, the post office, the police station and the school and shops determined the town's character."<sup>19</sup> The development of industry in the North-East in particular meant that when Ireland was partitioned in 1922, agriculture would inevitably have become the dominant part of the Irish economy. But what was the shape of agriculture in the 19th century?

### **3.2.2 Agriculture in the 19th Century**

The effect of the 1845 - 1847 Irish famine on the rural population and the structure of Irish agriculture was to be profound. The diminution by starvation and emigration of the pre-famine population from nearly 8.5 million to 6.5 million by 1851, was disproportionately felt

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<sup>16</sup> Mary E. Daly (1981), *A Social and Economic History of Ireland Since 1800*, (Dublin: Educational Company), p. 101.

<sup>17</sup> Indeed Cullen argues that without shipbuilding, Belfast might have undergone the same decline that afflicted Derry from the 1880s onwards, as the shirt-making industry on which local Derry industrial activity was based, collapsed. Cullen, *Ireland Since 1660*, pp. 161-162.

<sup>18</sup> *Ibid.*, pp 160 - 161.

<sup>19</sup> Daly, *op cit.*, p. 112.

in the rural counties of Ireland, a fact exacerbated by the post-famine process of internal migration from rural to urban areas, primarily Dublin and Belfast. Furthermore these dual processes continued long after the famine: the population of the 32 counties dropped from 5.2 million in 1881 to 4.4 million in 1911, whilst the fraction of the population living in towns increased from one eighth to one third between 1841 and 1911.<sup>20</sup> The corollary of this across Ireland, but again disproportionately in rural areas was a low and dropping population density. Between 1881 and 1911 Ireland's population density dropped by 16% to 51.9 people per square kilometre in Ireland. Yet whilst Dublin experienced a 14% increase in population density to 520.6 persons per square kilometre between 1881 and 1911, in the western province of Connaught it dropped 25.8% over the same period to 33.9 persons per square kilometre.

The virtual extinction of the smallholding cottier class in the wake of the famine,<sup>21</sup> had resulted in larger farms with less dependants. Many landlords encouraged the consolidation of holdings which offered a more secure livelihood in the hope of avoiding a recurrence of the Famine. As a result, the 1891 census placed 44.4% of the population in the agricultural occupation class, a reduction of less than 7% from the pre-famine figure (although in real terms taking into account population decline this meant that the agricultural occupation class had dropped from just over 4 million people to just over 2 million). This contrasted sharply with figures for England and Wales where manufacturing industry had occupied a progressively higher percentage of the population since the Industrial Revolution. There, the 1881 census classified only 16.6% of the population as engaged in agriculture.

The greatest shift in 19th century Irish agriculture was from high output per acre tillage to low output pasture. Again the after effects of the Famine were responsible. Along with cottiers, farm labourers had been the hardest hit class during the Famine while land under pasture increased by two million acres between 1851 and 1901.<sup>22</sup> Crotty points out that Irish cattle exports remained static between 1665 and 1805. Between 1805 and 1875, however, they increased "nine-fold". O'Toole puts it another way:

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<sup>20</sup> F.S.L. Lyons (1973), *Ireland Since the Famine*, (London: Fontana), p. 101.

<sup>21</sup> This class had in any case already been undermined by the advent of factory spinning and later factory weaving, since in addition to eking out a living from small-holdings, it had looked to domestic (i.e. home-based) industry as an income support.

<sup>22</sup> Fintan O'Toole(1995), *Meanwhile Back at the Ranch: The Politics of Irish Beef*. (London: Vintage), p. 10.

“Between 1841 and 1981, the population of the twenty-six counties of the Republic of Ireland declined from 6.5 million to 3.4 million. Over the same period, the number of cattle increased from 1.8 million to 6.9 million.”<sup>23</sup>

Once the land had been cleared by emigration, the depopulated grassland was given over to pasture. Cattle prices increased at a faster rate than all other farm prices from the early 1800s onward, as demand for meat from both the increasingly populous mainland Britain,<sup>24</sup> and outposts of the Empire increased, making the profit from low output cattle production greater than the profit from other, higher output, farm enterprises.<sup>25</sup> The trend has continued into the 1990s - 90% of Irish agricultural land is now under pasture.<sup>26</sup>

In summary then, by the start of the 1920s, Ireland remained a predominantly agriculture-oriented economy. What industry did exist was almost entirely concentrated in Belfast and Dublin.

### **3.2.3 Post-Independence Economic Policy**

The establishment of the Free State in 1922 brought home the degree of imbalance in the Irish economy. The development of agriculture in the 19th Century assumed the existence of a market covering the entire British Isles. As a consequence, “agriculture insofar as it was market-orientated, was wholly geared to British needs. Banking, insurance, industry and trade were largely British dominated and almost wholly British-orientated and only slowly became centred upon Dublin.”<sup>27</sup> Even in a 32 county Ireland, agriculture had accounted for two-thirds

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<sup>23</sup> *Ibid.*, p. 11.

<sup>24</sup> The population of England and Wales rose from 8.9 million in 1801, to 15.9 million in 1841, 25.9 million in 1881 and reached 32.5 million by 1901. R.M. Punnett (1987), British Government and Politics (5th Edition), (Hampshire: Gower Publishing), p. 4.

<sup>25</sup> Crotty, *op cit.*, p. 227.

<sup>26</sup> O’Toole, *op cit.*, p. 10.

<sup>27</sup> Chubb, Government, pp. 6-7.



the combined net output of Irish agriculture and industry. The loss of the industrialised North-East exaggerated the relative importance of agriculture.<sup>28</sup>

Given that the first independent Irish administration, William Cosgrave's Cumann na nGaedhael (1922-1932) had emerged from the ashes of Arthur Griffith's Sinn Féin, it might have been expected that the party would adopt the central tenet of Sinn Féin's economic policy. "Economic nationalism"<sup>29</sup> argued that Irish political independence would be undermined if the nation remained economically dependent on Britain and required the erection of tariff barriers behind which both native industry and agriculture could develop.

That a tariff policy was not pursued by the new government was not overly surprising however. Economic nationalism assumed that Ireland's inclusion within the UK had stultified the country's economic development and that an independent Ireland would undergo a spontaneous industrial recovery. Given the fait accompli of an economy dominated by agriculture and the inherent conservatism of the new administration, however, "the new national government, like the old British one, saw in agriculture the basis of the country's existence and addressed itself at once to the problems of that key sector."<sup>30</sup> The official outlook was that industrial protection would harm the state's agricultural exports by raising costs,<sup>31</sup> thus precluding the pursuit of a general tariff policy. It was believed that agricultural prosperity, if unimpeded, would gradually stimulate wider economic development; hence state intervention was kept to a minimum. In practice farmers were to be aided not through price control but through reducing their costs to a minimum. This was reflected in 1920s economic policy which sought to minimise budget expenditure and thus the need to impose the burden of additional taxes on farmers. In short, as Lee points out, "the government relegated industry to second place behind agriculture."<sup>32</sup> Underlying economic trends seemed to justify the cautious

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<sup>28</sup> Figures for the value of exports of manufactured goods in 1907 show that "£19.1 million of the total non-food manufactures of £20.9 million were in categories predominantly produced in the Belfast region." See Cullen, *Ireland Since 1660*, p. 161.

<sup>29</sup> Terence Brown (1985), *Ireland: A Social and Cultural History, 1922 to the Present*, (Ithaca: Cornell University Press).

<sup>30</sup> Lyons, *op cit.*, p. 600.

<sup>31</sup> Furthermore, there was a concern that such the introduction of tariffs on industrial imports might provoke retaliation against Irish agricultural exports.

<sup>32</sup> J.J Lee (1987), *Ireland 1912 - 1985: Politics and Society*, (Cambridge: Cambridge University Press), p. 119. This research makes no attempt to go over previous debates on the "correctness" of this policy since it will not significantly affect the policy decisions that were actually taken. It's

economic policies of the Cumann na nGaedhael government. Irish exports did relatively well in the world economic recovery of the second half of the 1920s.

The coming to power in 1932 of the Eamonn De Valera's first Fianna Fail administration (which was to maintain an unbroken hold on government until 1948) together with the effects of the Great Depression brought about a reassessment of economic nationalism or protectionism as it became known. Given the global move to protectionism it seemed inevitable that the Irish Free State would move in the same direction. The new Minister for Industry and Commerce, Sean Lemass, was particularly impressed by the possibilities of protectionism which in any case fitted the "dominant ideology in the country"<sup>33</sup>: the achievement and maintenance of self-sufficient Irish independence. Self-sufficiency implied the creation of new Irish industries to provide domestically what had previously been imported: hence a drive to industrialisation was part of the Fianna Fail platform on taking office in 1932.<sup>34</sup>

In the short term protectionism did accelerate industrialisation. Irish industrial employment went from 110,588 in 1931 to 166,513 in 1938,<sup>35</sup> whilst industrial output rose 40% between 1931 and 1936.<sup>36</sup> Yet the small size of the domestic market limited the prospects of expansion whilst at the same time the country's few manufacturing export industry's fared badly. "Once the more obvious possibilities of industrial expansion had been exploited, new opportunities were likely to be few."<sup>37</sup> After expanding by 40% between 1931 and 1936, industrial output rose by 4½ per cent between 1936 and 1938.<sup>38</sup> Theoretically the new wave of indigenous industry was to come from "import-substitution" but private capital frequently proved

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worth noting Ronan Fanning's assertion however, that any commissions and committees of the 1920s and 1930s on economic and industrial policy were, given the concern with the survival of the state rather than the condition of the economy, likely to endorse rather than question extant economic policy. Ronan Fanning (1984), "Economists and Government: Ireland 1922 - 52" in Antoin E. Murphy (ed.) Economists and the Irish Economy. (Dublin: Irish Academic Press).

<sup>33</sup> Brown, op cit., p. 146.

<sup>34</sup> Ibid., p 142.

<sup>35</sup> Cullen, Ireland Since 1660, p. 178.

<sup>36</sup> Ibid.

<sup>37</sup> Ibid., p. 179.

<sup>38</sup> Ibid., p. 179.

unwilling to invest in Ireland.<sup>39</sup> Thus Lemass was forced to introduce public capital, creating the Industrial Credit Corporation, Irish Sugar Co., and Aer Rianta (as well as a further 10 between 1932 and 1939<sup>40</sup>) using the same mechanisms that had facilitated the creation of the Agricultural Credit Corporation and the Electricity Supply Board in 1927.<sup>41</sup>

During the war Ireland pursued a policy of neutrality. To be workable as a foreign affairs policy, neutrality required self-sufficiency as a domestic economic policy. Yet at the same time that lip service was being paid to this policy in the 1930s, 90% of Irish foreign trade was being carried on with precisely the nation that Ireland was most seeking to be independent of. The apparent contradiction of fostering industries that depended on imports as a means of achieving self-sufficiency was not unduly emphasised in the 1930s, but the contradiction was made manifest by the degree to which both the agricultural and industrial economies were run down in the almost complete absence of imports during the war.<sup>42</sup>

After the war, the economy expanded rapidly, but its underlying weakness showed itself in the export sector. Stagnation in agricultural output kept agricultural exports at a relatively low level, whilst any expansion in industrial output was destined largely for the home market. Thus whilst exports remained low the volume of imports rose to record proportions. Inevitably there were recurrent crises in the balance of payments, prompting severe credit restrictions after the large deficits in 1951 and 1955.<sup>43</sup> National income, which had risen by, on average, 1 per cent per annum between 1938 and 1958, grew by less than 0.5% per annum between 1952 and 1958 despite the fact that the rest of Europe was experiencing the greatest sustained period of economic growth since the Industrial Revolution. Since things were clearly better elsewhere, emigration soared throughout the 1950s, reaching its highest level since the 1880s.

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<sup>39</sup> This appears to have been the general problem from the 19th century onwards. Cullen points out that from the 1870s and 1880s, Irish capital investment began to move overseas. By 1914 total Irish investment abroad was some £150 million. See Cullen, *Ireland since 1660*, pp. 169-170.

<sup>40</sup> F.S.L. Lyons provides a fuller list of these: the Industrial Alcohol Board, the Dairy Disposal Company, Aer Lingus, Milk Boards for Dublin and Cork, Irish Life Assurance Company, Bord Failte, Hospitals Trust and the Medical Research Council. See Lyons, *Ireland*, p. 618.

<sup>41</sup> Lyons makes the point that the fact that even a government so financially cautious as Cosgraves (the national debt in 1932 was only £35 million, a remarkably low figure) was driven to create state bodies in those "sectors of the economy into which private capital had been unable or unwilling to intervene" (Lyons, *Ireland*, p. 608) says a lot about the state of the Irish economy in this era.

<sup>42</sup> Cullen, *Ireland Since 1660*, p. 181.

<sup>43</sup> *Ibid.*, pp. 181-182.

Virtually every commentator writing on the subject has noted that, until the 1950s, Irish politics was dominated by the same issues that had led to the Civil War split. As a result “Ireland became a thoroughly conservative society whose leaders until the mid-1950s hardly attempted to tackle many of its social and economic problems, let alone solve them.”<sup>44</sup> Yet the crisis of the 1950s, and in particular the economic downturn of 1956-8 made manifest the limitations of the economic orthodoxy that had prevailed since the 1930s. At the same time, the 1950s also saw a new generation of politicians and civil servants emerge, including T.K. Whittaker, the new and relatively youthful Secretary of the Department of Finance and Sean Lemass, another Civil War veteran who, having stood in De Valera’s political shadow for the previous forty years, became Taoiseach in 1959. Several initiatives and documents associated with both or either presaged a shift towards a more open Irish economy: for example the 1949 establishment of the Industrial Development Authority (IDA) and subsequent 1955 decision to allow it attract foreign industry with grant aid. Furthermore the 1956 Finance Act had provided for the remission of part of the tax, for a period of 5 years, on profits derived from new or increased exports.

All the above paved the way for the November 1958 White Paper: *Programme for Economic Expansion*, the content of which was largely derived from T.K. Whittaker’s 1957 pamphlet, *Economic Development: “Ireland,”* Whittaker argued for “power, transport facilities, public services, houses, hospitals and a general infrastructure was on a scale which was reasonable by Western European standards and which would support a higher population and intensity of economic activity than at present.”<sup>45</sup> Missing was a “more ‘productive superstructure’ to improve standards of living at home, provide more employment and stem emigration”.<sup>46</sup> This meant in practice a move from protectionism to an open economy. In 1958, the Control of Manufactures Acts of 1932-4, which had erected protectionist tariff barriers in the 1930s, were relaxed for export business; in 1964 they were repealed in their entirety.

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<sup>44</sup> Chubb, *Government*, p. 8.

<sup>45</sup> Ronan Fanning (1978), *The Irish Department of Finance 1922-1958*, (Dublin: Institute of Public Administration), p. 516.

<sup>46</sup> *Ibid.*

The 1958 *Programme of Economic Expansion* sought to steer investment into directly productive channels and to raise the annual increase in national income to 2 per cent in real terms. The programme assumed that agriculture remained the engine of the national economy, that industry's health was to some extent dependent on agriculture. In the event real incomes rose by 4% per annum between 1959 and 1963. The bulk of this growth, however, derived from the expansion of industry. By the close of the programme in 1963, it was clear that, relative to industry, agriculture was not pulling its weight with regard to the targets set out for it in the *Programme*. Meanwhile the volume of industrial output rose by 82 per cent between 1959 and 1968 due largely to the rise in exports of manufactured goods.<sup>47</sup> As a consequence, a second *Programme of Economic Expansion*, commencing in 1963<sup>48</sup> explicitly identified industry as the engine of growth. The long-term influence of this shift in economic thinking has been substantial: the percentage of the population engaged in agriculture fell from 36 per cent in 1960 to 17% in 1983 and agriculture's share of GDP fell from 22% in 1960 to 12% in 1983.<sup>49</sup> Meanwhile industrial exports which were only 6% of total exports in 1956 accounted for over 60% of the total by the mid-1980s.<sup>50</sup> The successful outcome of the *Programmes*, argues Cullen, was less a consequence of planning than of the remarkably high level of world activity in this period and of the move in Irish policy from a closed economic system to a more open one. Recognition of Irish dependence on external markets, was initially expressed by the fact that Irish economic policy in the 1960s was guided by the paramount need for entry to EEC if Britain was admitted as a member, but as the 1970s and 1980s progressed, external factors had a constantly increasingly effect on the health of the Irish economy.

Growth continued, unabated, throughout the 1960s, creating the conditions whereby, for the first time this century, Ireland recorded a population increase due to net immigration. Chubb notes that "the standard of living of most people was transformed"<sup>51</sup> the increase in the "visible indices"<sup>52</sup> of television, car and telephone ownership, pointing to a substantial rise in prosperity since the 1960s.

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<sup>47</sup> Cullen, *Ireland Since 1660*, p. 183.

<sup>48</sup> And originally scheduled to run till 1968. In the event the programme petered out and an envisaged third *Programme* was never put into effect.

<sup>49</sup> Cullen, *Ireland Since 1660*, p. 190.

<sup>50</sup> *Ibid.*

<sup>51</sup> Chubb, *Government*, p. 24.

<sup>52</sup> *Ibid.*

### 3.2.4 Ireland from the 1970s to the present.

After the growth of the 1960s, Ireland coped badly with the global economic crises of the 1970s, which emphasised that decisive changes of fortune in an open economy, closely reflected substantial swings in terms of trade. The period from just before the first Programme for Economic Expansion in 1958 to 1972 had seen Ireland's terms of trade increase by 24% but the energy crises of 1973 and late 1979 swiftly reversed this trend. Cumulatively, the terms of trade fell by 25.6% between 1973 and 1981.

Irish governments of the 1970s failed to understand the extent to which the economic crises had their roots in factors outside the Irish economy (the 1973 oil crisis was particularly harmful to a country lacking its own energy supply) and sought to unilaterally spend their way out of recession with borrowed capital. Irish gross capital formation (a measure of the level of government investment) averaged over 30% in the 1970s, a scale rare in individual countries. In the short term this had the desired effect: gross output in stable prices rose quite sharply between 1970 and 1981 at an average rate of 4% per annum as did industrial output: between 1970 and 1978 the rate of growth of Irish exports was exceeded among industrial countries only by Japan.<sup>53</sup> Finally Irish GNP/GDP grew by 3.7% on average between 1973 and 1979, 0.7% higher than the OECD average.<sup>54</sup>

Government investment did not however kick-start a self-sustaining economic recovery and by the close of the 1970s the consequences of a decade of borrowing were evident. The national debt had risen from 64.8% of GDP in 1971 to 87.7% in 1980. Particularly damaging was the foreign component of the debt which rose from approximately 8% of the total in 1971 to an almost unmanageable 28% (equivalent to £1089 million<sup>55</sup>) of total borrowing by the start of 1980.<sup>56</sup>

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<sup>53</sup> Cullen, *Ireland Since 1660*, p. 188.

<sup>54</sup> Lars Mjøset (1992), *The Irish Economy in a Comparative Institutional Perspective*, (Dublin: NESCC), p. 318.

<sup>55</sup> J.J. Lee (1989), *Ireland 1912 - 1985: Politics and Society*, (Cambridge: Cambridge University Press), p. 500.

<sup>56</sup> Mjøset, *op cit.*, p. 321.

Part of the optimism on the part of successive governments in the 1970s that recession could be bought off was based on the promise held by Irish entry to the EEC in 1973: access to the European market for Irish products and higher agricultural prices than then available in the main UK market. However whilst both industrial output and exports expanded rapidly, by the 1980s:

“jobs lost in older or traditional industries exceeded new jobs created. Second, export-oriented industry has come largely from foreign firms attracted to the country and a dichotomy has developed between export-oriented industry, foreign owned, and home-produced industry still reliant on an increasingly open home market.”<sup>57</sup>

By contrast the farm sector initially benefited considerably from EEC entry, per capita real incomes in agriculture increased by 72% between 1970 and 1978.<sup>58</sup> But net output stagnated after 1975 and subsequent domestic inflation meant that input (imports) prices outstripped output (exports) prices. Furthermore some of the EEC's Common Agricultural Policy benefits proved illusory - guaranteed prices for agricultural produce encouraged an enormous boost in agricultural output in other EEC members states, increasing agricultural self-sufficiency in the more industrialised regions and actually reducing the EEC market for Irish agricultural exports.

Decisive action to correct the nation's finances might have been expected at the start of the 1980s. In January 1980, then Taoiseach Charles Haughey announced in a televised broadcast that the nation had been living beyond its means and insisted on the need for cuts in government expenditure.<sup>59</sup> Yet Haughey's first two budgets in 1980 and 1981 confounded this statement: both projected enormous budgetary deficits which in any case were exceeded by the order of 50% (leading to actual deficits of £547 million and £800 million in 1980 and 1981 respectively<sup>60</sup>).

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<sup>57</sup> Cullen, Ireland Since 1660, p. 190.

<sup>58</sup> *Ibid.*

<sup>59</sup> Lee, Ireland 1912 - 1985, p. 501.

<sup>60</sup> Lee, Ireland 1912 - 1985, p. 502.

After three elections in an 18 month period in 1981 and 1982, a Fine Gael/Labour coalition entered government in November 1982 where it would remain until 1987. The situation it inherited with regard to public finances would be the key focus of politics throughout the administration, although different aspects were focused on during periods: the scale of current budget deficits, the size of public sector borrowing, the size and ongoing growth of the national debt, the proportion of the national debt in foreign currencies and increasing cost of debt service. At the same time the more visible indices of the health of the economy also continued their decline, in particular the unemployment rate which rose from 8% to 18% between 1980 and 1985. Given this situation the coalition government had little scope for corrective action: reducing the size of the national debt for example, would have required earnings from economic growth yet the open Irish economy was adversely affected by the generally poor international economic context: as a result real GNP/GDP in Ireland actually declined in 1982 and 1983 and again in 1986. Consequently with regard to public finances “the pattern over the first half of the 1980s was one of deterioration up to 1983 and standstill or limited progress thereafter.”<sup>61</sup>

Thus a 1987 assessment of the condition of the country gloomily concluded that:

“The structure of the country is still such that it is properly to be regarded as standing somewhere between an industrial and a less developed country. Not only is its agricultural population relatively much larger than in industrial countries but it has fallen more slowly. The population is divided, moreover, between relatively developed regions and disadvantaged regions whose poor living standards can be paralleled only in the most disinherited areas of the Mediterranean. The birth rate is not only high but, until the fall in incomes in the 1980s began to be felt, has fallen surprisingly little. This ensures, along with the costs of disadvantaged sectors and regions, that much capital investment will be absorbed in low-return infrastructural expenditure.”<sup>62</sup>

Unsurprisingly, after five years of recession under the coalition parties, Fianna Fail moved back into government after the 1987 election. Having consistently criticised the coalition’s

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<sup>61</sup> Forfás (1996), Shaping Our Future: A Strategy for Enterprise in Ireland in the 21<sup>st</sup> Century. (Dublin: Forfás), p. 71.

<sup>62</sup> Cullen, Ireland Since 1660, p. 194.



tight fiscal policies whilst in opposition, Fianna Fail was in a difficult position as the crisis in public spending had reached the point of no return and needed dramatic action: by 1987 the national debt accounted for 136.6% of GDP and over 40% of that debt was based on foreign borrowings.<sup>63</sup> The government response then was the 1987 Programme for National Recovery, an agreement between the social partners, which included wage restraint and tax reform as part of an effort to “spur recovery by means of consensus.”<sup>64</sup> However the huge deficits and debt placed strict limits on the extent to which reforms could be afforded - 1987 saw the introduction of savage cuts in public expenditure and the introduction of an even more austere fiscal outlook than had prevailed in the first half of the 1980s.

At this point, external factors for once conspired in Ireland’s favour. International growth, especially in Europe, boosted the Irish economy. International interest rates dropped, directly affecting Irish public finances by reducing the cost of debt servicing. Furthermore the drop in interest rates also had the effect of increasing discretionary incomes, and thus domestic demand, fuelling growth in the economy. From an average growth of less than 2% in the first half of the 1980s, GNP growth averaged 4.5% in the later half of the decade,<sup>65</sup> aiding “rapid and sustained progress”<sup>66</sup> towards the reduction of fiscal imbalance without prompting a recession. Only unemployment remained relatively unaffected by the improvements in other areas of the economy: although it did drop from the 18% high in 1987 to 14% in 1990, this remained amongst the highest rates in the OECD.<sup>67</sup>

The fiscal rectitude of the late 1980s contributed to the transformation of the Irish economy in the 1990s into the so-called “Celtic Tiger.” As of 1997 borrowing has fallen to “almost nothing,”<sup>68</sup> with the result that public debt has fallen from its 1988 high of 141.3% of GDP<sup>69</sup> to less than 80% in 1997,<sup>70</sup> permitting a slight easing in budgetary restraint. Thus the 1990s has seen some easing of the Irish tax burden, kick-starting domestic demand “which has been

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<sup>63</sup> Mjøset, op cit., p. 321.

<sup>64</sup> Ibid., p. 383.

<sup>65</sup> Forfás, op cit., p. 71.

<sup>66</sup> Forfás, op cit., p. 71.

<sup>67</sup> Mjøset, op cit., p. 384.

<sup>68</sup> “Green is Good”, *The Economist*, 17/5/97.

<sup>69</sup> Mjøset, op cit., p. 321.

<sup>70</sup> “Green is Good”, *The Economist*, 17/5/97.

the dominant source of growth in recent years.”<sup>71</sup> External factors have also been critical - the U.S. economy has experienced persistent growth throughout the 1990s whilst European growth, although more erratic has generally been positive. As a result growth in Irish GNP between 1990 and 1996 averaged 5% per annum, more than three times the EU average in the same period.<sup>72</sup> Indeed of the key economic indicators, only unemployment, which has hovered between 12% and 13% in the mid-1990s, has failed to exhibit a dramatic improvement.

The other remarkable feature of the Irish economy in the 1990s is the extent to which it can no longer be regarded as Irish. In most countries, GNP and GDP are largely interchangeable as measures of national growth. Such has been the success of the IDA in attracting foreign investment since the 1960s, that it is estimated that foreign-owned firms now account for 30% of the economy.<sup>73</sup> Repatriation of the profits of these firms has meant that Irish GNP has been consistently lower than GDP over the last three decades, perhaps by as much as 12% in the mid-1990s.<sup>74</sup> As such the Irish industrial economy is now effectively divided into two discrete sectors: a foreign-owned high technology sector which accounts for 70% of all Irish manufacturing exports and a relatively unproductive indigenous sector. Critically, however, the last decade has seen a slight shift within new foreign investment: whilst new overseas investment has continued in the “traditional” foreign investment areas of pharmaceuticals and computer manufacturing, there has also been a shift towards more services-oriented investment, particularly in telemarketing, back-office data processing for American financial institutions and other international financial services:<sup>75</sup> in short services dependent on the presence of highly developed communication systems.

### **3.3 Irish political culture: The Pre-Independence Administration of Ireland**

As noted above, the dominant influence on any Irish policy for the first half century covered by this research is the UK. The Act of Union in 1800 merged the Irish and British parliaments into a single institution, meeting at Westminster. Ireland’s allotment of 100 MPs in a 600 seat Westminster parliament that was otherwise a two-party system, meant that only in the event

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<sup>71</sup> Forfás, *op cit*, p. 72.

<sup>72</sup> “Green is Good”, *The Economist*, 17/5/97.

<sup>73</sup> *Ibid.*

<sup>74</sup> *Ibid.*

of either the Liberals or Tory party failing to gain an absolute majority, were Irish MPs able to exercise any effective influence on policy measures debated in Westminster. On the few occasions where this did happen, the efforts of Irish National Party MPs, who accounted for between 80% and 90% of the Irish seats in Westminster from the 1870s to the 1910s, were largely focused on advancing 'the national question'.

Whilst most issues relating to the administration of Ireland were thus decided in the UK, there was also a need for day-to-day administration of Ireland. This was centred in Dublin Castle around the figurehead of the Viceroy at the Vice-Regal Lodge in the Phoenix Park and more hands-on figure of the Chief Secretary, (usually a fairly senior member of the Cabinet) at Dublin castle. The scale of administration was fairly small: speaking of the office of the Chief Secretary, Chubb notes that "the scale of the administration was so modest, Dublin so small and compact, and the senior officials so homogenous and used to meeting one another at their clubs that George Wyndham, Chief Secretary from 1900 to 1905, found that the government of Ireland was 'conducted only by continuous conversation'".<sup>76</sup> Nonetheless the Irish civil service developed "pari passu"<sup>77</sup> with that of England from the beginnings of administrative reform in 1855 up to independence in 1922.

With independence secured, it might have been expected that the new Irish government would replace or at least overhaul the administrative system. Instead the Free State simply took over the extant Whitehall model of administration ensuring that the influence of Britain upon Irish politics remained pervasive at a core level:

"That the political institutions then established and the services then taken over continued largely unaltered in basic design was due, first to the conservatism of the community and its leaders; second, to the continued cultural impacts of British contacts at almost as high a frequency as hitherto; and third, to a long-continuing ignorance of the experience of other countries."<sup>78</sup>

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<sup>75</sup> Ibid.

<sup>76</sup> Chubb, Government, p. 213.

<sup>77</sup> T.J. Barrington (1967), "Public Administration 1927 - 1936" in Francis MacManus (ed.) The Years of the Great Test 1926 - 39, (Cork: Mercier Press), p. 82.

<sup>78</sup> Chubb, Government, pp. 6-7.

Continuity was maintained even to the extent of personnel. Of the 21,000 strong Irish Civil Service in 1921 “less than a thousand decided in the first few years not to continue to serve.”<sup>79</sup> Thus the bulk of the Free State’s senior Civil Service advisers were steeped in the British tradition, seeing no need for changes in administrative structures or practices.

As a result, in the early years of the state (indeed until the 1950s), policy-making lay in the hands of two groups for whom radical policy change was anathema. Quoting the British Civil Service maxim (“Clear sight over short distances”) Barrington argues that the Irish Civil Service inherited an unwillingness to engage in long term thinking, resulting in a lack of overall concern for the performance of the system as a whole, as distinct from its day-to-day operation. Nor was there likely to be much in the way of radical policy innovation from government. Despite their recent past as revolutionaries, the new leaders of the country were political conservatives. Furthermore the emergence of any radical left-wing party (that might have led Irish politics to split along the left and right axes characteristic of the political structures of most European countries) was smothered by the split along Civil War lines and the consequent focus of Irish politics on the politics of nationhood.<sup>80</sup>

As a result argues Barrington, “In the 1920s the main aim of administration seems to have been the pursuit of ‘efficiency’ in the narrow sense - that is avoidance of waste.”<sup>81</sup> Similarly, J.J. Lee contrasts the developmental role that present day governments of Lesser Developed Countries feel they should pursue in their societies with that of the first Free State Government, which broadly adopted the classic liberal view that “the state should do as little as possible”.<sup>82</sup>

An essentially Victorian administrative system based on a dual system of central and local government was, however, unable to cope with the demands of a changing Irish society and, in

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<sup>79</sup> Barrington, op cit. p. 80. In point of fact the continuity of personnel isn’t very surprising - Chubb notes that by the end of the 19th century, the combination of increased state intervention the Home Rule movement, engendered on the part of the British government “a desire to associate Irish people more closely with the administration of their own public services.” Chubb, op cit., p. 213.

<sup>80</sup> Although a Labour Party did emerge in 1921, it has remained the third party in a three party political system throughout the history of the state.

<sup>81</sup> Barrington, op cit., p. 81.

particular, the rapid growth in the size of government in the 20th century. A more adaptable administrative form was needed, one capable of coping with the ever-growing variety of quasi-commercial, regulatory, social service and developmental activities that the state become involved. The answer came in the form of the state-sponsored body, commencing in 1927 with the establishment of the Electricity Supply Board. Writing in 1959, Sean Lemass noted that in contrast to some countries where “similar State-sponsored organisations have been created as a part of a deliberate policy of State socialism, they developed in this country in a haphazard way to meet particular needs and opportunities as they arose, when no other course appeared to be practical.”<sup>83</sup> In consequence little attention was paid to the need to provide them with clear mandates or to spell out the exact extent of ministerial and parliamentary control. To a very large extent this remains the case today.

By the 1960s there was an increasing demand to end the stasis in Irish administrative structures, especially in the wake of the first Programme for Economic Expansion.<sup>84</sup> In 1961, Sean Lemass, the Taoiseach, urged departments to see themselves as development corporations, but voiced his doubts about the ability of the Civil Service to act in that capacity:

“I think it is true to say that in some government departments there is still a tendency to wait for new ideas to walk through the door. It is perhaps the normal attitude of an administrative department of government to be passive rather than active, to await proposal from outside, to react mainly to criticism or to pressure of public demand, to avoid the risks of experimentation or innovation and to confine themselves to vetting and improving proposals brought to them by private interests and individuals rather than to generate new ideas themselves.”<sup>85</sup>

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<sup>82</sup> Lee, *Ireland 1912-1985*, p. 92.

<sup>83</sup> Sean Lemass (1959) “The role of State-Sponsored Bodies” in Basil Chubb and Patrick Lynch (eds.) *Economic Planning and Development*, (Dublin: Institute of Public Administration).

<sup>84</sup> The thinking behind the Programme was largely based on T.K. Whittaker, the Secretary of the Department of Finance’s own document *Economic Development*, which was originally intended as internal department document. Whittaker himself has played down his own role in the change in direction in economic policy, arguing that the real impetus came from Lemass who avoided appearing too radical by implying that it was the work of a civil servant. It should be stated that, given the shape of the Irish, the Programme was merely a common-sense response to economic stagnation. There was nothing particularly revolutionary about the Programme.

<sup>85</sup> Cited in Chubb, *Government*, p. 238.

This prompted the establishment between 1966 and 1969, of the Public Service Organisation Review Group, the report of which published in 1969 has become known as *The Devlin Report*, (after the Group Chairman, Liam St. John Devlin). The Group's basic conclusion was that the "centralisation of detailed business in ministers was clogging up centres of decision and interfering with the special task of the higher civil service, which was to advise ministers on the formulation of policy."<sup>86</sup> Given this, the Group arrived at the Aireacht/Executive concept, an administrative mind/body split: the Aireacht, composed of the minister and senior civil servants, would focus on the business of policy-making, whilst the Executive would implement it. Despite widespread concurrence with the Group's analysis, little in the way of public service reform occurred until the 1980s. "Its reception," notes Lee, became "a saga in itself, unhappily confirming the Devlin diagnosis of the widespread 'built-in resistance to change' in the (civil) service."<sup>87</sup>

Although public service reform has remained an issue, the question of improving public administration has been approached by seeking to improve the quality of decision-making on the part of politicians themselves. To this end the Dail committee system was expanded in the mid-1980s, with a view to allowing the executive to pursue its own interests and to, in effect, let government govern. This has however only partially been successful: although it has made some contribution to improving the level of knowledge of politicians, the committees remain under-resourced and only the Committee on Public Expenditure is entitled to a Dail debate on any report it produces. Reports from other committees tend to fall victim to the shortage of government time. Furthermore the clientalist mode of Irish political culture (see section 3.4.2 below) does not encourage Dail Members to engage in political activity which to all intents and purposes is private (since committee work rarely attracts the attention devoted to Dail or even Seanad debates).

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<sup>86</sup> T.J. Barrington (1980), *The Irish Administrative System*, (Dublin: Institute of Public Administration), p. 27.

<sup>87</sup> Lee, *Ireland 1912-1985*, p. 548.

### 3.4. Policy-making in Ireland: Process and influences

Although policy-making in Ireland has been described both as pluralist and corporatist, both models offer a three-stage model of public policy-making in Ireland. The first stage, 'influences on policy-making', includes political parties, pressure/lobby groups, the mass media, public opinion, the European Union and the public service. The second stage, 'proximate policy-makers', includes the government,<sup>88</sup> government advisers (e.g. party programme managers) and civil servants (the corporatist model includes trade unions and employer bodies under this heading). Finally, the third stage, 'implementers', includes government departments, public authorities and again in the corporatist model, trade unions and employer bodies.<sup>89</sup>

The actual decision-making is carried out by the 'proximate policy-makers'. Thus in examining the Irish policy-making process the focus comes to rest on cabinet and thus on the interaction between ministers and the civil service.<sup>90</sup>

Traditionally, public administration and political science have approached the issue of minister - civil servant relationships in terms of the Wilsonian dichotomy: thus the job of the civil service is the apolitical application of technical competence to politically defined ends.<sup>91</sup> That is, the minister takes a decision and the civil service implements it. This model is reflected in the persistence in Irish government of the 'corporation sole', the constitutional requirement that a given minister be held to be responsible for every action carried out by his department (a practical impossibility). As Dunne points out, however, political science now

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<sup>88</sup> This category could also include the two houses of the Oireachtas since constitutionally the right to legislate is their sole prerogative. De facto, however, legislation emerges almost exclusively from the cabinet - only one private members bill has been passed into law in the last three decades - Fine Gael TD, Alan Shatter's Adoption Bill.

<sup>89</sup> See Chubb, *Government*, pp. 156-157 for diagrams outlining both the pluralist and corporatist models.

<sup>90</sup> Although Ireland has experimented with a corporatist approach to policy-making its impact on telecommunications policy has been limited. The one long-term application of corporatism was in the series of national wage rounds and agreements commencing in the 1960s but abandoned in the 1980s in favour of more comprehensive agreements on policy-making between the social partners. There's scant evidence that the most recent example of this, the PESP (Programme for Economic and Social Partnership), has had any direct influence on Irish telecommunications policy.

<sup>91</sup> John Dunne (1989), "The Politics of Institutional Reform in Ireland: Lessons of the 1982-87 Government", *Irish Political Studies* No. 4.

recognises that “there is a considerable measure of polite fiction in this master - servant stereotype.”<sup>92</sup>

Hence Chubb’s statement that it is difficult to distinguish between the respective contributions of ministers and civil servants in policy-making.<sup>93</sup> He notes the distinction between ‘climate setting’ (the identification of major objectives and priorities), on the one hand, and decisions on specific policies (such as what steps are to be taken to achieve major objectives) on the other.<sup>94</sup> The first he feels provides the framework within which policy is to be made. As such it should be the preserve of politicians.

Once this framework is established, measures are formulated and choices made to produce an operational policy that the department or other public authority can implement. “Policy-production” may be broken down into two distinct phases. The first entails “collecting and appraising data, analysing problems, defining issues, and identifying and evaluating possible courses of action . . . . The second phase involves making policy decisions.”<sup>95</sup> In theory the minister has the last and authoritative say and makes the critical ruling, given the element of responsibility inherent in the ‘corporation sole’ concept, ministers must in some sense be able to say that the policies they defend are “their own.”<sup>96</sup>

Given the above, why should there be any question that policy derives from ministerial decisions and that those decision are their own? The answer lies in the growing scale and scope of Irish government, particularly in the second half of the 20th century. Modern political society is increasingly “torn between two conflicting forces - on the one hand, the demands of technology for increasing specialisation, interdependence, expertise and bureaucratic systems and, on the other, the need for political accountability and participation . . . .”<sup>97</sup> In other words, policy decision-making has become increasingly technocratic, relying on specialised information: it is no longer sufficient to simply base decisions on general political principles.

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<sup>92</sup> Ibid., pp. 2-3.

<sup>93</sup> Chubb, Government, p. 159.

<sup>94</sup> Ibid.

<sup>95</sup> Chubb, Government, p. 161.

<sup>96</sup> Chubb, Government, p. 161.

<sup>97</sup> Dunne, op. cit., p. 4.



Given that ministers are unlikely to be specialists in the area covered by the ministry,<sup>98</sup> the civil servant's comparative mastery of a subject offers "significant opportunities for him or her to generate an independent "political" power base".<sup>99</sup> It does not necessarily follow from this that civil servants will seek to use this power base. Yet Chubb without ascribing any sinister motives to the civil service makes the following argument:

"Almost inevitably (civil servants) will be greatly (perhaps overwhelmingly) influenced by the traditions and attitudes of their own small and intimate professional world, especially in the departments they work in and perhaps have always worked in. They will also know the views of the state-sponsored bodies for which their ministers are responsible. It is they who use the resources of the departments to gather, process and present the material they think is relevant to any problem under review. In the course of this information gathering and appraisal, the civil servants involved will, as they must, frame generalisations and draw conclusions, many of which their senior colleagues and politician masters are not likely to question. Critical centres of . . . 'uncertainty absorption' are inevitably deep inside departments and some are way down in the departmental hierarchy. They are almost certainly coloured by service and department perceptions and attitudes. The civil-servant advisers of ministers are at the confluence of a great flow of information and conclusions from which they distil the essence for transmission to their masters. All of it is expert, but some of it may well be service - and

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<sup>98</sup> Furthermore their chances of becoming specialists are limited due to time pressures. This is particularly the case in Irish politics where ministers cannot afford to lose sight of the fact that they are also constituency TDs. The proportional representation electoral system means that sitting TDs will face competition from not merely other parties at the next election but also from other candidates from their own party. Thus whilst a particular party might have a safe seat in a given constituency, there's rarely such thing as a safe seat for a given individual. Take, for example, J.J. Lee on the 1977 General Election: "(Conor Cruise) O'Brien and (Paddy) Cooney probably lost their seats more through neglect of their constituencies than for ideological reasons." Both men were Ministers in the Fine Gael/Labour coalition government of 1973-1977. Lee, *Ireland 1912-1985*, p. 484.

<sup>99</sup> Dunne, *op. cit.*, p. 4.

department - flavoured. In any case, most of it will have to be accepted.”<sup>100</sup>

Thus the capacity of the politician to assert the “priority” of his or her concerns must be called into question. As Chubb puts it, “ In some cases, a minister reading a file will see only one possible course of action, but this might be due to the way in which the matter is presented.”<sup>101</sup>

It is perhaps impossible at present to state definitively how the process of policy-making occurs in Ireland although it seems safe to state that the role of the civil service is increasingly important.<sup>102</sup> Public discussion of the political role of the public service in Ireland is generally avoided by senior politicians and public servants alike.<sup>103</sup> Despite the fact the policy-making is, at its simplest, the making of decisions for and on behalf of the citizenry or public, the critical phases of that process are conducted largely in private.<sup>104</sup> However it would be logical to conclude that the more technically complex the area covered by a department, the less likely it is that a minister will be able to independently arrive at policy initiatives. Thus in so far as the minister/civil servant relationship in policy-making is a zero-

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<sup>100</sup> Chubb, *Government*, pp. 164-165.

<sup>101</sup> Chubb, *Government*, p. 161.

<sup>102</sup> Having noted that the traditional ‘Wilsonian’ view of government/civil service relations fails to offer a full account of that relationship, John Dunne (op. cit.) points to three other models. All three suggest that the role of the civil servant is “evolving based on emerging expertise.” Dunne, op. cit., p. 3.

<sup>103</sup> “Issues of this kind are rather difficult to explore in Ireland, partly because of a tradition of stifling secrecy in government which derives in part from the practices of the old British system, partly from the conspiratorial style of the Irish Republican government and partly from a general secretive streak in the political culture. Some of the Irish governmental archives, for example, were kept closed to the public for 70 years after independence, a level of secretiveness that is almost Soviet in its intensity.” Tom Garvin (1992), “Democratic Politics in Independent Ireland”, in John Coakley and Michael Gallagher, (eds.) *Politics in the Republic of Ireland*, (2nd Ed) (Dublin: PSAI Press), p. 228.

<sup>104</sup> Furthermore there has been no tradition in Ireland, unlike in other countries, of ministers publishing political memoirs. In fact this research has only come across two, Gemma Hussey’s *At The Cutting Edge* (Dublin: Gill and Macmillan, 1990) and Garret Fitzgerald’s *All In A Life* (Dublin: Gill and Macmillan, 1991) both of which give an account of the 1982-1987 Fine Gael/Labour coalition government. In comparison with, for example, the terrifying honesty of former UK Minister for Defence, Alan Clark’s *Diaries* (London: Weidenfeld and Nicolson, 1993) - “We had one of the Public Expenditure Survey preliminaries today. First time I’ve done one of these, and I was totally out of my depth.” (P. 39), neither Hussey’s nor Fitzgerald’s offer any useful insights into the actual process of policy-making.

sum game, it seems reasonable to suggest that in the more technical departments such as Communications, civil servants play a relatively large role in policy-making.<sup>105</sup>

There are, however, two major influences on the Irish policy-making process which fall outside the discussion above but which nonetheless are critical for understanding both historical and current policy formation in Ireland, particularly with regard to telecommunications. They are clientalism and the European Union:

### **3.4.1 Clientalism: Consequences for National Policy Making**

No survey of Irish political culture is complete without reference to the role of clientalism - the perception that “political life is mediated through persons, rather than offices, and the conviction that political decision and actions are functions of personal reciprocities”.<sup>106</sup>

Although only officially constituted as a Republic from 1949 on, Irish nationalism has always, at least nominally, been informed by a commitment to Republicanism; a conception of the citizen/state relationship which promotes the creation of a public sphere wherein the individual citizen stands in direct relation to political authority, unmediated by a hierarchical authority structure. In short Republicanism promotes universalistic democratic structures wherein the main end of politics is to attain the good of the body politic as a whole.

Yet arguably, within Irish democratic structures, republican ideals remain ideals. Several commentators surveying Irish political culture have identified both authoritarianism (“collective disposition to defer to decisions from those in a superior position in a power hierarchy”<sup>107</sup>) and personalism (“a pattern of social relations in which people are valued for who they are and whom they know - not solely for the technical qualifications they

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<sup>105</sup> Personal contacts with officials of the Department of Communications appear to confirm this opinion.

<sup>106</sup> Jeffrey Prager (1986), Building Democracy in Ireland: Political Order and Cultural Integration in a Newly Independent Nation, (Cambridge: Cambridge University Press), p. 220.

<sup>107</sup> See both Prager, op. cit., and John Coakley (1992), “Society and Political Culture”, in John Coakley and Michael Gallagher, (eds.) Politics in the Republic of Ireland, (2nd Ed), (Dublin: PSAI Press).

possess”<sup>108</sup>) as characteristic of Irish democracy. Neither are conducive to “a universalistic politics based on the individual citizen.”<sup>109</sup>

An explanation for the emergence of personalism is to be found in the argument that Irish political life has, since 1932, been “dominated by populist politics”<sup>110</sup> a political form characteristic of late-developing countries lacking both a strong working class and a strong bourgeoisie from which class-based parties can emerge. In consequence, party support must be sought from a cross-class base. Since the various constituencies are unlikely to share common interests, it becomes necessary to address them at a ‘local’ level (in the sense, not just of geography, but also of the issues relevant to that constituency).<sup>111</sup> Hence clientalism (or personalism or particularism) emerges as the logical corollary of populist politics.

The success of the Fianna Fail party machine’s localisation and personalisation of politics in the 1920s and 1930s definitively established the pre-eminence of clientalism in Ireland. A key feature was (and is) the close relationship between Fianna Fail TDs and their local party organisation. As TDs increasingly connected their political success to the power of the local organisation, they came to see their own role as ambassadors to the Dail (and to the national government and the various bureaucracies) on behalf of their constituents. At the same time, TDs were viewed (and viewed themselves) more and more as brokers for their constituents, representing the community in vying for the resources of the state. The TDs’ charge, as Basil Chubb expressed it, was to ‘(go) about persecuting civil servants.’<sup>112</sup>

Given Fianna Fail’s electoral success of the basis of this pattern of representation, the competitive party system demanded that other parties follow suit. Thus, the increasingly local character of public representatives came to be a feature of all parties. This, according to

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<sup>108</sup> Ibid., p. 32.

<sup>109</sup> Prager, op. cit., p. 217.

<sup>110</sup> Peadar Kirby (1997), *Poverty Amid Plenty: World and Irish Development Reconsidered*. (Dublin: Trocaire/Gill and MacMillan).

<sup>111</sup> The difficulties associated with populist politics were manifest in Fianna Fail’s relationship with the Irish beef trade during the 1930s - despite a commitment to placing people back on the land (and implicitly taking cattle off it), Fianna Fail was also faced with the reality that cattle was a major contributor to the nation’s international creditor status. Faced with the irreconcilable, Fintan O’Toole argues that Fianna Fail “dealt” with the problem by simply ignoring it. See Fintan O’Toole (1995), *Meanwhile Back at the Ranch: The Politics of Irish Beef*. (London: Vintage).

<sup>112</sup> Cited in Prager, op cit., p. 222

Prager, "altered the character of national political life,"<sup>113</sup> the local figure - centrally located in the district but often unknown nationally - becoming and more common in the Dail. And hence the predominance of communal style of politics in Ireland today.

What are the effects of communal politics on Irish policy-making? Although a politics based on cross-class support is not necessarily problematic, Kirby notes that it may hinder the progress of national policies, such as an economic development drive "when it runs into opposition from vested interests."<sup>114</sup> For a party dependent on cross-class support there are potentially a huge number of such vested interests that need to be kept happy. In consequence, argues Kirby, state resources are less likely to be used for long term universally applicable policies than for the "short-term satisfaction of different constituencies."<sup>115</sup>

In short a clientalist ethos contradicts the ideal features of the democratic state, undermining the ability of the state to function in a universalistic manner. Irish politics, it has been argued, suffers from "a surfeit of the communal in its culture, its style, and in its influence on the organisation and processes of politics."<sup>116</sup> In consequence, political discourse on major issues is often minimal and decision-making, particularly in regard to the economy, is rendered ineffective. "Communal-style politics, though an excellent harvester of the marginal influence that counts in elections, is unable to handle the problems of a modern (industrial) society . . . which necessitates wide acceptance of forms of organisation which transcend the community."<sup>117</sup>

### **3.4.2 The European Union - effect of membership on Irish telecommunication policy and policy-making.**

Ireland finally signed the Treaty of Rome in 1973 after the electorate agreed by referendum to amend Article 29.4 of the Irish constitution, thus allowing for the Treaties and Acts governing

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<sup>113</sup> Prager, op. cit., p. 222.

<sup>114</sup> Peadar Kirby (1997), *Poverty Amid Plenty*, (Trocaire/Gill & McMillan), p. 198.

<sup>115</sup> Ibid.

<sup>116</sup> J.P. O'Carroll (1987), "Strokes, Cute Hoors and Sneaking Regarders: The Influence of Local Culture on Irish Political Style", *Irish Political Studies*, No. 2.

<sup>117</sup> Ibid., p. 89.

the European Communities to become binding on the Irish State.<sup>118</sup> In effect, the Community treaties became a second Irish constitution and Community Acts and law became Irish domestic law. On occasion the two legal frameworks have been mutually incompatible. Successive interpretations of the treaties (EEC Treaty, Single European Act and Maastricht), however, by the European Court of Justice have emphasised the precedence of EU law over national provisions, a supremacy never seriously questioned by Irish courts.

There are no set limits to EU competencies - each of the treaties is considered a framework treaty, a treaty that “not only lays down rules but . . . provides institutions and machinery by which new legal measures may be adopted”.<sup>119</sup> Thus the boundary between exclusive EU powers and national powers is a shifting one which until the introduction of the concept of subsidiarity in the Maastricht Treaty had exclusively moved in the EU’s favour. Only the initial rejection of that treaty by referendum in Denmark and its narrow endorsement in France in 1992 saw any to reconsider the balance of powers between the EU and its members states.<sup>120</sup> Thus in the name of bringing EU decisions as close as possible to its citizens, the final version of the Maastricht treaty included the concept of “subsidiarity.” Thus whilst for a period after the Single European Act there appeared to be no clear legal limits to the EU’s freedom for manoeuvre, article 3b of the Maastricht Treaty (as later defined at the December 1992 meeting of the European Council), stated that the EU could only act where it had treaty power to do so. Furthermore the same article stipulated that the Community should, in accordance with the principle of subsidiarity only take action:

“in so far as the objectives of the proposed action cannot be sufficiently achieved by the Member States can therefore, by reason of the scale or effects of the proposed action, be better achieved by the Community.”<sup>121</sup>

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<sup>118</sup> Necessitated by the fact that Article 29.6 of the 1937 Irish Constitution states that “no international agreement shall be part of the domestic law of the State save as may be determined by the Oireachtas.” Thereafter the European Communities Act (1972) provided that the Treaty of Rome and EEC acts, were binding on the State and shall be part domestic law.

<sup>119</sup> Chubb, Government, p. 307.

<sup>120</sup> Michael J. Baun (1996), An Imperfect Union: The Maastricht Treaty and the New Politics of European Integration, (Oxford: Westview Press), p. 114.

<sup>121</sup> Treaty on European Union, Article 3b. Quoted from Clive C. Church and David Phinnemore (1994), European Union and European Community: A Handbook and Commentary on the post-Maastricht Treaties, (Hemel Hempstead: Harvester Wheatsheaf), p. 65.

In effect, with regard to Community regulations, a member state may declare that it considers the matter “sufficiently achieved” at the national level. Yet the practical interpretation of the concept of subsidiarity remains to be seen, however. Largely hit upon as *modus vivendi* to save the Maastricht Treaty, the concept has been criticised as vague and ambiguous and as a consequence unjustifiable.<sup>122</sup> Furthermore it has been argued that subsidiarity, rather than simply bringing power back to the member states, increasingly focuses it in the dominant members: small states invoking the principle would effectively be excluded from:

“further input into policy decisions that will have an impact on their own policy flexibility nevertheless. Because of these dangers of two-tiered Community development... weaker member states in particular can hardly risk being left out of decision by which their dominant partners want to forge ahead. They have to go along with whatever the dominant nations decide or face the danger of being left behind.”<sup>123</sup>

In effect subsidiarity may be of limited use to smaller/peripheral EU member states.

In any case, in looking at Ireland and the EU, it has been commented that the Oireachtas (the Irish Parliament) pays scant attention to EU affairs. Since the actual implementation of EU legislation is generally in the hands of the civil service, bypassing TDs, Chubb argues that for most Irish politicians, the EU is seen as “over there”. This is in part informed by geographical peripherality but also because Community ideals and spirit are not embedded in Irish political culture. Thus for practical purposes, Ireland’s proactive involvement with the EU has been limited to economic rather than political issues; concentrating on the CAP; maximising Ireland’s take from the EU and preserving Irish neutrality whilst (implicitly at least) relying on the defence shelter provided by the rest of Europe.

Ireland has attempted to deal with EU law within the confines of her existing political culture. But Ireland and Europe have different cultures. In Ireland the core political institutions are the government and Oireachtas : the relationships between them and their relationships with the

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<sup>122</sup> Ibid., pp. 70-73.

<sup>123</sup> Baun, *Imperfect Union*, p. 52.

people define the character of the Irish political system. In Europe however, the core institutions are the Commission and Council of Ministers (and more recently the European Council). EU decisions are generally the result of Commission - Council dialogue. Meanwhile the European parliament is, even in comparison with the Dail (far from an ideal of representative democracy), peripheral to the policy-making. Despite some increase in influence by the close of the 1980s, as public opinion became uneasy about the EU's democratic deficit, it still lacks the power or status of a national parliament, both because it does not determine the makeup of the "government" of the EU (i.e. the Commission) and because it lacks the power to initiate legislation.

Furthermore the increasing breadth of EU activity has limited the capacity of the Irish administrative system to evaluate the extensive flow of legislative proposals from the Commission and the balance within and between policy sectors. Not only is Irish administration segmented, with departments defending their areas of competency (thereby limiting the possibility for co-operating on areas that might require shared competencies), but there has been little systematic development of co-ordinating institutions or procedures for long-term, strategic policy evaluation or formulation. Despite the requirement in the 1972 European Communities Act that a report informing the Oireachtas on EU activities be debated every six months these have generally been delayed and are infrequently debated. When they are, the standard of debate in the eyes of most commentators has been poor and ill-informed.

As a result, by the mid 1990s there has been little evidence of systematic thinking amongst Irish political leaders or civil servants about the top level Community Agenda, including the functions and powers of the EU, (particularly the issue of the relatively minor role of the European Parliament), the impending extension of membership and the development of economic, monetary and political union. Except in the specific areas mentioned above, Ireland has tended to simply accept EU legislation as a *fait accompli* rather than seek to try and influence its shape - to some extent, the imposition of legislation from outside is seen as the trade-off for the inflow of EU moneys into Ireland in the shape of grants and subsidies.



### 3.5 Summary

Having considered the material above, it is possible to make the following general observations and to tentatively suggest hypotheses regarding how the Irish economy and political culture have shaped the development of the telephone in Ireland.

Whilst the Irish economy has over the last century shifted from an agriculturally based economy to one driven by manufacturing and services,<sup>124</sup> the shift occurred much later than in most other western nations. Given the emphasis placed by development theory on the importance of telecommunications as an infrastructural prerequisite, the persistence of the perception that agriculture was or should be the main driver of the Irish economy until the 1950s, might have seen telecommunications development focused where it best served the needs of agriculture. Against this, given that telecommunications has not traditionally been perceived as playing a major role in agricultural development, it might therefore be expected that the development of the telephone in Ireland would remain slow until the emergence of a substantial manufacturing base.

The concentration of what industry there was in the late 19<sup>th</sup> and early 20<sup>th</sup> centuries in Belfast and Dublin might have militated against the spread of a telecommunications network. This could have been exacerbated by the population decline and reduction in rural population density in the wake of famine. As noted in chapter two, low population density by increasing the marginal cost of connecting new subscribers, militates against the diffusion of any networked technology. Thus the diffusion of the telephone outside the relatively few urbanised areas in Ireland might have been expected to be very slow.

Moving to the 1920s, the pursuit of a fiscally conservative economic policy might reasonably have been expected to have made anything greater than minimal expenditure on the telephone unlikely. Against this the pursuit of self-sufficiency in the 1930s might have generated a different approach, perhaps developing the network to aid Irish industry, although the absence

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<sup>124</sup> This research is conscious, however that the oft-noted shift from the dominance of manufacturing to that of services is problematic, especially with regard to the definition of different types of work. See for example, the critique of Daniel Bell's post-industrial society thesis in Frank Webster (1995), Theories of the Information Society. (London: Routledge).

of imported materials during the second world war should have made any substantial development impossible. The shift from a focus on agriculture as the basis of the Irish economy, towards a more open, industrialised economy in the late 1950s and early 1960s (and ever since) should have prompted a substantial expansion of the telephone network, although the recession of the mid-1980s would have seen spending reduced.

Finally considering the late 1980s and 1990s: given the encouragement on the part of the state of service type industries which explicitly depend on comprehensive telecommunications networks - teleservices, data-processing etc. - it would be reasonable to expect a greater emphasis on the direct importance to the economy of the telecommunications systems along a shift towards the provision of new ICTs and their related infrastructures.

Moving to consider Irish political culture: the tendency noted above for civil servants to act as “absorbers of uncertainty” might be expected to give them unusual influence in the more technically-oriented government departments, under which heading the Department of Posts and Telegraphs may safely be considered to fall. Allied with the observation above that the Irish civil service has historically been economically conservative and reactive rather than proactive, this might suggest that telecommunications development in Ireland would be driven less by a “conscious” government policy and more by the need to cope with demand as it arose.

With regard to the influence of clientalism: since the primary drive of communal/clientalist politics is the satisfaction of local wants and needs, national policy-making is likely to take a back seat. Yet there are some policy areas for which anything less than a national approach is insufficient - since the telephone is a networked system, improving the quality of service in one area was often a prerequisite for improving the quality of service in another. The predominance of clientalist style politics in Ireland has a possible further consequence for telephone development since it favours a short-termist approach to policy-making: the lengthy lead times between the decision to invest in telecommunications development and the results of that investment actually being felt may have encouraged a short-term approach to telecommunications development.

Finally with regard to the European Union on Irish policy-making: given the absence of Irish pro-action in other policy areas there's little reason to think that the case will be any different with regard to telecommunications. Thus, subsidiarity notwithstanding, it might be expected that Irish telecommunication policy has been effectively dictated by the EU since the 1987 Green Paper on Telecommunications.<sup>125</sup>

These then are the hypotheses informing this thesis with regard to the effect of specificities of the Irish economy and political culture on the development of the telephone and by extension, universal service in Ireland.

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<sup>125</sup> CEC (1987), Green Paper on the Development of the Common Market for Telecommunications Services and Equipment, COM(87)290.

# **CHAPTER FOUR**

## **TELEPHONE DEVELOPMENT**

**1881 – 1922**

#### 4.1 General Telephone Policy in the United Kingdom, 1880 - 1922.

On May 13th 1880, after ten months of competition, the two major private telephone companies operating in the London area, the Telephone Company Limited (Bell) and the Edison Telephone Company of London, amalgamated to become the United Telephone Company (UTC). Between them, they controlled the critical telephone patents. Thus, until the early 1890s, when the patents expired, the UTC and its successor the National Telephone Company (NTC) were effectively able to operate as a monopoly.

Based in the London Metropolitan area, the UTC adopted the policy in 1880 of forming separate companies to service the Provinces. Sir Charles Gray, a member of the board of the Irish subsidiary, explained the relationship between the parent UTC and the subsidiaries thus:

“... not wishing to work all the telephones in the Kingdom, they gave concessions to various subsidiary companies in England, Scotland and Ireland. The arrangements with those companies were that the United Telephone Company should give them a user (sic) of its telephone for their districts, they contracting on the one hand, to pay the United Telephone Company a certain rental per instrument, and that Company contracting on the other hand, to give to the local Companies a monopoly of the use of the instruments in their respective districts, and not to sell or permit to be used therein any other telephones than those supplied to the companies.”<sup>1</sup>

From the outset, telephone development faced regulatory constraints in the UK. Claiming that his monopoly rights under the Telegraph Act of 1869 were being infringed, the Postmaster General (PMG) had instituted legal proceedings against the Edison Telephone company immediately that company commenced trading in 1879. In 1880, the court upheld the Postmaster General's complaint - defining the telephone as a telegraph for legal purposes.<sup>2</sup> Thus telephone exchange business could only be carried out by the Postmaster General or by a third party with his consent.

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<sup>1</sup> Hansards, 3rd Series, Vol. 288, p. 1056, 22/5/1884.

<sup>2</sup> Attorney General v. Edison Telephone Company, 6 Q.B.D., 244. (1880)

The PMG, Henry Fawcett, sought Treasury sanction to establish a comprehensive telephone exchange system, but the Treasury, still smarting from the experience of taking over the telegraphs industry in 1870, was reluctant either to fund the building of a second telephone network or to sanction the expense of purchasing the private telephone operators and thereafter of running the system.<sup>3</sup> Contemporary political opinion in any case strongly favoured free-trade.<sup>4</sup> Thus, in return for an annual royalty of 10% of their gross revenues, the Postmaster General licensed the UTC and their subsidiaries (plus any other company willing to accept the terms of the licence) to operate in limited areas across the UK - in a 5 miles radius around London and a 2 mile radius around provincial cities.<sup>5</sup> The licence was to expire at the end of 1912. At the same time, to strengthen the hand of the Post Office when negotiating with the UTC, the Treasury permitted the Post Office to establish a limited competing network.<sup>6</sup> A year later, the Postmaster General effectively added a new clause to the licence when he announced that he would issue no more licences unless the licensees agreed to sell telephones.

By 1884 it was becoming clear that the licence conditions were limiting the growth of the business and competition: of 78 applications to operate a telephone service between 1881 and 1884, only 8 of the applicants had accepted the conditions attached to the licence. Responding to public complaint, in October 1884 the PMG announced the issuing of new licences removing the area limitations, permitting the erection of trunk lines connecting cities and allowing the opening of public call offices. At the same time the PMG dropped the

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<sup>3</sup> The nationalisation of the telegraphs in 1870 had been a financial disappointment - the total price paid for the telegraph system (£10 million including the cost of purchasing rights from railways and international cable companies) was four times the original estimate, whilst the extension of the system into those areas which the cartel had not found profitable to serve had increased capital costs. In short, as Hills (op. cit.) again argues, "the envisaged economies of scale did not materialise" and in the first decade of state operation of the telegraphs, the service broke even only once.

<sup>4</sup> For example: R. Biddulph Martin, M.P. for Tewkesbury to Fawcett, June 1882: "Does the Post Office intend purchasing a telephone company and thus creating a public monopoly which would deprive the public of the benefit of healthy competition?" Hansards, Series 3, Vol. 269, p. 1093, 5/6/1882.

<sup>5</sup> Encyclopaedia Britannica 11th Edition (1911).

<sup>6</sup> Throughout the 1880s the Post Office made "no attempt.. to compete seriously with the pioneer companies," initially limiting its activity to installing telephones in premises that already had an ABC telegraph. By 1892, the Post Office had 35 exchanges giving service to 4961 subscribers. In comparison, the UTC and its six subsidiaries had by 1887, *five years earlier*, 18,912 subscribers and

requirement that licensees sell telephone instruments to the Post Office on demand. Licensees still had to pay the 10% royalty to the Post Office and a new clause was added empowering the Post Office to buy out the UTC in either 1890, 1897 or 1904. Nonetheless, the new licences allowed the private telephone companies to plan their development with some confidence for the future.

On May 1 1889, the UTC and two of its subsidiaries, the NTC and the Lancashire and Cheshire Telephone Company, merged to become a single business unit.<sup>7</sup> The decision was prompted by several factors: the expansion of the trunk network through the 1880s had created a physical connection between most of the UTC subsidiaries (although not the TCI). Furthermore, the original Bell and Edison patents, held by the UTC, were due to expire in 1890 and 1891. Hence competition was anticipated: amalgamation would both facilitate the development of a coherent company strategy to face competition and allow the company to reduce the cost of service, (since it was assumed that competition would bring lower prices).<sup>8</sup> Thus by July 1889 the NTC was engaged in negotiations to amalgamate all the telephone companies.<sup>9</sup>

1890 saw the first deadline for a Post Office purchase of the private telephone companies pass without government action. It also saw the expiration of the UTC's patents, prompting the establishment of a new wave of competing companies. As had been the case throughout the 1880s, however, the UTC/NTC met all competition by either purchasing, amalgamating or in some way subsuming the new market entrants. Noting that the amalgamation of 13 of the UTC's former subsidiaries had rendered competition impossible, and hinting that the Post Office's telegraphs revenue was increasingly under threat from the telephone's competition, the PMG (Fergusson) moved to take control of the looming threat by introducing a new Telegraph Act in 1892.

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219 exchanges. F.C. G. Baldwin (1925), The History of the Telephone in the United Kingdom, (London: Pitman), pp. 121-133, & Tables page 655.

<sup>7</sup> Strictly speaking the subsidiary company, the NTC, bought out the UTC (its parent) and the Lancashire and Cheshire. The original intention had been that the three companies would amalgamate but the PMG objected, arguing that "combination was never anticipated when the respective licences... were granted" (Baldwin, op. cit., p. 191). The NTC purchase of the other two was apparently sufficient to quell his fears.

<sup>8</sup> J.H. Robertson (1947), The Story of the Telephone, (London: Pitman), p. 42.

<sup>9</sup> Duke of Marlborough, Hansards Vol. 337, p. 1429, 3/7/1889.

Despite public calls for the Post Office to take over the service, the Treasury remained unwilling to sanction such expenditure. Thus the 1892 Telegraph Act proposed a compromise: that the workings of the trunk lines be nationalised and operated by the Post Office, while the NTC retained control of the local exchange areas. Thus the threat of a "private monopoly against the public interest"<sup>10</sup> was to be replaced by co-operation between the Post Office and the phone companies in developing the telephone system of the United Kingdom. Competition within given exchange areas was also encouraged, facilitated by the improved wayleave rights of private companies under the new act.<sup>11</sup> Fergusson expressed his confidence that the changes in the structure of ownership would see the development of the service "proceed at a rate hitherto unknown."<sup>12</sup>

At the same time, within exchange areas, lasting private competition for the NTC remained conspicuous by its absence: the Post Office's 4961 subscribers and 35 exchanges in 1892<sup>13</sup> provided scant competition for the NTC (which together with its non-amalgamated subsidiaries had 40,000 subscribers by 1890).<sup>14</sup> The greatest block to private competition came from local municipalities which, seeking to enter the field of telephony themselves in competition with the private companies, generally refused to approve the wayleave rights sought by private companies (the 1892 Act had placed the power to veto the granting of wayleave rights to local authorities).

A final stab at competition emerged in the late 1890s - from local corporations. As noted above, the municipal corporations (Glasgow being the most vociferous) had campaigned to be allowed compete with the NTC in providing service. Despite the conclusion of a Treasury Commission in 1897 that municipal funds "ought not to be applied for the benefit of a limited

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<sup>10</sup> Hills, *op. cit.*, p. 193.

<sup>11</sup> Private companies still lacked the power to compel private landowners to permit the erection of telephone poles and wires but in the event that a landowner refused permission, the onus to explain why was placed on him or her.

<sup>12</sup> Fergusson, *Hansards 3d Series*, Vol. 356, p. 170, 29/3/1892.

<sup>13</sup> *Ibid.*, p. 133 p.a. 5.

<sup>14</sup> Charles R. Perry (1977), in "The British Experience 1876-1912: The Impact of the Telephone During the Years of Delay." in Ithiel De Sola Pool (ed.) The Social Impact of the Telephone. (Cambridge, MA: MIT Press), Appendix I, p. 91.



class of citizens,"<sup>15</sup> by the following year R.W. Hanbury, parliamentary representative in the House of Commons of the PMG, began to advocate the granting of licences to local authorities. A select committee was established that same year to consider "whether the telephone service was calculated to become of such general benefit that as to justify its being undertaken by municipal and other local authorities and if so under what conditions."<sup>16</sup> Condemning the telephone companies failure to sufficiently develop the telephone, the committee argued that increased competition from a really efficient Post Office telephone service was the best way to improve development. In the absence of such a service, either the government or local authorities should be immediately allowed to step in and provide competition.<sup>17</sup>

The Telegraph Act of 1899 was passed in pursuance of the Select Committee's recommendations - a loan of £2 million was sanctioned to allow the Post Office to develop its own exchange business (which, by 1899, offered service to only 8,800 subscribers as compared with the 200,000 serviced by the NTC)<sup>18</sup> and to empower local authorities to enter upon telephone business. Expenditure under the Act focused on the development of the urban telephone service at the expense of rural development, however: London in particular was given 1st charge on the £2,000,000. David Lloyd-George, amongst others, criticised the Act on these grounds, stating that by 1911 there would be "an excellent service in the larger towns . . . but there would be no extension of the service to rural districts at all," and calling for a government to buy-out of the NTC.

In the event, municipal telephony was not a success - although 60 corporations and local authorities had expressed an interest in providing service initially, only 6 went so far as to secure a licence and actually provide service. Of these only Hull and Portsmouth Corporations were still in operation by 1907 - 2 in fact had been bought out by the NTC.

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<sup>15</sup> Report to the Treasury by Sheriff Andrew Jameson on the Glasgow Telephone Enquiry. The report concluded that the NTC rates in Glasgow were reasonable and that whilst the service was adequate but inefficient, much of the inefficiency in fact stemmed from the Glasgow Corporation's "unreasonable withholding of facilities."

<sup>16</sup> Select Committee on Telephones 1898. (383) XII.1

<sup>17</sup> Ibid.

<sup>18</sup> Perry, op. cit., Appendix I, p. 91.

As a result, the 1899 Act was ultimately important not for the introduction of municipal telephony but for the impetus it gave to the expansion of the Post Office service, representing the beginning of the last phase in the move towards complete state control. In January 1901, the Post Office Telephone system gave service to only 2026 exchange lines, of which only 117 were in London<sup>19</sup> yet by the end of the year they had agreed terms with the NTC to purchase the latter's London plant on the termination of the company's licence in 1911. Furthermore, the 1899 Act specifically limited the future activities of the NTC to those areas it was operational in at the time the act was passed.

Four years later, the Post Office contracted to buy and run the rest of the NTC's plant (including the Irish operations) from 1911. When the network was actually passed over to the Post Office in 1911, however, it was found to be extremely run-down, the NTC having seen no profit in its maintenance after 1905. Thus, whilst attempting to make up for seven years of underinvestment, the Post Office did attempt between 1912 and the start of W.W.I. to extend the network, building 450 exchanges across the UK in 2½ years.<sup>20</sup> As the finances of the nation were increasingly directed towards war aims, however, development of the network virtually ceased until 1918 (indeed a £4 surcharge was imposed on all new applications - the equivalent of a connection fee - to dampen demand).<sup>21</sup> After the war, pent-up demand reasserted itself but the Post Office, faced with a dearth of both staff and materials,<sup>22</sup> was unable to fully satisfy demand. It was the 1920s before development began to return to its pre-war levels.

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<sup>19</sup> See Baldwin Chap XV, page 386-387. The Post Office's largest exchange at the time was in Newcastle-on-Tyne, with 650 lines.

<sup>20</sup> Baldwin, op. cit., Ref. 22, p. 629.

<sup>21</sup> Hansards 5th Series, Vol. 114, p. 2041, 9/4/1919.

<sup>22</sup> PMG to Sir K. Wood on post-war telephone development. Hansards series 5, Vol. 112, p. 979, 19/2/1919.

## 4.2 Development in Ireland 1880 - 1922.

The first telephones in Ireland were private wires, that is wires directly connecting two places without going via an exchange. Typically the renters provided their own telephone apparatus whilst the Post Office erected the connecting wires.<sup>23</sup> Surviving Post Office Work Orders from the period between 1878 and 1880 relating to private telephone wire installations give some sense of who the earliest private subscribers were and where they were located. Of the 13 subscribers referred to by Wall, all were businesses and all were located either in Belfast or in Dublin.<sup>24</sup>

The first actual telephone exchange in Dublin was opened by the (Bell) Telephone Company in Easter 1880 and was taken over by the UTC when the Bell and Edison companies merged a few weeks later. The first Belfast exchange appears to have opened within weeks of its Dublin counterpart, operated by the Scottish Telephonic Exchange.<sup>25</sup> Dublin started with 5 subscribers.<sup>26</sup> In Belfast, however, the tactic of initially offering 3 months service free to 50 firms succeeded when all but 2 or 3<sup>27</sup> took up subscriptions.

For a brief period Belfast was the site of conflict between two competing service providers, (the only competition in the Irish market until the 1990s) as some months after the STE established their exchange, the UTC opened their own.<sup>28</sup> That there was an awareness of the consequences of non-interconnection between competing exchanges is evident from the following editorial:

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<sup>23</sup> Wall, Thomas, (1992). Some notes towards a history of telecommunications with particular reference to Ireland. Unpublished manuscript.

<sup>24</sup> *Ibid.*, pp. 74-75.

<sup>25</sup> This company was not a UTC subsidiary but was a separate company which claimed to be using instruments that did not infringe the Bell or Edison patents. See Letters to the Editor from J. G. Lorrain, General Manager of the STE, Belfast Newsletter, 28/4/1880.

<sup>26</sup> A.J. Litton (1961) in "The Growth and Development of the Irish Telephone System", Journal of the Statistical and Social Inquiry Society of Ireland, Vol. 20, Part 5, pp. 79-115, p. 81.

<sup>27</sup> F.G.C. Baldwin (1925). History of the Telephone in the United Kingdom. (Pitman: London), p. 108.

<sup>28</sup> There is no exact date available for the opening of this exchange but judging by advertisements placed in the Belfast Newsletter, it appears to have been in October 1880. See Belfast Newsletter 16/10/1880 and 23/10/1880.

“When in one town, as was recently pointed out by a correspondent of the Pall Mall Gazette, there are two separate companies at work, each with its own circle of subscribers, it follows that if a person wishes to have telephonic relations with two other persons being subscribers to different companies, he is compelled to join both at a double expense . . . if competing companies continued to increase in number, intercourse by the telephone would soon become too expensive to permit of its being generally adopted. In their own interest and that of their patrons, the companies which have been formed for the purpose of instituting telephonic exchanges should devise some means of meeting this difficulty.”<sup>29</sup>

The danger of non-interconnection passed (forever as it emerged) with the UTC decision to form subsidiaries to work the UK outside London: in March 1881 the Scottish Telephone Exchange operation in Belfast was taken over by the National Telephone Company (to which the UTC had assigned responsibility for working Yorkshire, Nottinghamshire and some parts of Scotland as well as the 9 counties of Ulster). Just over a year later (May 1882) the UTC had sold their Dublin operation to another subsidiary, the newly-formed Telephone Company of Ireland (TCI) which was to work the telephone in those areas not included in the NTC's area - Leinster, Connaght and Munster.

In Ireland, the 1881 licence conditions (specifically the limits on radius of operation,<sup>30</sup> and the requirement that licensees sell telephones on demand to the Post Office) were to initially limit the spread of the private telephone operators to Dublin and Belfast. Given the company's lack of certainty about its own future,<sup>31</sup> it made little sense to invest in areas other than would guarantee a speedy return: thus any quick expansion to lesser population centres was rendered unlikely by the company's primary duty to its shareholders. By mid 1882 there were only 400 TCI and NTC telephone subscribers in Dublin and Belfast respectively. Nor did the Treasury's decision to sanction expenditure for a limited Post Office telephone system have much impact in Ireland: although in 1881 the Post Office advertised its own willingness to

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<sup>29</sup> The Northern Whig, 26/4/1880.

<sup>30</sup> Although it's evident that from the outset the TCI secured a four mile operating licence as opposed to the standard two-mile radius.

<sup>31</sup> "The companies had a maximum of 25 years in which to make as much money as possible." Hills, *op. cit.*, p. 191.

“establish telephonic communication”<sup>32</sup> in Irish newspapers and post offices, this was limited to a handful of private wires in Dublin.<sup>33</sup> In 1882 the Post Office established three exchanges in Cork, Limerick and Waterford, but a lack of subscribers (contributed to by the Treasury's refusal to permit the Post Office to actively market its services)<sup>34</sup>, saw all three Post Office exchanges close “within a few years”.<sup>35</sup>

Within its limited field of operations, the TCI sought to target those institutions which the company felt were most likely to derive maximum utility from the relatively limited geographical area in which the company could operate. Although as section 4.3 below argues, the company's general advertising was aimed primarily at commercial customers, the company also engaged in direct marketing to a number of civic institutions, offering service at reduced rates to variously: the Dublin Fire Brigade,<sup>36</sup> the Dublin Metropolitan Police,<sup>37</sup> various offices of Dublin Corporation (City Hall, Mansions House, City Architect's Office<sup>38</sup>) and each of the Dublin Hospitals.<sup>39</sup> The company's persistence paid off: by the close of 1883, all the aforementioned institutions had consented to become subscribers. (Nor, it might be added, did the company ignore the fact that its chairman Edmund Gray was also owner of *The Freeman's Journal*, then one of the best-selling daily papers in Ireland. The adoption on 7 May 1883 by Dublin Corporation of an agreement to allow the TCI to connect several of the Corporation's departments was lauded in a *Journal* editorial as a “great public convenience and... a real economy... saving the time of officials... Each (subscriber) will now be able, in case of fire... instantly to give the alarm by word of mouth to the Central Fire Brigade Station.”<sup>40</sup>)

By 1884 it was becoming clear that the licence conditions were limiting the geographical expansion of the business: in order to extend the Dublin network to the suburb of Dun

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<sup>32</sup> Fawcett to Edmund Dwyer Gray in Hansards Series 3, Vol. 258, p. 765, 14/2/1881.

<sup>33</sup> By 1891, the Post Office had only 34 private wires in Dublin, all but three of which were "Government Service". From Report of Post Office Telephones in Dublin, 19th August 1894. Cited in Wall, op. cit., p. 93.

<sup>34</sup> Hills, op. cit., p. 195.

<sup>35</sup> Wall, op. cit., p. 86.

<sup>36</sup> Mr. Arthur Porter, UTC Superintendent to Dublin Corporation Paving Committee, letter dated 6 October 1880, Cited in Wall op. cit. p. 76.

<sup>37</sup> Edmund Gray, TCI Chairman in *The Freeman's Journal*, 8/9/1883.

<sup>38</sup> Dublin Corporation Minutes 1882, pp. 434-435. Cited in Wall, op. cit., p. 83.

<sup>39</sup> Edmund Gray, TCI Chairman in *The Freeman's Journal*, 19/5/1883.

Laoghaire (then called Kingstown), the TCI had been forced to seek permission from the PMG to extend their radius of operation from 4 to 5 miles. The PMG had acceded to this request. However, a Spring 1883 attempt by the TCI to secure a licence to establish and operate an exchange business in Cork was thwarted, despite a parliamentary intervention on the TCI's behalf in May 1884 by Charles Stewart Parnell.<sup>41</sup> The PMG had demanded that the TCI agree to sell their telephone instruments to the Post Office, a condition which was, as Parnell pointed out, "absolutely out of their power to accept."<sup>42</sup> As the directors concluded at the first general meeting of the company in May 1885: "They (the TCI) had no instruments to sell which settled the matter."<sup>43</sup>

The new licences issued across the UK in 1884 by the PMG had the immediate effect in Dublin of prompting the opening of 6 call offices at each of TCI's existing exchanges, thus making the telephone available to non-subscribers for the first time. The removal of the limitations on expansion seems to have had little effect on trunk development, however. The TCI had discussed the establishment of a Dublin-Belfast trunk line as early as 1883<sup>44</sup> and had entered negotiations with the NTC in Belfast in 1885 with a view to co-operating on the erection of a Dublin-Belfast trunk line. By 1889, however, the scheme seems to have been abandoned, the TCI blaming the NTC's decision to concentrate its expenditure on the English side of its operations.<sup>45</sup> Nonetheless, while negotiations were still ongoing, the TCI opened the first private exchange outside Dublin and Belfast in Dundalk in April 1886.<sup>46</sup> New exchanges in Cork and Limerick respectively followed in 1889 and 1890, where the TCI had observed the poor performance of the Post Office exchanges for some 7 or 8 years. By 1889 the Post

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<sup>40</sup> *Freemans Journal* 8/5/1883.

<sup>41</sup> *Hansards 3rd Series*, Vol. 288, pp. 418-419, 15/5/1884.

<sup>42</sup> *Ibid.*

<sup>43</sup> "Sometime ago the company applied for a licence to extend their system to Cork but the Postmaster General made it a condition that they should sell him their telephone instruments at a certain rate." E.D. Grey (Chairman of the TCI). Report on the Telephone Company of Ireland's first ordinary half-yearly meeting - *Freemans Journal* 19/5/1883.

<sup>44</sup> Report of the general meeting of the Telephone Company of Ireland, 7/9/1883. Reported in *The Electrician*, 15/9/1883.

<sup>45</sup> Report of the 10th general meeting of the Telephone Company of Ireland, 6/4/1889 - *Freemans Journal* 8/4/1889.

<sup>46</sup> *The Irish Times* 13/4/1886. It's apparent that this exchange closed sometime before 1891 since at a TCI Board meeting in 1892, the Chairman expressed the company's intention to re-open the exchange. (See *The Irish Times* 19/8/1892)

Office exchange in Cork was serving only 30 subscribers.<sup>47</sup> Within a year the competing TCI exchange had 295 subscribers (indeed it was the success of the Cork exchange that cemented the decision to open the Limerick exchange).<sup>48</sup> Thus by the close of 1891, the TCI had 1538 “wires” in Ireland as a whole.<sup>49</sup>

In 1893, the TCI became the last of the original UTC subsidiaries to amalgamate with the NTC. Before doing so, however, the TCI considered another option - acquiring the NTC operation in Ulster. Yet even had the NTC been willing to consider the suggestion, the TCI's lack of capital (a proposal to open an exchange in Waterford in 1893 had been abandoned for want of capital), made such a venture unlikely. Eventually the company concluded that the share-holders' long-term interests were best served by amalgamating with the NTC.<sup>50</sup> The transfer was completed by July 1893.<sup>51</sup> Thus a year later the amalgamated TCI/NTC systems had approximately 3,000 subscribers in Ireland, roughly a thousand each in Dublin and Belfast, 300 - 400 in Cork, plus around 100 subscribers each in Limerick and Derry.

The nationalisation of the UK trunk network in 1892 coincided with the building of the first permanent trunk line in Ireland in 1893. The TCI and NTC had completed an experimental Dublin-Belfast trunk line in April 1892, but it's evident that it only operated for a few months.<sup>52</sup> Dublin-Belfast telephonic contact was re-established in 1893 when the Post Office trunk line on the same route opened for service. Despite appeals from Irish MPs to further extend the trunk system to the South and West,<sup>53</sup> this remained the only Irish trunk line until 1897, when Cork and Limerick were connected with Dublin. The following August (1898) a third trunk route opened from Waterford to Dublin via Wexford, Arklow and Wicklow.

In Ireland, nothing substantial came of municipal telephony despite the Dublin Corporation Improvement Committee's conclusion in 1902 that “in view of the extremely unsatisfactory nature of the service given by the NTC in Dublin, the establishment of a municipal exchange

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<sup>47</sup> Wall, *op. cit.*, p 91.

<sup>48</sup> Telephone Company of Ireland, Director's Report for the year ending 31st December 1889. Quoted in *The Electrician* 29/3/1889.

<sup>49</sup> *The Electrician* 26/8/1892, p. 470.

<sup>50</sup> *The Irish Times* 20/5/1893.

<sup>51</sup> *The Electrician* 26/5/1893, p. 111.

<sup>52</sup> Wall, *op. cit.*, p. 132.

<sup>53</sup> See for example, Dr. Kenny to PMG, Hansards Series 4, Vol. 16, p. 1715, 1/9/1893.

would be in the best interest of the public.”<sup>54</sup> Belfast Corporation went further, securing a licence to provide a service, but the corporations of both cities chose to follow the experience of other corporations before embarking on service provision themselves. The conspicuous lack of success elsewhere ensured that municipal telephony never became a reality in Ireland.

Compared to development in the rest of the UK, Ireland remained slow through the 1890s. By the close of the decade only the major towns were receiving service. To the already existing exchanges in Dublin, Belfast and Dundalk were added: Drogheda and Derry in 1893, Galway in 1897, Wexford and Waterford in 1898 and Mullingar in 1899.<sup>55</sup> A large part of the slow development seems to have been predetermined. With the passing of the Telegraph Act in 1892, the NTC was forced to surrender its general operating licence and to accept instead licences for specific areas of operations known as “exchange areas”. In Ireland 10 cities and towns were so designated: Derry, Belfast, Dundalk, Drogheda, Dublin, Wexford, Waterford, Clonmel, Cork and Limerick.<sup>56</sup> The complete absence of any exchange area in the west of Ireland made it clear that the Post Office simply did not anticipate any growth in that area and was thus unwilling to licence the NTC to work there. (Nor could it be argued that the exchange areas simply reflected those areas where service already existed since several of the towns had not received any exchange service.)

However, the lack of development also lay in the fact that the policies of the TCI and the Post Office were actively at odds with each other. At the 1892 general meeting of the TCI in 1892, the Chairman of the company, Alderman V.B. Dillon, outlined the following plan on extending their exchanges:

“... so soon as the Government carried out their proposals of connecting other cities such as Waterford, Kilkenny, Galway and other large towns in the West and South of Ireland, the Company trusted to open exchanges in these places, and to give them the facilities of inter-communication, not only with towns in Ireland, but so soon as the

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<sup>54</sup> Dublin Corporation Reports 1901, Vol. 3, pp. 243-246. Cited in Wall, *op. cit.*, p. 98.

<sup>55</sup> There are references to telephones in other areas before this point - the *Freemans Journal* 30/3/1885 refers to a thief being caught near Ballinasloe in Galway as a result of a telephone call to the police - but these seem to have referred to private wires.

<sup>56</sup> Anon “HMPMG and the NTC Ltd. Agreement as to Trunk Lines.” 25/3/1896.



development foreshadowed by the Post Office takes place, with towns in England and Scotland.”<sup>57</sup>

However as Hills points out, in the wake of the nationalisation of the trunk lines in 1892, the UK Treasury refused to sanction the extension of the trunk lines in anticipation of demand. The consequence of this policy for Ireland was made explicit by the PMG in 1898, in reply to a request that the trunk line be extended to the west and midlands of Ireland: “There are few directions in the west and midlands where the expense would be justified. The development of the trunk system depends on the development of local exchanges.”<sup>58</sup> Thus a Catch-22 situation emerged: exchanges in new localities would only be built after trunk lines reached those localities, whilst new trunk lines would only reach those new localities that already had an exchange to guarantee that the extension would be remunerative for the Post Office (and in turn the Treasury). In practice, as is evident from development of exchanges and the trunk network (which itself almost exclusively followed the path of railway lines, the easiest source of wayleave rights)<sup>59</sup>, the extension of the latter was often a prerequisite for the establishment of the former.<sup>60</sup> Thus exchanges tended to follow the development of the trunk network. Unsurprisingly then, given the conflicting policies of the Post Office and the private company, development remained slow.

The absence of either subscriber or trunk development figures relating to Ireland in the 1900s makes it difficult to accurately track development in this period. Nonetheless, figures for the number of exchanges - from 56<sup>61</sup> (PO and NTC combined) in 1900 to 118<sup>62</sup> NTC and PO exchanges in 1908 - do point to some growth.<sup>63</sup> by 1908 only Mayo and Laois were entirely

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<sup>57</sup> Telephone Company of Ireland. General meeting of the company shareholders. Quoted in *The Electrician* 26/8/1892.

<sup>58</sup> *Hansards* 4th Series, Vol. 56, p. 1536, 29/4/1898.

<sup>59</sup> Litton, *op. cit.*, p. 83.

<sup>60</sup> Although this wasn't necessarily the case - Galway received exchange service in 1897 but had to wait until 1914 to be connected to the trunk network.

<sup>61</sup> Litton, *op. cit.*, p. 80.

<sup>62</sup> *National Telephone Journal* Vol. 3 1909, pp. 238-239. Cited in Wall, *op. cit.* p. 106.

<sup>63</sup> Litton, *op. cit.*, p. 84. Unfortunately figures here are highly untrustworthy. The *National Telephone Journal* (1909) gives figures of 254 NTC and 79 PO exchanges by close of 1908 in Ireland. This research has given more credence to Litton's figures, based as they are on Post Office and NTC telephone directories. Nonetheless it does point up the difficulty of obtaining accurate data for this period in Ireland.

without telephone exchanges.<sup>64</sup> Nonetheless, it remained the case that the Treasury's unwillingness to sanction money for trunk development in advance of demand resulted in demand to connect up the network of exchanges not being met. Around the turn of the century, there was a marked increase in the number of demands put to the PMG by Irish MPs to extend the trunk network, but requests to extend the three trunk lines - from Dublin to Mullingar,<sup>65</sup> Cork to Tralee, Killarney, Youghal, Mallow, Fermoy, Dungarvan and Waterford<sup>66</sup> and Limerick to West Clare via Ennis<sup>67</sup> - were all turned down. In the case of Mullingar, Tralee and Ennis, it was considered unlikely that the extension would be a paying proposition for the Post Office: thus extension could only occur if it was guaranteed against loss locally (the other areas mentioned did not actually have telephone exchanges at the time).

By 1902 then, just 13 towns in Ireland were connected to the trunk network: Dublin, Belfast, Balbriggan, Drogheda, Dundalk, Newry, Banbridge, Cork, Limerick, Waterford, Wexford, Wicklow, and Arklow. Of these, Newry and Banbridge had required a guarantee of £65 against loss which had been provided by the NTC. It was noted, however, that of the entire network, only the Dublin-Belfast trunk line had proved remunerative, steeling the resolve of the Treasury against sanctioning further expenditure.<sup>68</sup>

From 1904 onwards, however, once it became clear that the NTC's Irish operations would be nationalised in 1911, the company ceased to "incur any expenditure on which there was not an immediate return."<sup>69</sup> Thus the development of new NTC exchanges in the 1900s tended to focus on those areas in and around Cork, Dublin, Belfast and Limerick where the company already had a presence. The Post Office on the other hand appears to have been more willing

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<sup>64</sup> Gunston, W.H., (1909). "Geographical Development of the Telephone as at the end of 1908" in *National Telephone Journal*, Vol. 3, p. 238.

<sup>65</sup> C. Hayden (MP for South Roscommon) to PMG, Hansards 4th Series, Vol. 75, p. 78, 29/7/1899.

<sup>66</sup> M. Healy (MP for Cork) to PMG, Hansards 4th Series, Vol. 78, p. 288, 1/2/1900. In fact Cork and Waterford could already communicate telephonically via Dublin to which they were both connected. It was based upon the low level of communication between Cork and Waterford via this line (approximately 2 messages a day) that it was concluded that a direct link between the two cities would not be remunerative.

<sup>67</sup> William Redmond (MP for East Clare) to PMG Hansards 4th Series, Vol. 79, p. 1447, 1/3/1900.

<sup>68</sup> Chamberlain reply to Marquis of Hamilton (MP for Londonderry) Hansards 4th Series, Vol. 114, p. 1109, 17/11/1902.

<sup>69</sup> Wall, op. cit., p. 106.

to locate new exchanges in relatively remote areas<sup>70</sup> (although growth was still largely limited to the north-east and south of the country).

The bulk of Post Office spending on exchanges, however, remained focused on London. The £4,300,000 voted for telephones by the Telegraph Acts of 1892, 896, 1898 and 1899, had been spent as follows.

**Table 4.1 Telegraph Acts 1892-1889: Heads of Spending**

1.	Trunk Lines:	£2,180,000
2.	London Exchanges:	£1,495,000
3.	Provincial Exchanges:	£262,000
4.	Stock:	£233,000

The situation might have improved in March 1904 when the PMG introduced a formal resolution seeking a further £3,000,000 to extend and amplify the telephone service. He stated that he wished to extend the Post Office Telephone Service in districts where it was urgently required and demanded and where they were unable to provide the service owing to lack of funds.<sup>71</sup> Yet the focus of spending was unchanged:

**Table 4.2 1904 Telegraph Act: Heads of Spending**

1.	Trunk lines:	£1,300,000
2.	London Exchanges:	£1,500,000
3.	Provincial Exchanges:	£200,000

Some trunk line extension did occur in Ireland in the wake of the resolution - two lines were extended to Coleraine, Limavady and Londonderry<sup>72</sup> and to Mallow and Tipperary<sup>73</sup> - but

<sup>70</sup> See (Appendices) for the list of exchanges opened by the Post Office and NTC respectively in 1908.

<sup>71</sup> Hansards Series 4, Vol. 132, p. 417, 22/3/1904.

<sup>72</sup> Hansards Series 4, Vol. 130, p. 8, 20/1/1904.

these had all been approved prior to resolution's passage. Furthermore, they were relatively short extensions. A request to erect a Dublin to Galway Trunk Line in April 1904,<sup>74</sup> on the other hand, was again refused unless guarantees were provided.

The question of guarantees was partially addressed in 1906. By 21 June 1906, the system was in place whereby the Post Office itself assumed 2/3 liability for any guarantees given: henceforth localities would only have to bear 1/3 of the loss where a guarantee had been requested by the Post Office.<sup>75</sup> Nonetheless, a fundamental problem remained with the guarantees for long-distance trunk lines: they were only as good as the weakest potential guarantor. Hence a 1910 proposal to extend a trunk line to Cavan (from presumably Newry or Dundalk) via Clones foundered owing to the failure to secure a guarantee for the Clones extension.<sup>76</sup> (A similar fate befell a 1909 proposal to extend a trunk line from Dublin to Galway when no guarantor could be found beyond Athlone.<sup>77</sup>) Given these conditions, rapid deployment of trunk lines became even less likely.

The final sustained attempt, pre-Independence, to extend the telephone into the rural areas of the UK and Ireland occurred between 1911 and 1914. In May 1911 the Postmaster General, H. Samuel expressed his intention to revive the party line system in country districts. If at least 5 farmers (or indeed any country dwellers living within a set radius of each other) came together for one party line, they could have unlimited use of the telephone for £3 per annum each.<sup>78</sup> Despite a reasonable level of success in Britain (1,000 rural residents were using the line by 24 April 1913, with a further 500 in the process of being connected), the party line never took off in Ireland, even after the scheme was revised in March 1912.<sup>79</sup> It was 1913 before the first Irish application for party line service was made.<sup>80</sup>

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<sup>73</sup> Hansards Series 4, Vol. 131, p. 590.

<sup>74</sup> Hansards Series 4, Vol. 133, p. 1302, 22/5/1904.

<sup>75</sup> Hansards Series 4, Vol. 159, p. 430, 21/6/1906.

<sup>76</sup> Hansards Series 5, Vol. 14, p. 563, 28/2/1910.

<sup>77</sup> Hansards Series 5, Vol. 3, p. 1119, 6/4/1909.

<sup>78</sup> Hansards Series 5, Vol. 25, p. 2180, 18/5/1911.

<sup>79</sup> On 11 March 1912, the Treasury agreed to revise the party line scheme such that lines would be provided for only three subscribers, provided an average of two or more subscribers to the mile could be obtained. With three subscribers to the mile the charge would be £3 per annum, with two to the mile, £3 10s per annum.

<sup>80</sup> Hansards Series 5, Vol. 51, p. 993, 8/4/1913.

The failure of the party line in Ireland may be ascribed to two factors: the first, that the lack of privacy inherent in the party line appears to have a particularly sensitive issue in Ireland, is difficult to back up with documentary evidence. Nonetheless, given the (admittedly over-generalised) argument that the Irish character, particularly in the post-famine era, was a begrudging one wherein life was a zero-sum contest with one's neighbour, it was perhaps unlikely that a shared communications technology would be a success. (Furthermore, lest it be thought that such assessments are predominantly made by outsiders it should be noted that the most damning descriptions of the national character usually come from Irish writers:

“In a stunted society, one man's gain did tend to be another man's loss. Winners could flourish only at the expense of others. Status depended not only on rising oneself, but on preventing others from rising. For many, keeping the other fellow down offered the surest defence of their own position.”<sup>81</sup>

Hardly the breeding ground for the adoption of a telecommunications technology that relied on mutual co-operation).

The second problem was particularly acute in Ireland: party-line service would only be provided in the vicinity of existing telephone exchanges or where there was enough telephone business to justify the establishment of new exchanges and their connection with the general telephone system of the country.<sup>82</sup> Another Catch-22: rural development could only occur where there was already development. When Irish MP, J.C. Lardner, complained that as a result of these conditions the low population density in Ireland meant that “in effect there would be no rural party lines in Ireland,” the assistant PMG, Norton, answered that the Post Office couldn't simply cover the entirety of the U.K. with a costly network of phones.<sup>83</sup> Thus by January 1911, the 6,595 subscribers in Dublin and 7,267 in Belfast,<sup>84</sup> accounted for the vast bulk of all Irish exchange lines.

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<sup>81</sup> J.J. Lee (1989), Ireland 1912-1985, Politics & Society, (Cambridge, Cambridge University Press), p. 646.

<sup>82</sup> Hansards Series 5, Vol. 26, p. 1219, 1/6/1911.

<sup>83</sup> *Ibid.*

<sup>84</sup> J. Poole (1912), The Practical Telephone Handbook (5th Ed.) (London: Pitman), p. 608. Cited in Wall, *op. cit.*, p. 106.

Litton and Wall agree that between 1912 and 1924, there was not just scant development of the network but also little was done to maintain the existing plant much of which was “life-expired.”<sup>85</sup> Schemes to provide additional underground plant and exchange equipment in Dublin and other exchange areas were completed in 1913, and it is apparent that expenditure for further development was approved the same year, but it is impossible to ascertain where this development would have occurred. There is a reference in Hansards to the fact that in early 1914, a general plan to extend the telephone in Irish districts was being drawn up, but the advent of war apparently saw it shelved.<sup>86</sup> In any case the majority of work in 1914 related to the Post Office plan to establish an efficient and coherent national (i.e. Britain and Ireland) telephone system. Under the plan, the territory of the United Kingdom was divided into nine zones, centred respectively on London, Bristol, Cardiff, Birmingham, Cambridge, Manchester, Leeds, Glasgow and Dublin.<sup>87</sup> These were to be connected by “direct trunk lines of the highest obtainable transmission efficiency.”<sup>88</sup> Thus the focus of activity in Ireland focused on the orientation of the Dublin zone to the British mainland rather than on expanding the network deeper into Ireland.

Most UK development work ceased during war years although it's evident that some development did occur in Ireland throughout the 1910s: the Post Office established 70 new exchanges in Ireland between 1911 and 1918. At the same time, however, the decision to quell the 1916 Rising in Dublin by shelling the central headquarters of the Irish Volunteers incidentally saw the hub of the Irish trunk network destroyed, since the Volunteers had strategically chosen the General Post Office in Dublin as their base. Fresh expenditure for development in Ireland was approved in 1920, but again the work was suspended during the War of Independence (1919-1921).<sup>89</sup>

Thus, by the time the Post Office and the telephone service passed into the hands of the new Irish state in 1922, there were 19,218 telephones or 12,500 subscribers, served by 192 exchanges in the 26 counties. That development over the previous forty years had been

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<sup>85</sup> Wall, p. cit., p. 114.

<sup>86</sup> Land Commissioner of the Treasury (J. Parker) reply to E. Kelly, MP. Hansards Series 5, Vol. 154, p. 1939, 14/7/1919.

<sup>87</sup> Wall, op. cit., p. 138.

<sup>88</sup> Ibid.

seriously skewed was obvious from the fact that approximately 6,400 of those subscribers were in the Dublin area, at a time when Dublin accounted for 15% of the population. Meanwhile, the counties of Mayo, Leitrim and Longford had no exchanges at all within their borders, whilst Roscommon and Westmeath had just the Athlone exchange between them.

**Table 4.3: Number of exchanges in selected counties of Ireland (1918)<sup>90</sup>**

Dublin	25
Cork	36
Clare	6
Longford	1
Mayo	0
Leitrim	0
Roscommon	0
Westmeath	1
<i>Ireland (26 counties)</i>	<i>212.</i>

The net effect of this was that only 2.5% of the total geographical area of the country had service by 1922. Furthermore, a combination of the lack of supplies during the war, and the decimation of the trunk exchange network, meant that the first Engineer-in-Chief of the Free State Post Office inherited “a general shortage of underground plant and exchange equipment when he was appointed.”<sup>91</sup>

<sup>89</sup> Selby (Head of Contract Section) to O’Hegarty, 30/8/30. NAD H 1438/34 Vol. 1 “Telephone Organisation: Reports on Staffing and Operation 1930.”

<sup>90</sup> All data from Litton, op. cit., p. 84.

<sup>91</sup> Selby (Head of Contract Section) to O’Hegarty, 30/8/30. NAD H 1438/34 Vol. 1 “Telephone Organisation: Reports on Staffing and Operation 1930.”

### 4.3 Conception of the Telephone

In looking at the history of the development of the telephone in the UK and Ireland over the first 40 years of its existence, there's little doubt that whatever argument might be made for its more widespread social utility, in practice it was considered by both the Post Office and the NTC as a business instrument. Furthermore, as the example of Irish development, above confirms (section 4.2), the telephone was considered an urban as opposed to a rural instrument. Jill Hills has argued that the service initially offered by the private telephone companies was biased towards "large business users"<sup>92</sup> as a result of the "evolution of the telephone service out of the 'private wires' of the telegraph."<sup>93</sup> It might be argued that the private wire telephone business (i.e. directly connecting two points without the intermediary of an exchange) carried on by the private companies before the widespread introduction of telephone exchanges had a similar effect, since such a service was only likely to be useful to those subscribers needing some way to facilitate frequent communications.

The early marketing of the telephone reflected the expectation that users of the service would be of a commercial nature. In Belfast, for example, prior to the opening of the first STE exchange, the company placed advertisements in the paper including the names of all the *firms* that had pledged in advance to become subscribers - there was no suggestion that the telephone might have a social function.<sup>94</sup> Subsequent marketing retained this focus. One UTC advertisement placed in the Belfast Newsletter in July 1880 assured potential subscribers that:

“...It is a fact now recognised by the business communities of all our great commercial centres that the telephone is alike an incentive to the transaction of *business* and a safeguard against the loss of life and property.”<sup>95</sup> (Italics added)

A second advertisement from the same company five months later could hardly have been clearer as to the expected market: “A telephone exchange is now established in Belfast

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<sup>92</sup> Jill Hills (1993), “Back to the Future: Britain’s 19th Century Telecommunications Policy”, *Telecommunications Policy*, Vol. 17, No. 3, pp. 186-199.

<sup>93</sup> Ibid.

<sup>94</sup> Belfast Newsletter 26/4/1880, 28/4/1880, 30/4/1880.

<sup>95</sup> Belfast Newsletter 23/7/1880.



through which merchant, banker, brokers and businessmen generally, are put into instant communication with one another.”<sup>96</sup>

The initial charging policy of both the UTC and TCI in Ireland reflected the expectation that commerce was the key market for telephony. A flat-rate rental of £20 per annum for subscribers situated within one mile of the nearest exchange applied throughout Ireland for the greater part of the 1880s. Since the flat rate permitted the subscriber to make an unlimited number of calls, bulk users were clearly favoured. The practical effect in Ireland as in the UK was that the first exchange subscribers were exclusively drawn from the ranks of commerce.

Consequently it was business customers (actual or potential) who drove demand during the early history of the telephone in Ireland. When in 1913 the Postmaster General established a series of Telegraph and Telephone Advisory committees across the UK and Ireland, to keep him informed of local conditions, the Dublin Committee - although established by Dublin Corporation and including the Lord Mayor and three Corporation employees - also included three representatives each from the Dublin Chambers of Commerce and the Dublin Mercantile Association. Furthermore, within five months of the committee's establishment in August 1913, the Chamber of Commerce appears to have established effective dominance of the committee, hosting the meetings at their premises and installing their President, William Martin Murphy as the President of the committee.<sup>97</sup> In short, the only representative body for consumers of the telephone service was effectively controlled by business interests.

There is some evidence that in Ireland the telephone was seen not only as a useful tool for the business affairs of individual firms but also as serving a critical infrastructural role. In 1893, the Cork Industrial Development Association, at the time the only substantial body of its kind in Ireland, adopted a resolution to the effect that “lack of telephonic communication was seriously hindering Southern Irish Trade,”<sup>98</sup> and ensured that its message was conveyed to the Postmaster General via the Cork MP, Captain Donelan. Indeed, requests from Irish MPs from 1892 onwards, for the extension of the Irish trunk network were consistently couched in terms of the needs of business. Typical of this was Roscommon South MP, J.P. Hayden's April

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<sup>96</sup> Belfast Newsletter 11/12/1880.

<sup>97</sup> Dublin Corporation Minutes 1913, pp.392-393 & pp 535-536.

<sup>98</sup> Captain Donelan, MP. Hansards Series 4, Vol. 127, p. 661., 10/8/1893.

1898 complaint that “businessmen in the west and midlands of Ireland [sought] the establishment of a telephone trunk line to Dublin, in view of the fact that such communication was enjoyed by the principle towns of the north and south.”

Yet, whilst predominantly considered a business implement in Ireland, this was not exclusively the case. From the outset in Dublin, the TCI actively identified residential users as a potential market. One advertisement from 1880 stated that private lines can be erected “between *residences*, offices, mills, *mansions*, stables &c, &c.”<sup>99</sup> Perhaps as a result, as many as 47 of the 166 numbers listed in an early 1882 TCI Telephone Directory for Dublin are residential numbers.<sup>100</sup> Furthermore, in a measure that was apparently unique amongst the UTC subsidiaries at the time, from 1886 the TCI introduced a special residence rate of £10. At that year’s April AGM, it was announced that:

“the directors are devoting their attention to the development of the business in the suburbs of Dublin, and with a view of (sic) its encouragement have adopted a special rate for domestic wires, which it is hoped may be the means of inducing a number of their existing renters to have their private residences placed in communications with the company’s system.”<sup>101</sup>

Despite the TCI’s efforts, however, it seems likely that residential telephones remained very rare in Ireland throughout the period under review. Rentals were gradually reduced over this period (dropping to as low as £4 in 1907<sup>102</sup>) whilst the flat-rate tariff was replaced by increasingly progressive tariff systems: the message rate (which included a set number of calls within the rental) and thereafter the measured rate (which charged a minimum rental and charged for each call thereafter). Notwithstanding this, F.C. Baldwin has noted that in general in this period residential telephony “was largely confined to... the well-to-do at their private residences... on account of the high charge.”<sup>103</sup> Exactly what ‘well-to-do’ means in terms of income is impossible to define but some sense of how expensive the telephone would have

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<sup>99</sup> *Freemans Journal* 25/3/1880.

<sup>100</sup> Wall, *op. cit.*, Appendix A, p. 221A. It is impossible, however, to definitively identify which subscribers were business and which residences since there was no charge differential.

<sup>101</sup> “The Telephone Company of Ireland (Limited)”, *Freemans Journal* 3/4/1886.

<sup>102</sup> A. J. Litton (1961), *The Growth and Development of the Irish Telephone System*, *Journal of the Statistical and Social Inquiry Society of Ireland*, Vol. 20, Part 5, pp. 79-115.

been for the vast bulk of the Irish population in this period can be gleaned from Perry's comment that the telephone would have been considered expensive for a "young Edwardian couple living in a London apartment on £700 per year."<sup>104</sup> Although there is little in the way of reliable statistics on Irish wage rates pre-1922, there are some indicative figures which can throw the relative affordability of the telephone into some light. F.S.L. Lyons notes that by 1901, per capita income amongst the Catholic population (approximately three quarters of the total) had just reached £12.4, although for the Protestant minority the figure was closer the region of £37.<sup>105</sup> Either way from 1880 to 1920, the cost of telephone rental would have represented a substantial portion of the average annual wage.

In general then, the telephone was de facto a business instrument in Ireland throughout the period under review.

#### **4.4 Conception of the Telephone Service**

The conception of the role of the telephone service provider between 1880 and 1911 is unique in the period considered by this research since one has to contend with the views both of the private companies and the Post Office. The former, however, can be dispatched reasonably swiftly. Given licences in 1884 that were to expire in 1911, the companies had "a maximum of 25 years in which to make as much money as possible. Since tariffs were not controlled they sought to recoup their investment quickly."<sup>106</sup> The key determinant of the telephone company's action was the need to find opportunities for investment that would be remunerative in the immediate or short-term. Thus, there was little point in establishing a tariff structure that would encourage widespread diffusion such as one based on rate-averaging. Furthermore, in contrast to the United States in the same period, (see chapter two) there was at no point between 1880 and 1920 any effective competition for the UTC/NTC. Effectively then a private monopoly, there was no inherent reason for the UTC/NTC companies to look beyond the profit motive in deciding on the development of the telephone.

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<sup>103</sup> F.C.G. Baldwin (1925), The History of the Telephone, (Pitman: London), pp. 606-607.

<sup>104</sup> Charles R. Perry (1977), "The British Experience 1876-1912: The Impact of the Telephone During the Years of Delay," in Ithiel De Sola Pool (ed.) The Social Impact of the Telephone, (Cambridge, Massachusetts: MIT Press), p. 78.

<sup>105</sup> F.S.L. Lyons (1973), Ireland Since The Famine, (Fontana: London), p. 100.

Less easy to dispose of is the question of the Post Office's conception of the telephone. Brock<sup>107</sup> argues that a key influence on early Post Office policy with regard to the telephone was the pre-existence of the Post Office's own telegraphs system. Having purchased the existing private telegraphs system at an apparently hugely inflated price in 1868, the government had sought to protect their investment by passing the Telegraph Act, 1869 which conferred the exclusive privilege of transmitting telegrams on the Postmaster General. For the purposes of the Act, telegraphs were defined as "any apparatus for transmitting messages or other communications by mean of electric signals."<sup>108</sup> Brock argues that the Post Office thus moved to block the development of the telephone in this period so as to extend "the life of telegraph technology relative to the long-distance telephone technology."<sup>109</sup>

Charles Perry<sup>110</sup> suggests as a second shaping factor the fact that in its postal and telegraphs services, "Great Britain already possessed the finest communications system in the world."<sup>111</sup> Thus, the Post Office considered the telephony a luxury for day-to-day communications. Nonetheless, Perry maintained that there was a constituency within the Post Office which believed that the Post Office itself was in the best position to offer a telephone service, stating that what it "could offer the public was an efficient system to meet the needs of customers, especially business customers."<sup>112</sup> As one Postmaster General put it:

"The chief essential of the telephone service was efficiency. Therefore, rates would not be so low as to render the maintenance of a highly-efficient service impossible."<sup>113</sup>

"Efficiency" did not however encompass the provisioning of a telephone in every house, and made it extremely unlikely that telephone rates should ever be subsidised from other taxes.

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<sup>106</sup> Jill Hills (1993), "Back to the Future: Britain's 19th Century Telecommunications Policy", *Telecommunications Policy*, Vol. 17, No. 3, pp. 186-199.

<sup>107</sup> Gerald R. Brock (1981), *The Telecommunications Industry*. (Harvard: Harvard University Press).

<sup>108</sup> Telegraphs Act, 1869.

<sup>109</sup> Gerald R. Brock (1981), *The Telecommunications Industry*. (Harvard: Harvard University Press). Chapter 5.

<sup>110</sup> Perry, *op. cit.*

<sup>111</sup> Perry, *op. cit.*, p. 75.

<sup>112</sup> Perry, *op. cit.*, p.83.

<sup>113</sup> Hansards Series 5, Vol. 28, p. 1653, 19/6/1911.

To these, Jill Hills has added a further dimension, pointing to the restrictive influence of the Treasury on the Post Office's freedom for action with regard to the telephone service. All three views point to the fact that de facto, Post Office's approach to the telephone service was quite restrictive. Thus, whilst the Post Office considered losses on the postal and telegraphs in sparsely populated areas acceptable as long as the service as a whole remained in profit, Treasury's influence ensured that exchanges might only be opened "when the projected deficit was three per cent" or less. Thus in June 1911, the Postmaster General stated that a key determinant of telephone charges was the requirement that "The telephone should pay its own way, independent of exchequer financial injections."<sup>114</sup>

The influence of such stringency in the UK was likely to have a disproportionate effect in Ireland especially in the early part of the 20th century. The Irish branch of the Post Office had consistently lost money since the jubilee year of 1897 at which point "far-reaching concessions . . . (had been) granted the public at the expense of the public purse."<sup>115</sup> In the years immediately prior to the WWI the loss on Irish operations was in the region of a quarter of a million pounds per annum, increasing to £1,200,000 in the last year of the British Administration.<sup>116</sup> A report of the Irish Finance Committee read into the minutes of House of Commons in May 1911 noted that:

"With a falling population in Ireland and with no very marked advancement in the general activities of the country, an increase of nearly 74% in 15 years of running the P.O. deserves an explanation . . . it must be attributed . . . to the fact that enlarged postal facilities entailing extra expense and augmentations of pay, both of which were considered to be required in Great Britain had, under the unified system of administration, to be extended to Ireland, notwithstanding the circumstances of Ireland taken by themselves would not under either head have justified such large addition to the cost of the establishment there: thus a financial partnership with Great

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<sup>114</sup> Hansards Series 5, Vol. 28, p. 1653, 19/6/1911.

<sup>115</sup> DD Vol. 3, P. 2234, 21/6/1923.

<sup>116</sup> Expressed in a 1922 Civil Service analysis of the Telephone System. See NAD 5049/22 Vol 1, "Transfer of Services 1922".

Britain does involve in Ireland a scale of expense that is beyond her requirements and beyond the natural resources of the country itself."<sup>117</sup>

In short, had it been taken as a separate unit, the Irish Post Office would have been financially insolvent from 1897 till the close of the period under review. Given then that the Irish service was already running a loss on the postal and telegraphs services, it was unlikely that the Treasury would be any less stringent when it came to sanctioning telephone development expenditure in Ireland than it already was in the rest of the UK. The evidence advanced in section 4.2 of this chapter suggests that indeed this proved to be the case.

#### **4.5 Summary: Universal Service 1880-1921**

By 1921, some forty years after the first telephone exchange had opened in Dublin, there were approximately 12,000 subscriber lines serving a population of just under 3 million (or 1 telephone line for every 250 people). This is indicative of the initial lack of success of the telephone in Ireland especially given that there were 986,000 telephones in the United Kingdom as a whole by 1920 (equivalent to 1 telephone line for every 47 people<sup>118</sup>). The Irish Free State would inherit a national system that by any standards was underdeveloped and which entirely failed to connect substantial areas of western seaboard and the north-west. This contributed to the enormous imbalance in the spread of service: Dublin accounted for more than 50% of all subscriber lines by 1922 despite the fact that the city area was home to only 15% of the population.

To understand the reasons for this lack of development and diffusion in Ireland, one must look to a combination of political, economic and social factors and to a lesser extent, technological factors.

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<sup>117</sup> Report of the Irish Finance Committee. Quoted during 2nd Reading of the Government of Ireland Act in the House of Commons. Hansards 5th Series, Vol. 38, p. 971, 7/5/1911.

<sup>118</sup> Based on figures for number of telephones and UK and Northern Ireland population from respectively: Charles R. Perry (1977), "The British Experience 1876-1912: The Impact of the Telephone During the Years of Delay" in Ithiel De Sola Pool (ed.) The Social Impact of the Telephone, (Cambridge, MA: MIT Press) and R.M. Punnet (1987), British Government and Politics, (5<sup>th</sup> Edition), (Hampshire: Gower Publishing), p. 5.

Taking political influences first, the conception of the telephone at government level was a huge influence on the paucity of development. As Perry notes above, the prior existence of a cheap, efficient and ubiquitous public communications system based around the postal and telegraphs services made the telephone a luxury that the Post Office (or perhaps more accurately the Treasury) was unwilling to subsidise. In particular the attitude of the state to the telephone service must be understood in the light of how the telegraphs service was seen, particularly after the decision in the early 1880s to halve the minimum telegram fee to 6d. The reduction was explicitly aimed at making the service universally affordable and accessible.<sup>119</sup> Henry Fawcett, the Postmaster-General, advocated a reduction on the grounds that the “poor woman in London was as desperate to be informed of a sick daughter as the wealthiest in the land.”<sup>120</sup> Following the reduction, the telegraphs service would consistently register a loss but this was explicitly tolerated on the grounds of its social utility.

However, telephonic communications permit two human beings to communicate and interact in their own voices in real-time. Arguably this augments the social potential of telecommunications. Given this, why was the telephone not also identified as deserving of state support and if necessary subsidy? To answer one must consider how the state understood the concept of social communication in the late 19<sup>th</sup> century. A comment from one MP, on the reduction of the telegram rates gives some insight into this question:

“At present the 1 shilling telegram is a luxury to people in (the working) class ... the fact is that the great bulk of these telegrams are simple - a family death - and require few words.”<sup>121</sup>

Social communication in the late 19<sup>th</sup> century was understood as referring to the content of a given communication medium rather than the form of that medium. Thus the telegraph could be considered a means of social communication to the extent that it permitted the transmission of messages of a non-business nature. The inherently social nature of telephonic communications was not overly stressed in the initial marketing of the telephone (indeed

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<sup>119</sup> For example: Dr. Charles Cameron put it to the Postmaster General (Fawcett) in parliament that the existing minimum charge of one shilling was prohibitive not only to the working class but also to much of the middle class. Hansards 3<sup>rd</sup> Series, Vol. 277, p. 955.

<sup>120</sup> Ibid.

there's evidence that telephone companies were often at pains to discourage such use as it was considered to a frivolous use of a business instrument). Thus at Government level the telephone was not seen as significantly distinct from the telegraph but rather as an augmented data transmitting and receiving device. (The extent to which this perception prevailed in Ireland can be illustrated by the Dublin Metropolitan Police's 1881 decision to reject an offer for a reduced rate telephone service from the Telephone Company of Ireland in favour of a Post Office installed ABC telegraph service.<sup>122</sup>) Given this, the telephone apparently offered no substantial social utility over the existing telegraphs systems and the state saw no social grounds on which to subsidise the service. Thus when the Post Office eventually became directly involved in telephone service provision it pursued a policy of cost-based charging. Ongoing concern that Post Office involvement in the telephone service might result in losses was evident from the fact that the Treasury insisted that the 1899 Telegraphs (Telephonic Communication) Bill included a clause permitting the Post Office to set a minimum charge to be observed by all participants in the business of telephones. The Financial Secretary to the Treasury, Hanbury, justified this decision on the grounds that not to do so invited the NTC to lower its rates to such levels as to force the Post Office to set its own at a non-remunerative rate.<sup>123</sup>

Having decided that active state involvement in the telephone was undesirable (at least until the decision to nationalise the industry in 1911) However, the government was apparently unwilling to place any universal service type obligations upon the private service operators, who, at the same time, lacking any real confidence in their own future, adopted a short-termist development policy, aimed at earning the greatest possible profits in the shortest possible time. This was achieved by two policies:

- i) setting rental charges at the highest rate that the market would bear and
- ii) focusing development in those areas that could be served at the lowest possible cost per customer.

As Appendix XXIVa makes clear rental charges in Ireland over the period under review

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<sup>121</sup> Mr. Shaw-Lefevre to the Postmaster-General (Fawcett). Hansards 3<sup>rd</sup> Series, Vol., 296, p. 1072.

<sup>122</sup> Dublin Corporation Minutes 1881, p. 492.

<sup>123</sup> Hansards Series 4, Vol. 75, p. 303, 25<sup>th</sup> July 1899.



fluctuated enormously from the 1880 figure of £20 per annum to the £3 rental introduced in 1902.<sup>124</sup> Given that a 1910 survey of Dublin families (which were likely to be better off than those living in the provinces) suggested an average weekly income of 22/6<sup>125</sup> for the entire family, even the lowest figure above placed the telephone beyond the means of the great bulk of the Irish population. (Lyons makes the point that Dublin wages at this time were “from a quarter to a third less than those of their counterparts in Britain”<sup>126</sup> suggesting that the relative levels of telephone penetration in Britain and Ireland at this time may have been related to overall national income levels). Nor did the state take-over in 1911 see any decrease in charges, which remained cost-based, set according to the potential subscriber’s distance from the nearest exchange. In consequence, whilst figures are not available for this specific period, the relative expense of the telephone in an economy which had experienced more of less permanent recession throughout the 19<sup>th</sup> century, meant that only commercial/civic users were likely to be able to afford the telephone service: this is apparently borne out by the fact that at late as 1936, residential subscribers accounted for only 28% of all Irish exchange lines.

The second policy, economic service provision, required a certain population density to justify the initial capital expense of building an exchange. In consequence population density became a key determinant in how the system diffused in Ireland. Irish population density in the 19<sup>th</sup> century was shaped by two socio-economic factors: firstly, as noted in chapter three, Ireland’s failure to experience an industrial revolution in the first half of the 19<sup>th</sup> century and secondly the dramatic effects of the famine. In Britain itself, the Industrial Revolution prompted an equally seismic social shift that saw populations move from rural to urban areas, such that by 1851 “more Britons lived in town than country and almost one third of Britons lived in cities of over 50,000 inhabitants.”<sup>127</sup> In the absence of such a key force in Ireland, the population remained predominantly rural throughout the 19<sup>th</sup> century. As late as 1911, less than 30% of the population of what would become the 26 counties, was classified as living in urban areas.<sup>128</sup> Yet whilst the absence of any large-scale industrial development outside the north-east ensured that there were virtually no major population concentrations in Ireland outside

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<sup>124</sup> A. J. Litton (1961), The Growth and Development of the Irish Telephone System, Journal of the Statistical and Social Inquiry Society of Ireland, Vol. 20, Part 5, pp. 79-115.

<sup>125</sup> F.S.L. Lyons (1973), Ireland Since the Famine, (London: Fontana), p. 69.

<sup>126</sup> *Ibid.*

<sup>127</sup> E.J. Hobsbawn (1969), Industry and Empire, (Harmondsworth: Penguin), p. 86.

<sup>128</sup> Lyons, *op. cit.*, p. 46.

Belfast, Dublin and arguably Cork, the Famine of the 1840s ensured that the Irish population as a whole would decline continuously for more than 100 years. Yet within this overall decline, there were substantial regional disparities in population density. The western seaboard in particular lost people both to emigration and to internal migration towards the east of the country. This is illustrated in table 4.4 below which outlines not just the overall population decline but the substantial disparities in the pace of decline in the west (Munster) and the east (Leinster).

Province	1881		1891		1901		1911	
	Pop.	Density Sq. kms	Pop.	Density Sq. kms	Pop	Density Sq. kms	Pop	Density Sq. kms
LEINSTER	1278285	64.7	1191782	60.3	1152829	58.4	1160328	58.7
MUNSTER	1331115	55.1	1173643	48.5	1076188	44.5	1083085	44.8
ULSTER	1743075	78.2	1619314	72.7	1582826	71.1	1578572	70.9
CONNAUGHT	821657	46.4	719511	40.6	646932	36.5	609966	34.5
<b>IRELAND</b>	<b>5174836</b>	<b>61.7</b>	<b>4704750</b>	<b>56.1</b>	<b>4468775</b>	<b>53.3</b>	<b>4381961</b>	<b>52.2</b>

(Sources: Own calculations based on data from Census Returns - 1881, 1901, 1911)

Furthermore the chart above disguises far greater disparities in population density at country level, more evident in Appendix XXVIa. These disparities were exaggerated by Ireland's political and economic orientation to the United Kingdom, a fact reflected by location of the largest administrative and commercial centres in Ireland on the east coast. Bucking the national trend, the populations of both Dublin and Antrim (of which Belfast is the county town) increased after the famine reaching a population density of 487 and 149 people per square kilometre respectively. Most of the increase was accounted for by the two cities themselves rather than their respective hinterlands. Yet the experience of Dublin and Antrim was not necessarily shared by urban areas across the country: overall by 1911, the total population living in urban areas (920,000) was still substantially behind the corresponding figure for 1841 of 1 million. Consequently, it was initially only the two cities of Dublin and Belfast which offered both economic locales for service provision. These were likely to house those firms or civic institutions that would find a use for the new service during its initial development stages. The fact that both cities were also major ports and thus at the hub of the national economy clearly increased the utility of a speedy communications system in these areas.

In consequence Dublin and Belfast became hubs of national development. Development outside these areas largely depended on the centre. Hence the first trunk line in Ireland connected both cities, consequently leading to the establishment of new exchanges along the route of the trunk. Furthermore, in 1902, the Galway City Chamber of Commerce felt it necessary to appeal to its Dublin counterpart for support before making its (unsuccessful) request to the Postmaster-General to extend the trunk service to the west coast.<sup>129</sup> However, notwithstanding the fact that, as section 4.2 illustrates, there was substantial demand for telephone service outside the Dublin-Belfast axis, this demand was only satiated when either the TCI/NTC or Post Office adjudged the cost of service provision to be sufficiently low to justify expansion. Thus, as a consequence of the NTC and Post Office policies of loss avoidance and adoption of cost-based pricing (or more accurately that level of pricing which avoided a loss), a House of Commons Select Committee pointed out in 1922 that as a result those living in urban areas near exchanges were greatly favoured whilst “rural development has little chance of taking place freely.”<sup>130</sup> In short NTC/Post Office policies actively militated against development in areas of low population density, under which heading most of Ireland could be classed in the late 19<sup>th</sup> and early 20<sup>th</sup> century.

In any case, it might reasonably be asked whether the telephone could in this period have fulfilled any supervening social needs in Irish society. At a glance its function as a communications device, and thus as a means of maintaining familial or friendship links, might appear to have obvious applications in a society which throughout the 19<sup>th</sup> century experienced an unusually high level of emigration. Yet given the main recipients of emigrants had been mainland Britain and the US, it should be recalled that an Ireland-Britain link was not established until 1893, whilst the first successful transatlantic telephone cable was not laid until 1956 (although radiotelephony was possible from 1927). Furthermore, those areas on the western seaboard hit hardest by emigration were also the areas least likely to be remunerative for the early service providers, and thus least likely to receive service. Furthermore, the high cost of early cross-sea telephone communications unquestionably dampened demand. In this regard it also should be noted that the traditional means of emigrant-home communications - the letter - served a dual function: although such letters were prized for their news content, the

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<sup>129</sup> Dublin Corporation Minutes 1902, p. 248.

remuneration of postal orders, something that could not be done over the telephone was also a critical function.<sup>131</sup> In short the telephone appeared to fulfil no pressing social need for the bulk of the Irish people in the late 19<sup>th</sup> century and early 20<sup>th</sup> century, even if it had been affordable.

Nor did technological innovations, although ultimately key factors in aiding the diffusion of the telephone system, offer much in the way of overcoming the problems posed for the development of the network by the low population density outside Dublin, and the cost of the telephone relative to average income. Nonetheless, it can be argued that the introduction of the first exchange in Dublin in 1880, the point at which this work commences, did make some contribution to reducing the cost of telephony (and thus to aiding the diffusion of the telephone) by substantially reducing the cost of interconnecting subscribers. It has been noted that “the most urgent problem during the early days of the telephone was to ensure that any two telephones, wherever they were situated, could be connected together by wires.”<sup>132</sup> The introduction of the telephone exchange - whereby subscriber interconnections were made by a centrally located operator rather than connecting subscribers directly via dedicated wires - kept the system from becoming too complex, whilst also offering financial savings by significantly reducing the outlay on erecting new wires. Thus, whilst connecting new subscribers in the absence of the telephone exchange would result in increasing marginal costs, the introduction of the exchange ensured that marginal costs fell as each new subscriber was connected: for the cost of one extra wire connection to the central exchange the new subscriber could be placed in contact with all the existing subscribers.

However other innovations associated with declining telecommunications costs in this period, such as automatic exchanges or trunk carrier systems, simply were not introduced to Ireland until the establishment of the Free State. It should be noted however that this absence, rather than slowing down the diffusion of the telephone, was actually a result of the slow pace of growth. As has been noted with regard to the UK, the introduction of automatic exchanges

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<sup>130</sup> Select Committee on the Telephone Service (1922), Report (London: HMSO), p. 23.

<sup>131</sup> “By the end of the century, country families, already long habituated to the postal order as a means of receiving remittances from emigrant members...” F.S.L. Lyons (1973), Ireland Since the Famine, (London: Fontana), p. 52.

<sup>132</sup> Peter Zorkoczy and Duncan Campbell (1977), The British Telephone System (2<sup>nd</sup> Ed.), (Milton Keynes: Open University Press), p. 20.

from 1912 was prompted by the fact that operators at busy manual exchanges were unable to keep up with the demand placed on them by increasing subscriber numbers: Zorkoczy and Campbell have noted of the British telephone exchange system that “having become large it *had to go automatic.*”<sup>133</sup> (Original Italics). The absence of such stresses on the Irish system meant that automatic telephony would not become essential until the 1920s, some 30 years after the basic technology at the heart of automatic telephony - the Strowger Switch - was patented.

In sum, a combination of political, economic and social factors conspired to undermine the development and diffusion of the telephone in Ireland up to 1920. The failure to recognise the social potential of the telephone on the part of the state left the service in private hands until 1911, hands which understandably pursued a profit-oriented business plan. In the Irish context, however, the relatively few large-scale population concentrations (especially in contrast with the British mainland) meant that any widespread diffusion of the network was likely to be unprofitable in the short term, and thus only likely to occur with a service provider willing to subsidise the service. As this chapter should have amply demonstrated, such subsidisation was unlikely throughout the period under review.

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<sup>133</sup> Ibid. p. 29.

## 5.1 General Development 1921 - 1932

A 1933 Civil Service document surveying the development of the Irish telephone service over the previous decade noted that “when handed over to the control of An Saorstát it was in a most deplorable state of obsolescence and inefficiency.”<sup>1</sup> The sequence of the Easter Rising, the Anglo-Irish War, and the Civil War shattered a telephone network that had in any case been handed over to the Post Office by the NTC in pretty poor form. A 1927 cabinet submission paper outlined the development of the Irish telephone network in the previous two decades thus:

“(a) When the telephones were transferred from the National Telephone Company to the Post Office in 1912 it was found that the Company's plant generally was inadequate and inefficient, the position in this regard being particularly marked in Ireland.

(b) The European War broke out before it was possible for the Post Office to undertake any extensive renewals of plant and caused all Schemes of the kind to be dropped or postponed. The British Government merely continued the practice of the National Telephone company of patching up plant already obsolete.

(c) The destruction of the Dublin Trunk Exchange in 1916 (in the General Post Office) and the destruction of lines throughout the country from 1916 to 1922 and particularly in the last two years of this period, aggravated the already bad condition of the telephone system.

(d) During the Irregular activities in 1922 and subsequently there was what might be regarded as wholesale destruction of telephone lines. The damage to underground and distribution plant and to Exchanges, such as Cork, was also very considerable during this period.”<sup>2</sup>

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<sup>1</sup> Anonymous survey of the operations of the Irish Post Office from 1922-1932. Prepared in response to request from Diarmuid O'hEigceartuigh, Secretary of the Department of the President 11/11/1933. Contained in NAD D/T S221.

<sup>2</sup> NAD S 6921 memo to each member of the Executive Council (cabinet).

On top of this, whilst overall staff numbers had been largely unaffected by the changeover from the working of the British Post Office to the Irish Post Office, the telephone section had lost many of its key technical and engineering staff which, as J.J. Walsh, the Minister for Posts and Telegraphs conceded in June 1924, limited the speed of future development.<sup>3</sup> On top of all this, the telephone service was losing substantial sums of money, returning a deficit of over £46,000 during the first year of the Irish administration.

Thus, faced with an underdeveloped national network, a lack of basic plant and technical staff,<sup>4</sup> and civil warfare for the first two years of its existence, the Free State Government was unable to make any significant progress in developing the national telephone network. What development did occur between 1922 and June 1924, was of necessity focused on Dublin city, where exchange capacity was doubled between 1922 and 1924. However, since by 1922 6,400 of the country's 12,500 subscribers were already located in Dublin,<sup>5</sup> the real need for development lay outside the capital. It was, however, in 1924 and 1925 before "the first real departure in telephone extension began..."<sup>6</sup>

The state of telephone development in 1922 left large areas of the country unconnected: only 2½% of the geographical area of the country could receive normal exchange service.<sup>7</sup> J.J. Walsh noted of 1922 that "with the exception of the cities and certain important towns, it could reasonably be said that we had no telephone system at all, that at most it was only a skeleton system,"<sup>8</sup> singling out Connaught as an area where there were "practically no telephones whatever."<sup>9</sup>

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<sup>3</sup> DD 7, p. 2983, 25/6/24.

<sup>4</sup> In May, 1925 Walsh admitted that " Our technical staff is not able to satisfy demand, and I do not see any hope of expediting matters, for the reason that there are no more technical men available in the country... We have explored every avenue for further assistance, but pretty much in vain." DD 11, p. 2075, 21/5/25.

<sup>5</sup> DD 7, p. 2984, 25/6/24.

<sup>6</sup> JJ Walsh, DD 15, p. 2341, 27/5/26

<sup>7</sup> Telecom Eireann Information and Public Relations Division, (1987) Step-by-Step to the Digital Exchange (Dublin: Telecom Eireann).

<sup>8</sup> DD 7, p. 2982, 25/6/24.

<sup>9</sup> Ibid.

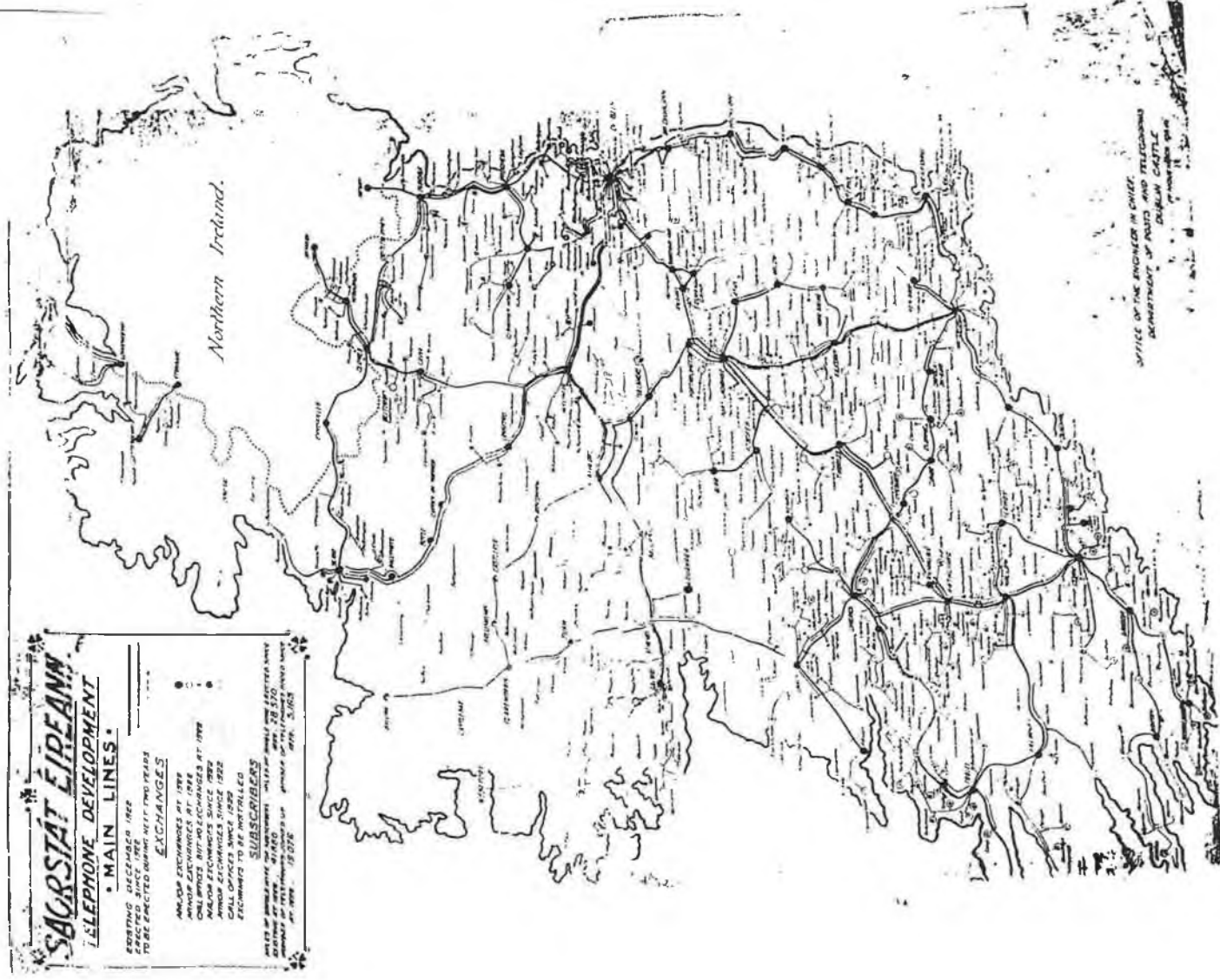
That situation may be judged by examining a 1926 map prepared for the office of the Engineer-in-Chief, showing the extent of telephone development in Ireland in 1922.<sup>10</sup> (See overleaf).

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<sup>10</sup> Map held by this researcher. Courtesy Charles Fox, Public Relations Dept. Telecom Eireann.



**Figure 4.1: 1926 Map of Trunk/Exchange Development**



Even a brief glance at the map reveals obvious gaps. There appear to have been only three or four major trunk lines: Dublin - Belfast (with a junction at Dundalk that reached westwards to Sligo), Dublin - Galway (via Athlone and Ballinasloe), Dublin - Wexford (with shorter extensions to Waterford), and Dublin - Cork. South of a line drawn from Dublin to Limerick, development was reasonably heavy: north of that line (effectively Connaught and those Free State counties of Ulster) the dispersal of telephone lines was extremely sparse: Roscommon, Castlerea, Westport etc. have no external connections. The entire county of Mayo was cut off whilst the only major lines north of Sligo are connected not with Dublin but with Strabane and Londonderry in the six counties.

The working assumption within the Post Office was that the underdevelopment of the system accounted for the loss telephone service.<sup>11</sup> Given this, Walsh outlined the following skeleton development plan during the Telephone Capital Bill, debate in May 1924:

“We drew up various schemes covering not only the extension of those parts which were ready tapped but of development in those areas, like Connaught, which have practically no telephones whatever. The first step in this direction was the supplementing of the main arteries connecting the principal towns . . . the moment that these main lines are completed . . . it is intended to cut into the sub-districts, the smaller towns and subsequently the villages, and finally the country districts, otherwise to push on with a *universal scheme of telephony*.”<sup>12</sup> (Italics added)

Thus the general thrust of telephone policy in the first decade of the state was to achieve geographically ubiquitous service. From 1924 to 1931 (although particularly between 1924 and 1928), the Post Office actively pursued a programme of expanding the reach of the network by opening exchanges in rural areas. Capital expenditure of telephone development increased fourfold between 1923 and 1926 from £53,000 to (a still modest) £206,000. Given the limited level of capital expenditure (even after 1924), the growth in the number of exchanges was quite remarkable: the total rose from 192 in 1922 to 617 by 1928. In May 1926, Walsh stated that “We have made the service practically universal. Every town and

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<sup>11</sup> Anonymous P&T document, undated (but c. 1922) in NAD 5049/22 Volume 1.

<sup>12</sup> DD 7, pp. 2982-2983, 25/6/24.

village, I think I can truly say, will have an installation by the time the next report is presented here.”<sup>13</sup> A month later, the opening of a telephone exchange in Ballyhaunis ended Mayo's ignominious distinction of being the only county in Ireland unconnected to the trunk network and without a telephone exchange.<sup>14</sup> By 1933 telephone facilities had been “provided at about 556 previously unserved towns and villages.”<sup>15</sup> A limited ubiquity was achieved in less than a decade. Furthermore, in an effort to stimulate usage and demand the Post Office reduced rental charges for subscribers connected to pre-1922 exchanges and introduced a general reduction in local call charges (from 1½d to 1¼d).

The limits of universal geographical service were, however, made manifest by the fact that the geographical expansion had not been mirrored by an increase in subscriber numbers. Had the 1922 figure for subscribers per exchange (65) remained constant through the expansion of the trunk and exchange network through the 1920s, there would have been over 40,000 subscribers on the network by 1928. In fact there were less than half this figure - 19,000. Of 102 exchanges opened in 1926/7, 20 had between 4 and 51 subscribers, whilst the remaining 82 had less than four subscribers each.<sup>16</sup>

Furthermore, the geographical coverage of the telephone remained relatively low since the expansion of the network of exchanges had been limited to “almost every *town* of consequence in the Saorstát.”<sup>17</sup> (Italics added.) With regard to rural areas, Post Office thinking assumed that “use of the telephone in a rural district must to a large extent depend on the use which is being made of it in the town.”<sup>18</sup> Outlying villages, according to Post Office wisdom, were unlikely to use the telephone “unless for the use of getting into communication with the principal business people in the towns.”<sup>19</sup> Yet the fact that the standard rental area only extended to a one mile radius of the nearest exchange made the phone prohibitively expensive for any potential subscribers outside that area. The Post Office continued to pursue the belief

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<sup>13</sup> DD 15, p. 2210-2211, 26/5/26.

<sup>14</sup> *Telegraph and Telephone Journal* Vol. 13, No. 139.

<sup>15</sup> Anonymous survey of the operations of the Irish Post Office from 1922-1932. Prepared in response to request from Diarmuid O'hEigceartuigh, Secretary of the Department of the President 11/11/1933. Contained in NAD D/T S221.

<sup>16</sup> *The Irish Times* 9/7/1927.

<sup>17</sup> M.R. Heffernan, DD 23, p. 1191, 10 May 1928.

<sup>18</sup> M.R. Heffernan, DD 23, p. 1274, 10/5/1928.

that rural telephone development was possible “only through the party line system.”<sup>20</sup> Yet having completely failed to win over Irish rural subscribers during the 1910s, the party line made no inroads in the 1920s either. The requirement that at least three subscribers to the mile were necessary to avail of the £4 per annum party line rental remained problematic given the low population density in rural areas. By May 1926, there were just 4 party lines serving 19 subscribers in the whole country.<sup>21</sup> Walsh conceded that “we have not been very successful in spreading this party line system throughout the country at this time.”<sup>22</sup>

The Department of Post and Telegraphs appears to have been bewildered (and somewhat disgruntled) by the failure of provincial subscriber numbers to increase in the wake of the general expansion of the phone network and cheaper rates, particularly as the service continued to register a loss throughout the 1920s. In May 1930 Michael Heffernan (then Parliamentary Secretary to Minister for Posts and Telegraphs (and indeed for Finance) Ernest Blythe) complained “that in the rural towns the demand for the installation of telephones shows little signs of expansion.”<sup>23</sup>

The Department interpreted the failure of subscriber numbers to increase significantly as a marketing failure. In May 1926, JJ Walsh, complained that “the telephone habit has not yet caught on here and the public have not fully wakened up to the value of the telephone . . . They do not seem to realise the commercial value of this service.”<sup>24</sup> Thus from 1928, as the Department came “to the end of our extension policy on a large scale,”<sup>25</sup> its attention was refocused on encouraging the formation of the “telephone habit.”<sup>26</sup>

With the benefit of hindsight it is possible that the drive between 1924 and 1928 to spread the geographical reach of the network, coupled with the poor internal organisation of the Telephone Section of the Department of Posts and Telegraphs may have actually hindered an

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<sup>19</sup> *Ibid.*

<sup>20</sup> DD 11, p. 2332, 27 May 1925.

<sup>21</sup> DD 15, p. 2210, 26th May, 1926.

<sup>22</sup> DD 15, p. 2210, 26th May, 1926.

<sup>23</sup> DD 34, p. 1843, 14 May 1930.

<sup>24</sup> DD 15, p. 2210, 26th May, 1926.

<sup>25</sup> Heffernan, DD 23, p. 1191, 10 May 1928..

<sup>26</sup> Heffernan, DD, Vol 23, p. 1191, 10 May 1928..

overall increase in subscribers numbers by focusing development away from areas where there was effective demand. Examining the cause of the “Partial arrest of development” in August 1930, the head of the Contract Section (analogous to a Sales and Marketing Division) wrote that the work of the Contract section over the previous decade had been “severely hampered by the lack of underground plant in many progressive and important districts and the lack of equipment at a number of the larger exchanges.”<sup>27</sup> The effect of this was that “a large number of people who applied for telephone facilities but whose requirements could not be met at the time, subsequently cancelled their applications and declined to sign agreements when the Department was later in a position to carry out the work.”<sup>28</sup>

The Contract Manager acknowledged that on his appointment in 1923, the Engineer-in-Chief had faced a shortage of underground plant and equipment but stated that:

“...had he consulted with the Contract Manager and the Traffic Superintendent, he would have been asked to proceed with the laying of underground plant and the provision of new equipment in areas where the demands for telephone facilities were such as to warrant priority over works which were of less urgency . . . There can be no doubt that the policy was detrimental to the development of the Service during the past few years.”<sup>29</sup>

In short it is apparent that a combination of the political decision to focus development in new exchange areas and poor internal communication within the Telephone Section saw development occur where there was little demand. Meanwhile, those areas where there was effective demand (primarily Dublin where plant was congested throughout the 1920s), were not attended to sufficiently.

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<sup>27</sup> Selby to Deans in NAD H 1438/34 Vol 1.

<sup>28</sup> Ibid.

<sup>29</sup> Ibid. Interestingly in 1924, Mulligan did concede that “there is a very limited field for canvassing work at the moment”. See NAD 825/29 Vol 2, Mulligan to O’Hegarty, 17th September 1924. Furthermore, there was some recognition of this problem in the Dáil. Sean Lemass complained in May 1930 that “When the work of this Department was being planned out it should have occurred to the responsible heads of the Department that the demand for extensions was likely to be much greater in a district like Rathmines and Rathgar than in any town in the country.” See DD 34, p. 1848, 14th May 1930.

Nonetheless, by 1927 there was a move to improve the workings of the service in Dublin. The Irish Post Office had considered converting central Dublin to automatic working as early as September 1922,<sup>30</sup> but the lack of both plant and sufficient technical personnel saw the plan put aside until September 1924, by which time Dublin's main manual exchange at Crown Alley was overloaded. Apparently convinced of the improvements in service quality (due to quicker connection times and 24 hour service) and cost savings that would accrue from automatic working, in September 1924 JJ Walsh announced a five year programme to bring full automatic working to Dublin city and suburbs within a five mile radius.<sup>31</sup> The first exchange opened in 1927 and by 1936 some 90% of Dublin subscribers were connected to automatic systems. Although the initial capital cost of the new exchanges was quite substantial (the first two exchanges at Ship Street and Merrion Street cumulatively cost over £53,000 pounds<sup>32</sup>), it was argued that over their lifetime the exchanges would by obviating the need to employ exchange staff by virtue of the increase in the number of subscribers that could be connected to a single exchange). However the initial expense was such that following the opening of the first two Dublin exchanges in 1926 and 1927, further auto-exchanges would only be contemplated when the service was earning a profit. As a consequence of this it actually took fifteen years before the "five year programme" announced by Walsh in 1924 was completed.<sup>33</sup>

The automation of the Dublin network created a substantial quality differential between the level of service available in Dublin and that available in the provinces where automation would not begin until 1949.<sup>34</sup> Provincial subscribers on most manual exchanges,<sup>35</sup> (despite frequently paying more for their service than their Dublin counterparts) lacked a 24 hour service and had only a skeleton service on a Sunday (typically 9 am to 10.30 am<sup>36</sup>). Furthermore the bulk of the equipment used in provincial districts after 1926 had been

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<sup>30</sup> Record of Official Papers Book No. 1, pp. 632-658. Cited in Thomas Wall(1994), Notes Towards a History of Telecommunications, (Unpublished manuscript), p. 114.

<sup>31</sup> *The Irish Independent* 1/9/1924.

<sup>32</sup> Wall, op. cit., p. 118.

<sup>33</sup> *Ibid.*, p. 115.

<sup>34</sup> When an automatic exchange was opened in Cork.

<sup>35</sup> In 1929, only 82 exchanges of a total of 654 offered continuous service. All were located in cities or large towns. See DD 32, p. 1089, 13/11/1929 for full list.

<sup>36</sup> Heffernan, DD 32, p. 1089, 13/11/1929.

recycled from that made spare by the automation of the Dublin system.<sup>37</sup> In March 1931, Michael R. Heffernan, then Parliamentary Secretary to the Minister for Posts and Telegraphs, conceded that the quality of the service in rural areas was not equal to that of the Dublin network, not only because of the fact of different hours of service but because “we have given the least modern plant to the rural areas, and we have made use of lines which were not as modern as we would like them to be.”<sup>38</sup> The alternative, he argued, would be to have no service at all in such areas. Furthermore, he offered no hope that rural service would improve in the short term:

“As to future development policy, owing to the work already done there is not scope for any immediate large-scale extension, and therefore capital expenditure will be substantially less than in the past.”<sup>39</sup>

In short having filled in the more glaring gaps in the national network, the Post Office decided that further expansion would only occur in response to effective demand.

## 5.2 General Development 1933 - 1939

On June 27 1933, Fianna Fáil Minister for Posts and Telegraphs, Gerry Boland<sup>40</sup> announced the first profits - of £66,947 - from combined services of the Irish Post Office.<sup>41</sup> Given the financial state of the country, which was increasingly affected by the global economic depression, initial reaction to the profits was cautious. Boland's response to the profit sought to discourage further demands for development, evincing a pessimistic tone with regard to the economics of telephone development in Ireland:

“Unlike England . . . there are very few big towns and we cannot hope to have the telephone used to the same extent all over the country as in other countries . . . I do

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<sup>37</sup> Wall, *op cit.*, p. 122.

<sup>38</sup> DD 37, p. 2346, 27/3/1931.

<sup>39</sup> DD 37, p. 2332, 27/3/1931

<sup>40</sup> Boland was not in fact the first Fianna Fáil Posts and Telegraphs Minister: Senator Joseph Connolly had held the post up till March 3 1933, but little of relevance to this research occurred under Connolly. See DD 46, p.46, 3 March 1933.

<sup>41</sup> DD 47, p. 1348, 27 June 1933.

not think . . . that for some time, until the population increases and the country gets more prosperous and we have bigger centres of population that the telephone will be so extensively used as it is in other countries.”<sup>42</sup>

The onset of national recession remained the prevailing influence on telephone policy throughout the early 1930s. Speaking in 1935, Gerry Boland commented that:

“I do not know how we can be expected to go ahead with a big telephone development scheme when, not only in this country but in every country there is depression . . . This is not the time to ask the Government to subsidise . . . a big telephone and postal development scheme.”<sup>43</sup>

The reluctance to spend was reflected in the levels of telephone capital investment during the early 1930s which dropped from £206,000 in 1926 to £31,000 in 1934. The Department had always considered the levels of investment up to 1928 as abnormal, necessitated by the need to recover the ground lost during the political upheavals between 1914 and 1924. Thereafter “the Capital Expenditure required annually is not likely to be more than one-third of the average annual expenditure up to, say, March 1930.”<sup>44</sup> In June 1933, Boland alluded to the fact that some engineering staff were being made redundant “due to the fact that the £1,000,000 advanced for telephone reconstruction had been spent.”<sup>45</sup> Thus despite the Telephone Section's increasing profits from 1932 onwards (£41,613 in 1932 - 1933 and £44,009 in 1933 - 34) capital expenditure on development remained low. This was reflected in the pace of exchange expansion, which after the rapid development of the 1920s, slowed dramatically in the 1930s: less than 30 new exchanges opened between 1931 and 1935.

As a consequence, the growth in subscribers in the early 1930s was unimpressive, rising from 21,500<sup>46</sup> in 1931 to 23,200<sup>47</sup> in 1935. Furthermore, growth was largely limited to Dublin

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<sup>42</sup> DD 47, p. 1367, 27 June 1933.

<sup>43</sup> DD 56, p. 826, 10/5/1935.

<sup>44</sup> Anonymous memo to each member of the Executive Council on the Telephone Capital Bill, 1927. NAD S 6921 Telephone Capital Bill 1927.

<sup>45</sup> DD 47, p. 1375, 27 June 1933.

<sup>46</sup> Ibid.

<sup>47</sup> Ibid.



which by 1935 accounted for 11,200 of the 23,200 subscribers in Ireland.<sup>48</sup> Boland noted in 1935 that "Notwithstanding special canvassing in the provinces, the results have been disappointing."<sup>49</sup>

Efforts at promoting the telephone had been hampered by the lack of development. Broadcast advertising was barred for fear of encouraging demand in those "areas in the country where saturation point has been reached."<sup>50</sup> The Department's marketing campaign was therefore limited to direct canvassing in specific (largely outside Dublin) areas of the country,<sup>51</sup> yet it was apparent that the major problem was not a lack of knowledge of the telephone system but the relatively high cost of rural installation that made rural dwellers resistant to the effects of canvassing. As early as 1930, the Head of the Contract Section had argued in a letter to P.S. O'Hegarty, Secretary at the Department of Posts and Telegraphs that:

"There is very little prospect of obtaining any appreciable increase in the number of subscribers where the £7.10.0 rate is in force and it does not pay, at present, to send an officer to carry out a canvas at such places."<sup>52</sup>

One Dáil deputy made the same argument more bluntly in May 1935:

"You may fill all the newspapers and cover all the telegraph poles and dead walls in the country with advertisements but it will be no use unless you fix a charge for the telephone which the people can afford to pay."<sup>53</sup>

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<sup>48</sup> At the same time only 472,935 of a total Irish population of 2,968,420 lived in the Dublin area. See Terence Brown (1981), Ireland: A Social and Cultural History, 1922-79, (London: Fontana), p. 152.

<sup>49</sup> DD 56, p. 744, 9 May 1935.

<sup>50</sup> Ibid.

<sup>51</sup> "There is a reason why we cannot broadcast advertisements, and it is that in certain areas in the country saturation point has been reached. From the telephone point of view there are certain areas which may be described as congested at the moment, and the reason why we cannot invite new subscribers is because it will take some time before the new cables can be laid down in them." DD 51, p. 1781, 12/4/1934.

<sup>52</sup> Selby (Head of Contract Section) to O'Hegarty, 30/8/30. NAD H 1438/34 Vol. 1 "Telephone Organisation: Reports on Staffing and Operation 1930."

<sup>53</sup> DD 56, p. 817, 10/5/1935.

A major shift in policy was just around the corner, however. Between 1933/34 and 1934/35, profits from the combined Post Office services increased by nearly 600% to £206,860 - the telephone branch alone returned a surplus of £78,067 on expenditure of £389,885. As a result of the increased profits in the telephone section, Boland finally conceded a reduction in charges, timed to come into effect from July 1 of that year:

“In view of the improving position for the past few years, and particularly of the profit for the year 1934-35, that is £78,067, I came to the conclusion that the time has come when the demand of the public for a cheaper telephone service should be met”<sup>54</sup>

The major changes were as follows:

1. Subscribers connected to exchanges built after 1922 had their standard rental of £7 10s reduced to £6 10s for a business line and £5 for a residence line, (pre-1922 exchange subscribers having received this benefit some ten years earlier).
2. The "free mileage" radius - i.e. the mileage covered by the standard rental - was extended from one to three miles.
3. Fees for local calls were reduced from 1¼d to 1d.
4. General reduction of all trunk calls charges, including the placement of a ceiling of 2s 6d for any call made to places within the 26 counties and a 4s ceiling for all calls to Great Britain and Northern Ireland.<sup>55</sup>

The extension for the free mileage area was the most significant change, extending the geographical area covered under free mileage from just over three square miles per exchange to over 28 square miles.<sup>56</sup> Having previously been under fire for neglecting rural districts

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<sup>54</sup> DD 61, p. 259, 25/3/1936.

<sup>55</sup> Ibid.

<sup>56</sup> The formula for calculating the area of a circle is  $\pi r^2$ . Assuming that the free mileage area extended as a circle beyond the exchange, the one mile free mileage areas would cover 3.14 square

Boland characterised the extension of the free radius in telephone rentals as “a concession to the country districts”<sup>57</sup> since those potential subscribers living in provincial areas would be the biggest beneficiaries of the extension. The high density of exchanges in the Dublin City area meant that most city inhabitants had already been located within the previous free mileage area.

The reduction in charges and the increase in subscribers that was expected to result from it prompted the introduction two months later of the 1936 Telephone Capital Bill which sought £500,000 to add to the £43,000 still unused from the 1931 Bill. By November 1936, the reductions were making a significant impact on the level of telephone take-up. Having made engineering staff redundant three years previously, the Department now sought an extra 60 such staff to cope with demand.

“The reductions of telephone rates on 1-7-36 has caused a large increase in public applications for telephone service particularly a large proportion of long subscribers' lines involving heavy construction work. The public demand is likely to be maintained and the long delay in providing service is like to give rise to serious public complaint.”<sup>58</sup>

The effects of the reductions and the subsequent upsurge in demand was not immediately reflected in the figures delivered in April 1937 by Boland's successor as Minister for Posts and Telegraphs, Oscar Traynor.<sup>59</sup> Although the telephone section had continued to return a profit (£105,702<sup>60</sup>) as did the combined services (£317,612<sup>61</sup>) the dearth of engineering staff coupled with delays in obtaining plant from foreign manufacturers led to “a certain amount of

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miles ( $\pi (3.14) * 1 (1^2)$ ). A three mile free mileage area would cover 28.26 square miles. ( $\pi (3.14) * 9 (3^2)$ ).

<sup>57</sup> DD 61, p. 310, 25 March 1936.

<sup>58</sup> M & T.B to the Engineering Branch Headquarters, 4/11/1936. NAD 11064/39 "Engineering Branch re: Temporary Telephone Labourers - seeking upgrade in rank. 1936 - 41." The same document contains a more attributable reference to the staff increase - from the Engineer-in-Chief, TJ Monaghan in a letter to the Department Secretary dated 31 October 1936.

<sup>59</sup> Oscar Traynor became Minister for Posts and Telegraphs on November 11 1936. See DD 64.

<sup>60</sup> DD 66, p. 1516, 22 April 1937.

<sup>61</sup> Ibid.

congestion on some of the longer distance circuits . . . (and) delay in providing services for new subscribers where any substantial pole route construction is involved.”<sup>62</sup>

This unprecedented level of investment was almost entirely fuelled by the post-tariff reduction take-up in charges. In spite of the reduction, Traynor announced that the Telephone Branch in the first full year of the revised scale of charges had returned a surplus of £78,833 due to the “accelerated”<sup>63</sup> growth of the telephone service: the number of local and trunk calls had gone up by 713,000 and 450,000 respectively whilst there were an additional 1,654 subscribers, 20% up on the previous year’s increase. By June 30 1938, there were 26,400 subscribers and 40,500 telephones in use, representing increases of 3,000 and 3,800 respectively since June 1936.

Congestion on trunk traffic in particular led the Department to invest heavily in new trunk carrier technology. Developed by Bell Telephone Laboratories as a means of overcoming the difficulties in providing service economically in sparsely populated rural areas in the US, carrier systems appeared ideally suited to the similar problems faced by the provision of service in rural areas of Ireland. Thus in 1931 the Department had inaugurated the first Irish three-channel carrier system between Belfast and Dublin (in co-operation with British Post Office) permitting three simultaneous conversations on a single bearer circuit and reducing the per call cost of service provision.<sup>64</sup> No further investment was made in this technology until 1936, however when the sudden increase in trunk traffic prompted a crash investment programme. By 1939, Dublin had been connected to the country’s other main population centres via an additional 18 carrier systems.<sup>65</sup>

Furthermore, such was the pace of development that the £500,000 voted by the 1936 Telephone Capital Act was entirely depleted within two years,<sup>66</sup> leading to the passing in July 1938 of a further Telephone Capital Bill, providing £1,000,000 (the previous four acts had

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<sup>62</sup> DD 62, p. 1179, 27 May 1936.

<sup>63</sup> DD 70, p. 1144, 30 March 1938.

<sup>64</sup> A.J. Litton (1961), “The Growth and Development of the Irish Telephone System”, *Journal of the Statistical and Social Inquiry Society of Ireland* Vol. 20, Part 5, pp. 79-115, p. 86.

<sup>65</sup> *Ibid.*

<sup>66</sup> DD 70, p. 1144, 30 March 1938

cumulatively amounted to only £1,750,000) to fund capital development over the next five years. Development continued apace until September 1939. By the end of that year there were over 27,000 subscribers and over 44,000 telephone stations.<sup>67</sup> Furthermore, the telephone service continued to return a surplus: £61,286<sup>68</sup> in 1937 - 38 and £65,752<sup>69</sup> the following year.

Although the extension of the free mileage area meant that by 1938 the total normal service areas of all exchanges amounted to 60% of the area of the country, there remained the problem of serving the remaining sparsely populated areas. The density of subscribers outside urban areas was considered too low to justify the expense of an automatic exchange - of nearly 800 exchanges in late 1930s, over 600 had fewer than ten subscribers each;<sup>70</sup> thus all rural subscribers were served by manual exchanges typically with limited service hours:

“The normal hours at exchanges with less than ten subscribers are from 8am to 8pm on weekdays and from 9am to 10.30am on Sundays. Where there are ten subscribers and upwards, the service is extended to 10pm on weekdays and additional attendance is given on Sunday evenings from 7pm to 9pm. Where continuous attendance is given at provincial exchanges, the traffic arising after 10 pm is, on the whole negligible.”<sup>71</sup>

Provision of longer service hours at such exchanges was considered too expensive. Oscar Traynor<sup>72</sup> noted in March 1938 that: “Service outside day hours is extremely costly and . . . revenue from night and Sunday traffic at small exchanges would not nearly cover the cost of general extension of hours.”<sup>73</sup> Recognising that the absence of 24 hour service constituted a serious disincentive to becoming a subscriber, however, in the mid 1930s the Department began to consider the adoption of new rural automatic technology to spread the service to “remote areas and the smaller villages.”<sup>74</sup> In March 1938 Oscar Traynor announced the start

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<sup>67</sup> DD 75, p. 1441, 17 April 1940.

<sup>68</sup> DD 74, p. 2464, 23 March 1939.

<sup>69</sup> DD 75, p. 1437, 17 April 1940.

<sup>70</sup> Wall, *op. cit.*, p. 126.

<sup>71</sup> P.J. Little, then Minister for P&T. DD 79, p. 1470, 17/4/1940.

<sup>72</sup> Posts and Telegraphs Minister from 1937 to 1939.

<sup>73</sup> DD 70, p. 1244, 31 March 1938.

<sup>74</sup> DD 62, pp. 1179 - 1180, 27 May 1936.

of experiments with a semi-automatic system which automatically connected subscribers to distant 24 hour-a-day-exchanges. One year later he commented:

“Last year I mentioned that it was hoped to install experimentally a rural automatic telephone system in the exchange areas of Malahide, Donabate, Rush and Lusk. I am happy to say that the scheme, which was introduced about six months ago, is working satisfactorily and that it gives the prospect of affording a solution of the difficulties associated with the provision of continuous service at small exchanges. It is proposed to extend the experiment during the coming year.”<sup>75</sup>

The technological answer to the problem of extending service hours in rural areas was, however, suddenly undermined by political factors when the experiment was curtailed by the onset of war.

### 5.3 Conception of the Telephone

Although political and public opinion appeared to regard the institution of the Post Office as having a role to play in facilitating *both* the social and a commercial life of the country, the vast bulk of references referring to the function of the telephone in this period make it clear that it was primarily seen as a tool of business and commerce. A 1924 letter to P.S. O'Hegarty, the Secretary of the Department of Post and Telegraphs, criticising the poor marketing of the telephone, is revealing in terms of the Department's target market:

“There is no reason for believing that the *average Irish commercial or professional man* refuses to be convinced that the installation of a telephone is a reproductive investment and not a dead loss to him. Whatever is the cause of the want of development in provincial Ireland the Contract Staff, which is the propelling point of development, must take its share of blame.”<sup>76</sup> (Italics added)

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<sup>75</sup> DD 74, p. 2468, 23 March 1939.

<sup>76</sup> De Brit to O'Hegarty, 8th September 1924. NAD H 82529 Vol. 2.

In the June 1923 Estimates debates JJ Walsh stressed that Post Office policy was based on giving “satisfaction” to “the commercial community.”<sup>77</sup> Most calls for the expansion of the service tended to be clientalist in nature, stressing the importance of the telephone for the commercial life of a particular town. Yet there is evidence that JJ Walsh had a wider vision of the role of the telephone in national development:

“...practically every town in the country has communicated with us to install an exchange. There is scarcely a Deputy here whose Constituents have not represented to him that the time has come for a more general utilisation of the telephone. There is nothing very strange in that. Our country is competing with up-to-date countries such as Sweden and Norway and England, and if people are placed in the position of dray-horses against race-horses, so to speak, they are going to get left behind.”<sup>78</sup>

This view seems to have been fairly pervasive. Professor Magennis, Dáil Representative of the National University of Ireland implicitly argued for the subsidisation of the service on the grounds that it would improve the efficiency and cost effectiveness of the rest of the economy:

“The telephone service as an aid to commercial and industrial extension and development upon business lines ought to be regarded as a national service today . . . and the cost of it should not be a prime consideration in regard to the total turnover of postal business in a year.”<sup>79</sup>

Indeed Walsh made it explicit that such a line of reasoning had influenced his decision to introduce the tariff changes in 1925: “I thought it well to recommend to the Minister for Finance a substantial reduction in telephone charges . . . because of the need for industrial stimulation.”<sup>80</sup> In fact Walsh went so far as to suggest in the same debate that it would “be the policy of the Department to subsidise the (telephone) system from its own finances . . . because it is the great channel through which public business can be done.”<sup>81</sup>

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<sup>77</sup> DD 3, p. 2236, 21/6/1923.

<sup>78</sup> DD 3, p. 2234, 21/6/1923.

<sup>79</sup> DD 3, p. 2250, 21/6/1923.

<sup>80</sup> DD 15, p. 2062, 21/5/1925.

<sup>81</sup> DD 15, p. 2403, 27/5/1925.

This conception of the role of the telephone was also evident outside the Dáil. Urging an improvement in the quality of the telephone service in a July 1927 editorial, *The Irish Times* stressed that “An efficient telephone service nowadays is essential to good business.”<sup>82</sup> Yet there were limitations on the extent to which the need to assist the general economic development of the state governed the extension of the network. Despite the official view that “in an agricultural country such as the Free State the urban residents are largely dependent for their livelihood from the produce of farming occupations,”<sup>83</sup> the idea of extending a direct telephone to every farmer's house (there were 382,000 holdings in Ireland by 1930<sup>84</sup>) was “out of the question [as] the expense would be too much.”<sup>85</sup>

Nonetheless, responding to calls from political groups such as the Farmers Party<sup>86</sup> to extend the telephone for the benefit of farmers, the Post Office compromised where possible adopting a policy in the mid-1920s of extending telephone service to creameries: if bringing the telephone to every farmer in the country was not immediately possible because of financial restraints, then at least the creameries, the foci of dairy farming communities could be so connected. Even here however, the state was initially reluctant to sanction expenditure on the many creameries far removed from population centres, initially experimenting with directional wireless systems as a cheap way of connecting the creameries.<sup>87</sup> Hopelessly unreliable, these systems were abandoned by 1924, at which time JJ Walsh spoke of succumbing “to the pressure of the Farmers' Party” and of having provided “phones to a big number of creameries.”<sup>88</sup>

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<sup>82</sup> *The Irish Times* 30/7/1927.

<sup>83</sup> DD 23, p. 1200, 10/5/1928,

<sup>84</sup> J.J. Lee (1989), *Ireland 1912 - 1985: Politics and Society*. (Cambridge: Cambridge University Press), p. 115.

<sup>85</sup> DD11, p. 2400, 27/5/1925.

<sup>86</sup> “The development of the telephone service affects (the Farmers Party) interests ... agriculture is the great staple of the country and ... the telephone service could put community wide disruption (due to) unforeseen farm price changes out of possibility.” William Magennis, Farmers Party TD, DD 3, p. 2250, 21/6/1923

<sup>87</sup> *Ibid.*

<sup>88</sup> DD 11, p. 2074, 21/5/1925.



Thus whilst there was a prevailing understanding that the development of the telephone contributed at a macro-economic level to general economic development, this was not generally sufficient to encourage the Post Office (and the ever watchful Department of Finance) to extend the network where it did not pay.

The notion that the telephone might have a place in residences does not appear to have been widely embraced in the 1920s and 1930s. Of the 28,991 telephone sets (as opposed to lines) in service in 1929, 4,378 were classed as private residence lines. Given that private residences were less likely than business subscribers to have more than one telephone this figure is probably fairly close to the actual number of private subscribers. Thus private residences accounted for somewhere between 20% and 25% of the total number of subscriber lines in the country. If this seems a reasonably high figure it should be remembered that this represented an infinitesimal level of penetration: by 1930 there were approximately 2.5 residential phones per 1,000 of population. The truth was that a private telephone remained beyond the financial reach of the bulk of the population, a fact acknowledged by Walsh in July 1923.

*“It is recognised that high rentals are not conducive to the development of the Telephone Service and I am having the whole question of Telephone rates inquired into, with a view to ascertaining whether any reduction in the charges is warranted, and whether it would be practicable to afford extensions of the telephone system under more favourable terms.”*<sup>89</sup> (Italics added)

The average annual wage of, for example, a male permanent farm labourer throughout the 1920s and 1930s was around £65.<sup>90</sup> Even after the 1925 reductions and the introduction of the £5 residential rate (which, as Walsh acknowledged, with the added factor of call charges would actually cost around £8 per annum<sup>91</sup>), this would have placed the telephone beyond financial reach.

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<sup>89</sup> DD 4, p 569, 12th July 1923.

<sup>90</sup> Central Statistics Office (1933), Statistical Abstract 1933, (Dublin: The Stationary Office).

<sup>91</sup> DD 11, p. 2062, 21/5/1925.

## 5.4 Conceptions of the Telephone Service

Looking at Irish economic policy in the 1920s, J.J. Lee has concluded that “Fiscal responsibility, and low taxation, were supposed to impress English doubters of the Irish capacity for self-discipline.”<sup>92</sup> Given this, a primary influence on the Department of Posts and Telegraphs was the Department of Finance. Leon Ó’Broin, a former secretary of P&T policy noted of the Department that:

“All these Ministers of mine were essentially juniors . . . there were none - even when they achieved some seniority - who were able to fight their corner in the Cabinet room or with the Minister for Finance who controlled the supply of money. The Post Office always suffered from a shortage of capital for telephone development, and with Ministers allowing themselves to be treated as small boys there was never any real hope of catching up on the demand. The officials did the best they could with their opposite numbers in Finance but there was a limit to what they could do once the priorities had been fixed. The Post Office was always down towards the bottom of the list. We obviously did not count for much politically.”<sup>93</sup>

The fact that a department that “prided itself on paying its way”<sup>94</sup> was from 1927 to 1932 controlled by a Minister (Ernest Blythe) who was also Minister for Finance and by a Parliamentary Secretary, Michael J. Heffernan, who were “committed to a policy of rigid economy in public expenditure,”<sup>95</sup> meant that as the 1920s progressed, fiscal rectitude within the Department was if anything likely to increase.

The Post Office service inherited by the Free State government was a loss-making proposition, returning a deficit of £1,412,000<sup>96</sup> during the first year of the Irish administration. The fiscal outlook of the Cosgrave government, however, made ongoing

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<sup>92</sup> Lee, *op cit.*, p. 108.

<sup>93</sup> Leon Ó’Broin, (1985), *Just Like Yesterday: An Autobiography*, (Dublin: Gill and MacMillan), p. 163.

<sup>94</sup> *Ibid.*

<sup>95</sup> *Ibid.*, p. 167.

<sup>96</sup> DD 3, p. 2234, 21/6/1923.

deficits of the scale recorded in 1922/23 intolerable.<sup>97</sup> Thus in 1922 the Department of P&T established a Retrenchment Committee to review possible modifications of the English Post Office system in its application to Ireland.<sup>98</sup> The conclusions of the Retrenchment Committee were largely based on a Civil Service analysis of the Post Office operation which determined that it would be possible to break even “without any appreciable curtailment of *essential services*.”<sup>99</sup> The Committee thus focused on “luxury services,”<sup>100</sup> the Department line on which was that while such services might have made sense in the context of the UK “it will be agreed that something less would have suited this country.”<sup>101</sup> The key question concerned which services came under the heading “essential” and which under “luxury.”

It was explicitly stated that certain services within the Post Office had a social value and had to be retained for their social value, even if this entailed a loss. Thus cross-subsidisation of rural Post Offices with profits from their urban counterparts would remain a feature of the Irish Post Office.<sup>102</sup> So whilst Heffernan noted in 1927 that five years earlier it had become “necessary to make reorganisations and readjustment so as to bring the service into line with the economic resources of the country,”<sup>103</sup> he stressed that there were limits to the extent to which savings could be effected:

“There is no doubt that the Post Office could be placed on a paying basis - but at a cost . . . The value of the communication services of the Post Office must be judged by other considerations in addition to those of profit and loss on the immediate service.”<sup>104</sup>

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<sup>97</sup> “From a public point of view the most serious aspect (of the Post Office performance) is the heavy drain which this one Branch of the public service is making on the national finances.” Expressed in a 1922 Civil Service analysis of the Telephone System. See NAD 5049/22 Vol 1, “Transfer of Services 1922”.

<sup>98</sup> DD 3, p. 2233, 21/6/1923.

<sup>99</sup> See NAD 5049/22 Vol 1, “Transfer of Services 1922”.

<sup>100</sup> DD 3, p. 2235, 21/6/1923.

<sup>101</sup> J.J. Walsh in DD 3, p. 2234, 21/6/1923.

<sup>102</sup> Walsh: “In the year 1923/24... We made a profit in the working of this service running into some hundreds of thousands of pounds through urban work, and we lost that profit and £700,000 in addition in...work in the country. Now, in contributing to these rural services, are we acting impartially? If we acted impartially we would spend in proportion to our returns in rural areas.” DD 11, p. 2366, 27/5/1925.

<sup>103</sup> DD 3, p. 1197, 10/5/1927.

<sup>104</sup> *Ibid.*, p. 1200.

Thus, the consistent deficits recorded by the “declining”<sup>105</sup> telegraph service since the 1880s continued to be tolerated because the telegraphs remained “essential to the comfort and welfare of certain members of the community.”<sup>106</sup> Indeed in contrast to the postal and telephone services telegraph charges remained largely unchanged from the 1920s until the 1950s.<sup>107</sup> Similarly there was little question of curtailing the postal services although the working assumption was that the postal service would return to profit “in a comparatively brief period.”<sup>108</sup>

There was, however, less willingness to consider the telephone service in the same light. Indeed its very underdevelopment made it possible to argue that tolerating telephone losses was Government subsidisation of a luxury service.<sup>109</sup> Speaking in 1927, Sean Lemass argued that: “I would like to see the telephone service extended and facilities offered for its extension but *I do not think that it should be maintained at the cost of the general taxpayer.*”<sup>110</sup> (Italics added)

Looked at as a single institution it was “generally accepted that the Post Office is amongst Government Departments the nearest approach there is to a commercial institution and the one which should therefore be administered as far as possible on a self-supporting basis.”<sup>111</sup> The question was where the profits would be found to subsidise the essential services if they lost money. The telephone was to be the answer. Surveying the early experience of the Post Office

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<sup>105</sup> DD 23, p. 1188, 10th May 1928.

<sup>106</sup> Michael Heffernan, *Ibid.*

<sup>107</sup> DD 152, p. 226, 6/7/55.

<sup>108</sup> Expressed in a 1922 Civil Service analysis of the Telephone System. See NAD 5049/22 Vol 1, “Transfer of Services 1922”. The report also noticed with regard to the postal service that the main causes of the deficit were “increased wages, decreased revenue, and the widespread war which has been waged on the Post Office by Irregular Forces. Because of these reasons we may take it that the year under review is the high water-mark in abnormality.”

<sup>109</sup> This outlook appears to have pervaded all levels of the Department. In an August 1930 letter to the Secretary of the Department arguing against the introduction of commissions for Contract Officers, the Head of the Contract (Sales) Section expressed the view that it was “bad policy to push the idea of the telephone service too far, and so incur the chances of trouble in the collection of accounts, or even bad debts ultimately. A potential commission in the offing is likely to urge a Contract Officer to over zeal.” Selby (Head of Contract Section) to O’Hegarty, 30/8/30. NAD H 1438/34 Vol. 1 “Telephone Organisation: Reports on Staffing and Operation 1930.”

<sup>110</sup> DD 34, p. 1847, 14/5/1930.

from the early 1930s onwards, former Secretary of the Department of Posts and Telegraphs, Leon O'Broin noted that:

“When I went to the Post Office, and for some years afterwards, the postal and telephone services taken together paid their way; that is to say, taking one year with another and offsetting the eggs that the golden telephone goose had started to lay against the expensive labour-intensive postal machine.”<sup>112</sup>

Thus whilst the first Minister for Posts and Telegraphs J.J. Walsh favoured reducing telephone rates, he stated that this could only happen if the financial position of the Post Office as a whole was profitable. Even if the telephone service alone was profitable, telephone charge reductions or any expenditure on the telephone service that was not immediately remunerative could only occur if an excess of profits remained after cross-subsidising losses on the other Post Office services.

Given all of this, the loss on the operations of the Telephone Service was considered politically unacceptable as was made explicit in its funding. A Civil Service document noted in 1922 that:

“The Telephone Service is built up from a consolidated fund, and the capital monies are advanced *on the understanding that these monies will be reproductive and therefore not a cause of expense to the state.*”<sup>113</sup> (Italics added)

From its inception the Irish Post Office adopted the “custom of our predecessors”<sup>114</sup> with regard to the telephone service setting charges according to the cost of capital expenditure and interest. Thus the Irish Post Office’s initial standard rental of £7 10s applied only to those subscribers located within a one mile radius of the nearest exchange. The annual rental

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<sup>111</sup> DD 23, p. 1197, 10th May, 1928.

<sup>112</sup> O'Broin, *op. cit.*, p. 162

<sup>113</sup> Expressed in a 1922 Civil Service analysis of the Telephone System. See NAD 5049/22 Vol 1, "Transfer of Services 1922".

<sup>114</sup> DD 15, p. 2400, 27/5/1925.

increased by 25 shillings for every one-eighth of a mile beyond which radius the subscriber was located. Speaking in June 1933, Gerry Boland stated:

“When an individual is getting a special service at a distance, it is not considered right that the State should stand the expense... If a man lives three or four miles from a telephone exchange, I do not think it would be fair to ask the State to put up poles and wires for his convenience alone.”<sup>115</sup>

Furthermore even standard telephone rates only applied in what might be termed "standard areas", such as cities and larger towns, where the prior existence of plant and machinery enabled the setting of a standard rate: in 1922 this accounted for only 2.5% of the geographical area of the state. Outside these areas "standard" charges were non-existent.<sup>116</sup> J.J. Walsh noted in 1923 that:

“In the case of new Exchanges the rental for a subscriber’s line varies according to local circumstance and is based upon the cost of the extension of the trunk telephone system . . . there is no standard charge in such cases.”<sup>117</sup>

A 1930 list of approximately 100 selected exchanges,<sup>118</sup> specifying those exchanges at which special rentals applied, makes it clear that such exchanges are small (with a typical maximum capacity of 40 subscribers) and located in remote (i.e. more costly to service) areas.

Furthermore the expansion of the telephone network beyond the cities and larger towns in the 1920s was undertaken to bring the service into profitability, the loss being “in all probability due to our limited operations and we are advised that an extension of this service on well-defined lines, with up-to-date machinery will eventually wipe out the deficit.”<sup>119</sup> However, the

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<sup>115</sup> DD 47, p. 1370, 27/6/33.

<sup>116</sup> Thus for example, a question to Walsh from a Galway TD, John Lyons, in July 1923, suggested that the standard charge for a proposed new exchange at Moate was £15. DD 4, p. 569, 12/7/1923.

<sup>117</sup> DD 4, p. 569, 12/7/1923.

<sup>118</sup> Contained in NAD H 1438/34 Vol. 1 "Telephone Organisation: Reports on Staffing and Operation 1930."

<sup>119</sup> Expressed in a 1922 Civil Service analysis of the Telephone System. See NAD 5049/22 Vol 1, "Transfer of Services 1922".

failure of the service to substantially increase subscriber numbers and the ongoing losses during and after the 1924 to 1928 expansion period induced caution with regard to any future expansion. The earlier view that underdevelopment was the cause of the loss on the service was modified by a new outlook on the economics of telephone development:

“Ordinarily in an expanding business, proportionately to expansion, expenses on the unit basis have a tendency to decrease as expansion takes place. This rule does not apply to the telephone services. Overhead expenses do not, of course, increase in the same proportion as the number of telephones. The cost of apparatus tends to fall. The savings effected on these are offset to a large extent, if not altogether, by the increased expense in cost of the plant necessary to provide ready means of communication between the increased number of users of the telephone. Exchange plant and staff increase out of proportion to the number of added subscribers.”<sup>120</sup>

In short, cost-based pricing remained the standard Department of Posts and Telegraphs charging policy through the 1920s and early 1930s. Thus telephone policy, with regard to the development of the service, represented continuity with British practice. There was no question of cross-subsidisation of rates. Extension of the service, particularly in rural areas, would only be carried out if it was felt that the establishment of a new exchange would be justified by the number of potential subscribers and if that exchange was likely to pay its way. Indeed it is apparent that in 1924 the Department altered its own regulations to make the establishment of Telephone Call Offices specifically in rural areas conditional the expectation that “each Call Office is likely to be self-supporting.”<sup>121</sup> Failing that, a guarantee from a reputable local source was required.<sup>122</sup> As Walsh put it:

“Telephonic extensions cost money. When we extend the Minister for Finance rightly insists that a certain amount of support shall be forthcoming. There is nothing unreasonable in that. He does not definitely assert that every telephone extension must pay its way, but he does insist that a certain reasonable guarantee should be

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<sup>120</sup> Heffernan, *DD*, Vol. 23, p. 1190, 10/5/1928.

<sup>121</sup> Department of Posts and Telegraphs memo to the Cabinet Committee on Economic Planning, 5 October 1943. NAD S 13086 A.

<sup>122</sup> Such as a Justice of the Peace, Parish Priest etc.

forthcoming in every district. In following that rule the Minister is simply adopting the one that prevailed under the English system.”<sup>123</sup>

The practical effect of such an approach however was to ensure that speed of development in rural areas, where almost by definition there existed a low population density, would remain extremely slow.

The same policy was pursued by Walsh's successors in the 1920s and 1930s. In refusing a request to extend the telephone service (i.e. build an exchange and establish a public call box) to two villages in the Longford-Westmeath area, Michael Heffernan (Parliamentary Secretary to Ernest Blythe, the Minister for Posts and Telegraphs), employed the same rationale that Walsh and various British Postmaster-Generals before him had done:

“I regret that the provisioning of the public telephone service . . . would not be warranted inasmuch as the revenue likely to be derived from calls would not be nearly sufficient to cover the expenditure which would be necessary and a considerable loss to public fund would consequently be involved.”<sup>124</sup>

Thus from 1922 to 1932 the Cumann na Gael administration actively pursued a policy of the utmost financial caution with regard to the Post Office which made heavy financial investment in telephony unthinkable. The first Fianna Fáil administration reaped the benefits of this in 1932 when, during his first estimates debate, Senator Joseph Connolly, the new Minister for Posts and Telegraphs, announced that the Telephone Section had made a profit of £6,000 (although this ultimately proved to be significantly larger at £39, 289).<sup>125</sup> Furthermore, throughout the Post Office service as a whole he expected to “have a clear balance sheet on the working of the Department for the year ended March 31st 1932.”<sup>126</sup>

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<sup>123</sup> Walsh DD 15, p. 2248, 26/5/1926.

<sup>124</sup> Heffernan's response to a request from the Longford-Westmeath T.D., P. Connolly to extend the public telephone service to the villages of Tarmonbarry and Clondra. DD 39, p.794, 24/6/1931.

<sup>125</sup> Department of Posts and Telegraphs Commercial Accounts for the Year ended 31 March 1948.

<sup>126</sup> DD 41, p. 439, 21/4/1932.



As noted above, Fianna Fáil reacted to the advent of profits from the Post Office with extreme caution. At the Department of Posts and Telegraphs, the first Fianna Fáil Minister, Senator Joseph Connolly, made it clear that general telephone policy would not be changed. There was to be no new expansionary wave of capital expenditure and pricing policy would remain the same:

“...the method is to work out the costs of bringing the telephone to an area - the capital cost, the maintenance cost, and the cost of the engineering work, then take them in proportion to the number of subscribers and fix the cost on the basis of capital and maintenance cost over a certain number of years. I cannot see that any other method can be adopted. An isolated subscriber may want a line to his house and it may cost several hundred pounds to bring it. If he chooses to live in a certain area far removed, say on the top of a mountain, of course the telephone installation can only be made available for him at a certain cost.”<sup>127</sup>

However, the four years between 1932 and 1936 of sustained growth in the telephone section and overall Post Office profits, (which reached £317,812 in 1935/36<sup>128</sup>, a figure that would not be surpassed for a further 25 years), finally convinced the Department of Finance to sanction a change in rates. The tripling of the “free” mileage radius (the area within which the minimum standard rental applied) to three miles was undoubtedly significant for rural development, bringing as it did 60% into free mileage areas. From the perspective of how the service was conceived, the agreement to lower the standard £7 10s rental for those post-1922 exchanges (primarily located in smaller towns) to the £6 10s and £5 rate for businesses and residences respectively was also important, implying some move towards cross-subsidisation. Nonetheless universally applicable rates were still out of the question: annual rentals were still increased by £10 per mile for every mile a new subscriber was situated beyond the new three mile radius from the exchange, whilst the practice of “specially assessing” the rentals on smaller, remote exchanges remained. Furthermore, the fact that two thirds<sup>129</sup> of the £500,000 voted by the 1936 Telephone Capital Bill were concentrated in city areas where there was

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<sup>127</sup> DD 41, p. 480, 22/4/1932.

<sup>128</sup> Department of Posts and Telegraphs Commercial Accounts for the Year ended 31 March 1948.

<sup>129</sup> See DD 62, p. 1616, 3/6/1936.

existing “effective demand”<sup>130</sup> meant that capital expenditure would remain focused in those areas where it would be immediately profitable. As for rural districts, effective demand was not yet there and could not be led by investment in advance of demand. Hope for expansion therefore lay not in a change of heart on the part of the Post Office but, as Minister Gerry Boland put it in 1936, in the hands of rural people: “I hope that as a result of the reduction in charges, the country districts will become more telephone-minded and that the demand will be there in the future.”<sup>131</sup>

Before concluding this section it is worth noting that the Department outlook on the role of the Post Office and in particular the telephone section - namely that despite a social remit, it was a commercial operation which had to break even - did not go unquestioned in the 1920s and 1930s. In fact there was active debate in the Dáil as to the validity of the Department’s approach: Deputies pointed to the injustice of a system whereby in those districts in which the telephone main line had not previously lain (i.e. rural districts), those desirous of having a telephone must bear the entire cost not only of having the telephone installed but of conveying the main to their houses:

“Is it not positively ridiculous to charge a man with the cost of laying a cable when the people who come to that district when it is built up will only have to bear a nominal charge?”<sup>132</sup>

There was also a far more fundamental questioning of the general conception of the Post Office role that appeared to inform the Department’s policy-making. Thus whilst County Dublin TD, B. Johnson described the Post Office as “essentially a community service,”<sup>133</sup> Deputy J I McGuire argued in May 1935 that:

“It must be remembered that a public government monopoly is not in the same position as a private monopoly. In the case of a private monopoly, such as transport,

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<sup>130</sup> DD 62, p. 1618, 3 June 1936.

<sup>131</sup> Ibid.

<sup>132</sup> DD 56, p. 815, 10/5/35.

<sup>133</sup> DD 3, p. 2244, 21/6/23.

the criterion of charges should be what will give a proper wage to the workers and a proper income to the owners of the business. ...

In this public service it is obvious that another consideration will apply, first because in the public service the only source of revenue is the sale of the commodity which they deal in, but in the case of a public Government service there are hundreds of other sources from which losses can be met. It seems clear to me that in the case of an essential service like the Post Office the people who must of necessity avail of it should not have to bear the total expense of keeping it up.”<sup>134</sup>

Yet whilst this public service dimension was acknowledged by successive ministers they also continued to stress the standard position that the Post Office's freedom of action was limited by economic considerations:

“We must have some regards to the needs of the community and at the same time to the costs of the service - what the country can afford to spend on it. We claim that so far as it is possible for the Post Office, within the means at its disposal, to meet the requirements of the rural areas, we have done that. ...

But, as I have already indicated, we are bound by financial considerations which we cannot get over.”<sup>135</sup>

And critically it was the views of those in power that determined the actual development of the service.

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<sup>134</sup> DD 56, pp. 756-757, 9 May 1935.

<sup>135</sup> DD 51, pp. 1782-1783, 12 April 1934

## 5.5 Summary: Universal Service 1921 - 1939

Looked at from the perspective of the key universal service indicators, developments with regard to the Irish telephone system in the 1920s and 1930s were somewhat disappointing. Subscriber numbers increased from just under 12,000 in 1922 to 24,500 by 1939, equivalent to a rise from just 0.77 phones per 1,000 people in 1925 to a scarcely more impressive 1.55 by 1940. In terms of geographical diffusion there was an objective urban/rural imbalance in the development of the Irish telephone service in this period. As a result of both the Post Office's unwillingness to engage in any expenditure that was not immediately remunerative (i.e. in sparsely populated rural areas) together with a rental scale that hugely favoured those (implicitly urban) subscribers living within a one mile radius of the nearest exchange. The free mileage radius in 1922 covered only 2.5% of the country, effectively only Ireland's cities and larger towns. Yet 61% of the Irish population lived outside towns and villages in 1926.<sup>136</sup> Thus in 1922 Dublin subscribers accounted for 51%<sup>137</sup> of all Irish subscribers, whilst in overall population terms Dublin accounted for less than 16% of the total.<sup>138</sup> The telephone network expansion programme in the latter half of the 1920s actually saw the imbalance further advanced: by 1936 Dublin subscribers accounted for 64%<sup>139</sup> of all subscribers (although overall, numbers had doubled since 1922). The pattern of exchange development made it clear that the Department of Posts and Telegraphs itself saw the telephone as an urban implement:

“Unlike England... there are very few big towns and we cannot hope to have the telephone used to the same extent all over the country as in other countries... I do not think... that for some time, until the population increases and the country gets more prosperous and we have bigger centres of population that the telephone will be so extensively used as it is in other countries.”<sup>140</sup>

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<sup>136</sup> Terence Brown (1981), *Ireland 1922 - 1979: A Social and Cultural History*. (London: Fontana), p. 18.

<sup>137</sup> DD 7, p. 284, 25/6/24.

<sup>138</sup> Brown, op cit., p. 152.

<sup>139</sup> Anonymous: "Telephones. Crown Alley (and Exchequer Street) Trunk Exchanges. Comparative figures of Traffic and Staff - 1936 - 1942". NAD S 11992.

<sup>140</sup> Gerry Boland DD 47, p. 1367, 27/6/33.

The Department's reluctance to invest in the telephone service should also be understood in relation to the country's overall economic situation and the policies which flowed from it. As noted in chapter three, the main fiscal objective of the Cumann na nGael administration between 1922 and 1932 was to aid the farming community, then identified as the key to the economic health of the country, by minimising the tax burden and thus state expenditure. This was hardly conducive to encouraging heavy investment in capital intensive telecommunications infrastructure and equipment. The advent of Fianna Fail in government might have offered a more fruitful environment for such investment given that party's greater willingness to invest in the economy but such investment was focused on industrial development, which in this period at least did not identify development of telecommunications infrastructure as a prerequisite.

Department of Posts and Telegraphs reluctance to invest in the service absence of a guaranteed return was reflected from 1924 in its policy on the provision of public Telephone Call Boxes in rural areas, which required a strong expectation or actual guarantee that such provision would be financially self-supporting. As a consequence, call box provision, the single method which permitted non-subscribers access to the telephone, effectively ceased in rural areas in the mid-1930s when it became impossible to find any new locations that satisfied the financial requirement.<sup>141</sup>

Financial caution was also reflected in the policy of setting of a scale of distance-dependent rental charges rather than establishing a single national rental charge. This clearly favoured those living in urban areas although the extension of the free mileage radius in 1936 substantially reduced the numbers coming under the higher end of the scale. Nonetheless the ongoing practice of charging different rentals clearly undermined the professed "universality" of the service.

The rural/urban imbalance was further exacerbated, however, by the fact that some subscribers outside Dublin received a quality of service that was inferior to that available in

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<sup>141</sup> "A result of this condition of self-support as been, however, that the position has been reached for a number of years past that the opening of Call Offices in rural areas has, to all intents and purposes, come to a full stop because in practically all cases, the condition of self-support would not

Dublin and which was frequently offered on less favourable terms. The introduction of automatic exchanges to Dublin in 1926 gave Dublin subscribers a 24 hour service that offered immediate connection (although some such subscribers had to wait till the end of the 1930s for automatic service). Meanwhile all subscribers outside Dublin were reliant on manual exchanges with the result that connection time was slow.<sup>142</sup> Furthermore, for those connected to exchanges with less than 30 subscribers (typically those serving towns with populations of less than 3,500 people), hours of service were limited.<sup>143</sup> These varied throughout the 1920s and 1930s but, even by the close of the period, exchanges with ten subscribers or less received service from 8am to 8pm on weekdays and from 9am to 10.30am on Sundays. For slightly larger exchanges, service was extended to 10pm on weekdays and an additional two hours of service were provided on a Sunday.<sup>144</sup> A combination of social and economic factors combined to thwart any early consideration of extending automatic service beyond any Irish cities or very large towns (indeed in practice Dublin was the only site of automatic exchanges until the close of the 1940s). Such was the initial capital expense of automatic exchanges that they could only be justified in areas with high population densities. This related not just to the cost of the exchanges themselves but also to the cost of cabling from the exchange to the subscriber. Such was the cost of the copper and lead used for cabling in the 1920s and 1930s, that the Department of Posts and Telegraphs found it cheaper to build new satellite exchanges when extending the automatic service to the Dublin suburbs rather than cabling subscribers in those areas directly into the city centre auto-exchanges.<sup>145</sup> The implications that the high cost of cable had on automatic service in sparsely populated rural areas (implying relatively long cable routes between individual subscribers and the nearest exchange), where the population continued to decline in the 1920s and 1930s, are obvious.

Nonetheless the application of new technology in the provinces did begin to facilitate a reduction in the cost of service provision. Litton has noted that as trunk traffic grew in the

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be met.” Department of Posts and Telegraphs memo to the Cabinet Committee on Economic Planning, 5 October 1943. NAD S 13086 A.

<sup>142</sup> It appears to have been relatively common for subscribers to have to wait up to an hour to receive a connection during busy periods.

<sup>143</sup> *Ibid.*

<sup>144</sup> Figures from P.J. Little, the Minister for Posts and Telegraphs, DD 79, p. 1470, 17/4/40.

<sup>145</sup> A.J. Litton (1961), “The Growth and Development of the Irish Telephone System”, *Journal of the Statistical and Social Inquiry Society of Ireland* Vol. 20, Part 5, pp. 79-115, p. 85.

1930s, it became clear that simply adding wire to existing pole routes would not offer a lasting solution to the increasing problem whilst the cost of the alternative - laying underground cables - was considered uneconomic relative to the "number of circuits then required or which could be envisaged during the next few years."<sup>146</sup> Given the Department's concern that the telephone service not constitute a drain on the exchequer, this might have proved a major stumbling block to further development in rural areas. However, although still costly, the installation and application of three carrier trunk systems proved a more economic means of adding capacity for distances of 60 miles or more, thus effectively trebling the capacity of those trunk lines to which the system were applied.<sup>147</sup> The Department introduced 19 such three channel systems on the major national trunk routes between 1931 and 1939. In consequence although total trunk circuit miles in Ireland increased by 9,800 miles during the 1930s, only 2,800 of those miles represented actual physical cable, the other 7,000 resulting from the application of carrier systems. By 1940, use of such systems would have increased the carrying capacity of the national trunk system by 40%, had the new technology not been invested in. (Similarly between 1937 and 1938 two co-axial cables carrying one 12-channel carrier system and two "1+3" carrier systems (audio and three carrier channels) were laid between Howth in Dublin and Abergeirch in Wales enormously expanding the volume of calls that could be handled simultaneously between the Free State and Britain. Previously there had been only four circuits in operation.<sup>148</sup>) Furthermore the experiments with rural semi-automatic exchanges commenced by the Department in 1939 did promise a technological answer to the question of how to offer continuous service to rural subscribers. Only the advent of the second world war prevented any wider application of such technology.

In terms of how the telephone was conceived the conclusions of section 5.3 above leave little doubt that it was primarily seen as a business implement, although it is important to qualify this by noting that although there was some acceptance of the telephone system's infrastructural role for industry and commerce, this was not reflected in P&T investment decisions. Either way the notion that the telephone might be a tool for social interaction remained extremely rare: in any case, given the relatively low subscriber base in the 1920s

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<sup>146</sup> *Ibid.*, p. 86.

<sup>147</sup> *Ibid.*

<sup>148</sup> Wall, *op. cit.* p. 158.

and 1930s the potential for such usage would have been extremely limited. Although economic growth in the 1920s and 1930s was slow, incomes nonetheless increased two and half times faster than telephone charges between 1925 and 1946.<sup>149</sup> Despite this, even by the end of the 1930s, telephone charges remained very expensive relative to average incomes, thus contributing to this perception of the telephone as a business instrument. In 1938 the average male industrial wage was 54 shillings 11 pence per week.<sup>150</sup> Assuming that the average annual expenditure on a residential line was around £8 rental plus calls), the telephone would have accounted for nearly 6% of an individual's *gross* income. Consequently residential phones which accounted for roughly 25% of all main lines in 1929 only gradually increased their share of the total, reaching approximately 30% of all main lines by the close of the 1930s.<sup>151</sup> Thus only 8,000 Irish homes would have had a telephone by the close of this period, a household penetration rate of less than 1.4%.<sup>152</sup>

There were political ramifications with regard to how the telephone was seen. As a consequence of the perception that the telephone was either a business implement or a luxury in the home, the Department of Posts and Telegraphs ruled out the possibility of any subsidisation of the telephone network development in this period. From the Department of Posts and Telegraphs' perspective the telephone remained one of several communication options offered by the Post Office: there was thus no pressing need for its development. (The same was not true of less substitutable services in this period: electricity for example, reached the homes of about "50% of the total population"<sup>153</sup> by 1943). Nonetheless there was an acknowledgement that the Post Office as a whole had an important role to play in the social life of the country. Asked in April 1934 whether the Post Office was a commercial institution or a social service, Gerry Boland responded that it was "partly both."<sup>154</sup> Thus losses from the telegraph service and from rural Post Offices were accepted because of the social function of these services. The perceived role of the "luxury" that was the telephone service in this period

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<sup>149</sup> Own calculations based on figures provided in Appendices XXIVa and XXVIIIa.

<sup>150</sup> CSO Statistical Abstract 146.

<sup>151</sup> A.J. Litton (1961), "The Growth and Development of the Irish Telephone System", *Journal of the Statistical and Social Inquiry Society of Ireland* Vol. 20, Part 5, pp. 79-115, p. 87.

<sup>152</sup> Own calculations based on data in Appendices IV and XXXI.

<sup>153</sup> F.S.L. Lyons (1973), *Ireland Since the Famine*. (London: Fontana), p. 617.

<sup>154</sup> DD 51, p. 1782, 12 April 1934.



**CHAPTER FIVE**

**TELEPHONE**

**DEVELOPMENT**

**1921 - 1939**

was to earn the profits that would subsidise the workings of the acknowledged socially essential services.

It should also be noted however that it was not impossible that the role of the telephone might nonetheless have been reconceptualised by the Department of Posts and Telegraphs as a service worthy of state investment. That such a reconceptualisation did not is in part down to the nature of Irish politics in this era and in particular relates it to the status of the Department of Posts and Telegraphs in cabinet. As noted in chapter three, the political hand-over from the British Administration to the Irish Free State in 1922 occurred remarkably smoothly, largely because the administrative framework remained almost entirely unchanged. As a consequence, however, there was a tendency, especially with regard to less overtly political issues, to simply follow pre-independence administrative practice. This was particularly significant for the Post Office which “amongst Government Departments, [was] the nearest approach there [was] to a commercial institution...”<sup>155</sup> Consequently, the telegraphs and postal service remained the “social” services whilst the telephone remained the “commercial” service.

Active consideration of the role of the communications system in Ireland was in any case made less likely by the fact that the Post Office and Department of Posts and Telegraphs were rather low on the scale of cabinet importance, a fact emphasised by the fact that between 1927 and 1932, the portfolio was occupied by Ernest Blythe, who was simultaneously the Minister for Finance, then as now the most senior cabinet position after the Taoiseach and Tánaiste. As a result, however, there appears to have been relatively little consideration given to what the future role of the telephone service might be. Thus, with the exception of those periods when the service was considered to be *in extremis* - such as the gaps evident in the national network in 1922 - there was little proactive thought given to the service. Thus the guiding principle with regard to the telephone service throughout the period under review in this chapter remained that principle inherited from the British Administration: that the development of the service should (implicitly) be driven by market demand.

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<sup>155</sup> M.R, Heffernan, DD 23, p. 1197, 10<sup>th</sup> May 1928.

**CHAPTER SIX**

**TELEPHONE**

**DEVELOPMENT**

**1940 -1959**

## 6.1 General Development 1940 - 1944

The outbreak of the Second World War should have been disastrous for telephone development since “the greater part of the plant and apparatus used for engineering purposes (was) made outside Eire...”<sup>1</sup> Despite the lip service paid to self-sufficiency there was no question of the Post Office factory at St. John’s Road single-handedly providing for the technical needs of country.<sup>2</sup> The timing of the outbreak of war was relatively providential, however, as extra materials had been laid in stock to cope with the increased demand that followed the 1936 rental and tariff changes. Nonetheless, as early as March 1940, Minister P.J. Little was forced to acknowledge that second-hand wire was being used in some areas.<sup>3</sup> Furthermore, the cost of stores, when it was possible to find any, (for example, the supply of pine poles crucial for telephone network development stopped abruptly in September 1940) rose sharply as the supply grew tighter:

“The closing up of continental sources of supply has naturally affected matters, but notwithstanding this, the position remains reasonably satisfactory, although heavy increases in costs have taken place.”<sup>4</sup>

In spite of this, Little announced in April 1940 that the Government was “particularly anxious that telephone development shall proceed as far as possible on normal lines.” Yet in practice the provision of service to new subscribers ceased for the first 12 months of the war except where “urgent considerations of State or public service arise”<sup>5</sup> (government departments, doctors, hospitals etc.), as the Department sought to establish an effective cross-country communication network for the Department of Defence:

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<sup>1</sup> DD 83, p. 1474, 4 June 1941.

<sup>2</sup> Furthermore, the factory was badly damaged by fire in November 1942, losing its stocks, stores and "a large number of telephone switchboards in process of manufacture", and putting it out of action for at least eighteen months. See DD 91, p. 1706, 9 November 1943.

<sup>3</sup> DD 79, p. 239, 6 March 1940

<sup>4</sup> Ibid.

<sup>5</sup> Ibid.

“Work on provision of emergency Defence circuits must be given priority over all normal works. An Príomh Innealtóir has explained that it will be necessary to withdraw immediately every possible man of the Engineering staffs from ordinary construction, maintenance, installation, etc., works.”<sup>6</sup>

Once this was in place restrictions were lifted on new subscribers in the city areas of Dublin, Cork and Limerick. In rural areas, however, development effectively ceased from 1940 until the end of the war. In June 1941, Little explained to the Dail that the problem of replenishing supplies compelled him to pursue a policy of rigid economy in regard to engineering stores consumption:

“Accordingly until the position eases, *new construction works which involve any substantial quantity of stores will, unless where essential services are concerned, be rigidly curtailed.* Every effort will, however, be made to meet the demands from new subscribers as far as circumstances admit, but the *difficulties in the way of providing long pole routes are considerable* and, even when it is possible to erect such circuits, very long delays will be inevitable.”<sup>7</sup> (Italics added)

As a civil service memo acknowledged in a letter to Little in October 1941, “long pole routes” meant rural subscribers. Furthermore, rural automatic telephony, regarded in the mid-thirties as a potential method of providing longer hours of service to rural communities at an affordable price also suffered. By June 1941, however, Little was forced to admit:

“The extension of the experimental semi-automatic system in rural districts which was contemplated, has had to be abandoned for the time being. As the apparatus has to be obtained from outside the country, mainly from the USA, it will not be possible to make further progress in the matter while the emergency lasts.”<sup>8</sup>

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<sup>6</sup> RJ Cremins to PJ Little, 13th June 1940, in NAD D/P&T M 1437/52 Vol 2. "Shortage of Engineering Stores 1942 - 1945."

<sup>7</sup> DD 83, p. 1474, 4 June 1941.

<sup>8</sup> DD 83, pp. 1472-1473, 4 June 1941.

Lack of supplies was a persistent problem throughout the war. As imports from the UK dried up, the Post Office looked to the USA despite the “seriously increased cost and...considerable delays in delivery.”<sup>9</sup> This failed to alleviate the problem however. An internal departmental report prepared in January 1942 by T.J. Monaghan, the Chief Engineer, outlined the scale of the problem:

“Normally an appreciable amount of external and internal wire installation fittings are left in situ when thrown spare because their recovery would not be worth the cost as compared with the cost of new plant. In view of the present and prospective position with regard to renewal of stocks, however, it will be necessary to conserve new stores to the fullest possible extent and, therefore, to recover and recondition for use old plant which in normal times would be abandoned.”<sup>10</sup>

By the spring of 1943, however, the war was continuing without any sign of abatement. As a result, the British Post Office, which had hitherto been “most helpful”<sup>11</sup> whenever the Irish Post Office faced real emergencies, were themselves only undertaking construction work directly concerned with their own war effort. There was thus no question of the British P.O. continuing to provide construction stores for the ordinary growth of normal public traffic in Ireland.

In consequence, Monaghan had recommended in February the introduction of new guidelines on development:

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<sup>9</sup> DD 83, p. 1476, 4 June 1941. Despite neutrality, the extent to which the course of the war effected Ireland is interesting: the decision to seek supplies from America was made possible by the fact that America had not yet entered the war (with the exception of the Lend-lease programme) and thus US shipping was relatively safe on the Atlantic route. By December 11 however, Germany declared war on the US and the U-Boat campaign in the Atlantic was stepped up, leading to a drying-up even of this source by 1943 (See DD 86, p. 391, 26 March 1942.)

<sup>10</sup> Referred to in a letter to Little from within the Department (signature illegible), dated 9th February 1942. NAD M 1437/52 Vol 2.

<sup>11</sup> Monaghan to O'Hegarty, 20 March 1943, NAD M 1437/57 Vol III.

“the aim should be to restrict provision of new circuits generally to about one-third of normal demands. On this basis [Monaghan] estimates that existing stores, for reserve and for current use, might last for about three years.”<sup>12</sup>

This duly occurred and Little informed the Dail at the November 1943 Estimates Debate that:

“As a result of the continued worsening supply position, it recently became necessary to extend this restrictive policy and to limit the provision of additional subscribers’ lines generally.”<sup>13</sup>

Thus after April 1943, virtually all applications for private residence lines were refused (except in cases “showing really urgent and serious grounds for service”<sup>14</sup>). Indeed, such was the seriousness of the supplies situation by 1943 that even the army was refused new connections unless “they are essential for Defence reasons i.e. for the safety of the Post concerned. The fact that a telephone would facilitate clerical work or routine administration does not constitute a case for its supply.”<sup>15</sup>

Irish telephone development did not stop entirely during the war however. The average annual net increases in the number of telephone installations in the three years preceding the war had been 1,294,<sup>16</sup> a figure which dropped to 935 between 1939 and 1944. Yet, throughout the war “most applications for new business lines”<sup>17</sup> were met, as were (eventually) all applications by government departments, public services and the emergency services. Restrictions on new applications remained until the end of the war but the fact that those mentioned above were acceded to suggests that, in urban areas at least, the situation never reached a critical stage. Certainly, as Monaghan mentioned in March of that year, mere maintenance the lines required a “practically negligible”<sup>18</sup> quantity of stores.

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<sup>12</sup> O’Hegarty (?) to Little, 16 February 1943, NAD M 1437/57 Vol III.

<sup>13</sup> DD 91, p. 1704, 9 November 1943. NAD M 1437/57 Vol III.

<sup>14</sup> (Illegible signature - possibly O’Hegarty) to Little 12 November, 1943. NAD M 1437/57 Vol III.

<sup>15</sup> O’Hegarty to Secretary, Department of Defence, 11 February 1943. M1437/52 Vol 2 (General Instruction #9, dated 2 March 1942 is also included in this file.)

<sup>16</sup> Anonymous Department of P&T Memo to Cabinet Committee in Economic Planning 16 October 1944. NAD S 13086 A.

<sup>17</sup> Ibid.

<sup>18</sup> Ibid.

Furthermore, in spite of the curtailment of the extension of the telephone network, the telephone service itself suddenly took off in the war period. Profits earned by the Telephone Branch rose from £61,286 in 1937/38 to £242,043 in 1942/43 despite the fact that the Post Office was unable to significantly expand the number of telephone subscribers. A clue as to the source of these profits lies in the decline from 1942 in the quality of the service for existing subscribers, particularly on the trunk lines, which lead directly to the November 1943 decision “to impose a restriction of duration to six minutes on trunk calls during the *busy traffic hours*.”<sup>19</sup> In short, use of the existing telephone network increased to an enormous extent over the course of the war. The number of calls made per annum in Ireland had increased consistently from the beginnings of the telephone service but the rate of increase between 1939 and 1945 was unprecedented, particularly in light of the reduction in new installations. The six years up to 1938 had seen 36% and 57% increases in local and trunk call traffic, but between 1939 and 1945 the number of local calls increased from 32.5 million to over 49 million, a 50% increase, whilst the number of trunk calls shot up from 3.6 million to 7.1 million, nearly a 100% increase. It is impossible to state definitively the source of the growth but military usage can be largely discounted since no actual “emergency” (as Ireland styled the wartime period) came to pass. The Department noted in 1944 however that:

“the telephone has been used to an abnormal extent by the commercial community and private persons owing to the general transport difficulties and problems of trade arising out of the emergency.”<sup>20</sup>

Little himself ascribed the growth to the relative unavailability of transportation suggesting in 1943 and again in 1944 that :

“...every added limitation of ordinary public facilities - transport, fuel, supplies etc. - seems, by reason, no doubt, of the upset to normal activities, to react immediately upon the telephones.”<sup>21</sup>

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<sup>19</sup> DD 91, p. 1703, 9 November 1943.

<sup>20</sup> Department of Posts and Telegraphs memo to Cabinet Committee on Economic Planning 16 October 1944. NAD S 13086 A.



Whatever the case, the role of the telephone changed irrevocably during the war heralding the general arrival of the "telephone habit". Although the Department of P&T warned that the increase in telephone traffic was prompted by the Emergency and was therefore ephemeral, it nonetheless acknowledged that: "During the Emergency all classes of people have acquired the habit of using the telephone extensively and it may be taken that the service will be used more and more in the future."<sup>22</sup> Little echoed this in the Dail:

"There is no question that, as the years pass, the telephone will become more and more the medium of communication in this country. It will eventually supersede the telegraph and to some extent I believe it will supersede the post as well."<sup>23</sup>

## 6.2 General Development 1945 - 1949

Irish post-war economic recovery was halting but a consumer boom fuelled by wartime savings significantly increased demand for the telephone: by May 1946, a waiting list of 4,000 applicants had emerged. A year later it rose to over 7,000.<sup>24</sup> Demand easily outpaced supply: the engineering stock needed to cope with even the existing traffic in the 1945 - 47 era was simply unavailable. Conceding this at the 1946 Estimates Debate Little estimated that even clearing up the backlog of the war years would take a further 12 to 18 months.<sup>25</sup>

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<sup>21</sup> See DD 91, p. 1703, 9 November 1943 and DD, p 1167, Vol 93, 19 April 1944. Little's comment was probably based on Department of Posts and Telegraphs advice. A November 1944 departmental report ascribed the rise in Telephone profits to the 5% surcharge introduced in 1941 and the fact that "the telephone has been used to an abnormal extent by the commercial community and private persons owing to general transport difficulties and problems of trade arising out of the emergency". See Dept. of P&T to Cabinet Committee on Economic Planning, 16 November 1944 NAD S 13086 A.

<sup>22</sup> Dept. of P&T to Cabinet Committee on Economic Planning, 16 November 1944 NAD S 13086 A.

<sup>23</sup> DD 93, p. 1356, 25 April 1944.

<sup>24</sup> As an incidental point, by 1951, the population of Dublin had risen to over 575,000 (Brown, "Ireland" p 211): it is possible that part of the increased demand for the service was prompted by the fact that one fifth of the population now lived in the area where telephone installations were cheapest. Of the 4,000 outstanding installations in 1946, 2,500 were in the Dublin area. Certainly Deputy Alfie Byrne singled out the "new housing areas in the City of Dublin" in November 1946 as being "without an adequate telephone service" (or indeed an adequate bus service, proper lighting facilities etc.). See DD 103, p. 383, 6 November 1946.

<sup>25</sup> DD 100, p. 2312, 1 May 1946.

In spite of this, in May 1946 Little surprised the Dail by introducing an ambitious plan to triple subscriber numbers to 100,000 within a 15 year period and to equip every Post Office with a Telephone Call Office by 1951. The latter objective was explicitly intended to facilitate the provision of private subscriber circuits in rural areas since “when a subscriber is served a Call Office becomes an exchange.”<sup>26</sup> Thus, whilst in the short term Department activities were “likely to concentrate mainly on rectification of existing shortcomings rather than on any large scale expansion,”<sup>27</sup> he proposed to introduce a new Telephone Capital Bill to fund the scale of development envisaged.<sup>28</sup> Five months later therefore, during the second stage debate on the 1946 Telephone Capital Bill, Little announced the greatest commitment to telephone development yet made by any P&T Minister:

“The possibility of expanding the telephone service on a very large scale has been closely examined and I am satisfied that the time is opportune to prepare for such expansion. Plans are being completed and work is proceeding on a scheme having for its object the trebling of the present number of telephones in use. In order to attract new subscribers in the numbers contemplated it will be necessary to make the service as efficient, as attractive and as cheap as possible. At present the hours of service at many exchanges are from 8am to 8pm on weekdays and 9am to 10.30pm on Sundays...I am satisfied that the telephone service could not be extensively developed in rural areas and small towns unless continuous service were given.”<sup>29</sup>

Thus Little announced that automatic equipment would be installed in lieu of the equipment then in use at the great majority of exchanges, with a view to providing continuous service at all but the very smallest exchanges (those with less than about five subscribers). More than 600 new automatic and semi-automatic exchanges along with 50 central manual exchanges were to be installed, in some cases prompting the need for new buildings. The hoped-for result of this development was the provision of a “no delay” trunk service. Thus Little also announced:

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<sup>26</sup> Department of Posts and Telegraphs to the Cabinet Committee on Economic Planning, 5 November 1943. NAD S 13086A “Telephone, Development of.”

<sup>27</sup> DD 100, p. 23125, 1 May 1946.

<sup>28</sup> Ibid.

<sup>29</sup> DD 103, pp. 203 - 204, 23 October 1946.

“To cater for estimated growth of trunk traffic, plans are being made to increase the trunk network six to eight-fold. The position has now been reached on some of our main routes that no additional circuits can be erected overhead, and underground trunk cables must be laid to provide the circuits required. Such cables are extremely costly and take a long time to manufacture and lay, but they enable all possible demands for the future to be adequately met. To give a satisfactory service on cross-Channel calls, a new submarine cable will be laid. It is also intended to erect telephone kiosks on a very generous scale in cities and towns.”<sup>30</sup>

The Telephone Capital Bill was to commit £6,000,000 towards the cost of this ambitious scheme, although this only represented the expenditure for the following four or five years, since the final cost was estimated at not less than £10,000,000.

Yet merely making a commitment to spend these sums did not automatically ensure that the promised development could occur. Although the extreme pressure placed on trunk network by the wartime traffic increases ensured that the Department of Posts and Telegraphs did invest in 60 new trunk carrier systems (which, by the 1940s, permitted up to 12 conversations to be carried simultaneously on the same circuit<sup>31</sup>), immediately they became available after the war, such national infrastructure investment did not continue uninterrupted. Confounding the Department of Posts and Telegraphs’ wartime caution, the end of the Emergency saw no diminution in the public demand for the telephone: traffic continued to expand at a rate which the Department admitted was too fast to keep up with in light of the ongoing stores shortage. In April 1947 Little announced a further increase in the previous year’s telephone traffic: local calls were up by 4,000,000 and trunk calls by 460,000. Yet he was forced to admit somewhat ruefully:

“These increases would be more gratifying if means were available to cater more satisfactorily for the extra traffic which has been added year by year since pre-war

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<sup>30</sup> DD 103, pp. 203 - 204, 23 October 1946.

<sup>31</sup> Wall, *op. cit.*, p. 142. The first 12 channel trunk carrier system in Ireland actually came into operation between Dublin and Limerick (via Portlaoise) in 1941. *Ibid.*

days. As I have explained on previous occasions, additional traffic without additional equipment to handle it, necessarily causes deterioration of the service."<sup>32</sup>

By June 1 1947, there were 7,116<sup>33</sup> applications outstanding for telephone installations, whilst the following year saw a record 7,000<sup>34</sup> applications made for new installations. Whilst some inroads were made into the arrears in the Dublin area, the situation in rural areas, where the lack of spare cable made all but the shortest extensions impossible, grew steadily worse in the latter half of the 1940s.<sup>35</sup> Thus in 1948, the new Minister for Posts and Telegraphs, James Everett, a Labour Party TD, representing Wicklow, was immediately presented with one of two choices: development of the national infrastructure or concentration on the connection of individual subscribers. Confronted with a growing crisis in applications in arrears,<sup>36</sup> Everett followed the latter path.<sup>37</sup>

"In view of the great need to give telephones to the people who were on the waiting list at 31st December last it has been decided to suspend the provision of call boxes for the current year in favour of the clearance of waiting applications for telephones."<sup>38</sup>

As a consequence, however, all work on the Rural Call Box programme, provincial automatic exchange building and additional trunk lines was either slowed or suspended indefinitely until the Department had overcome the obstacles posed by a "shortage of engineering staff,

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<sup>32</sup> DD 105, p. 637, 16 April 1947.

<sup>33</sup> DD 107, p. 10, 24 June 1947

<sup>34</sup> DD 114, p. 1751, 29/3/49. See also *Ibid.*, p. 2375, 6/4/49: Everett : "New applications were ... received during 1948 at a rate almost double the highest rate ever previously received."

<sup>35</sup> The 2,500 Dublin arrears of May 1946 had been reduced to 1,700 by November of the same year, whilst the 1,500 outstanding rural extensions had risen to 2,300 in the same period. See DD 103, p. 403, 6 November 1946.

<sup>36</sup> By May 1948, there were over 6,300 awaiting connection, in a country with fewer than 80,000 subscribers. By February 1949 there were still more than 5,800 applications outstanding despite the connection of a further 7,000 applicants in the calendar year 1948 (DD 117, p. 357, 7/7/49). This represented a massive increase in the number of annual installations. Up to 1948, the best figure achieved in a single year was 2,600.

<sup>37</sup> DD 112, p. 803, 20/7/48.

<sup>38</sup> DD 112, p. 804, 20/7/48. At the date referred to there would have been over 7,000 applications outstanding (See DD, 112, p. 803, 20/7/48). This is a slightly earlier reference to the suspension of the call office programme in May of 1948 " Owing to arrears of other construction work -

difficulties in making headway in building protects and increased public demand for telephones.”<sup>39</sup>

### 6.3 General Development 1950 - 1954

Throughout 1949, the main engineering effort of the Department was concentrated on installing telephones: some 6,500 were installed in the year up to May 1950. With the applications that had accumulated between 1939 and 1947 almost entirely cleared, Everett announced in March 1950 that “work on the Department's scheme to install a telephone in every post office has now been resumed,”<sup>40</sup> and that 91 rural call boxes had been installed in 1948 before the suspension of the programme.<sup>41</sup> It was expected to take “several years”<sup>42</sup> to service the remaining 800 rural Post Offices.<sup>43</sup>

At the same time work on the programme to automate provincial exchanges had recommenced using a combination of fully automatic exchanges and Unit Automatic Exchanges (UAX). In 1949 Cork City had become the first location outside Dublin to receive a fully automatic exchange<sup>44</sup> but over the course of the 1950s, large automatic exchanges were opened in Dundalk, Athlone, Waterford, Drogheda, Limerick, Mullingar, Sligo, Naas and Galway (in that order).<sup>45</sup> At the same time UAXs which were essentially updated versions of the semi-automatic exchanges the Department had experimented with before the war, were installed in smaller towns from 1950 onwards.<sup>46</sup> UAXs were not in fact fully automatic exchanges but rather they offered a conduit through which subscribers in smaller towns were connected to

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particularly the clearance of waiting applications for telephone service - it has been necessary to suspend work on the call office programme for the present ...” (DD, 110, p. 83, 25//5/48)

<sup>39</sup> NAD S 13086c.

<sup>40</sup> DD 119, p. 1895, 15/3/50.

<sup>41</sup> All figures from DD 133, p. 183, 3/7/52.

<sup>42</sup> Ibid.

<sup>43</sup> DD 121, p. 516, 24/5/50.

<sup>44</sup> Litton, op. cit. , p. 88.

<sup>45</sup> Wall, op. cit. p.127.

<sup>46</sup> Wall lists the following towns as receiving UAX service between 1948 and 1960: Malahide, Castleisland, Carrickmacross, Swords, Mitchelstown, Castlecomer, Trim, Muine Bheag, Tullow, Maynooth, Buttevant, Celbridge, Blarney, Lusk, Roscommon, Ardee, Athery, Ballincolig, Balbriggan, Crosshaven, Portmarnock, Whitegate, Middleton and Kinsale. Wall, op. cit. pp. 126-127. Litton notes, however that a total of 55 such exchanges had been opened by 1959. Litton, op. cit., p. 90.

distant full auto-exchanges. As such UAXs offered substantial cost savings to the Department of Posts and Telegraphs in its efforts to provide automatic service to rural customers: since they were substantially cheaper than their fully automatic counterparts, the Department was able to offer automatic service in areas where a full auto-exchange would not have been economic due to an insufficiently high population density.<sup>47</sup>

The final major element of the 1946 development plan, related to the expansion of the trunk network. Again the Department opted for new technology with a view to both attempting to match trunk capacity to demand but also to reduce the per channel cost of investment. Thus whereas in the 1940s, the most advanced trunk carrier system had permitted up to 12 conversations per circuit, from 1949 onwards, the Department increasingly invested in co-axial cable which, if fully installed, was capable of providing up to 600 channels (and thus 60 simultaneous conversations) on a single circuit. As had been the case with the introduction of trunk carrier systems in the 1930s, co-axial cables were laid on routes stretching from Dublin. By 1956 three such cables (respectively designated as the “Southern”, “Northern and “Western” cables) connected Dublin to Cork, Portlaoise, Limerick, Waterford, Dundalk, Naas, Drogheda, Sligo, Mullingar, Longford, Claremorris and Athlone. At the same time, by the mid-1950s, further improvements in co-axial technology meant that the last of the three cables (“The Western Cable”) had an increased the carrying capacity of 960 channels. (Co-axial cable also sped up the process of setting up and clearing down of trunk calls, in turn speeding up the freeing of circuits once a call was connected and reducing ineffective trunk occupation time. In consequence this allowed more calls to be made and ultimately “paved the way for full Subscriber Trunk Dialling” in the late 1950s.)<sup>48</sup>

Although the engineering developments immediately above were thus in train by June 1951 when Fianna Fail were returned to power, with Erskine Childers taking the Posts and Telegraphs portfolio. Childers implicitly criticised the short-termism of his predecessors 1949 decision to focus on new installations, arguing that this had allowed the trunk service to fall into disrepair.<sup>49</sup> He continued:

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<sup>47</sup> Wall, *op. cit.* pp.126-127.

<sup>48</sup> Wall, *op. cit.*, pp. 142-143.

<sup>49</sup> Childers: "... during the past three years the emphasis has been upon an increase in the number of exchange lines and stations or individual telephone points as compared with the number of trunk

“The previous Government took the view that subscribers’ lines should be joined at the expense of more fundamental planning and trunk circuit development.

The day must come when we either secure more electrical engineers *or, remembering our duties to those who succeed us*, slow down the joining of subscribers' lines and speed up the planning of exchanges, new circuits, trunks and so forth.”<sup>50</sup> (Italics added).

The practical result of this had been a further focus on providing service in urban areas. Of 6,500 lines installed in 1950, 4,815, were connected to exchanges in “Dublin and the other main centres of population” but only 1,985 to exchanges in smaller towns and villages. As a result by December 1950, 36,069 of the 52,506 subscribers exchange lines were in Dublin and other large centres of population whilst the rest of the country accounted for only 16,437.<sup>51</sup>

He reminded the Dail that the plan outlined by P.J. Little in 1946 had contemplated:

“...new main auto-manual exchanges at trunk centres, rural automatic exchanges and rural semi-automatic exchanges would be provided on a very extensive scale in the ensuing five years and that trunk cables to the north-west, to the north and to the south-east would have been laid as well as the main southern cable.”<sup>52</sup>

Thus, in contrast to his predecessor, Childers recommitted the Department to the completion of the 1946 plan. He introduced his first Telephone Capital Act in July 1950, earmarking £5,000,000 of the £8,000,000 sought to trunk circuit development and the building of new exchanges (or the extension of old ones). Whilst not discounting the need to continue connecting subscribers, the five year programme for the 1951 Act was intended to “meet in

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lines. As a result there are still arrears in the work of providing sufficient trunk lines, minor trunk lines and circuits in order to deal with the increased number of telephone calls.” DD 126, p. 296. 20/6/51.

<sup>50</sup> DD 126, pp. 946-7, 4/7/51.

<sup>51</sup> DD 126, p. 244, 20/6/51.

<sup>52</sup> DD 126, pp. 938-9, 4/7/51.

full the public demand for telephones and for raising the standard of trunk service to a satisfactory level.”<sup>53</sup>

Childers also inherited a depressing set of financial figures from the coalition administration of 1948 - 1951. In July 1949 Everett had announced the figures for 1947/48: a decline in the telephone section surplus to £161, 897, while the ailing Telegraph service registered a loss of just over a quarter of a million pounds, contributing to an overall deficit of £112,236.

Continuing losses from the service as a whole on 1950 prompted Everett to set in motion a departmental examination of Post Office charges with a view to reducing the deficit but this was only completed after Childers was appointed as Minister.<sup>54</sup> During *his* first Estimates Debate in June 1951, Childers stated that the financial position of the Department was “not satisfactory”<sup>55</sup>: the deficit for the year 1949 - 50 was £167,251, the combined surplus of £115,576 from postal and telephone services easily wiped out by the massive loss on telegraphs. A month later, he warned that early figures for 1951/52 were projecting a loss of about £40,000 on the working of the telephone service, the first since 1931, and mentioned the possibility of “progressively greater sums in the succeeding years if existing charges were to remain undisturbed.”<sup>56</sup> Consequently, a blanket increase of 25% was applied to the rentals and tariffs set in 1936, increasing annual business and residential rentals to £8 2s 6d and £6 5s respectively.

Despite the charge increase, the telephone service lost £68,000 in 1951/52 and a further £33,500 in 1952/53, forcing Childers to introduce a second charge increase in 1953 increasing business and residence rentals to £10 and £7 10s respectively. This increase (combined with the developments outlined immediately below) saw the service comfortably return to profitability the following year. At the same time, however, Childers actively sought to minimise the effects of the increases in rural areas. He ended the practice of specially assessing the rentals at very small exchanges, introducing standard rentals at all exchanges

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<sup>53</sup> Ibid.

<sup>54</sup> Childers was to prove an innovative force in the department, and as his biographer points out, was not prepared to act merely as a rubber stamp to the decisions of the Department Secretary (appointed in 1946) Leon O'Broin. His appointment to P&T was his first ministry and made him the youngest member of the cabinet. See John N. Young (1985), Erskine Childers, President of Ireland, a Biography, (Gerrard's Cross: Smythe).

<sup>55</sup> DD 126, p. 238, 20/51.



(although reducing the free mileage radius within which standard rentals applied from 3 to 2 miles outside of Dublin, Cork and Limerick). Furthermore, in order to offset the higher charges for long lines, the rural party line service was re-introduced at lower rates.<sup>57</sup>

Notwithstanding the financial crisis, Childers had announced in February 1952, that the pace of the rural call box programme would be accelerated, in order to complete it by the end of 1954.<sup>58</sup> Since 244 new call boxes had been installed in rural post offices in 1950 and 1951,<sup>59</sup> achieving this objective would have involved a doubling of the previous pace. Childers acknowledged that it would be “a considerable undertaking for most of the post offices in question are in remote areas and the erection of hundreds of miles of new poles and wire will be involved.”<sup>60</sup> Nonetheless, he stressed that that work warranted:

“a certain measure of priority over ordinary rural telephone lines for individuals, not only because it will bring the benefits of the telephone earlier to remote rural communities but also because it will help rural telephone development by extending the telephone network into areas not previously served, and so facilitate at a later stage the work of providing service for prospective applicants in those areas.”<sup>61</sup>

Despite the efforts expended on the rural call box programme, Childers was also able to refer to the “great progress”<sup>62</sup> in new installations in the early 1950s. By the close of 1953, the waiting list which had peaked at over 7,000 by mid-1947 had been reduced to 3,250 due mainly to the setting of successive records for annual installations in 1952 and 1953 of 7,234<sup>63</sup> and 7,601<sup>64</sup> lines. (A slight drop in the number of annual applications, prompted by the charge increases also helped.) Rural development remained the focus of attention at the expense of catching up with outstanding applications. Childers announced in April 1953 that

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<sup>56</sup> DD 126, p. 944, 4/7/51.

<sup>57</sup> NAD S 15045 A.

<sup>58</sup> DD 129, p. 593, 14/2/52.

<sup>59</sup> All figures from DD 133, p. 183, 3/7/52.

<sup>60</sup> DD 133, pp. 183-4, 3/7/52.

<sup>61</sup> DD 133, pp. 183-4, 3/7/52.

<sup>62</sup> NAD S 13086 D, Childers to De Valera, 29/1/53.

<sup>63</sup> DD 138, p. 955, 30/4/53.

<sup>64</sup> DD 144, p. 697, 18/2/53.

he would not “clear off the list of waiting applicants until the trunk circuits have been still further improved, until all call offices in post offices have been installed.”<sup>65</sup>

By June 1954, only 25 of the original 900 post offices included under the Rural Call Box scheme remained to be connected. Furthermore, all provincial towns with a population greater than 1,000 people had kiosks installed, a tacit recognition that the level of use in rural areas had increased, since kiosks were installed only if the Post Office was confident of their paying for themselves.<sup>66</sup> With the call-box programme thus virtually completed, the Department shifted its attention to “providing telephone services for those people who have long lines in the country and have been waiting a long time in the interests of providing telephones for all post offices.”<sup>67</sup>

#### 6.4 General Development 1955-59

Childers’ interparty government successor, Michael Keyes, was given something of a head start on taking office: the postal and telephone charge increases inherited from the previous administration<sup>68</sup> had reduced the postal deficit to £142,000 and returned the telephone section to profitability: £177,000. Furthermore, as Table 6.1 below indicates, whilst there remained an overall deficit on the combined services of the Post Office (of £312,000 in 1953/54), this was converted to an overall profit during the latter half of the 1950s, due largely to the telephone section, the profits of which averaged over £300,000 per annum between 1955 and 1960.

<b>Year</b>	<b>Postal Service</b>	<b>Telegraphs</b>	<b>Telephone</b>	<b>Total</b>
1954/55	(£98,606)	(£377,897)	£228,102	(£248,404)
1955/56	(£264,617)	(£238,299)	£134,437	(£368,479)

<sup>65</sup> DD 138, p. 1185, 6/5/53.

<sup>66</sup> DD 146, p. 347, 16/6/54. It is important to distinguish between kiosks and call boxes. The former were installed externally, on the streets inside weatherproof (and theoretically soundproof) boxes. Call boxes were usually installed in a post office or general store on a wall and offered little privacy, although "silence cabinets" were occasionally installed around them. The obvious problem with the latter is that their use relied on the building they were installed in being open. Kiosks however were available 24 hours a day, assuming that the local exchange remained open.

<sup>67</sup> Ibid., pp. 354-5.

<sup>68</sup> Note: telegraph charges had not yet been introduced pending the report of a special committee examining the position of the telegraph service (DD 146, p. 350, 16/6/54)

1957/58	£104,999	(£177,556)	£366,377	£293,820
1958/59	£4,672	(£140,144)	£413,048	£277,576
1959/60 <sup>69</sup>	£129,771	(£136,867)	£396,179	£389,083

Keyes also inherited an increase in the number of applications for service which rose from 5,300 in 1953/54 to 8,300 in 1955/56. Furthermore an increasing proportion of the new applications came from provincial residential applicants. Childers had noted this phenomenon as early as mid-1953<sup>70</sup> but it persisted throughout the 1950s: provincial residence line applications in 1958 were twice the 1953 figure.<sup>71</sup> The growth in this specific sector was prompted by a combination of the Rural Call Box programme (which as noted above was intended to facilitate the provision of private subscriber lines) and by the fact that the pattern of call charge increases since 1939 had favoured the provincial residential users. Keyes noted in 1956 that while Dublin residential rates increased by 50% since 1939, those residential subscribers “outside the Dublin automatic area”<sup>72</sup> had experienced only a 27% increase in the same period due to their receipt from 1956 of a local call allowance worth £1 3s 4d per annum (in recognition of the fact that the local rate area enjoyed by Dublin subscribers was larger than the standard local area - a five mile radius - that applied elsewhere<sup>73</sup>).

Keyes conceded in July 1956 that the increase in provincial applications would require a “substantial increase in the level of capital expenditure on the service.”<sup>74</sup> 1955 and 1956 were, however, crisis years for the economy, forcing the Department of Finance to seek spending cuts from all departments. As a consequence, when Keyes came to introduce the 1956 Telephone Capital Act, he sought only £6,000,000, £2,000,000 *less* than the previous act despite the fact that demand was running ahead of supply. Keyes argued that it was unreasonable to expect:

“telephone development and particularly the extensive installation of private telephones which now constitutes a very large part of the increased demand to be

<sup>69</sup> From Post Office Commercial Accounts year ending 31st March 1971, p 22.

<sup>70</sup> DD 141, p. 1039, 30/7/53.

<sup>71</sup> DD 167, p. 379, 17/4/58.

<sup>72</sup> DD 158, p 22, 126/56.

<sup>73</sup> DD 158, p. 22, 126/56.

<sup>74</sup> DD 159, p. 22, 3/7/56.

regarded as of such overriding importance that the needs of the service should be met in full at the expense of the other capital services...”<sup>75</sup>

However, he also conceded that the £6,000,000 would be insufficient to meet completely “the anticipated needs of the service over the next few years.”<sup>76</sup> Once again the financial limitations had a disproportionate effect on provincial development. Whilst in Dublin, strain on the capacity of the underground system simply promised delays for applicants, in rural areas “the capital cost of long rural lines per subscriber is disproportionately high” meant that “it may be necessary to restrict the amount of work of this kind which is undertaken.”<sup>77</sup> In July 1956, Sean Ormonde, Keyes’ successor announced the suspension of the programme to extend continuous service into rural areas via small automatic exchanges.<sup>78</sup> Furthermore the long term objective of achieving a universal “no-delay” trunk service became an even longer term objective.

The general economic climate improved in 1958 however, with the end of the international recession and the introduction of the Department of Finance’s first Programme for Economic Development. Furthermore, the fact that the telephone section had made unprecedented profits during a period when capital spending had been severely curtailed together with the fact that the objectives of the 1946 development plan had largely been achieved prompted the Department to consider future development. In doing so, as is outlined below, it is apparent that the Department deliberately set out to address the question of developing demand for service in rural areas.

Before developing a new development programme, however, the Department had applied to the UN Technical Assistance Programme for assistance.<sup>79</sup> The Programme provided Gerrit J. Kamerbeek, a telephone planning expert with the Dutch Post Office, who prepared two reports. One offered a general assessment of the problems faced by the Irish Telephone Service and the second was on the possibility of introducing national subscriber trunk dialling ,which would permit subscribers to make trunk calls without recourse to an operator. The two

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<sup>75</sup> DD 159, p. 24, 3/7/56.

<sup>76</sup> Ibid.

<sup>77</sup> Ibid.

<sup>78</sup> DD 165, p. 300, 13/2/58.

reports were subsumed into a Department memo entitled "Telephone Development" detailing the Department's future development plans. This was submitted to the cabinet in June 1959.<sup>80</sup> The report noted that "the bulk of telephone development" since 1922 had been concentrated "in Dublin and the provincial cities and larger towns."<sup>81</sup> Even in the post-war era, 34,000 of the 58,950 phones installed nationally since 1946 had been provided in Dublin. Furthermore, the report noted that whilst the plan for national development drawn up in 1946 had anticipated that 20,000 of the total projected increase in installations (100,000 new lines) would be accounted for by farmers, "by 1959 with the achievement of the 100,000 figure in sight, only 3,000 farmers had telephones."<sup>82</sup>

Nevertheless it concluded that "scope for development in rural areas exists (as) evidenced by the fact that some 20,000 farmers with relatively large holdings of reasonably good land have not got telephones."<sup>83</sup> Consequently the memo concluded that:

"more attractive rental terms should be made available to rural applicants and also that rural subscribers should be enabled to make a greater proportion of their calls at the local call charge."<sup>84</sup>

The expansion of the local call area (or "Group Charging") was, according to Kamerbeek's second report, a prerequisite of any plan to introduce STD working which also required the conversion of all exchanges to automatic working. In 1959, however, there were 959 telephone exchanges in the country, each with its own scale of charges. If left unchanged, it would have been necessary to provide separate equipment for each exchange. Since this would have been prohibitively expensive, Group Charging was introduced, creating 127 Group Charging areas "having one point for each group as the measuring point for all trunk calls made from all exchanges in the group."<sup>85</sup>

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<sup>79</sup> Ibid.

<sup>80</sup> NAD S 15045 A

<sup>81</sup> Ibid.

<sup>82</sup> Ibid.

<sup>83</sup> Ibid.

<sup>84</sup> Ibid.

<sup>85</sup> NAD S 15045 A. From Oifig Aire Poist agus Telegrafa "Memorandum for the Government - Telephone Development". 17th June 1959.

In consequence, the report went on to suggest three far-reaching changes in the structure of telephone charges which the Department estimated would cost it £125,000 per annum at the then current subscriber levels.<sup>86</sup> Given the scale of the profits earned by the telephone section over the previous five years, however, the cabinet accepted the report's recommendations with demur, allowing then Minister for Posts and Telegraphs, Michael Hilliard, to announce the changes in July 1959.

Firstly, the area covered by local calls was to be greatly extended. Hilliard noted that "some 5,000,000 calls a year now charged at 6d or 10d or more will in future cost 2d."<sup>87</sup> This would have a substantial impact in rural areas, where Department of Posts and Telegraphs' unwillingness to fund heavy capital investment had in part been influenced by the fact that compared to their Dublin counterparts, rural subscribers had made relatively few calls.<sup>88</sup> This, it was acknowledged, was "due in large measure to the few numbers which could be called for the local call fee, the majority of calls involving a trunk charge."<sup>89</sup> Thus a vicious circle was created: few people living in rural areas wished to become subscribers because of the small number of existing subscribers they could call at the local fee. The introduction of group charging together with the fact that in most cases calls to adjoining zone were also charged at the local rate greatly increased the number of callers a subscriber in a rural area could contact for the cost of a local call.

Furthermore the scale of trunk charges was to be simplified<sup>90</sup> and the maximum charge reduced, whilst an increase in night rates for certain cross channel calls was introduced to achieve a better balance between night and day traffic."<sup>91</sup> This was also aimed at improving the position of the rural subscriber, who, it was acknowledged, would continue to make proportionately more trunk calls than his or her Dublin counterpart.

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<sup>86</sup> DD 176, p. 1329, 15/7/59.

<sup>87</sup> DD 176, p. 1325, 15/7/59.

<sup>88</sup> Litton, *op. cit.*, p. 89.

<sup>89</sup> Litton, *op. cit.*, p. 89.

<sup>90</sup> Something which Fine Gael T.D. James Dillon had been calling for over the previous two decades, arguing that there should be fixed charges for calls within county boundaries, provincial boundaries and national boundaries.

<sup>91</sup> DD 176, p. 1325, 15/7/59.

Secondly, the report recommended that the previous practice of charging farmers for telephones at the business rental rate was to be terminated and the residence rate applied instead, reducing the cost by £2 10s a year.

Finally, the report had acknowledged that the rural party line service had been unsuccessful and that it was “unlikely that it will ever prove an acceptable service to Irish people.”<sup>92</sup> The party line service was therefore abandoned and “as a further incentive... to rural development” the 3 miles radius for standard rentals was applied to all exchanges.

### 6.5 Conception of the Telephone

The wartime need to prioritise certain categories of applicants for service established a practice that persisted through the 1940s and 1950s, one which gave a clear picture of how the Department conceived of the telephone. Whilst in wartime only “Government Departments, Doctors, Hospitals etc.”<sup>93</sup> were explicitly prioritised, the fact that “most applications for new business lines”<sup>94</sup> also received service at a time when the provision of service to residences simply ceased, suggests that in fact, business applicants were considered to fall under the priority heading. Six years later, the list was longer yet more specific:

“Doctors, chemists, veterinary surgeons, dentists, hospitals, nursing homes, journalists, midwives, clergymen, *public utility companies*, radiographers, hatcheries registered with the Dept. of Agriculture, and *firms giving a considerable amount of employment, or giving employment to more than seven hands all the year round.*”<sup>95</sup>

This was reflected by the increasingly “common-sense” perception that the telephone was a tool of industry and commerce. A comment made by P.J. Little, a former Minister for Posts and Telegraphs during the 1949 Vote on Account, is illustrative of this:

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<sup>92</sup> NAD S 15045 A, 17/6/59.

<sup>93</sup> Ibid.

<sup>94</sup> Ibid.

<sup>95</sup> DD 126, p. 1015, 5/7/51.

“Obviously the postal system and the telephones and telegraphs are the nerve centres, *the whole nervous system, of commerce and they are vital to the development of industry and commerce.* Indeed, there is nothing so important for us as to give them every possible facility and take every opportunity of decentralising industrial effort and enterprise throughout the country. For that reason all expenditure no matter what may be the deficit is to the good, because it will bring about a real return to the nation.”<sup>96</sup>

The same outlook was expressed by another former Minister, when Erskine Childers complained at the decision to cut back capital expenditure in the 1956 Telephone Capital Act:

“The Minister for Finance in all too dulcet terms has been pleading for more efficiency in industry and more efficiency in distribution (to improve the balance of payments through increased production for export). He has been pleading for greater output.

... whatever rental is paid and in spite of the cost, *for a huge modern community the telephone becomes an essential of increased production and of more economic distribution.*”<sup>97</sup>

That the telephone was a prerequisite (or even useful) for the workings of agriculture was a somewhat less widely held belief, especially at the start of the period under review. Farmers were not, for example, included on Departmental priority lists during the 1940s or 1950s despite the explicit assertion by some TDs that they should be.<sup>98</sup> Yet the beginnings of the shift were evident in the late 1940s and early 1950s. In 1948, P.J. Little suggested that the 1946 Telephone Capital Bill would allow “the farming community” to make contacts with their markets.”<sup>99</sup> In February 1952, Childers had commented that judging by the general income level, the farming community had been very conservative about installing telephones: “By now about 100,000 farmers should have them,”<sup>100</sup> whereas in fact, as Childers was

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<sup>96</sup> DD 117, p. 363, 7/7/49.

<sup>97</sup> DD 159, pp. 28-9, 3/7/56.

<sup>98</sup> M O'Reilly: "since we must have more tillage and machinery breaks down, an efficient telephone system is absolutely necessary." DD 126, p. 1005, 5/7/51.

<sup>99</sup> DD 112, p. 809, 20/7/48

<sup>100</sup> Irish Independent 18/2/52.



“distressed” to find, only 5,710 provincial telephone lines were not for business purposes.<sup>101</sup> Five months later, at the July 1952 Estimates Debate, he announced that he was:

“completely dissatisfied with the long-established tradition unchanged since 1921, whereby it has been made as difficult as possible for farmers to have telephones. Every obstacle in the way of deposit charges, rental charges to be paid in advance, is put in their way.

We have about one tenth of the telephones installed with farmers of any given acreage compared with any agricultural exporting country in Europe. Compared with cigarettes, wireless, motor cars, rural electrification, the telephone is virtually unknown in rural districts.”<sup>102</sup>

Yet rather than frame a policy specifically targeting the farming community for development, Childers and his successors favoured the pursuit of policies for promoting the general diffusion of the telephone in rural areas, on the assumption that the farming community would benefit indirectly. Yet in an era when rural farmers faced choice between spending money on electrification or the telephone, the expense of the latter meant that the former was likely to win out. Only with the 1959 decision to apply the residence rate to farmers, was agriculture effectively singled out for development.

The sudden increase in telephone usage during the war years demanded some reconceptualisation of the role of the telephone, since as the Department acknowledged in 1944, the increase in usage could not be attributed to increased governmental and commercial traffic alone. The persistent increase in telephone traffic after the war appeared to confirm that the “telephone habit” had been established amongst the population as a whole. That by the end of the period under review, one TD could reasonably suggest that the Department encourage the use of the phone as a social instrument, for something as trivial as chat<sup>103</sup>

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<sup>101</sup> Irish Independent 18/2/52.

<sup>102</sup> DD 133, 3/7/52. Nor could this be regarded as a sudden conversion on Childers part. Eight months earlier on 27/11/51, the Irish Press reported that, at the opening of a new automatic exchange in Dublin, “The Minister said he was not satisfied with the development of the telephone service in rural areas. There were far fewer telephones than in countries of corresponding national income and general prosperity level.” (NAD GIS 1/57, 12/11/51)

<sup>103</sup> James Hilliard: “I ... believe it would be a very good thing to permit that type of personal communication, particularly when the trunk lines are there with nothing to do. I suggest to the

suggests a significant psychological adjustment of the previously puritan perception of the phone on the part of both the state and users.<sup>104</sup>

This was reflected in the growth of residential subscribers between 1940 and 1959. Whilst the overall number of subscribers increased from 27,000 to 103,000 between 1940 and 1959, in the 1950s in particular “the bulk of the increased demand was for private telephones.”<sup>105</sup> Thus the number of residential accounts increased from 8,000 to approximately 47,000 in the same period (or from 31.8% to 46.7% of all subscribers).

Nonetheless, there remained a substantial dichotomy between how the telephone was perceived in this regard in urban and rural areas. It is notable that when in April 1944, the Cabinet Committee on Economic Planning asked the Department of Posts and Telegraphs to consider how the installation of private telephone might be extended after the war, the proviso “in the *cities and larger towns*”<sup>106</sup> was included. (Italics added.)

As a result, by the mid-1950s, the residential telephone, although not yet approaching the status of a consumption norm, was in urban areas increasingly considered essential to negotiate the travails of daily life. Michael Keyes noted in 1956 that:

“Moreover, the great increase in residential building schemes, often at fairly considerable distances from main shopping centres and places of employment, has stimulated demand for private telephones.

This demand is welcome in so far as it indicates more telephone consciousness amongst our people...”<sup>107</sup>

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Minister that he should induce people to use the telephone for social conversation by offering a peculiarly attractive rate after 9 PM.” DD 183, p. 1335, 12/7/60.

<sup>104</sup> The following May, Deputy McGilligan claimed to perceive evidence of this adjustment taking place: “The fact that so many new subscriber lines were installed ... is an indication of the popularity of the telephone service and the public recognition of the value of that service not only for trade and commercial purposes but for its social advantages as well.” (DD 189, p. 557, 17/5/61)

<sup>105</sup> Michael Keyes, then Minister for Posts and Telegraphs: “DD 159, p. 23, 3/7/56.

<sup>106</sup> Extract from Minutes of Meeting of 17th of April 1944. Included in NAD S 13086 A.

<sup>107</sup> DD 159, p. 23, 3/7/56.

In rural areas, however, even after the rapid wartime increases in usage, a Department of Posts and Telegraphs' memo noted that "Experience in regard to Call Offices in rural areas shows that, in fact, *small rural communities have no need for telephone services in connection with their ordinary daily affairs* and that the use of the telephone is almost exclusively for emergency purposes - for calls for a Priest, Doctor, Nurse etc. Such calls are infrequent and produce no economic revenue."<sup>108</sup> (Italics added.) Nor did rural TDs attempt to argue in the 1940s that the establishment of call boxes or kiosks in rural villages would be justified by the financial return. Rather, such requests characterised the role of the telephone as an emergency instrument to summon medical or spiritual aid to remote communities.<sup>109</sup>

This conception gradually altered during the 1950s, however, particularly as the pace of rural emigration increased. In February 1952, at the switching on of electric power in Killashee, Co. Longford, Erskine Childers commented that the mass exodus from the land over the previous 25 years would not be stemmed "until among other changes, the amenities of electricity, running water and the telephone were enormously extended."<sup>110</sup> Other Deputies made similar arguments:

"Everybody in Ireland realises that we must do as much as we can to make conditions in rural Ireland as tolerable as possible in order to provide an incentive to our people to stay at home. Believe it or not the installation of telephones in post offices in rural areas could be a great help in that respect."<sup>111</sup>

Furthermore, the introduction of standard rentals to all exchanges in 1953 and the completion of the Rural Call Box Programme two years later, saw demand for residential phones in provincial areas gradually increase. With regard to the Public Call Box Programme in particular, it is reasonable to speculate that as the telephone penetrated the more remote areas, it became a physical reality in the everyday lives of those living in rural areas, insinuating itself into the daily routine, and thus at least raising the possibility of acquiring a private

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<sup>108</sup> Ibid.

<sup>109</sup> For example M. O'Conneide, TD: "The installation of telephones in small sub-offices ... is very necessary to provide such facilities for people who may require the services of a doctor or veterinary surgeon." DD 112, p. 1194, 10/3/49.

<sup>110</sup> Irish Press 23/2/52.

<sup>111</sup> Deputy McQuillan in DD 117, p. 385, 7/7/49.

subscription. In any case, in 1958 Kevin Boland announced that, whilst residential demand in the Dublin area was up 70% on the 1953 figure, it had increased by “more than 100% outside the Dublin area.”<sup>112</sup>

Nonetheless the 1959 Departmental memo, “Telephone Development”, noted that whilst in Dublin, residential lines had exceeded the number of business lines by 1958, the opposite was true in the provinces.<sup>113</sup> Thus whilst “In Dublin particularly and also in Cork the residence telephone has come to be accepted as a desirable social amenity... in the rest of the country the telephone is still regarded as a business necessity and a social luxury.”<sup>114</sup>

Thus the memo concluded that “it is desirable therefore that plans for future development should aim at stimulating development in small towns, villages and rural areas.”<sup>115</sup>

## 6.6 Conception of the Telephone Service

Throughout the period under review the dominant view of the Post Office as a whole was that although it had a social remit to fulfil, to let the cost of doing so fall upon the taxpayer (via the central exchequer) was unfair. Defending the charge increases introduced in 1953, Fianna Fail TD, Robert Briscoe asked:

“I wonder how many people who have not got telephones in their homes, who rarely use the telegraph form and who rarely receive or send a letter, like having to subsidise, even by indirect taxation, the facilities accorded to the people who have got telephones in their houses for convenience...”<sup>116</sup>

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<sup>112</sup> DD 167, pp. 378-9, 17/4/58.

<sup>113</sup> “The number of business lines was and still is considerably in excess of the number of residence lines. More than half the residence lines in the Provinces are located in ten cities and towns.” NAD S 15045 A.

<sup>114</sup> Ibid.

<sup>115</sup> Ibid.

<sup>116</sup> DD 138, p. 1250, 6/5/53.

Furthermore, adopting classic liberal economic theory, successive Ministers argued that to vote for the Post Office funds to make up any deficit on a regular basis would lead to an inefficient administration:

“As long as the service pays for itself...there will be every inducement...to insist on innovations, to insist on high output, to insist on efficiency, to prevent the gradual seepage of unnecessary staff into the service.”<sup>117</sup> (Childers)

Thus it remained a commercial institution necessarily earning profits to subsidise its social remit. In October 1943, for example, whilst the Department acknowledged that the supernormal profits of the Telephone Service over the previous four years (especially after the introduction of a “temporary Emergency increase” of 5% on all charges), appeared “to present a *prima facie* case for reduction of charges,”<sup>118</sup> it was unwilling to do so in light of the risk that the revenue increase was temporary, dependent on Emergency conditions.

“The Department’s policy will continue to be to provide an efficient service, earning a sufficient margin of profit to ensure against loss... Any substantial reduction of rental is not favoured because, in the case of private telephone (as distinct from business lines), user [sic.] is small and it is on the rental that the Department must rely for the recovery of the cost of installation. The... average annual sum needed to provide for interest and depreciation in respect of each station is £4.9.0. The rental for residence lines of £5 per annum (apart from the temporary 5% surcharge) which provides only a small margin of profit. This margin may very easily disappear with the increased cost of engineering stores. Reduction of rental would tend to induce people to get telephones who cannot afford them and would have little use for them. Such telephones would, in effect, be subsidised by the other users of the service.”<sup>119</sup>

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<sup>117</sup> DD 138, p. 1298, 6/5/53.

<sup>118</sup> Department of P&T (Uncredited) memorandum to Cabinet Committee on Economic Planning, 5 October 1943, NAD S 13086A.

<sup>119</sup> *Ibid.*

Nonetheless, increased usage and thus profitability of the service prompted the powerful Cabinet Committee on Economic Planning<sup>120</sup> in January 1943 to ask the Department of Posts and Telegraphs to prepare detailed “proposals for the extension of telephone facilities and the development of their use in cities and urban and rural areas.”<sup>121</sup> The recommendations of the report would be accepted almost in their entirety and would ultimately form the basis of the large-scale development plan introduced to the Dail by P.J. Little in 1946. Thus the significance of the thinking underlying the entire document cannot be overly stressed:

“Under existing Departmental regulations, Telephone Call Offices in rural areas can be opened only on the condition that each Call Office is likely to be self-supporting. These regulations were made in 1924 when there was a loss on the Service. A result of this condition of self-support has been, however, that the position has been reached for a number of years past that the opening of Call Offices in rural areas has, to all intents and purposes, come to a full stop, because in practically all cases, the condition of self-support would not be met... Considered, however from the point of view of national interest in relation to development of rural areas and the desirability of providing normal public services in such areas, it is clear that a wide extension of telephone services in rural areas is called for. The Department of Posts and Telegraphs considers therefore, that the time has come for a change of policy and it is thought *that the self-support condition should be abandoned* and that when the supply position is satisfactory and development can again be undertaken, *Call Offices should be opened on the same basis as rural posts are provided, i.e. losses on particular services to be covered by the revenues of the Telephone Service as a whole.*”<sup>122</sup> (Italics added.)

Thus, whilst Departmental policy had hitherto entirely ruled out the subsidisation of any aspect of the Telephone Service, the post-war expansion plan, developed by the Department over 1943 and 1944, placed at least one element of the telephone service in a new light: as a

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<sup>120</sup> This was in fact just three people, albeit the three most influential members of the cabinet: Taoiseach Eamonn De Valera, Minister for Finance, Sean MacEntee and Minister for Industry and Commerce (and later Taoiseach), Sean Lemass.

<sup>121</sup> Dept P&T memo to Cabinet Committee on Economic Planning., 5 October 1943. NAD S 13086 A.

<sup>122</sup> Ibid.

service wherein some socially oriented non-remunerative expenditure was possible.<sup>123</sup> For the first time, profits from the Telephone Section would be used not just to cross-subsidise other services but internal aspects of its own workings. Thus Childers could note by 1952, that the loss sustained on the workings of “most rural telephone call offices” had to continue since they were “*a public service*”<sup>124</sup> (Italics added.)

The completion of the rural call box programme saw nearly 2,000 towns and villages receive service: there was on average one public call box every three or four miles by 1955.

Ultimately as the programme progressed, the public telephone increasingly usurped the social role that was previously the preserve of rural telegraphs and post offices. This was made explicit in a Dail committee report on the financial position of the telegraph service presented in July 1955. Aside from suggesting organisational changes to effect economies, the report recommended an increase in telegraph rates, some of which, as Keyes pointed out, had remained unchanged since the 1920s.<sup>125</sup> The decision to introduce an increase in rates signalled the diminution of the telegraph’s status as a socially essential service.

The social role of the telephone service was however strictly limited to the operations of the Call Box programme. Thus, for example, Childers stressed in 1951 that provision of public kiosks (which had the advantage over call boxes of being accessible outside Post Office opening hours) would not be subsidised:

“The charges for telephoning, to a 99 per cent degree, are paid for in exact proportion to the wealth of those using the telephone...It is in the interests of the community at large, therefore, that kiosks be kept as self-supporting as possible, and that *the social purpose of the telephone should be served by facilities at Garda Siochana stations and the opening of call offices in sub-post offices regardless of the receipts likely to flow in relation to the expenditure.*”<sup>126</sup> (Italics added)

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<sup>123</sup> The Department estimated that capital cost of the Rural Call Box Programme would £315,000 over a period of five years., on top of which the new call boxes would require an annual charge against telephone revenue of £31,500. NAD S 13086 A.

<sup>124</sup> DD 133, p. 177, 3/7/52.

<sup>125</sup> DD 152, p. 226, 6/7/55.

<sup>126</sup> DD 126, p. 1022 -3, 5/7/51.

Taken as a whole, as Childers reminded the Dail in July 1951, that “ the telephone service must pay for itself.”<sup>127</sup>

Nonetheless, there is evidence that the Department altered its income structure in the late 1940s with a view to encouraging an increase in subscriptions. Until the 1940s the Department set its rental charges so as to recoup the average annual charges for interest and depreciation on telephone plant: thus in 1943, the annual interest and depreciation costs of £4 9s were covered by the residential rental of £5. However with the post-war expansion into more sparsely populated rural areas, capital investment rose from £57 per telephone in 1938-39 to £100 in 1951/52, leading to a depreciation in interest charges of about £10 per line.<sup>128</sup> Yet both standard business and rentals in 1952 were, at £8 6s 6d and £6 5s respectively, substantially less than £10. The gap was filled by the extra revenue from the increases in call traffic which began in the war and continued thereafter. Thus whilst the number of subscribers increased 330% between 1940 and 1959, the volume of call traffic (taking local and trunk traffic together) increased by 420%. Childers acknowledged in March 1953 that rentals had been kept as low:

“as is economically feasible in order to encourage the largest possible number of persons to become telephone subscribers and bearing in mind that prospective subscribers are influenced largely by the rental figure.”<sup>129</sup>

### **6.7 Summary: Universal Service 1940 - 1959**

The key statistics of development between 1940 and 1959 depict the quantum leap made by the service in the post-war era. Subscriber numbers increased from 27,000 in 1940 to 103,000 in 1959: fully two thirds of this growth occurred during the 1950s. This translated into a figure of approximately 5 telephones per 100 people in 1959.<sup>130</sup> Looking to the geographical diffusion of the telephone, the absence of specific data detailing the spread of subscribers by the close of the period makes it difficult to offer a detailed picture. However by 1961, the

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<sup>127</sup> DD 126, p. 1022, 5/7/51.

<sup>128</sup> DD 133, pp. 192-1, 3/7/52.

<sup>129</sup> NAD S 15045 A 5/3/53

<sup>130</sup> DD 175, p. 361, 30/6/59.



Dublin automatic area continued to account for 57% of all telephones.<sup>131</sup> Thus whilst there were 9.25 exchange lines per 100 people in Dublin, this figure dropped to only 1 and 1.4 lines per 100 respectively in the midland counties of Leitrim and Roscommon.<sup>132</sup> This nonetheless represented an advance for rural telephony, however, since the increasing concentration of telephones in the Dublin area witnessed in the 1920s and 1930s had ceased: overall the rate of increase in rural and urban areas during the 1940s and 1950s was roughly the same. At a more tangible level, the work carried out to effect the Rural Call Box Programme meant that main trunk line network development in Ireland reached perhaps 95% of its historical peak by 1955: The basis of the modern Irish telephone network had been virtually completed by the mid-1950s and there were 980 exchanges by 1955. Although the figure would continue to increase, peaking in 1966 (at 1,131), it thereafter settled at around 1,080 exchanges. As a result, the expansion of the network after 1960 was no longer dependent on striking out and reaching new areas but on building smaller arteries from the main network.

In the post-war era, it was clear that the telephone was no longer exclusively seen as an urban tool. The 1946 development plan was explicitly targeted at rural development. Furthermore, the end of the practice of specially assessing exchanges in 1953 and the simultaneous introduction of standard rentals at all exchanges (albeit with a reduced free mileage area until 1959, outside Dublin, Limerick and Cork), began to iron out the disparities in the costs faced by subscribers in urban and rural areas. It also increased the degree of rate averaging. The introduction of group charging in 1959, by increasing the range of the local call area, would ultimately be a critical factor in developing the rural service since proportionately, it was far more useful outside Dublin than inside, given the high population concentration within the pre-Group charging Dublin automatic area. For all that, however, the fact that those subscribers living outside the free mileage area still faced additional rental charges meant that the charging structure continued to favour urban development.

There was also a move to even out the differences in service quality in urban and rural areas via the commitment in the 1946 Development plan to introduce continuous service at all but the very smallest exchanges. From 1940 to 1948, the percentage of subscribers receiving

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<sup>131</sup> A.J. Litton (1961), *The Growth and Development of the Irish Telephone System*, *Journal of the Statistical and Social Inquiry Society of Ireland*, Vol. 20, Part 5, pp. 79-115, p. 93.

<sup>132</sup> *Ibid.*, p. 106.

automatic service had remained at 60%,<sup>133</sup> reflecting the fact that automatic service was only offered in the Dublin area (which as noted above accounted for approximately 60% of all subscribers throughout this period). After the commencement of rural automation in 1948 (with brief stoppages in 1949 and 1957), however, the percentage of subscribers receiving automatic service increased consistently, reaching 76.5% by 1959.<sup>134</sup> Furthermore the extension of service hours at manual exchanges meant that as early as July 1955, 97% of all subscribers had continuous service.<sup>135</sup>

The most important changes from a universal service perspective, however, were the shifts in the conception of the telephone and thus of that the telephone service. The assumption at the heart of the Rural Call Box Programme, that the telephone service should at least partially serve a social function and that that function would, if necessary, be subsidised, represented a major change from the policy which had prevailed in the 1920s and 1930s. Although profits from the telephone continued to even out the losses from the telegraphs and postal service, the fact that the telephone service could also internally cross-subsidise itself represented a first step towards the pursuit of universal service goals.

To understand what prompted and sustained the dramatic expansion of the service in the period under review requires an examination of the convergence of political, economic and social factors during the period under review. It is difficult to avoid the conclusion that political factors, both at a national and international level, were critical in kickstarting the post-war expansion. In particular the influence of the war itself cannot be underestimated especially with regard to the key 1944 decision of the Cabinet Committee on Economic Planning to approve a massive postwar development of the service. Indeed one might reasonably question whether, in the absence of the war, such an programme would have been proposed at all, for as already noted, the war played a key role in altering the perception of the telephone within many sectors of Irish society. At a military and political level for example, the threat of a sudden invasion by any of the warring powers (a threat taken quite seriously as

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<sup>133</sup> *Ibid.*, p. 105.

<sup>134</sup> *Ibid.*, p. 105.

<sup>135</sup> DD 151, p. 22, 12/6/55.

Lee's discussion of Irish wartime foreign policy makes clear<sup>136</sup>) made it essential to create not simply a communications system that covered the whole country but also one that permitted rapid information exchange. The resulting crash-programme to connect military and governmental buildings to the telephone network saw these groups' usage of the telephone system increase to a previously unseen extent (and in the process extended the telephone system to some areas which had previously been unserved<sup>137</sup>). In effect the onset of the war, by creating the need for a rapid national communications system, fostered an appreciation of the utility of the telephone system at governmental level that had not previously existed.

Yet this increased appreciation of the telephone's utility was not limited to the institutions of the state. As noted in section 6.1, the limitations on physical movement resulting from fuel shortages and a curtailed public transport service appear to have alerted both businesses and individual citizens to the potential utility of the telephone, a fact reflected in the extent to which local and trunk call traffic increased during the war years. A.J. Litton, then Deputy Chief Engineer at the Department of Posts and Telegraphs has noted:

“On account of the great transport difficulties in [sic], or sometimes lack of transport, during these years the telephone service came into its own and much greater use was made of it, more especially in the rural areas. Many came to rely on it, and the making of trunk calls became common place amongst people who in the past had never dreamt of using a telephone.”<sup>138</sup>

In short, the war was critical in creating a hitherto unknown widespread social need for the telephone.

The extra revenue resulting from the increased wartime traffic fed back into government policy-making. Although previous Irish governments had identified the role of the telephone section as that of cross-subsidising the other two services when necessary, Table 6.2

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<sup>136</sup> J.J. Lee (1989), Ireland 1912-1985: Politics and Society, (Cambridge: Cambridge University Press), pp. 242-253.

<sup>137</sup> Litton notes that the Ballina to Belmullet trunk lines, erected to establish a connection with a lookout post in Belmullet, connected the latter to the national network for the first time. Litton, op. cit. p. 86.

<sup>138</sup> *Ibid.*, p. 87.

immediately below indicates that the war years saw the telephone service earn substantial profits for the Post Office as a whole even after the internal cross-subsidies between services were accounted for.

Year	Posts	Telegraphs	Telephones	Total
1938/39	£115,431	(£129,737)	£65,627	£51,321 <sup>139</sup>
1939/40	£48,595	(£141,562)	£80,519	(£12,449)
1940/41	(£115,257)	(£130,203)	£90,390	(£155,070)
1941/42	£91,465	(£115,573)	£180,165	£157,057
1942/43	£52,803	(£103,917)	£242,043	£190,929
1943/44	£114,621	(£73,685)	£247,703	£288,639
1944/45	(£20,101)	(£122,663)	£267,289	£124,525
1945/46	£32,512	(£116,001)	£298,004	£214,515

The long-established policy with regard to the Post Office was that it should be self-sufficient, not that it should consistently earn substantial profits: thus there was scope for adjusting existing telephone policy on financial grounds. At the same time it is apparent that the government interpreted the enormous wartime increase in telephone traffic as evidence that the public perception of the telephone had been altered by the war: from conceiving of it as a purely business instrument towards some recognition of its potential social role. This is apparently confirmed by the emphasis placed on the increasing the number of private lines by the Cabinet Committee on Economic Planning (see section 6.5 above). As a result then, two intersecting factors - an increased awareness of the social potential of the telephone system resulting from war conditions and the profits resulting from increased usage of the system - coincided to convince the Cabinet Committee to recommend the abandonment of the previous blanket policy that each individual element of the telephone service be self-supporting, and to permit some subsidisation of rural call boxes.

There was, however, a third factor in shaping the Cabinet Committee's thinking: new infrastructural technology. Although the Committee was prepared to countenance some losses in extending the service there nonetheless remained limits to their largesse. However, developments in semi-automatic exchange technology, in trunk carrier systems and the advent of co-axial cable, by reducing both per subscriber automation cost and the cost of extending

<sup>139</sup> 1932/33 - 1938/39 from Department of Posts and Telegraphs Commercial Accounts for Year ended 31 March 1948, Government Publications.

the trunk service made investing in the extension and automation of the telephone system in rural areas financially viable even given the Department's still cautious attitude with regard to the service. Thus, although not in itself a determining factor, the impact of technology on reducing the cost of long line extensions particularly, was, alongside the political and social factors referred to above, a necessary condition for the Committee to even consider the possibility of some subsidisation of the system.

The profitability or otherwise of both the telephone section and the Post Office as a whole would remain a key influence on telephone development policy. Hence the Government's willingness to adopt the Kamerbeek recommendations (see section 6.4 above) and thus lose an estimated £125,000 per annum in revenue, was almost certainly coloured by the record profits earned by the telephone section in the last few years of the 1950s:

Year	Posts	Telegraphs	Telephones	Total
1955/56	(£264,617)	(£238,299)	£134,437	(£368,479)
1957/58	£104,999	(£177,556)	£366,377	£293,820
1958/59	£4,672	(£140,144)	£413,048	£277,576
1959/60 <sup>140</sup>	£129,771	(£136,867)	£396,179	£389,083
1960/61 <sup>141</sup>	£91,291	(£149,525)	£426,822	£368,588

Yet social factors would also continue to shape the telephone system's development during the period under review in this chapter. Thus whilst the Cabinet Committee could make a unilateral decision to develop the national telephone call box system, it could not of itself guarantee that there would be sufficient demand for the service to fulfil its second objective, that of trebling the existing number of subscribers by the close of the 1950s. To understand what prompted growth in demand for the telephone in the post-war era,<sup>142</sup> one must consider socio-economic factors. Firstly the experience of the war appears to have permanently established what the Department termed the "telephone habit." Having established its utility under wartime conditions, there was no apparent diminution in both the urban and rural public's appreciation of the telephone's usefulness in the post-war era. Thus during the brief post-war consumer boom, the telephone was amongst the sought after goods, a fact reflected

<sup>140</sup> From Post Office Commercial Accounts year ending 31st March 1971, p. 22.

<sup>141</sup> Ibid.

in the emergence of the first substantial waiting list for service in the late 1940s despite record annual new subscriber connection levels during the same period. Demand was sustained into the 1950s by economic factors: namely the improving affordability of the telephone relative to income over this period. Thus, although the 1950s themselves were, for the most part, not a period of economic growth and did not see substantial increases in real incomes, in 1956, Minister Michael Keyes could argue that: “The small increases in rentals and call rates as compared with the much greater increases in money incomes have undoubtedly put telephones within the reach of people who could not afford them pre-war.”<sup>143</sup> Whilst the average annual wage for a man working in industry and services rose from £142 pounds in 1938 to £484 in 1960, an increase of 330%,<sup>144</sup> the price of standard residential telephone rental rose from £5 to £7 10s over the same period, an increase of just 50%.

A second key social factor, sustaining demand for the telephone was the beginning of the process of the suburbanisation of Irish society in the 1950s, particularly in the Dublin area. Although the clearing of Dublin’s inner city slums had begun in the 1930s with the development of new housing estates in areas such as Crumlin and Drimnagh,<sup>145</sup> with the advent of funding from the European Recovery Fund, the process gathered pace in the late 1940s and 1950s.<sup>146</sup> Many of these “new settlements” situated as they were at a distance from the urban cores were without “any of the essential social amenities...”<sup>147</sup> Consequently conditions not unlike those prevailing during the war - lack of convenient access to basic amenities - characterised daily life on the new estates. As a result, just as wartime conditions had prompted an increase traffic, so life in the new estates apparently caused residential telephone penetration rates had prompted an increase substantially during the period under review in this chapter (but particularly in the 1950s) as residential lines increased from accounting for just 31.8%<sup>148</sup> of all main exchange lines in 1940 to 48.6% in 1960.<sup>149</sup> By the

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<sup>142</sup> Litton again has noted of the increased in subscriber numbers in the 15 years after the war that: “nor was any sales effort required.” Litton, *op. cit.*, p. 87.

<sup>143</sup> DD 159, p. 23, 3/7/56.

<sup>144</sup> Central Statistics Office (1968), *Statistical Abstracts 1968*, (Dublin: The Stationery Office).

<sup>145</sup> Terence Brown (1981), *Ireland: A Social and Cultural History 1922-79*, (London: Fontana), p. 207.

<sup>146</sup> *Ibid.*, p. 223.

<sup>147</sup> *Ibid.*, p. 207.

<sup>148</sup> NAD S 13086 A.

<sup>149</sup> Litton, *op. cit.*

close of the 1950s, nearly 47,000 Irish households had acquired the telephone, a household penetration rate of over 7%.<sup>150</sup> Thus the combination of the relative affordability of the phone and changing housing patterns meant that by 1962, Dublin West T.D., Noel Lemass could declare himself pleased that so many of his own constituents in Crumlin and Walkinstown, “the working class people, the skilled men, the artisans and so on, can now afford to have a telephone in their private homes and need not regard a telephone, as was the case before the war as a luxury for the better class of person.”<sup>151</sup>

Economic factors do not appear to have played a key part in the Cabinet Committee’s 1944 decision. There are no explicit references to the importance of the plan for the national economy in either the memos flowing between the Committee and the Department of Posts and Telegraphs during the period in which the post-war plan was developed or indeed in the Minister’s Paddy Little’s introduction of the plan to the Dail in 1946. Having said that, the fact that Sean Lemass, one of the architects of the opening up of the Irish economy at the close of the 1950s, had sat on the Committee meant that such considerations cannot have been entirely absent. Yet despite the fact that by the close of the 1940s there were an increasing number of references both inside and outside the Dail to the telephone’s crucial infrastructural role, the stagnation of the economy during the 1940s and for the bulk of the 1950s make it difficult to identify any major economic factors that might have influenced Department of Posts and Telegraphs policy. It might be argued that the ongoing commitment to the 1946 development plan (with its focus on rural development) during the 1950s was activated by the need to respond to the tide of emigration from rural areas by establishing part of the infrastructure upon which new industries in these areas could be built. Yet in practice, it would appear that the country’s bleak economic performance during the 1950s if anything augmented the perceived *social* importance of the telephone in rural areas, as the telephone became increasingly identified as a means of improving living conditions in such areas.

In sum then, during the period under review in this chapter, social changes engendered by the effects of a global political and military conflict generated a substantial increase in the usage of the telephone system. This in turn prompted a political *volte-face* in 1944 that accepted

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<sup>150</sup> Own calculations based on data in Appendices IV and XXXI.

<sup>151</sup> DD, 194, p 1109, 3/4/62

both that the telephone system was of some social value and that consequently, specific elements of it could be subsidised. The decision also related to the improving financial position of the telephone section and Post Office (itself the result of increased usage) and the potential of new telecommunications technologies to reduce the cost of service provision, especially in rural areas. Thereafter a combination of factors: the increasing affordability of the telephone relative to wage rates; the established utility of the telephone for all sectors of society (another result of the wartime era) and ongoing social change (e.g. suburbanisation) ensured a consistent level of demand. The critical decision of 1959 to adopt the proposals put forward in the Kamerbeck plan should then be understood in the light of the social demand for the telephone demonstrated during the 1950s. The fact that such demand could be catered for profitably was also a crucial factor in the state's decision to encourage rural development. As was the case with the adoption of the post-war development plan a decade and a half earlier, it is very much open to question as to whether such a decision would have been made in the absence of such profits.



# **CHAPTER SEVEN**

## **TELEPHONE DEVELOPMENT**

**1960 - 1979**

## 7.1 General Development 1960 - 1964

The measures suggested by the Kamerbeeck Report quickly paid off rich dividends. In the 12 months up to June 1960, there were 13,200 applications, a 57% increase on the average number between 1957 and 1959.<sup>1</sup> This was in large part due to increased provincial demand: the 1960 figure for applications from outside Dublin exceeded the average for the previous three years by 83%.<sup>2</sup> Michael Hilliard noted that:

“Provincial applications increased by over 1,500 and this is largely attributed to the concessions introduced last August... Since these measures were introduced primarily to stimulate rural telephone development, the increase in demand is gratifying.”<sup>3</sup>

The number of new installations also increased to 11,600. Yet, whilst this bettered the previous annual connection record by 1,000, it was insufficient to meet the increased demand and the waiting list began to increase. In an effort to catch up, Hilliard introduced a new Telephone Capital Bill in July 1960 to be spent as follows:

Category of Expenditure	Amount
Subscribers' installations and local underground schemes	£6.42m
Exchanges, new and extended	£2.24m
Trunk and junction circuits	£2.13m
Buildings	£0.53m

Thus whilst the Act did seek improve the trunk network and to speed up the conversion of rural exchanges to automatic working, the local loop and increasing the rate of subscriber installations was the focus of spending:

<sup>1</sup> DD 183, p. 1328, 12/7/60.

<sup>2</sup> Ibid.

<sup>3</sup> DD 181, p. 1415, 17/5/60.

“The programme proposed provides for the installation of 65,000 additional subscribers’ lines and 80,000 extra telephones the net effect of which will be to increase the number of existing telephones by one-third.”<sup>4</sup>

Active pursuit of the goals of the 1960 Capital Act was shortlived however. Although a record 15,300 new phones were installed in 1960, this was outstripped by the 16,500 applications for service received the same year. Still trying to keep pace, Hilliard sought an extra £2.5m from the Minister for Finance for telephone development in 1961/2, but acknowledged that:

“Even that increased provision will not be nearly sufficient to meet our requirements in full but the amount of capital available is not, of course, unlimited, and we would need a very great increase indeed in our allocation to cater fully for the demand we have been experiencing recently.”<sup>5</sup>

In retrospect it appears that in framing the 1960 Capital Act, the Department incorrectly assumed that the density of the national network by the close of the 1950s was such that the anticipated post-Kamerbeek plan increase in rural applications would not engender any substantial increase in capital costs. Furthermore, although the Department clearly expected that the 1960s would see increased demand, it doesn’t appear to have anticipated the rate of growth that actually occurred.

Since the network was unable to cope with the unexpected increase in traffic levels consequent on the increase in demand, the Department shifted its focus from increasing subscriber installations to devoting a higher proportion of available capital to trunk and exchange development, without which, as Hilliard noted “the addition of substantial numbers of new subscribers to the system would eventually result in congestion and delays to the detriment of subscribers generally.”<sup>6</sup>

As a result, connection figures for 1961 dropped to 14,500. Consequently, waiting lists began to grow again: reaching 9,360 by the end of January 1962.<sup>7</sup> Furthermore, as Hilliard noted in May 1961, the need to develop the trunk network meant that there would

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<sup>4</sup> DD 183, p. 1329, 12/7/60.

<sup>5</sup> DD 189, p. 540, 17/5/61.

<sup>6</sup> DD 189, p. 540, 17/5/61.

be a delay in connecting those rural applicants whose connection required the establishment of long cable routes.<sup>8</sup>

Notwithstanding this, the focus remained on trunk and exchange development, increasing demands on capital: Hilliard secured a capital provision of £3.5 million for 1962/62 (£1 million up on the previous year's figure which had in itself been exceptional), exhausting the £10 million provided for by the 1960 Telephone Capital Act two years ahead of schedule. Even with this expenditure, 1963 was considered a crisis year for the telephone branch, the quality of service deteriorating dramatically in the summer months. An OECD report on "Science and Irish Economic Development" published that year noted that the telephone service was "undergoing severe stress in relation to economic expansion and it is barely meeting demand."<sup>9</sup>

In the midst of the crisis, Hilliard identified its origins in five basic factors:

1) Lack of network development: "I was not too long in office. . . when I came to realise that we could not in any circumstances attempt to continue the installation of new telephones at that rate until we arrived at a time when we had caught up on, to some extent at least, the backlog of essential engineering work."<sup>10</sup>

2) Increased demand: "There has been a huge increase in recent years in the rate of demand for new telephones and in the traffic requirements of existing subscribers. . . the number of exchange lines has doubled in the last ten years and quadrupled since the end of the war."<sup>11</sup>

3) Lack of capital: "If (capital) is unduly restricted, the amount available is necessarily devoted to short-term needs and adequate provision of spare capacity necessary to meet even normal growth is impracticable."<sup>12</sup>

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<sup>7</sup> DD 193, p. 689, 22/2/62.

<sup>8</sup> DD 189, p. 589, 17/5/61.

<sup>9</sup> Research and Technology Survey Team Report 1963. Volume 1 *Science and Irish Economic Development*.

<sup>10</sup> DD 202, p. 1325, 9/5/63.

<sup>11</sup> Ibid.

<sup>12</sup> Ibid.

4) Lack of qualified staff: “Staff experienced in telephone work are not freely available; consequently it is necessary to spend a comparatively long time on the training of new recruits before they become really effective.”<sup>13</sup>

5) Lack of supplies: “We cannot get delivery from the manufacturing firms for a year, two years and, in some cases, even three years. You cannot order this equipment in quantity, because it has to be specially designed to fit in with the exchanges.”<sup>14</sup>

Of these, Hilliard argued that “the severe shortage of capital during the 1950s when the telephone service was afforded a low priority”<sup>15</sup> had combined with the post-Kamerbeek increase in demand, to become the “principal causes” of the chaos of the summer months:

“Development planning was therefore necessarily restricted to short-term measures, sufficient to keep the service going rather than to cater adequately for growth and maintain necessary reserves of plant. The consequent depression of spare capacity of lines and equipment coincided with the steep rise in public demand which I have outlined.”<sup>16</sup>

In December 1963, Hilliard moved to address the origins of the problem identified above, introducing a new Telephone Capital Bill authorising expenditures of £30 million, a sum almost equal to the combined Telephone Capital Acts between 1922 and 1960.<sup>17</sup> The ambitious works programme planned for the capital from the Act was intended to place the service once and for all on a secure basis from which to manage future development. It included:

“... the connection of 115,000 new subscribers' lines, the conversion of some hundreds of manually operated exchanges to automatic working, the opening of an auxiliary trunk exchange in Dublin, the erection of 600 street kiosks, and the expansion of trunk circuiting in order to overtake arrears, to establish a no-delay service and to cater for expansion.”<sup>18</sup>

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<sup>13</sup> Ibid.

<sup>14</sup> DD 202, p. 1389, 14/5/63.

<sup>15</sup> DD 206, p. 659, 5/12/63.

<sup>16</sup> DD 206, p. 659, 5/12/63.

<sup>17</sup> If one ignores the effects of inflation.

<sup>18</sup> Ibid., p. 662.

At the same time, in a move that was interpreted as an attempt to reduce demand, the Department introduced a connection fee of £10 for new exchange lines.<sup>19</sup> Meanwhile, the Department focus was on network development. 1964 saw 1,150 new trunk circuits (40,000 miles of cable) established, augmented by radio links between larger towns. Furthermore, at the April 1964 Vote on Account, which included an additional £312,000 to pay for an extra 650 technical and telephonist staff,<sup>20</sup> Hilliard announced plans to double the number of technician trainees (“the main avenue of recruitment for the skilled staff”) within twelve months. Whilst such developments took place, however, the number of subscriber installations dropped and even urban areas faced waiting periods of five months. Furthermore, in February 1964, Hilliard re-emphasised that in order to conserve capital monies to fund trunk development, it was necessary to deny service to:

“the person who lives over a certain distance from an exchange a telephone for a long period of time. . . It has been my policy to defer these long-line cases in order to conserve the capital available to me.”<sup>21</sup>

Effectively, then, connections in the more sparsely populated rural areas were ruled out. Even some priority cases faced delays in some areas “because of local equipment shortages.”<sup>22</sup> Hilliard, however, continued to insist that waiting lists would be eradicated within the lifespan of the programme.<sup>23</sup>

## 7.2 General Development 1965 - 1969

At the March 1965 estimate, then Minister for Posts and Telegraphs, Joseph Brennan complained that “the number of applicants each year seems to increase and this rate of progress makes the problem more and more difficult to catch up with.”<sup>24</sup> Only 13,726 new subscribers had been connected in the previous year, against an increase of 15,300 in

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<sup>19</sup> DD 209, p. 706, 29/4/64.

<sup>20</sup> DD 209, p. 364, 23/4/64.

<sup>21</sup> DD 207, p. 1765, 27/2/64.

<sup>22</sup> DD 208, p. 1498, 14/4/64.

<sup>23</sup> Nearly a decade later, viewing the 1963 Act from the perspective of a waiting list that had grown to over 30,000, Fine Gael TD Richard Burke would argue that the decision taken at the time of the 1963 Telephone Capital Act to concentrating on improving the existing service at the expense of delaying connections to existing users was the source of the difficulties facing the telephone service in 1972. (See DD 263, p. 1266, 9/11/72.)

<sup>24</sup> DD 217, p. 2022, 21/7/65.

applications, the bulk of which was accounted for by private subscribers,<sup>25</sup> a fact which, according to Brennan, exacerbated the Department's difficulties:

“Particularly in relation to the service in rural areas, as far as I can see, the difficulty is this: once new telephones are installed in private houses, all the friends and neighbours of those new subscribers want one too. When a telephone is installed in a rural area in a private house, nearly invariably there are five or six new applicants from the same area.”<sup>26</sup>

In spite of this, Hilliard expressed the hope the Department would begin to concentrate on catching up with subscriber installation work “within a few months.”<sup>27</sup> In point of fact, the waiting list did drop from its March 1965 figure of 14,260 to 13,200 in October 1966. Paradoxically, this coincided with a *decrease* in new installations. The paradox was explained by a substantial drop in new applications to 12,500 in 1965/66 owing to the introduction from September 1965 of a requirement that new applicants pay a sum covering the initial term of the rental agreement on applying for a telephone, i.e. *in advance of actual service*.<sup>28</sup> The express object of the advance rental charge was to dampen a level of demand which, in the absence of sufficient capital, the Department was unable to meet.<sup>29</sup> Furthermore, since the initial minimum term of rental agreements was longer for those subscribers located at a distance from the nearest exchange, the policy disproportionately affected those subscribers for whom service provision would entail the erection of substantial plant on the part of the Post Office.<sup>30</sup>

In the short term, the advance rentals requirement had the desired effect of reducing new applications, allowing the Department to begin clearing pre-1966 long-line applicants (all

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<sup>25</sup> DD 217, p. 2022, 21/7/65.

<sup>26</sup> DD 217, p. 2022, 21/7/65.

<sup>27</sup> DD 214, p. 1627, 10/3/65.

<sup>28</sup> Although in fact the new regulation had come into effect on August 10th. A printing strike had meant that a public announcement in the national newspapers was impossible until the 13th September.

<sup>29</sup> A submission to the Dargan Report in 1978 from Mr Ó Droma, the Deputy Secretary of the Department of P&T confirmed that the practice of insisting on payment by all new subscribers of rental covering a year at least in advance was "designed to contain the enormous latent demand within manageable limits." Department of Posts and Telegraphs/Dargan, Michael J. (1979), Report of Posts and Telegraphs Review Group: 1978-1979 presented to the Minister for Posts and Telegraphs, May 1979, (Dublin: Stationery Office), p. 17.

<sup>30</sup> Although in those cases where the cost of providing the service was abnormally high, the initial rental period could be as long as 7 years.

but 100 of which were connected by May 1967).<sup>31</sup> Annual installations rose to a record 15,528 in 1966/67 and again the following year to 19,393 whilst the waiting list fell to 7,585 by March 31st 1968, down nearly 3,000 on the figure for the same period the previous year.

Childers had yet more ambitious plans however:

“The target for the current financial year (1968-1969) is 22,000 connections; 17,000 were provided in the nine months April- December so that we are well on the way to reaching it.”<sup>32</sup>

Despite this activity, the objectives of the 1963 Act had clearly not been achieved within its lifetime: 72,000 new main lines were installed between 1963 and 1969, some distance short of the 115,000 envisaged in 1963. Furthermore, there remained widespread complaints about the quality of service offered to those who'd succeeded in becoming subscribers. In May 1967, Childers promised a major review of the entire organisation of the telephone service, seeking “to ascertain what may be required as a result of the explosive expansion in the last seven years.”<sup>33</sup> The results of the review were not made public but they informed the 1968 Telephone Capital Bill. The 11th Telephone Capital Bill since the foundation of the state sought £50 million to develop the telephone network over the following five years. Introducing the Act, Childers stressed the need for long term capital expenditure:

“As has often been said before but is still perhaps not fully appreciated, major telephone development plans take five years to mature in working equipment. Sometimes where new sites and buildings are needed the time interval is even longer. It is clearly impossible to develop a service adequately unless there is a firm assurance that capital monies to meet forward commitments will be available. 'Stop-go' conditions of which there has been some unfortunate experience on occasions in the past are an impossible handicap to development. I am fully confident that they will not be permitted to recur and that the sum of £50

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<sup>31</sup> DD 228, p. 981, 16/5/67.

<sup>32</sup> DD 238, p. 1856, 27/2/69.

<sup>33</sup> DD 228, p. 981, 16/5/67.



million which I am asking for in this Bill will be made available year by year as required.”<sup>34</sup>

The specific objectives of the 1968 Act were remarkably similar to those of the 1963 act. Again the programme aimed to connect 115,000 new subscribers lines and again it sought to place the entire telephone service on a secure footing from which to plan for future development.<sup>35</sup>

Such was Childers’ confidence in a steady flow of capital that he embarked the Department on a follow up to the Rural Call Box Programme of the previous decade. Whilst the initial programme had brought a public telephone to virtually every small town in Ireland, the fact that such telephones were located in Post Offices made 24 hour access impossible. Given the acknowledged role of the call boxes in rural areas as emergency devices this situation was considered unsatisfactory. In practice, in those towns with a Garda Barracks, 24 hour emergency access was available via the Garda phone but 58 such barracks closed between 1960 and 1969.<sup>36</sup> Thus as Paddy Cooney, Fine Gael TD for Longford-Westmeath argued “the availability of a *kiosk* is much more important in rural Ireland than in a densely-populated area like Dublin.”<sup>37</sup> (Italics added.) Throughout the latter half of the 1960s, the Department had been erecting telephone kiosks at the rate of approximately 100 each year (of which on average 50 were erected in rural areas). In mid-1969, however, there was a change in policy with specific regard to rural kiosks:

“Previously kiosks were only provided where they would pay their way. It was decided to allow a modest subsidy *in the case of kiosks in rural areas* and to accelerate the extension of kiosk facilities to these areas. It was also decided that this extension could best be achieved by replacing by kiosks these call offices in rural sub-post offices which are used fairly extensively.”<sup>38</sup> (Italics added)

Thus, the Department was committed to another five year expansion programme to establish kiosks in all towns where annual income from the existing public call box

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<sup>34</sup> DD 238, p. 1862, 27/2/69.

<sup>35</sup> Ibid.

<sup>36</sup> DD 248, p. 603, 29/7/70.

<sup>37</sup> DD 252, p. 526, 9/3/71.

<sup>38</sup> Patrick Lalor, DD 245, p. 916, 19/3/70.

exceeded £100. It was envisaged that the annual provision of kiosks would increase from 100 to about 200 of which 150 would be located in rural areas.

### 7.3 General Development 1970 - 1974

From the outset, the 1970s saw the telephone service in a more or less constant state of crisis. Despite Childers' optimism that the Telephone Capital Bill of 1968 would solve the problems of the Post Office for the foreseeable future, the waiting list began to increase again as demand recovered from its brief decline in 1965/66. A 21% increase in applications between 1967/68 and 1968/69 meant that notwithstanding the 22,300 lines connected during 1968/69, the waiting list reached 11,000 by the close of 1969.

Furthermore, Childers' confidence that the days of "stop-go" capital provision were a thing of the past when introducing the 1968 Act, was not borne out by subsequent events. In 1970, facing a deteriorating economy, Finance Minister George Colley sought expenditure cuts from his cabinet, specifically requesting a cut of £800,000 from Posts and Telegraphs. Childers' successor, Gerry Collins argued against the cuts pointing out that the remaining sum would be :

“altogether insufficient to provide a minimum balance between construction staff and the engineering stores they would use. The only way in which we could keep within the allocation therefore would be to lay off large numbers of staff. . . .It will involve severe restrictions in the provision of subscribers lines. The most serious effect will be a reduction in the amount of underground cabling we can undertake in towns and cities. It will mean that in many areas we will provide telephone only on a priority basis and even this will not be possible in some areas.”<sup>39</sup>

The Finance Minister prevailed however, prompting Collins to concede in March 1971 that it was impossible to keep up with demand:

“Planning has been on the basis of rapid growth in demand, but with the resources available and procurable, it simply was not possible to meet the demands in full. I may mention that the rate of demand for telephones increased by 90 per cent

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<sup>39</sup> Quoted by Conor Cruise O'Brien in DD 266, 20/6/73, pp. 876-878.

between 1960 and 1965. It is very difficult to expand a telecommunications system sufficiently quickly to cater fully for growth at this rate.”<sup>40</sup>

Furthermore, the capital cuts coincided with a further growth in demand. Consequently, the waiting list rapidly expanded, rising to just over 20,000 by the close of 1971. The kiosk programme also suffered: although the numbers provided in rural areas did increase from 65 in 1969-70 to 73 from March to December 1970, this was still far short of the 150 promised two years earlier.

The capital cuts prompted widespread criticism inside and outside the Dáil. The most trenchant censure came from Fine Gael TD, Garret FitzGerald:

“To anybody involved with economics it is quite absurd that the Government have here a commercial enterprise for whose services there is a quite extraordinary demand, a demand that is economic in that people are prepared to pay the cost and more besides to yield a profit and yet, in this area which if it were under the control of anybody other than the state there would be enormous expansion and the demand would be met by the supply, in this area almost the only one where the State is running something commercial and potentially profitable which is tightly restricted and controlled, the criteria by which capital is rationed to it are the same as are applied to the rationing of capital for social purposes from which little or no economic return can be expected. This is ludicrous.”<sup>41</sup>

FitzGerald suggested that the service be re-organised as a semi-state body to rectify the situation. Responding, however, Collins pointed out that since the Public Capital Programme, which included expenditure by semi-state bodies, was also controlled by the Minister for Finance, it was “unlikely that semi-State status in itself would be of much help in securing a bigger capital allocation in a period of scarcity.”<sup>42</sup> Collins thus concluded that:

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<sup>40</sup> DD 252, p. 1080, 23/3/71.

<sup>41</sup> DD 257, p. 343, 25/11/71.

<sup>42</sup> DD 252, p. 1087, 23/3/71.

“We must face the unpleasant fact that sufficient capital cannot be made available for telephone development if this service, which is so important to the whole community, is to be as efficient as subscribers and users expect it to be.”<sup>43</sup>

Nonetheless, demands such as FitzGerald’s would increase in number as the 1970s progressed and the telephone service worsened. In the interim, however, Collins effectively stated that what funds were available would be used to maintain the service in its then current state rather than expanding and developing it. In effect, the telephone service would become a holding operation.

The issue of capital was partially addressed in 1972 but the £13.73 million capital provision for 1972/3 remained well short of the kind of funding that was required. The waiting list increased by 50% between January and December 1972 to just over 30,000 applicants. At the same time, the Post Office as a whole began to lose more money than at any other time in its history. A profit of half a million pounds in 1969/70 became a loss of over £1.7 million in 1970/71. The telephone section remained profitable but only just, returning a surplus of £162,000 in 1970/71. At the outset of a marathon debate on the 1972 Estimates, Collins acknowledged that “what has been done is not enough” but repeated that lack of capital forced the Department to take a short-termist approach:

“My Department have had the experience of repeatedly being pulled up short in their construction programme because of lack of funds and having to devote engineering resources to make-shift and uneconomic expedients which multiply difficulties for the future . . . The rapid acceleration of demand in Ireland did not take us by surprise but the Department simply had not the resources to deal with it adequately.”<sup>44</sup>

Following the 1973 General Election, the successful Fine Gael/Labour coalition brought Conor Cruise O'Brien to the Department of P&T. Almost his first task at the outset of the May 1973 estimates debate was to announce a further deterioration in the Department’s figures: in addition to the by now inevitable waiting list increase (hitting 32,000 in May 1973) was the news that after twenty years of profitable operation, the telephone service

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<sup>43</sup> DD 252, p. 1087-88, 23/3/71.

would record a loss of just under £1 million pounds in 1971/72.<sup>45</sup> Cruise O'Brien laid out the state of the service as he saw it thus:

“ Our immediate problems . . . are the difficulties affecting the telephone service at home and the mounting demand for connection to a system which is in many areas overloaded. Lack of sufficient capacity in the Dublin exchanges is a major cause of the difficulties generally. Because so much of provincially originated call traffic is for Dublin or is switched at Dublin, trouble there affects the whole service in provincial centres also.”<sup>46</sup>

With regard to the waiting list Cruise O'Brien noted that only by doubling the annual connection rate was there any prospect of even reducing it. Since such figures were impossible in the short term (and would in any case have crippled the network), he decided to focus on developing the network itself:

“Extra equipment must first be installed in existing exchanges, new exchanges must be provided in certain areas, extra circuits must be provided on trunk routes. The numbers of skilled staff have to be increased. Installation work is in progress in numerous exchanges; extra trunk lines are on the way and relief will begin to be apparent in a number of areas later this year. Orders for new plant and equipment now amount to over £25 million.”<sup>47</sup>

What is so remarkable about Cruise O'Brien's statement is the striking similarity it bears to that of Michael Hilliard a decade earlier. In ten years, the problems with the telephone service outlined by Hilliard - lack of network development, increased demand, lack of capital and the lack of qualified staff - had changed only in so far as they'd worsened. Facing a similar malaise to his predecessor at the Department, Cruise O'Brien prescribed a similar medicine: spend capital on the development of the network in order to facilitate later growth at the expense of the current waiting list. Thus on December 4th 1973, Conor Cruise O'Brien introduced the Telephone Capital Act 1973, announcing his Department's intention to spend £175 million (a sum exceeding total previous capital expenditure on the

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<sup>44</sup> DD 263, p. 1256, 9/11/72. Collins candour was noted by Richard Burke : "I detect for the first time in listening to many Estimates speeches a note of restrained exasperation running through the document." DD 263, p. 1261, 9/11/72.

<sup>45</sup> DD 265, p. 862, 10/5/73.

<sup>46</sup> DD 265, p. 860-1, 10/5/73.

telephone service since the foundation of the state over the five years to follow). The major objectives of the Department during the lifetime of the Capital Act would be as follows:

1) "Overall priority is being given to raising the quality of service of existing subscribers to a satisfactory standard by clearing local congestion and providing larger capacity links between the principal exchanges."

2) "The second general objective is, of course, to reduce and eventually eliminate the waiting list for new telephones. . . Provision is being made for a net increase of 190,000 subscribers' lines from 270,000 to 460,000. This would represent an increase over the period of 70 per cent or an annual increase of 11.3 per cent as compared with 6.9 per cent over the past five years. It would give an increase of 250,000 telephones and a density of 19 telephones per 100 population in 1978. . . It is planned to at least treble the present connection rate over the period of the programme."<sup>48</sup>

In an attempt to make up lost ground, the Act also envisaged the erection of 750 kiosks up to 1978. Cruise O'Brien admitted that the Department might be approaching the point where "virtually all call offices which are used to a fair extent will have been replaced by kiosks."<sup>49</sup> Hence, a year later, at the outset of the 1974 kiosk programme, the criteria were altered: the requirement that call boxes earn at least £100 per annum was reduced substantially to £42, a move which Cruise O'Brien stressed had been influenced by considerations of the social role of the telephone in rural areas.

Possibly the single most important figure - public perception wise - with regard to the service remained the spiralling waiting list. Speaking at the July 1974 Estimates debate Cruise O'Brien stated that, in spite of the fact that the 30,000 new lines had been connected over the last year, the waiting list had risen throughout to 41,000, an increase of 9,000 in a 12 month period. Noting a simultaneous increase in telephone traffic he stated that they indicated the scope for a "soaring rate of growth if all the necessary facilities were there to meet public demand quickly and fully. We must therefore treat

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<sup>47</sup> DD 266, p. 879, 20/6/73.

<sup>48</sup> DD 269, p. 872, 4/12/73.

<sup>49</sup> DD 269, p. 877, 4/12/73.

telecommunications as a rapidly expanding sector of the economy and plan accordingly.”<sup>50</sup>

In the short term however, Cruise O'Brien repeated that the Department would focus on the improvement of the quality of service offered to existing subscribers even at the cost of restricting new subscriber numbers: “It takes about two-and-a-half years before the full effects either of the cuts or expansions of capital provision are felt.”<sup>51</sup> There could be no “quick fix” for the waiting list.

#### **7.4 General Development 1975 - 1979**

Given Cruise O'Brien's estimate of a 30 month lead time before the effect of increases in capital expenditure were felt, it would have been mid-1976 before any improvements were noticed from the 1973 Capital Act. In the meantime the service remained in a state of crisis. Cumulative losses of over £25 million were recorded from the operation of the telephone service in 1975 and 1976 whilst the average gap between applying for and receiving service reached 12 months. The absolute size of the waiting list also continued to increase although a 1975 increase of nearly 6,000 in annual connection (to 36,400 new installations) saw the waiting list's rate of increase slow (reaching 43,000 by March 1976).<sup>52</sup>

In January 1977, introducing that year's budget, Minister for Finance, Ritchie Ryan announced that postal charges would have to be further increased by 13% in order to compensate for the projected deficit on those services. At the same time he announced average increases of 25% in the charges for the telegraphs and telephone services. In making the announcement he provided a lengthy and detailed description of the state of the services:

“The Post Office services which should be self-financing, are running at a substantial loss on their commercial accounts. The telephone service lost £8.5 million in 1976 and now is losing almost *half-a-million pounds a week*. The loss

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<sup>50</sup> DD 273, p. 293, 3/5/74.

<sup>51</sup> DD 283, p. 1374, 10/7/75.

<sup>52</sup> DD 290, p. 1104, 12/5/76.

in prospect on the postal services is £3.7 million this year. These losses have to be made good by taxpayers through general taxation...

The major factor in the increased costs has been pay increases. In addition, in the case of the telephone service, a significant but necessary growth in the number of staff employed reflected the very substantial development of that service.

The second important factor has been the increasingly heavy capital cost of telephone development; the cost of interest and depreciation has increased from £7.6 million in 1971 to £26.4 million in 1977, an increase of 247% and now represents 38% of expenditure on the telephone service. The country is now obliged to pay the cost of culpable underinvestment in the Sixties and early Seventies, when the potential for growth in traffic to service the investment was considerably greater and when capital costs were much lower.

Notwithstanding the enormous capital cost of improving the telephone service at present, the truth is that any further delay would not merely be an inconvenience but an intolerable handicap to business and industry."<sup>53</sup>

(Italics added)

In the longer term, the charge increase had little effect on demand: the Department received 44,000 applications in 1977 (up 8,000 on the figure for 1976) rising to 58,000 in 1978.

In June 1977 Fianna Fail swept to a spectacular victory over the incumbent coalition with a manifesto<sup>54</sup> that included a promise to subsidise telephone charges for Old Age Pensioners living alone.<sup>55</sup> Fianna Fail also committed themselves to improving Departmental Staff relations, to achieving a position where the demand for telephone and telex services could be met and critically to "examine the desirability of giving autonomy to telecommunications."<sup>56</sup>

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<sup>53</sup> "Postal Charges to go up by 13% and phone, telegram and telex services by 25%." *The Irish Times* 27/1/77.

<sup>54</sup> A manifesto which would in the depression years of the 1980s earn party's then leader the sobriquet Jack "Give-away" Lynch.

<sup>55</sup> Fianna Fail Election Manifesto 1977, p. 23.

<sup>56</sup> *Ibid.*, p. 38.



Within four months Pdraig Faulkner,<sup>57</sup> Cruise O'Brien's successor, introduced the 1977 Telephone Capital Act. By 1977, the £175 million pounds of the 1973 Act had effectively been reduced by inflation to an estimated £126 million. The new act doubled the investment of the previous one, committing up to £350 million for telephone development over the following five years.<sup>58</sup> The main objectives of the 1977 Act as described by Faulkner were to:

- (1) Increase connection rate from 45,000 to 85,000 per annum.
- (2) Raise to 96% the percentage of automatic telephones.
- (3) Improve quality of existing service.
- (4) Ensure the P&T's ability to continue its progress after 1982 by acquiring sites and building/equipment contracts in advance.

The task of achieving those objectives was rendered problematic by the escalation in January 1978 of an Irish Post Office Engineering Union dispute within the telecommunications section of Faulkner's department. Although the dispute returned to arbitration before the Dail recess of summer 1978, the resulting widespread stoppage had decimated the already vulnerable service. Subscribers connected to manual exchanges were particularly badly hit by the stoppages: dependent (unlike those connected to automatic exchanges) on the presence of operating staff, they effectively lost all service during industrial action. The waiting list raced from 40,600 in March 1977 (two months before the dispute) to 53,000 in May 1978 due both to the industrial action but also another unexpected increase in the number of applications. Estimates of the cost of the dispute varied but the public perceived that industry and tourism had suffered enormous losses as a direct consequence of the strike.<sup>59</sup>

Increasingly, Faulkner was pressured to examine the feasibility of establishing his Department's telecommunications section as a separate body (the possibility of which had been raised in the 1977 pre-election manifesto). In October 1978, he announced the establishment of a review body under Dr. Michael Dargan, primarily to examine the

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<sup>57</sup> One of the three Fianna Fail Deputies representing Louth.

<sup>58</sup> It will be interesting when papers are released from the short-lived Department of Economic Planning and Development (overseen by Martin O'Donoghue) to see to what extent (if any) it influenced the content and direction of the 1977 Telephone Act (and indeed general telecommunications policy).

<sup>59</sup> See for example Fine Gael TD for Limerick East, Tom O'Donnell complaining about the effect of the dispute on the Aer Lingus telephone system. DD 306, p. 1926, 25/5/78.

feasibility of giving autonomy to the telecommunications services, but with a “completely open”<sup>60</sup> remit to consider any other aspects of the service.

The Dargan Report was delivered in July 1979 (a week after the conclusion of a second Post Office strike). The report’s influence on the subsequent history of the Irish telephone service cannot be underestimated: it offered the first independent and comprehensive assessment of the difficulties faced by the service and allowed it to suggest effective remedies. The executive summary commenced with the words:

“The state of the telecommunications service constitutes a crisis and a heavy dose of realism is now needed. Policies and attitudes need to be changed fundamentally and quickly. We have striven to bring out our report quickly so that no time may be lost.”<sup>61</sup>

The medium-term prognosis provided by the Dargan Report was gloomy, predicting a waiting list of 100,000 by 1981. It identified as the core problem of the telecommunications service its administration by a Government Department, which it argued was structurally unable to cope with the running of a modern telecommunications service:

“The cause of the shortcomings and inefficiencies is primarily structural. The telecommunications service is a business. It has a rapidly changing technology and an increasing need for a marketing orientation. In those circumstances the governmental and civil service structure, which has to accommodate to many restrictions, is unsuitable for management of telecommunications.”<sup>62</sup>

As a direct result, the report noted that increases in telephone capital expenditure from 1968 to 1978 were, taking into account the effects of inflation and the demands placed on the service, surprisingly small. Thus, having explored a range of organisational alternatives it opted for a state-sponsored company:

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<sup>60</sup> DD 308, p. 1458, 1/1//78.

<sup>61</sup> Dargan Report, p. 1.

<sup>62</sup> Ibid.

“We recommend that the telecommunications service be taken out of the civil service and be entrusted to a state-sponsored body in the form of a statutory company to be run on commercial lines. The new company should have a board with a strong business experience content, the chairman and members thereof to be appointed by the Government. The management of the company should be headed by a chief executive who would be chosen for his business outlook, experience, attributes and attainment. The new body will need considerable flexibility and special powers.”

The government accepted the report with scarcely a reservation and by the close of October 1979 had appointed an interim boards, headed by Michael Smurfit, CEO of Ireland’s largest private company, the Smurfit Group. Furthermore, accepting that increased demand had again rendered the development programme envisaged by the previous Telephone Capital Act obsolete, the government announced a new programme of investment based on the recommendations of the Dargan report. These were:

“(i) over the next 2 to 3 years acquire over 200 sites and provide about 560 buildings and building extensions throughout the country for the necessary plant and support facilities; about 50 large buildings for equipment at switching centres are critical; they would be required at latest within 2 years.

(ii) within about 4 years more than double the number of trunk circuits and the capacity of trunk switching exchanges, increase subscriber exchange terminations from over 0.5 million to about 1 million, replace about 50,000 life-expired terminations in Strowager type exchanges, and extend the subscriber cabling network to cater for the extra subscribers. . .

(iii) nearly double the number of subscribers' lines from 390,000 in 1978 to 750,000 at end of 1983.

(iv) convert the system fully to automatic working.”<sup>63</sup>

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<sup>63</sup> From the Dargan Report, Paragraph 6.3, p. 27.

Faulkner announced the intention to invest £650 million in the service between 1979 and 1984 with a view to doubling the size of the existing network (as the Dargan Report suggested):

“It is clear from all I have said here that the Government are unreservedly resolved to have the quality of the telecommunication service raised to a high level as quickly as possible. Our present problems have arisen over a long period. Never before has there been such Government determination to have them settled once and for all and within a relatively short time.”<sup>64</sup>

### **7.5 Conception of the Telephone**

The shift in the overall direction of the Irish economy in the 1960s saw the role of the telephone as an infrastructural prerequisite for the workings of industry and commerce stressed as never before. Indeed, as is discussed in section 7.6 below, the telephone service was virtually co-opted into becoming an arm of the Industrial Development Agency. As such, throughout the period under review, it was assumed not merely that the telephone was essential for industrial development but that industrial development was the driver of increased demand for service. Speaking in 1964 Michael Hilliard noted that Ireland was competing with other countries for telephone equipment to keep up with demand:

“Demand here has exceeded all expectations. That demand has been created by increased productivity, the buoyancy of the economy and by an increase in business and manufacturing activity within the state over the past five years.”<sup>65</sup>

This perception if anything increased during the latter half of the 1960s as the state geared up for EEC entry: “Communications are vital to industry and the country, especially now that links with the continent are getting closer and closer.”<sup>66</sup> Thus, when the large-scale strike of 1978 decimated the service, its impact was understood not in terms of the disappearance of a socially useful service but a key tool for industry: The Irish Times of 11 February 1978 noted that:

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<sup>64</sup> DD 316, p. 208, 17/10/79.

<sup>65</sup> DD 207, p. 1762, 27/2/64.

<sup>66</sup> M. E. Dockrell, T.D. DD 228, p. 95, 16/5/67.

“Overseas investment is grinding to a halt because of a telecommunications blackout to the outside world. The operations of Irish semi-state bodies, science and industry based in the United Kingdom are also being seriously disrupted. ‘The damage to our attempts to attract industry is immeasurable,’ a spokesman for the Industrial Development Authority said in Birmingham on 10 February, ‘The image the blackout is giving Ireland is very grave.’”<sup>67</sup>

This was reflected in the Department’s ongoing setting of priority categories. Although the “overriding consideration” in determining the allowance of priority to applicants for service was “the public interest or the existence of strong humanitarian or compassionate grounds,”<sup>68</sup> the list also included in November 1964:

“private or public businesses or professions where substantial and urgent use of the telephone is essential to the conduct of business or to the maintenance of employment. Examples are: Government and local authorities, public utilities, transport organisations, building contractors (who afford considerable employment), hotels, co-operative societies, taxi services, journalists and solicitors...”<sup>69</sup>

Theoretically, only those companies employing seven or more individuals were considered priorities,<sup>70</sup> but in May 1974 Cruise O’Brien noted that companies with less than seven employees were accorded priority status “where circumstances warrant(ed) it”:

“Priority is also extended to specialised businesses, irrespective of employment content, for which a telephone is clearly essential, for example a full-time auctioneer, a registered hotel or guest house.”<sup>71</sup>

Similarly, the composition of the newly established Post Office Users’ Council in 1974 made no bones about the fact that the views of the large users would predominate. Outlining the structure and functions of the Council in May 1974, Conor Cruise O’Brien stated that:

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<sup>67</sup> Irish Times, 11/2/78.

<sup>68</sup> DD 212, p. 507, 10/11/64.

<sup>69</sup> DD 212, p. 507, 10/11/64.

<sup>70</sup> DD 274, p. 1924, 24/7/74.

<sup>71</sup> Ibid.

“The council, whose functions will be advisory, will comprise a chairman and 17 other members. The chairman and three members of the council will be chosen by the Minister. Seven of the remaining members will be appointed by the Minister on the nomination of bodies representative of workers, employers, including farmers, consumers, local authorities and the Gaeltacht. The other seven members will be appointed by the Minister on the nomination of large users. All members, however will service in a personal and not in a representative capacity.”<sup>72</sup>

The inclusion of consumers (presumably private/residential users in the case of telephones) amongst the more disparate group seems largely cosmetic, since their voice alone could not have carried much weight.

The extension of the residence rental rate to farmers in 1959 saw the distinction between agricultural and residential users diminish. Despite the fact that farming still represented about a third of all economic activity by the 1970s, farming was perceived as a small telecommunications user, which was reflected in the fact that that was only one farmer’s representative on the Post Office Users Council.<sup>73</sup>

In 1961, residential lines had accounted for 54,000 (47%) of the total 115,000.<sup>74</sup> By the close of the period, however, residential lines constituted a majority of all lines, accounting for 57% (245,100 lines) of the total.<sup>75</sup> Although the increase was in part due to the post Kamerbeek increase in provincial residential applications, the increasingly urban nature of Irish society in this period was also a factor. Whilst in the 1920s two thirds of the population lived in rural areas, by 1966 49.2% of the population lived in towns with populations of 1500 or more. Five years later this figure had risen to 52.25%.<sup>76</sup> The Greater Dublin Area alone accounted for almost one third of the population by the close of the 1970s.

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<sup>72</sup> DD 273, p. 305, 3/5/74.

<sup>73</sup> DD 273, p. 303, 30/5/74.

<sup>74</sup> DD 303, p. 336, 1/2/78.

<sup>75</sup> ITU (1990), Yearbook of Telecommunications Statistics, (Geneva: ITU).

<sup>76</sup> Brown, Terence (1985), Ireland: A Social and Cultural History, 1922 to the Present. (Ithaca: Cornell University Press), p. 258.

As a rapid process of urbanisation occurred in the 1960s, there was a marked increase in internal migration.<sup>77</sup> New housing estates began to sprout up around the country, particularly in Dublin and the dormer towns of the surrounding counties. Deputies argued that people moving into new housing estates needed the telephone to “keep in touch with their friends or relatives”<sup>78</sup> out of whose social circle they had moved. Thus the telephone increasingly became a consumption norm, crucial to living in what was an increasingly geographically mobile society. Fine Gael TD Thomas J. Fitzpatrick pointed out in 1965 that:

“communication by telephone has ceased to be a luxury. . . if a person were deprived of the telephone in this year and age, it would take him perhaps hours to do something that he should be able to deal with in a matter of minutes.”<sup>79</sup>

From the point of view of the Post Office the new housing schemes were attractive places to install phones since the high density of housing greatly reduced the per line capital costs. From October 1966, the Department endeavoured to ensure that “in all new schemes ducts are laid in the course of erection of the scheme which enables them to put the wires in eventually, thus facilitating the installation of telephones.”<sup>80</sup> However, the growth of residential telephony in urban areas brought substantial teething problems, as the growth of new suburban housing estates saw exchanges built for villages suddenly dealing with town populations of 20,000.<sup>81</sup> Thus whilst the national average waiting period of connection had reached 13 months by June 1978, the figure was nearly twice that in many Dublin housing estates.<sup>82</sup>

Despite their numerical dominance by the close of the period, private subscribers remained second class citizens relative to business users, accounting for a disproportionate size of the waiting list.<sup>83</sup> When the Post Office Users Council was established in 1974 there was only one direct representative of the residential users, who for the purposes of the Council

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<sup>77</sup> Ibid.

<sup>78</sup> Ciaran Murphy, Fianna Fail TD for Wicklow. DD 300, p. 333, 12/10/77.

<sup>79</sup> DD 217, p. 1988, 21/7/65.

<sup>80</sup> Joseph Brennan, the Minister for Posts and Telegraphs. DD 224, p. 307, 27/10/66.

<sup>81</sup> Tallaght, a new town in west County Dublin was a case in point. By May 1973 the area accounted for 3% of the entire waiting list, forcing the Department to entirely replace the existing exchange.

<sup>82</sup> John Kelly, Fine Gael TD for Dublin County South. DD 307, p. 589, 7/6/78.

<sup>83</sup> Joseph Brennan. DD 217, p. 2022, 21/7/65.

were characterised as “consumers”.<sup>84</sup> Thus, the views of the majority of users were likely to be swamped by those of the large users bloc.<sup>85</sup>

That the telephone was becoming a “consumption norm” was in part reflected by the introduction of free telephone rental for OAPs in the wake of the 1977 election. Whilst the stipulation that the benefit be limited to elderly people living alone suggested that the scheme sought to provide access to assistance in the case of an emergency, it also facilitated any communication with the outside world. Given that, the immediate effectiveness of the scheme was disappointing, 3,900<sup>86</sup> existing subscribers automatically qualified for the scheme as soon as it was introduced but by November 1978 only 600 of the 4,500 new applications made under the scheme were “installed or in the course of installation.”<sup>87</sup>

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<sup>84</sup> DD 272, p. 303, 30/5/74.

<sup>85</sup> This is of course speculative. Only an examination of the minutes of the Council could allow any definitive assessment to be made.

<sup>86</sup> DD 309, p. 74, 2/11/78.

<sup>87</sup> *Ibid.*



## 7.6 Conception of the Telephone Service

As noted above such was the stress on the importance of the telephone for industry from 1960 onwards that it became possible to regard the Post Office alongside the IDA as an agent of industrial development. In May 1964 Hilliard stated that:

“I recognise that this is nation building, that an efficient and effective telephone service is necessary for the expanding economy we enjoy. I recognise the future of this country depends on increased productivity and exports, increased work in factory and field, and that it is absolutely necessary to have an efficient and effective telephone service to serve those needs.”<sup>88</sup>

The telephone service was considered particularly critical to the IDA drive in the 1960s and 1970s to establish industry outside urban areas. The consistent tardiness in developing the rural service relative to that in urban areas was considered a major obstacle to this goal. Deputies argued that expenditure by way of grants to encourage industry to establish in under-developed areas was useless without a reliable telecommunications service: “All the good work of the IDA is lost for the want of a proper telephone service.”<sup>89</sup> In particular, the relatively low level of automation in the Republic of Ireland (especially compared to Northern Ireland where the figure was 100%) placed Ireland at a significant disadvantage in terms of its ability to attract industry:

“An industrialist likes to set up in a country where he can dial a number and get it quickly instead of losing time waiting while one exchange gets in touch with another and so on. . . . When an industrialist has established a business and somebody comes to him asking if it is a good place to site an industry, if he has experienced a good telephone service, it is the sort of thing that will make him advise an associate to come there to establish a factory.”<sup>90</sup>

Finally, the Industrial Development Authority, in a submission to the Dargan Review Group in 1978 argues that “telecommunications deficiencies represent an ever increasing

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<sup>88</sup> DD 209, p. 1542, 14/5/64.

<sup>89</sup> Mrs Hogan O'Higgins. DD 251, p. 2140, 25/2/71.

<sup>90</sup> DD 252, p. 856, 11/3/71.

negative factor in IDA campaigns to attract overseas industry.”<sup>91</sup> The submission asserted that foreign industrialists perceived an immense gap between the standards they were accustomed to in their home countries and the norm in Ireland:

“It is now the most serious deficiency in our industrial infrastructure, and is hurting the IDA effort daily.”<sup>92</sup>

A second submission from the Department of Economic Planning addressed the suggestion that since relative to GNP, telephone penetration in Ireland was roughly equivalent to international norms, there was scant need to increase levels of penetration. The Department argued that such a conclusion would be misleading:

“Our telecommunications needs had to be related to such exceptional factors as our unfavourable geographic location, the high degree of dependence on foreign trade and the need to attract substantial and sustained foreign investment to promote economic development and to create jobs. Consequently, Irish telecommunications services must be exceptionally good; they must at least match the standards of our main trading partners and of those countries whose industrialists were likely to invest in Ireland.”<sup>93</sup>

Thus it was consistently argued throughout the 1960s, but particularly in the 1970s, that telephone development should be planned in conjunction with the IDA. Whilst this was never officially adopted as policy, anecdotal evidence nonetheless suggests that the Department went out of its way to accommodate IDA requests.<sup>94</sup>

There remained significantly less willingness to accede to more socially oriented requests. Throughout the period under review, Ministers continued to parrot the line that:

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<sup>91</sup> Dargan, p.a. 6.12, p. 31.

<sup>92</sup> Dargan, p.a. 6.12, p. 31.

<sup>93</sup> Dargan, p.a. 5.4, p. 25.

<sup>94</sup> For example: in November 1972, Clare-South Galway TD, Brigid Hogan-O'Higgins, cited an example of an American company which had been attracted to the West by the IDA but for which the IDA was unable to provide a telephone. Mrs Hogan-O'Higgins claimed that after she made representation to Minister Gerry Collins a telephone was duly installed. DD 263, 15/11/72, p. 1759.

“It has been the settled policy of all Ministers for Posts and Telegraphs that the Post Office should pay its way on a commercial basis. A departure from this policy is certainly not warranted now. . . .”<sup>95</sup>

Given the Dargan Report’s 1978 assessment that capital expenditure in the 1960s and 1970s had been small relative to demand (see above), Department policy on the need to break even meant that there was no question of running a deficit to fund more costly elements of the service. These were usually the first to be cutback in periods of extreme capital shortages. In practice, this meant that, throughout the period under review, the connection of long-line (i.e. remote) applicants was extremely slow. Hilliard noted in 1965 the need to:

“by-pass the long-line cases in order to keep up the rate of installation. I have great sympathy with these long-line cases, some of whom are four and a half miles from an exchange. But the cost of installation in such cases would involve a capital expenditure of between £500 and £1200. I had to make a decision to conserve as far as possible the capital made available to me to provide new telephones and I decided to make the service available to the greater number.”<sup>96</sup>

Indeed, one area in particular, the remote Black Valley in Kerry, stood out during the period under review as an area where the Department simply refused to provide service on the grounds of the expenditure involved. Conor Cruise O’Brien noted in June 1974:

“This problem has been extensively considered on a number of times by the Department but there does not, unfortunately, appear to be any way of providing a service that would not be prohibitively costly. . . . If the costs of the order required to give service to the relatively small number of households were incurred in this case, it would be difficult to resist demands for the provision of kiosks in other remote areas, regardless of the cost involved.”<sup>97</sup>

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<sup>95</sup> Michael Hilliard, DD 209, p. 376, 23/4/64. However see also: Erskine Childers, DD 228, p. 983, 16/5/67; Gerry Collins, DD 249, p. 1401, 12/11/70; and Conor Cruise O’Brien, DD 286, p. 830, 3/12/75.

<sup>96</sup> DD 214, p. 1694, 10/3/65.

<sup>97</sup> DD 273, p. 1148, 13/6/74.

With regard to the rural kiosk programme commenced in 1969, the Department's decision to such pursue an explicitly socially oriented programme represented a policy shift in this period since in four years previously, then Minister for Posts and Telegraphs Joseph Brennan had refused to countenance such a programme on cost grounds:

"Then we have demands for kiosks in rather remote areas in rural Ireland. The case is always made that if somebody is looking for a priest or a doctor in the middle of the night, they have no way of contacting them. Finally, a telephone is installed in some of these and it is found that the revenue during the year is very small. One must set certain economic standards which would justify the erection of these kiosks... One cannot be entirely influenced by the social amenity aspect."<sup>98</sup>

Yet even when the programme was undertaken, the Department sought to reduce the level of subsidy to minimum, determining priorities for the establishment of kiosks according to level of revenue earned. Thus Conor Cruise O'Brien noted in 1973 that:

"In rural areas kiosks are only provided in replacement of public-call offices in sub-post offices which are used to a fair extent."<sup>99</sup>

At the same time, when it became clear that all areas fitting the criteria (which in practice limited the establishment of kiosks to those areas where call or revenue was in excess of £10 per annum) would have been connected by the close of the 1973 kiosk programme, the Department was willing to alter the criteria when planning the 1974 programme, reducing the revenue requirement to £42. Given that the average annual cost of providing and maintaining a kiosk in provincial areas was estimated at £170 in 1975<sup>100</sup> the level of subsidy per kiosk was around £130.<sup>101</sup>

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<sup>98</sup> DD 224, p. 2175, 27/10/66.

<sup>99</sup> DD 267, p. 2109, 26/7/73.

<sup>100</sup> £170 seems to have been the cost of maintenance and of paying off of interest on the initial capital expenditure on a kiosk. Certainly Peter Barry, answering a question for Cruise O'Brien in June 1975 indicated that the capital cost of erecting a kiosk was £800 pretty much regardless of whether it was in an urban or rural locale. See DD 280, p. 1862, 5/6/75.

<sup>101</sup> This could be better stated as kiosks were subsidised up to the value of £130. Cruise O'Brien's actual quote was "Call offices in which the receipts are £42 pounds or over qualify for inclusion in the 1974 kiosk programme... Since the annual cost of providing and maintaining a kiosk is calculated at £170, it is clear that the element of subsidy in that programme is quite heavy." (DD 273, p. 697, 6/6/74.)

There remained a limit to the Department's generosity however: by October 1977 all but 350 of the 2,000 rural call boxes that had existed in 1969 had been replaced with outdoor kiosks with 24 hour service. Of the remainder, however, Padraig Faulkner, then Minister for Posts and Telegraphs said:

“With few exceptions, the stage has now been reached where kiosks provided in replacement of the remaining call offices would be unlikely ever to pay their way even with a very substantial subsidy.”<sup>102</sup>

As a consequence Faulkner stated that the Department would not establish any new kiosks at the locations of remain call boxes thus denying those areas a 24-hour public telephone service. Any further provision, he argued, was only likely to occur where the erection of the kiosks was guaranteed by the local authority.<sup>103</sup> Thus there was no ideological commitment (nor indeed any legal requirement on the Department) to provide public telephone facilities in all areas of the country.

There was, however, a significant rethink on the question of socially-oriented expenditures during the 1970s. Introducing a charge increase in 1975, Conor Cruise O'Brien pointed out that failure to do so would mean:

“deliberately passing on to the taxpayer a large part of the cost of the services of which he or she may, in fact, make very little use. In its extreme form it would make taxpayers who have no telephone and who seldom use them pay a disproportionate share of the cost of running an expensive service from which others benefit substantially.”<sup>104</sup>

Yet the consistent losses of the telephone service during the 1970s meant that *de facto*, the taxpayer was subsidising such losses. Already facing such losses by November 1972 Gerry Collins queried the wisdom of continuing to “lump in totally uneconomic services

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<sup>102</sup> DD 300, p. 293, 12/10/77.

<sup>103</sup> DD 300, p. 481, 13/10/77. For example public telephone facilities were only provided on the 23 most populated islands off the coast by March 1979. The other 61 inhabited islands were denied such facilities on the grounds that it was not “warranted, having regard to the small population to be served in each case and the heavy costs involved.” T.J. Fitzpatrick in DD 312, pp. 699-700, 6/3/79.

<sup>104</sup> DD 286, p. 830, 3/12/75.

provided for social reasons with normal commercial services.”<sup>105</sup> He pointed out that, for social reasons, the Post Office provided services (citing in particular the telegraph) that any ordinary business organisation “would long since have dispensed of.”<sup>106</sup> Thus while reassuring the Dáil that he was not considering the suspension of such services he stated that:

“I must consider, and am doing so, whether services needed more for social than economic reasons should be financed by the taxpayer rather than carried by the Department at the expense of economic services.”<sup>107</sup>

The implications of this statement, although negligible in terms of any immediate policy decision, were nonetheless interesting in terms of overall policy. Collins’ statement indicates a querying of the wisdom of the cross-subsidisation between the Post Office services that was standard practice. Instead he was advocating the introduction of direct and transparent subsidy, undisguised by internal Post Office transfers. This implied both a more commercial conception of the Post Office as an institution, yet at the same time acknowledged the social importance of the services it offered. As such it represents one of the first attempts at re-analysing the function and role in society of the Post Office and the services it provided.<sup>108</sup>

The impact of this line of thinking would eventually be felt some five years later with the introduction of free telephone rental for pensioners living alone. Eight years earlier, in December 1969, Labour TD, Barry Desmond had requested of then Fianna Fail Minister for Posts and Telegraphs, Patrick Lalor, that he introduce free installation and rental for elderly people living alone, couching his argument in terms of the social importance of the telephone for the isolated.<sup>109</sup>

At the time Patrick Lalor had argued that the Telephone service was not in a position to subsidise such a socially oriented programme:

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<sup>105</sup> DD 263, p. 1257, 9/11/72.

<sup>106</sup> Ibid.

<sup>107</sup> Ibid., p. 1258.

<sup>108</sup> Collins continued to bring up the need to reassess how uneconomic services were to be paid for in opposition. See DD 265, p. 1905, 24/5/73.

<sup>109</sup> DD 243, p. 1949, 18/12/69.

“Telephone service tariffs are at standard rates of general application to which *no exception* is made. . . the 1966 census suggested that there were some number short of 23,000 persons in the country of 70 years and over living alone. The House will appreciate the huge cost that would be involved in providing a telephone service for that number of persons individually.”<sup>110</sup>

Yet it was a Fianna Fail government that introduced free rental. The critical difference between 1969 and 1977 however was the source of funding. Rather than funding the policy through internal Post Office cross-subsidies, free telephone rental was financed by the Department of Social Welfare. In short, what had changed was not the conception of the role of the Post Office, which retained the obligation to be financially self-sufficient, but of the role of the telephone itself.

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<sup>110</sup> Ibid.

### 7.7 Summary: Universal Service 1960-1979

Despite the chaos of the 1960s and 1970s, the period did see a fourfold increase in subscriber numbers, from 115,000 in 1960<sup>111</sup> to 436,000 by 1980,<sup>112</sup> equivalent to a rise of 5.6 telephones per 100 people in 1960<sup>113</sup> to 17.2 per 100 by 1979.<sup>114</sup> Again in the absence of reliable data it is difficult to state with confidence how the network diffused geographically in the 1960s. It can be stated, however, that by 1972, provincial lines accounted for 82,597 (44%) of all lines. However, the cuts in capital spending notwithstanding, the 1970s saw the level of telephone penetration outside the Dublin area increase by over 140,000 phones, compared to 100,000 within the Dublin area: i.e. provincial installations accounted for 60% of all new connections in the second decade of the period under review.<sup>115</sup> By 1979 telephone connections were geographically diffused as follows:

<b>Engineering District</b>	<b>Connection</b>
01 Area (Dublin)	206,356
Cork	47,867
Drogheda	30,323
Galway	23,984
Limerick	42,064
Portlaoise	24,961
Sligo	19,611
Waterford	32,709

(Source: DD 317, p. 1162, 6/12/79)

Thus, by the close of the 1970s, the numbers of provincial exchange lines had risen substantially to account for 52% of all exchange lines. Given that the Dublin area accounted for only a third of the total population at this time, there remained an imbalance

<sup>111</sup> A.J. Litton (1961) "The Growth and Development of the Irish Telephone System", *Journal of the Statistical and Social Inquiry Society of Ireland*, Vol., 20, Part 5, pp. 79-115.

<sup>112</sup> Central Statistics Office (1980), *Statistical Abstracts 1980*, (Dublin: The Stationery Office).

<sup>113</sup> Litton, op. cit., p. 105.

<sup>114</sup> ITU (1990), *Yearbook of Public Telecommunications Statistics*, (Geneva: ITU).

<sup>115</sup> DD 317, p. 1161-62, 6/12/79.



between development inside and outside Dublin, but the spread of subscribers in the 1970s began to approximate more closely overall population patterns.

As had been the case in previous decades, the development of telephony in rural areas during the period under review in this chapter owed something to new infrastructural technology's impact upon costs. As the number of provincial subscribers increased, so did the volume of trunk traffic. However, by the start of the 1960s the potential for adding capacity by way of applying three or 12 channel carrier systems had been exhausted. Previously the laying of co-axial cable had offered a relatively cheap means of solving the problem but the rising costs both of cable and, in particular, of trenching (i.e. digging cable routes) in the early 1960s threatened to place very strict limits on new long line development using this method. However, from 1961 onwards, the Department increasingly used microwave transmitters as a means of augmenting trunk routes. Using no cable and thus requiring no trenching, microwave transmitters capable of carrying up to 240 channels connected to Dublin Galway, Arklow Belfast and Cork by 1966.<sup>116</sup> The system was also successfully used in those areas where the terrain rendered the work of erecting pole routes or trenching particularly arduous, most notably in the Sligo-Bundoran-Donegal route which opened in 1961.<sup>117</sup>

Given the above, it hardly needs to be stated then that the telephone was no longer considered as a primarily urban instrument. Nonetheless, there remained geographic inequities in the charging structure, most notably the practice of adding an additional sum to the rental for those subscribers located more than three miles from the nearest exchange.<sup>118</sup> Such subscribers were further hampered by the introduction in 1965 of a "progressive scale" of advance rental charges. These required that those applicants for service situated three or more miles from the nearest exchange to pay five years rent in advance on application. Meanwhile, those within the free mileage area were required to pay just one year's rental in advance.

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<sup>116</sup> Litton, *op. cit.*, p. 89.

<sup>117</sup> *Evening Herald*, 21/11/1961.

<sup>118</sup> In a personal interview with Telecom Eireann's Pricing Division, it was suggested that this practice was abandoned for a single distance independent rental "at some point in the 1970s." Against this, however, the 1982 Post Office Guide records that additional annual rental charges would be levied for those applicants located 5 kilometres (3 miles) from the nearest exchange. Telecom Pricing Division, personal interview notes.

Several Deputies singled this as iniquitous arguing that such charges:

“should be borne by way of an overall charge on the country as a whole. In other words, those who live in isolated districts should be encouraged to stay where they are and they should be given the necessary facilities from the state. After all, let the rest of the country pay for it. Let it be an overall national charge, so that, in so far as possible, there is an equitable overall charge for telephones and an equitable charge all round.”<sup>119</sup>

Nonetheless, the differential charges were retained beyond the end of the 1970s.

Accurate quality of service indicators are not available for the bulk of the period covered by this chapter, although a succession of reports from institutions representing business users in the late 1960s and 1970s suggests that in general the system was unable to cope with the level of traffic throughout this period. The Confederation of Irish Industry, an employers' representative body, published two reports in the 1970s singling out the telephone service as “one of the obstructions to a more efficient business situation in this country.”<sup>120</sup> Similarly, as noted above, the IDA pointed to the failings of the telephone service as a hindrance to its own activities. In 1978 the Dargan Review Group offered some more objective figures on service quality: in brief the report noted that nationwide 61.1% of local calls and 37.7% of STD calls were successful on the first attempt. These compared poorly with the ideal 97% and 95% first time success rates sought by the report.<sup>121</sup>

Furthermore, there remained substantial geographical disparities in the quality of service. While the automation of rural exchanges continued throughout the period under review, it remained the case that by 1979, more than 50 years after the opening of the first automatic exchange in Dublin, there remained several hundred manual exchanges in rural areas, accounting for 10% of subscribers.<sup>122</sup> A letter to *The Irish Times* from a Donegal subscriber in December 1975 asked:

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<sup>119</sup> Sir Anthony Esmonde. DD 228, p. 1112, 17/5/67.

<sup>120</sup> Justin Keating quoting from the report DD 252, p. 889, 11/3/71.

<sup>121</sup> The Dargan Report, p. 14.

<sup>122</sup> Figure quoted by T. J. Fitzpatrick answering for Padraig Faulkner in response to question from William O'Brien, Fine Gael TD for Limerick West (See DD 313, p. 2037, 2/5/79).

“Is it impossible for the telephone system in this part of Ulster to be brought, if not up to date, at least to the same stage of development as Dublin enjoyed in the early 1930s? Until this takes place it would, I submit, only be fair to introduce differential rates of charges. Subscribers not on the automatic dialling system might be charged, say, half as much as those enjoying the benefits of that system.”<sup>123</sup>

Indeed, the fact that the 1970s saw the first significant industrial unrest in the history of the service meant that the period of the strikes (1977 to 1978) saw the differential between manual and automatic service widen.

The quadrupling of exchange line numbers, the basic indicator of telephone development during this period, must again be understood in terms of the enormous changes occurring in Irish society and the economy during the period under review in this chapter. Economic growth both in the 1960s and in the 1970s (albeit driven by massive state borrowing in the second decade) generated substantial social change. Four per cent annual economic growth during the 1960s contributed to a simultaneous rise of “about 50% in material living standards.”<sup>124</sup> This encouraged a reduction in the rate of emigration in the early 1960s and net immigration in the 1970s reversing the pattern of population decline which had persisted since the 1840s: the Irish population grew from 2,818,341 in 1961 to 3,443,405 by 1981. In short the period saw not just an increased population but also an increase in per capita purchasing power. As a result social historians of the period have noted that “consumerist values made swift advances. . . as in no other period of modern history.”<sup>125</sup> Given this, telephone ownership became, as Chubb has suggested,<sup>126</sup> one of the visible indices of prosperity alongside television set and car ownership. In short, the increasing wealth of the country saw the telephone acquire the status of a consumer durable, a product which an individual family might reasonably expect to acquire as opposed to a luxury item.

This status was in large part a result not just of increased income but also the ongoing decrease in the cost of the residential rentals relative to average wages. The average male

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<sup>123</sup> "On the 'Phone", a letter to *The Irish Times* from W.G.G. Kellett, dated 9/12/75.

<sup>124</sup> Lee, op. cit., p. 360.

<sup>125</sup> Terence Brown (1981), *Ireland: A Social and Cultural History 1922-1979*. (London: Fontana), p. 260.

<sup>126</sup> Basil Chubb (1992), *The Government and Politics of Ireland*, (London: Longman), p. 24.

industrial wage increased from £534 in 1960 to £1,067 by 1969, an increase of almost exactly 100%.<sup>127</sup> At the same time residential rental charges increased from £7 10s to £12 10s, an increase of only 66%. The gap between wage and rental rate increases widened throughout the 1970s as a series of national wage agreements saw incomes soar ahead of inflation: thus whilst residential rentals nearly tripled between 1970 and 1980, the average industrial wage (i.e. including men and women's wages) rose from £1,005 in 1970 to £5,020 by 1980, a 500% increase.<sup>128</sup> In consequence the period under review saw for the first time a substantial proportion of the population perceive the utility of the telephone to be greater than its cost.

This is evident from the dramatic increase in residential demand for the telephone: from constituting 48.6% of all lines in 1960,<sup>129</sup> residential lines came to account for 57% of all lines by 1979, equivalent to a household penetration rate of 28%.<sup>130</sup> That is, of the 313,000 new lines connected in this period, residential lines accounted for 188,000, or 60%. Furthermore, this figure does not include those applicants waiting for service by the end of the 1970s: by the late summer of 1980 there were 95,000 names on the waiting list, roughly 70% of which were residential applicants. Had the Department been able to accommodate effective demand there would have been a further 65,000 residential connections by 1980.

Ironically it was as a consequence of the hugely increased demand that the Department of Posts and Telegraphs continued to pursue the geographically discriminatory policy of charging advance rentals (thus undermining any commitment to universal service goals) throughout the period under review. Unable to satisfy with the increased demand, the advance rental was (as the Department admitted to the Dargan committee) "designed to contain the enormous latent demand within manageable limits,"<sup>131</sup> focusing particularly on discouraging the costly and time-consuming connection of rural applicants situated at a distance from the exchange.

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<sup>127</sup> Note: these figures are the decimal equivalents of the average annual wages in these years. CSO (1978), *Statistical Abstract 1977*, pp. 144-145.

<sup>128</sup> CSO (1986), *Statistical Abstract 1982-1985*, pp. 155-157.

<sup>129</sup> Litton, *op. cit.* p. 105.

<sup>130</sup> Own calculations based on Appendices V and XXXI.

<sup>131</sup> The Dargan Report, p. 17, para. 4.6.

The developments in the economy during this period, however, had a second longer term impact on the development of the service, which would prove particularly significant for the future of Irish universal service policy. The end of protectionism, saw the state actively encourage export-oriented companies and inward investment in the form of foreign-owned companies establishing bases in Ireland. As noted in chapter three, the Industrial Development Authority was highly successful in both enterprises, especially in the aftermath of Irish entry to the EEC in 1973 (since it provided companies based outside Europe with access to the European market), attracting export oriented overseas firms. (As a consequence, by the late 1970s Ireland had, amongst OECD countries, the second highest dependence on exports and the highest on foreign direct investment relative to GDP.<sup>132</sup>) Yet the changing orientation of the economy and the presence of overseas companies highlighted weaknesses in Irish infrastructure relative to the standards such companies were accustomed in their mother countries. A short-term result was that IDA and Department of Posts and Telegraphs co-operation increased dramatically, to the extent that the latter organisation was at times virtually an arm of the former, particularly with regard to the extension of the automatic service.

In the longer term, however, the state accepted the analysis (put forward by the Dargan Report amongst others) that future economic development would rely on the prior existence of a highly developed telecommunications system. As this research has previously argued, the telephone had been seen as a business instrument in Ireland since the inception of the service in the 1870s, a perception which had gradually expanded to encompass the notion that the telephone system as a whole was an element of the nation's economic infrastructure from the 1920s and 1930s onwards. However, hitherto this had not been reflected in state investment in the telephone service which had justified what pro-active non-remunerative investment it had made on social grounds - most notably with the rural call box programme in the 1940s and 1950s and the rural kiosk programme in the early 1970s. Thus at the close of the period under review a National Economic and Social Council report would criticise what it characterised as an ad hoc approach to infrastructure and "a tendency to avoid any precise planning of infrastructural requirements in terms of . . . economic priorities."<sup>133</sup>

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<sup>132</sup> Ibid., p. 38.

<sup>133</sup> Christopher D. Foster/NESC (1981), The Importance of Infrastructure to Industrial Development in Ireland: Road, Telecommunications and Water Supply. (Dublin: Stationery Office), p. 79.

It further argued that:

“We suspect that in the event resources have been spread too thinly, so that the country has been able neither to solve the problems of urban congestion. . . nor to develop the smaller town and rural areas that can readily absorb new industry.”<sup>134</sup>

The state’s decision to accept the Dargan Report’s recommendation of a vast development of the national service, however, was to a large extent based on precisely the logic that assumed that an advanced telecommunications infrastructure was a prerequisite for economic growth. Henceforth investment in telecommunications would be perceived as an investment in the nation’s economic future, and industrial development policy would increasingly come to dominate Irish telecommunications policy decisions. Although the full implications of this for universal service did not become evident by the close of the 1970s, the tone of the NESC report was ominous in this regard:

“It is tempting to conclude that first-class telecommunications throughout Ireland is unequivocally desirable. . . (but) there must be priorities and it is not obvious that there is a commercial case for a first-class service in all areas of the country, including the remotest ones. . . The likely outcome at present will be some compromise between lower standards and uneven coverage. . . There is therefore a strong case for concentrating the provision of infrastructure for those with intensive requirements - roads, telecommunications and water - in limited areas, many of them probably urban. . . on resource grounds there is undoubtedly a strong case for concentrations at points within each county where the marginal development costs are least.”<sup>135</sup>

Yet ironically the increasing industrial development orientation of telephone service prompted the Department to question its social role and thus saw the beginnings of a more coherent understanding of the question of universal service (although the actual term itself remained alien to any Irish discussion). This is reflected in the ongoing discussion on the funding of loss-making services, from Gerry Collins’ querying of the rationale for funding social services in 1972 (section 7.6 above), to that of the Dargan report. Collins’ question coincided with the rural kiosk programme, an initiative which the Department explicitly

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<sup>134</sup> Ibid., p. 79.

<sup>135</sup> Ibid., p. 81.

stated had been undertaken for social reasons and would require subsidisation. Thus, what Collins asked was why an institution that was explicitly required to run its finances along commercial lines was expected to fund such a loss-making initiative. In short, he drew attention to the inherent contradiction, present since the beginning of the state, between the Post Office's social remit and its commercial one.

This was particularly significant for the telephone service which was becoming increasingly important for national economic development as a result of the changing orientation of the economy. It simultaneously had an increasing social role responding both to social change but also to the fact that the development of the telephone system itself made it possible to consider it a consumption norm, an object necessary to existing in a modern society. The increasing presence of the telephone system in national life, made it difficult to disguise the Department's schizophrenia with regard to whether the service was a commercial or a social one: the fudge that funded the rural kiosk programme would become more difficult to justify in the future. In consequence, the 1970s saw the state begin a parallel pursuit of two different conceptions of universal service, divided between those loss-making services offered for commercial reasons and those offered for social reasons.

The first strand of the emerging universal service policy in the 1970s was that represented by the increasing extent of rate averaging. Although not a *de jure* reality at this point, such was the development of the exchange system by the end of the 1970s that 99% of the population would have lived within a free mileage area. As a result, it's extremely likely that some cross-subsidisation of high cost from low cost subscribers was occurring. In effect this was perceived of as a commercially sensible policy: rate averaging was a useful means of attracting customers in provincial areas without (in theory) incurring overall losses on the operation of the system. The Dargan report, for example, made an explicit distinction between those services that "a public utility with general service obligations" was partially required to provide at "prices below cost"<sup>136</sup> (i.e. rate averaging) and those services that the state required the service provider to provide on social grounds (free telephone rental for pensioners). The former services were considered normal common carriage obligations for a public utility: establishing the same price for rural customers for (from the customers perspective) the same service as their urban counterparts.

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<sup>136</sup> Ibid., para. 14.14, p. 89.

Thus the report noted that:

“It is recognised that the privilege of monopoly imposes obligations to take ‘the rough with the smooth’ in terms of the degree of profitability of particular services.”<sup>137</sup>

The working assumption remained, however, that such cross-subsidisation would not entail losses overall. In reality, then, in the case of the Ireland during the 1970s the pursuit by the Post Office of a commercially-oriented policy meant that commercial considerations still played a part in shaping day-to-day interpretations of the extent to which universal service objectives would be fulfilled. Hence the need to reduce the telephone services losses during the 1970s required the retention of differential rental and advance rental rates for those living three miles beyond the nearest exchange. (Furthermore, as noted in section 7.6, it also led to the refusal of the Post Office to connect subscribers living in very remote areas such as the Black Valley in Kerry.)

The Dargan report would also argue, however, that those services which were explicitly socially oriented should not be considered part of the service obligations of the semi-state body that would replace the Telephone Section. Furthermore, argued the report, should the Government require that body to operate such services, “it should be compensated specifically for so doing.”<sup>138</sup> The Department of Social Welfare decision to subsidise free telephone rental for Old Age Pensioners from 1977 effectively embodied this recommendation, by placing the burden of financing the scheme in the hands of the Department of Social Welfare. Unlike the Post Office this was funded from the central exchequer and by definition was not expected to be self-sustaining. This then constituted the second strand of Irish universal service policy by the close of the 1970s. The logic advanced for the scheme at the time of its introduction was that it would facilitate the access of elderly people living alone to what was termed “a lifeline”.<sup>139</sup> However, arguably the telephone had always been a lifeline. To understand the reason for the policy decision at this juncture one must consider factors beyond the telephone’s intrinsic functionality. At its most basic, the initial decision was, as part of the most generous election manifesto in the history of the state, a piece of naked electioneering. Nonetheless,

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<sup>137</sup> Ibid., para. 14.9, p 87.

<sup>138</sup> Ibid., para. 14.9, p. 87.

<sup>139</sup> Sean Moore, Fianna Fail T.D., DD 300, p. 38, 12/10/77.



the decision to actually fulfil the electoral promise was shaped by a combination of the factors already referred to above. Firstly the relatively few existing subscribers who would qualify for the scheme meant that the initial cost was likely to be minimal. Furthermore, the fact that the scheme did not pay for new connections meant that in an era of advance rentals, the scheme was unlikely to generate an uncontrollable deluge of applications. Finally, the perception pervading the Fianna Fail manifesto of 1977 - that the levels of growth and prosperity experienced during the previous 15 years were guaranteed for the foreseeable future - was apparently shared by the rest of the population. Given this, and since the telephone was apparently well on the way to becoming a consumer durable, it seemed only reasonable that pensioners' access to the technology should be aided in the same way that access to the television already was, via the free television licence.

In the longer term the free telephone rental scheme represented a sea change in the perceived role of the telephone. The social changes noted in the 1950s - ongoing urbanisation and the associated process of suburbanisation - continued apace during the 1960s and 1970s. The majority of the Irish population lived in urban areas by 1971 and the bulk of those new entrants lived in suburban estates. Such internal migration had social consequences, however, breaking up older communities in both rural and urban areas. A 1968 study of those living in a new Dublin Corporation Housing estate noted not only complaints about the lack of transport facilities and the distance from the nearest shops but also that the majority of the newly arrived families had had less contact with their parents and extended families since moving.<sup>140</sup> Thus, although there was no explicit statement justifying the introduction of the free rental scheme, it can hardly have escaped the notice of those framing the scheme that, although the telephone would serve a critical emergency for old age pensioners living alone, this category also had much to gain in terms of maintaining familial and friendship links. In short, the telephone's growing role as the "nervous system of society" was implicitly acknowledged by the 1977 decision, to fund the scheme not from within the Post Office's own resources but directly from the Department of Social Welfare.

In short, by the close of the 1970s "universal service" had a dual meaning and practice: one commercially oriented, the other socially. This fact was reflected in how the two

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<sup>140</sup> Conor K. Ward (1968), "Living in a New Community: A Summary of Results of a Social Survey", in *The Journal of the Statistical and Social Inquiry Society of Ireland*, Vol. XXII, Part I, pp. 30-55.

practices were funded, one by the service provider, the other by the state (via the Department of Social Welfare).

# **CHAPTER EIGHT**

## **TELEPHONE**

## **DEVELOPMENT**

**1980 - 1993**

## 8.1 Introduction

The conclusions and recommendations of the Dargan Report constituted the basis of Irish telecommunications policy at least until the mid-1980s, when control of the national telecommunications service was vested in a state-sponsored body, Telecom Eireann. Thereafter, successive governments took a back seat in telecommunications policy, leaving not just the day-to-day administration but general policy questions to the State-Sponsored Body. Actual governmental decision-making was generally limited to approving/disapproving price increases, although increasingly, (especially in the early 1990s) pricing became the predominant issue in telecommunications policy. The apparent willingness of Government to abdicate responsibility for telecommunications policy was if anything encouraged by the emergence of a coherent and increasingly comprehensive European Community telecommunications policy after the 1985 European Court of Justice decision that telecommunications services were subject to general competition law. Thus increasingly, national policy was shaped by supra-national policy.

## 8.2 General Development 1980 - 1983

After the collapse of the 1970s, the dawn of the 1980s saw the telephone service's key service indicators reach what would prove to be an all time low. The 100,000 applicants for service faced a waiting period of 18 months. Meanwhile 10% of existing subscribers were still connected to manual exchanges (although in recognition of the relatively poor service they received such subscribers were exempted from charge increases introduced in July 1 1980).

Although by the start of the 1980s measures were afoot that would finally eradicate the waiting list, in the interim the Department continued to attempt to suppress demand by increasing charges. The cost of connection trebled<sup>1</sup> from 1980 to 1982 whilst the cost of the advance rental nearly doubled in the same period.<sup>2</sup> As a result of this, by 1982 an applicant

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<sup>1</sup> From £60 to £180. See "Post, phone charges up 20%" *The Irish Times*, 16/3/82.

<sup>2</sup> By the end of 1979, residential customers were paying a rental of £58.12 per annum. This had increased to £101.28 by March 1982. See: Frank MacDonald, "20% increase in phone and post

located more than three miles from the exchange faced the serious disincentive of a bill of in the region of £980 to secure connection.<sup>3</sup> This had the desired effect: in 1981, 20% of those applicants offered service refused it when the initial payment became due.<sup>4</sup>

Given this state of affairs, the objective of government policy with regard to telecommunications during the first half of the 1980s was “to provide an efficient modern telecommunications service at the lowest possible cost, consistent with the need to achieve a reasonable return on capital employed.”<sup>5</sup> The means was the detailed development blueprint offered by the Dargan Report which was put into effect between 1979 and 1984 by the £650 million Accelerated Development Programme (ADP). The enormous scale of the investment (equivalent to 2% of GNP<sup>6</sup>) during a period marked by substantial cuts in public expenditure indicated the perceived urgency of the programme.<sup>7</sup>

Since there were very few areas left in the country where (technically at least) service provision was not already possible, geographical expansion of the network was not a major issue for the ADP.<sup>8</sup> The major aim was rather the overhaul and upgrading of the existing network (including the digitisation of all exchanges to allow a more diversified range of speech and data services) with a view to “removing once and for all the danger of further congestion in our time.”<sup>9</sup> As a result it would take several years before the effects of the ADP were appreciated. Albert Reynolds, then Minister for Posts and Telegraphs, noted in May 1980 that:

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charges announced", *Irish Times*, 6 July 1979 and "Post, phone charges up 20%" *The Irish Times*, 16 March 1982, respectively .

<sup>3</sup> By March 1982 annual residential rental had risen to £101.28. "Post, phone charges up 20%" *The Irish Times*, 16/3/82.

<sup>4</sup> DD 336, p. 1457, 23/6/82.

<sup>5</sup> Government of Ireland, "The Way Forward: National Economic Plan 1983-1987", (Dublin: The Stationery Office, 1982), p. 91.

<sup>6</sup> DD 328, p 3062, 14/5/81.

<sup>7</sup> L.M. Cullen (1987), *An Economic History of Ireland since 1660* (2nd Ed), (London: B.T. Batsford), p. 188.

<sup>8</sup> Although areas such as the Black Valley in County Kerry, the subject of repeated Dail questions in the 1970s, remained cut off from the network by the surrounding topography until the late 1980s when radio telephony was introduced to the area. See Telecom Eireann, Report and Accounts for the year ended 29th March 1990, p. 22.

<sup>9</sup> Albert Reynolds (specifically referring to the redesign of national trunk exchange infrastructure) DD 321, p 1233, 30/5/80.

“The whole infrastructure of the service, in terms of accommodation for both equipment and staff, telephone exchanges, trunk circuits, local cabling and the necessary skilled staff must first be built up.”<sup>10</sup>

Nonetheless progress on the ADP was swift from the outset: before the end of 1980 work was either in progress or set to begin on 300 buildings or extensions, an improvement of almost 300% on the performance of the previous three years.<sup>11</sup> Furthermore the programme remained largely on target throughout its duration. By June 1983 the following advances had been made:

- The waiting list had been reduced from the 1980 high of 90,000 to 60,000.
- Roughly half of those telephone subscribers with manual service at the beginning of the ADP, had been connected to automatic exchanges, although this still meant that 5 per cent of all subscribers would have only manual service.<sup>12</sup>
- All Irish exchange areas received an STD service to Northern Ireland by the close of 1982 and to all of Britain by mid-1983.<sup>13</sup>
- The failure rate on trunk calls (at 40 per cent in 1980) was halved to 20 per cent and was expected to reach the final target of 4 per cent by 1984. The failure rate on the local automatic service on the other hand reached its target figure of 2 per cent by 1983, a year ahead of schedule.<sup>14</sup>

As the focus of national congestion, the Dublin area remained problematic throughout the ADP: whilst every other engineering district had achieved at least 80% of their connection target by November 1981, Dublin had reached only 56%.

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<sup>10</sup> DD 321, p 1238 30/5/80.

<sup>11</sup> Albert Reynolds, DD 321, p 1231, 30/5/80.

<sup>12</sup> DD 344, p. 1984, 6/7/84.

<sup>13</sup> DD 344, p 1984, 6/7/83.

<sup>14</sup> Jim Mitchell, Minister for Posts and Telegraphs. DD 344, p. 1985, 6/7/83.

<b>Table 8.1: Targeted and Actual connection rate 1981</b>		
<b>Engineering District</b>	<b>Target</b>	<b>Connections to end November 1981</b>
Cork	10,000	9,269
Drogheda	6,500	5,620
Dublin	33,500	18,817
Galway	6,000	5,202
Limerick	10,000	8,954
Portlaoise	4,000	3,545
Sligo	3,500	3,166
Waterford	6,500	5,337

(Source: DD 331, p 1425, 9/12/81)

The main problem was the difficulty in acquiring space for buildings for house exchanges and staff. Thus by 1983, Dublin, where the “progress made so far has been much less spectacular than in most districts,”<sup>15</sup> remained “the main area of concern with regard the progress of the programme.”<sup>16</sup> It was March 1984 before the exchanges necessary to deal with the capital's telecommunications congestion started to come on stream.<sup>17</sup>

### 8.2.1 1983 Postal and Telecommunication Services Bill

The Dargan Report had not simply recommended that the ADP but also that the telephone and postal services be placed in the hands of a statutory company. After the initial issuing of a Green Paper on Posts and Telecommunications in May 15 1980, the collapse of three governments in an 18-month period conspired to delay first the introduction and eventually the final vote on the bill. Thus it was July 1983 before the bill was finally passed under a Fine Gael/Labour coalition.

<sup>15</sup> DD 344, p. 1984, 6/7/83.

<sup>16</sup> DD 344, p. 1984, 6/7/83.

<sup>17</sup> Jim Mitchell. DD 349, p. 770, 29/3/1984.

The enormous scale of the debate renders any attempt to cover it in its entirety impossible.<sup>18</sup> Both major parties (Fianna Fail and Fine Gael) agreed that the broad administrative change embodied in the bill - that the operation of the postal and telecommunications services be placed in the hands of state-sponsored bodies - was the most effective method of improving the quality of the service.<sup>19</sup> There was thus little chance that the minority Fianna Fail government would be defeated on the issue. The most interesting discussions, however, occurred during the bill's protracted committee stage, the following year, when a new Fine Gael/Labour coalition was in power. That over 150 amendments to the act were tabled reflects the level of disagreement and debate on the implications of the change in status for the telephone service, its staff and its subscribers. Broadly speaking, the main debates and their conclusions were as follows:

(i) Functions of Bord Telecom Eireann - see Section 8.7 below

(ii) Position of staff: since the transfer of the postal and telecommunications services to the semi-state sector would effectively remove 30,000 employees from the Civil Service, much of the debate was taken up with deputies expressing their concern that the job security and pension rights that accrued to the P&T employees as Civil Servants would be lost. However, as eventually passed, the Act stated that the position of An Post and Bord Telecom Eireann workers would be precisely that which had prevailed in the Department of Posts and Telegraphs.

(iii) Privatization: a major concern, largely expressed by the left-of-centre parties, was that the Bill was a cover for a planned privatization of the company,<sup>20</sup> since the act technically permitted the Minister for Finance to authorise the "issuance" (sale) of the shares of both An Post and Telecom Eireann (the new postal and telecommunications bodies). Such concerns were mollified, however, by deletion of the words "unless the Minister, with the consent of the

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<sup>18</sup> Quite apart from the sheer length of time it took for the Bill to progress through the House there were some 150 amendments made to the bill. DD 344, p 1953, 6/7/83.

<sup>19</sup> See for example DD 344, pp. 1516-1517, 15/6/83

<sup>20</sup> For example: "It is my contention that this is the first stage in the hiving off of profitable sections of the public sector and dismantling all non-viable areas assessed purely on an economic basis rather than on their social content." J. Ryan, DD 336, p. 1211, 22/6/82.



Minister for Finance, has authorised such issue”<sup>21</sup> after the following sentence in Section 21 of the act:

“No issue of share capital shall be made other than those referred to in sections 18, 19, 29 and 31.”<sup>22</sup>

As a consequence even a partial privatization of the new company would require the Dail to approve a change in legislation.

(iv) Public accountability of the company: since, as a semi-state body, Telecom Eireann would no longer be under the day-to-day control of the Minister for Posts and Telegraphs, concern was expressed that the new body would not be publicly accountable. As a response, the Act created two new Councils for those availing of the services of An Post and Bord Telecom Eireann. Both were given wide-ranging ambits but since their major role was to offer advice on service proposals referred to them by the Minister, neither had any independent power to wield. Thus their effectiveness was dependent on the willingness of a given Minister for Posts and Telegraphs to seek, accept and act upon their counsel. Unlike a regulator the Users Councils had no proactive powers.

(v) Question of Bord Telecom Eireann's debt burden: by the close of 1982, £985 million of the telephone service's total assets of £1,480 million effectively represented loans. Technically, placing the full value of the telephones services assets into the hands of Telecom Eireann, would have given the company what was considered a reasonable debt-equity ratio of 2:1. However, in anticipation of a continuing need for heavy capital investment combined with the expectation that it would take some time for the company to enter into profitability (estimates varied from 3 to 5 years), the Act transferred to Telecom Eireann all the debt-free assets but only half (£355 million) of the debt-assets, effectively giving it a debt-equity ratio of 1:1.35.

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<sup>21</sup> DD 344, p. 1948, 6/7/83.

<sup>22</sup> Postal and Telecommunications Services Act, 1983, Section 21. The other sections referred to provided for the issuance of shares to the Minister for Finance and Minister for Posts and Telegraphs.

This remained, however, a very substantial debt burden which would prove to be a determining influence on the company during its first decade of operations.

### 8.3 General Development 1984-1989

Following the transfer of the telephone service to Telecom Eireann on January 1st 1984, the ADP continued apace largely achieving its major targets by the end of the year. The total number of subscribers had risen from 436,000 in 1979<sup>23</sup> to 664,000<sup>24</sup> by April 1985, a 50% increase. Furthermore, by April 1985, 96.8%<sup>25</sup> of the subscribers were connected to automatic exchanges, up from approximately 90% in 1980.<sup>26</sup>

By March 1985, the waiting list which five years earlier had peaked at just under 100,000 with an average period of 18 months between application and connection had dropped to 40,000,<sup>27</sup> whilst telephone service was "freely available over most of the country" with the exceptions of parts of Dublin and Sligo. Despite these improvements, the company faced a financial deficit of £82 million after the first 15 months of operation.<sup>28</sup> This was compounded by an increase in company debt to finance the £220 million spent on capital development in the 15 months up to April 1985.<sup>29</sup> As the company's total debt neared £1 billion, its finances became increasingly vulnerable to interest rates changes and movements in currency exchange markets (since much of the borrowing had been sourced from overseas). Just under a quarter of the company's current expenditure (£136 million<sup>30</sup>) went on servicing debt in its first 15 months of operation.

Faced with this financial position, the company sought to increase revenue and reduce costs by expanding the customer base "as quickly as possible so as to increase the utilisation of our

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<sup>23</sup> CSO Statistical Abstracts 1980, p. 332.

<sup>24</sup> Telecom Eireann 1st Report & Accounts for the period ended 4th April 1985. P. 14.

<sup>25</sup> Telecom Eireann 1st Report & Accounts for the period ended 4th April 1985.

<sup>26</sup> "Some 10 per cent of subscribers...are served by nearly 500 manual exchanges." Albert Reynolds, DD 321, p. 1239, 30/5/80.

<sup>27</sup> Telecom Eireann Annual Report and Accounts for the year ended 4th April 1985.

<sup>28</sup> Telecom Eireann Annual Report and Accounts for the period ended 4th April 1985, p. 7.

<sup>29</sup> Telecom Eireann Annual Report and Accounts for the period ended 4th April 1985, p. 9.

<sup>30</sup> Telecom Eireann Annual Report and Accounts for the period ended 4th April 1985, p.13.

existing assets and generate extra revenue” whilst reducing staffing costs. The company thus set itself the following targets in its first five year plan:

- six per cent growth per annum in telephone lines
- a household penetration rate of 60 per cent by 1988/89
- break-even on profit/loss account by 1987/88
- to be self-financing (i.e. not borrowing) 75 per cent of capital expenditure by 1988/89.

Telecom's progress was remarkable. Only in 1985/86 was the growth in telephone lines less than 6%, increasing the number of main subscriber lines from 667,267 in 1984 to 856,000 by 1989. The effective disappearance of the waiting list was complemented by a marked increase in the average connection period which fell to six to eight weeks. Household penetration, at 48% in March 1985 reached 60% on schedule. Furthermore, the Black Valley in Kerry, previously considered unreachable by the Department of Posts and Telegraphs finally received a public kiosk in 1984 (although it was a further six years before Telecom provided the multi-access subscriber radio systems that would permit residents of the valley to receive service in their homes<sup>31</sup>). However, against this, for a period in the late 1980s, there remained categories of applicant from whom Telecom Eireann refused to even consider an application. Deputies complained (to no avail) in June 1988 that Telecom was providing no new services “to houses more than 0.5 kilometres from an existing telegraph pole.”<sup>32</sup>

The company recorded its first profit of £17 million in 1987/88. Furthermore, not merely was the company entirely self-financing by 1989 but it reduced its debt by some £40 million the same year. Less fanfare greeted a more dubious (yet crucial from the point of view of the company's finances) achievement - the reduction of staff numbers from 17,260 in March 1985 to 14,270 by March 1989.

The same period saw the company introduce a series of new services, largely aimed at the business user: EIRPAC, a Public Packet-Switched Data Network (1985); Eircell, Telecom's

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<sup>31</sup> Telecom Eireann Annual Report and Accounts for the period ended 4th April 1985, p. 24.

<sup>32</sup> DD 382, p. 1934, 28/6/88.

mobile services provider (1985), Eirpage, a paging service in co-operation with Motorola (1988). Furthermore, the application of radio telephony technology would finally see a long-standing problem - the connection of the Black Valley area in Kerry - permanently solved.<sup>33</sup>

Overall then, Telecom Eireann succeeded in transforming the image of the national telecommunications service in scarcely half a decade. An *Irish Times* editorial in June 1989 found it "hard to disagree with"<sup>34</sup> chairman Michael Smurfit's 1989 assessment of the company's previous five years, that it had "come through in far better shape and with much better prospects than many would have considered possible when we started out."<sup>35</sup>

#### **8.4 General Development 1990 - 1993**

The years 1990 to 1993 represented not merely a consolidation of the success of the previous half decade but a substantial advance. Between 1990 and 1993, new subscriber lines increased by an average of 11% per annum from 916,000 in March 1990 to 1.17 million in March 1994. By 1993 two-thirds of all subscribers were residential, whilst the level of household penetration increased from 64 telephones per 100 homes in 1990 to 75 per 100 by March 1994. The waiting list, already down to 6,000 by March 1990 effectively vanished during 1992. Meanwhile at company level, the primary policy goal of debt reduction was facilitated by successive profits of around £90 million between 1990 and 1993.

The key developments then in the early 1990s did not occur with respect to the national infrastructure but in the political economic environment in which Telecom Eireann operated: specifically the increasing influence of European telecommunications legislation and the related issues of the introduction of competition and the privatization of Telecom Eireann.

Ireland's increasingly neo-liberal political economic environment combined with Telecom's improving financial fortunes through the 1980s and early 1990s ensured that the possible privatization of the company became an issue for public debate. Company chairman, Michael Smurfit, was also a vocal advocate of such a move, opining in June 1988 that "it was a

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<sup>33</sup> Telecom Eireann, *Report and Accounts for the year ended 29th March 1990*, p. 22.

<sup>34</sup> "Telecom's Success." Editorial. *Irish Times*, 13 June 1989.

<sup>35</sup> Telecom Eireann Report & Accounts for the year ended 30th March 1989, p. 8.

question not of if but of when the Government decided to privatise."<sup>36</sup> Successive governments between 1988 and 1991 were, however, careful to distance themselves from Smurfit's remarks, stressing that Smurfit's view was purely a private one which did not "reflect the Government's view."<sup>37</sup>

In 1988 Telecom Eireann commissioned a private report on its own privatization, without consulting then Minister for Communications, Ray Burke who remained unaware of it until June 1991 when Telecom presented it to Burke's successor, Seamus Brennan. Apparently open to the idea, the Department requested that any follow-up report should address the key issues ignored by the first one: the regulatory environment in the wake of a privatization, and the effect of international competition on privatization. Momentum towards privatization appeared to gather further pace following Telecom's commissioning of a further report in August 1991, which Minister Brennan conceded might lead to legislation.<sup>38</sup>

At this point however an unrelated issue - a controversial purchase of land by Telecom Eireann - caused Brennan to order the suspension of work on the new report. Denying any wrongdoing on his part, Michael Smurfit nonetheless resigned, removing one of the key figures pushing for privatization. Smurfit's immediate successor, Brendan Hynes was equally favourably disposed towards privatization, however. But Hynes was not to last long in the job: in July 1992, the new Minister for Communications, Maire Geoghegan-Quinn requested his resignation, citing a break-down in co-operation between the chairman and the board of the company. In the absence of a definitive account, it was publicly speculated that the break-down occurred as a result of Hynes' determination to see the company privatised. Hynes publicly complained that the company was in general unprepared for the advent of competition which, although the actual European Council of Telecommunications Ministers' announcement of full competition in the critical voice telephony market was still a year away, was assumed to be inevitable at this point.

The threat of competition had emerged as a result of two factors. Telecom Chairman Michael Smurfit noted in the company's second annual report in 1986 that "Competition on

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<sup>36</sup> "Local call time charges inevitable", *Irish Times*, 29 June 1988.

<sup>37</sup> Ray Burke, DD 401, p. 456, 5/7/90.

<sup>38</sup> Quoted by Brennan himself in DD 412, p. 28, 5/11/91.

international public telecommunications routes was already a reality”<sup>39</sup> when Telecom Eireann commenced operations in 1984. Four years later, however, Smurfit pointed to the inevitability of the liberalization of the Irish market as a result of “new technologies, international trends and *European Community requirements*.”<sup>40</sup> (Italics added) Limited competition in the provision of some terminal equipment had been a fact of the Irish market since the 1983 Postal and Telecommunication Act. To that extent then, Irish telecommunications policy was ahead of the game when the EU's critical Green Paper on Telecommunications Policy appeared in May 1987, stressing the virtues of “liberalizing” European telecommunications markets. Although the 1987 Green Paper on Telecommunications had made it clear that the EU would begin to press for more competition within national telecommunications markets, two 1990 directives were particularly effective in realizing the Green Paper’s market-driven philosophy: the Services Directive<sup>41</sup> and the Open Network Provision (ONP) Framework Directive.<sup>42</sup> The ONP directive targeted three perceived blocks to competition:

“the potential existence of barriers to systems interoperability across national boundaries; second the privileged position of telecommunications administrations (TAs), preventing 'fair trade' rules from applying in a strategic market segment; third, the resulting unacceptable variations in tariff policies for telecommunications services and consequent limitations in consumer choice.”<sup>43</sup>

The Services Directive went even further in the direction of liberalization, requiring the abolition of all PTT monopoly rights bar the provision of voice telephony services and network infrastructure. As one commentator pointed out as early as 1991:

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<sup>39</sup> Telecom Eireann (1986), *Report and Accounts for the year ended 3<sup>rd</sup> April 1986*, p. 10.

<sup>40</sup> Telecom Eireann (1988), *Report and Accounts for the year ended 31<sup>st</sup> March 1988*, p. 10

<sup>41</sup> Commission Directive of 28 June 1990 on competition in the markets for telecommunications services, 90/388/EEC.

<sup>42</sup> Council Directive of 28 June 1990 on the establishment of the internal market for telecommunication services through the implementation of open network provision, 90/387/EEC.

<sup>43</sup> Delcourt, Bernard, "EC Decisions and Directives on information technology and telecommunications." *Telecommunications Policy*, Feb. 1991, p. 16.

“there is clearly an irreversible trend towards the break-up of monopolies and the progressive liberalization of the telecommunications services market. The question today is not whether but when changes will take place.”<sup>44</sup>

Competition was in any case increasingly the norm on international routes. In Telecom Eireann’s 1990 Annual Report, Michael Smurfit noted that a combination of market forces, continuing technological advances and “political developments favouring competitive markets”<sup>45</sup> promised a complete transformation of the company’s operating environment.

“The new environment will be characterised by developing competition, continuous change and wider consumer choice, resulting in greater challenges and increased uncertainty for service providers.”<sup>46</sup>

A year later the 1991 Telecom Eireann annual report noted “clear evidence during the year of the acceleration of competitive pressures.”<sup>47</sup> Pointing out that the impact of competition had thus far been most pronounced in the international service, chairman Michael Smurfit warned that it would be “increasingly felt also in the domestic service.”<sup>48</sup> Employer and industry lobby groups had complained since the 1980s that, despite the reductions introduced by Telecom, Irish international rates remained “significantly higher than in other EC countries.”<sup>49</sup> In January 1992, the Confederation of Irish Industry demanded that Telecom Eireann redress what the CII characterised as the “cross-subsidization from international callers to those making domestic calls.”<sup>50</sup> Furthermore the development of sophisticated call back technologies meant that *de facto*, Irish companies were already bypassing the Telecom Eireann network international calls by 1992.<sup>51</sup> By 1992 international competition threatened a “severe financial crunch”,<sup>52</sup> as Telecom’s share of international traffic which had stood at

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<sup>44</sup> Delcourt, Bernard, “EC Decisions and Directives on information technology and telecommunications.” *Telecommunications Policy*, Feb. 1991, p. 19.

<sup>45</sup> Telecom Eireann Annual Report for the Year Ended 29 March 1990, p. 8.

<sup>46</sup> Telecom Eireann Annual Report for the Year Ended 29 March 1990, p. 8.

<sup>47</sup> Telecom Eireann Annual Report for the Year Ended 4th April 1991, p. 4.

<sup>48</sup> Telecom Eireann Annual Report for the Year Ended 4th April 1991, p. 8.

<sup>49</sup> John McGee, “Shifting Charges”, *Business and Finance* 10/12/92.

<sup>50</sup> “Telecom Cuts its Rates”, *Business and Finance* 9/1/92.

<sup>51</sup> Gail Seekamp, “California computer makes for cheap calls”, *Sunday Business Post* 26/7/92.

<sup>52</sup> “Telecom faces Financial Crunch” *Business and Finance Magazine*, p. 1, 30/7/92.

39% in 1988 dropped to 37% by mid 1992. Planning staff estimates quoted (leaked) to the national press<sup>53</sup> predicted a continuing decline in market share over the following three to four years down to 30%. That Telecom was vulnerable to any competition in this market is clear from the fact that by 1992 its top 100 customers accounted for 23% of its international revenues. As one commentator pointed out: "foreign competitors could thus challenge Telecom for a large proportion of its international business by targeting a relatively small number of firms."<sup>54</sup>

Nor was competition limited to foreign companies. In December 1992, the Department of Communications licensed an Irish based consortium ESAT Telecom to lease lines from Telecom Eireann with a view to competing in the long distance business calls market.<sup>55</sup> Following protracted negotiations on the cost of leasing lines from Telecom, ESAT finally secured its first customer in October 1993.<sup>56</sup>

The final nail was driven into the coffin of Telecom's exclusive privilege of the Irish voice telephony market in May 1993 when the EC Council of Telecommunications Ministers approved plans to liberalize the key voice telephony market by 1998. Immediately the Irish Communications Minister, Brian Cowan, made an (ultimately successful) request for a derogation of up to five years to allow Telecom Eireann time to "improve the national networks before the full rigours of competition are faced."<sup>57</sup>

The increasing competitive pressures were cited as the reason for the increase in the pace of price "rebalancing" from 1991. Throughout the 1980s, Telecom had progressively reduced the cost of international calls as part of a programme of "rebalancing", yet this had occurred without a concomitant increase in local call charges (except as part of two general rounds of price increases in 1985 and 1986). Ray Burke noted in 1988:

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<sup>53</sup> "Telecom faces Financial Crunch" *Business and Finance Magazine*, p. 1, 30/7/92.

<sup>54</sup> "Telecom faces Financial Crunch" *Business and Finance Magazine*, p. 1, 30/7/92.

<sup>55</sup> Douglas Dalby "Business Communicator" *Irish Times*, 26 Mar 1993.

<sup>56</sup> ACT Kindle, a software company. "O'Brien targets the home phone market" *Irish Times* 22 Oct 1993.

<sup>57</sup> Joe Carroll, "Telecom revolution is on the line and cannot be kept on hold" *Irish Times* 15 May 1993.



“Telecom Eireann, in the current corporate plan, are engaged on a programme of rebalancing the charge structure which they inherited in 1984 with a view to reducing international charges and so improving their competitiveness on key routes.”<sup>58</sup>

Since “rebalancing” apparently referred only to the reduction of international call charges, the term was not considered problematic. However as Telecom Eireann entered the 1990s, the practical application of “rebalancing” changed to mean increasing the cost of local calls whilst reducing the cost of international ones, with a view to satisfying the call in the ONP Framework Directive to relate call charges to costs. The first significant alteration in charging patterns emerged in 1991 when Telecom put forward a package of changes proposing the reduction of trunk call charges, cellular phone charges, and the expansion of provincial local call areas. (The last proposal was prompted by Telecom’s observation that the group charge areas established under the Kamerbeek Report “did not reflect developments which had taken place in technology in the interim or the consequent cost reductions”: the net result of the expansion was to enormously increase the local call access area in the more sparsely populated western counties.<sup>59</sup>) At the same time local call timing was introduced: whereas previously 12 pence paid for a phone call of (in theory) infinite length, this was reduced to 15 minutes after 1991.<sup>60</sup> The move attracted relatively little adverse comment largely because the initial unit length - 15 minutes - was considered ample to complete the vast majority of calls.

Such was not case, however, with the announcement in May 1993 of the most substantial changes in charging policy since the early 1980s. The new charges prompted what was unquestionably the greatest level of public complaint faced by Telecom Eireann in ten years of service, despite the fact that it was estimated that the price package introduced would actually cost the company £15 million.<sup>61</sup> Although a package of measures was introduced, including the expansion of local calling areas and the reduction of international and trunk call tariffs, it was the reduction of the local call unit length to 3 minutes (20% of its duration hitherto) that was the focus of complaint. The perception was that, as a result, domestic users in particular would face a 500% increase in their phone bill. In point of fact, official estimates of the actual

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<sup>58</sup> DD 379, p. 2534, 28/4/88.

<sup>59</sup> Geraldine Kennedy “Telecom plans sent to Burke last August”, *Irish Times* 23/2/91.

<sup>60</sup> Seamus Brennan, Minister for Communications: DD 406, p. 1522, 20/3/91.

effect on different user categories varied between a 1% to 4% increase on residential bills and a 7% to 8% reduction on those faced by business users.<sup>62</sup> Nonetheless the fact that the new charging structures clearly favoured business users over domestic customers prompted the accusation that the latter group were subsidising the former.

Throughout the debate on the increases the government consistently argued that the changes in the tariff structure had been made unavoidable as a result of the increased competition faced by Telecom Eireann on its international routes and by the EU drive towards more cost-oriented tariffs. Fianna Fail TD, Noel Treacy argued that it was impossible to:

“expect Telecom Eireann to compete if it must subsidize domestic local calls with profits from international calls while its competitors do not offer such a service and have no such obligation.”<sup>63</sup>

To which Minister for Social Welfare, Joan Burton added: “EC policies and directives in the area of telecommunications all point to the need to have charges based on objective criteria.”<sup>64</sup> Ultimately the government’s line of argument concluded that if the changes were not introduced, that Telecom Eireann would reach a point where:

“there would be insufficient revenue from international calls to subsidize local calls, which would then have to increase. This would not be in the interests of the consumer, Telecom Eireann or the nation. Quite simply we have to act before this occurs.”<sup>65</sup>

Thus it was suggested that international calls would continue to subsidize local calls but that the extent of cross-subsidy would be reduced. However, neither the Minister for Communications nor Telecom Eireann itself offered any concrete figures to suggest what the scale of cross-subsidy would be thereafter.

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<sup>61</sup> Damien Kiberd “Telecom makes £15 million gift to consumer” *The Sunday Business Post* 22/8/93.

<sup>62</sup> Telecom Eireann (1993). *Annual Reports and Accounts for year ended 1<sup>st</sup> April 1993*, p. 10. See also Brian Cowan, Minister for Communications. DD 430, p. 1570, 12/5/93.

<sup>63</sup> DD 430, p. 253, 19/5/93.

<sup>64</sup> DD 430, p. 224, 19/5/93

<sup>65</sup> DD 430, p. 1571, 12/5/93.

Such was the scale of the public response, however, that it became politically impossible for the government to ignore. Thus in September 1993, the government announced the establishment of the Telephone Users' Advisory Council, the primary function of which would be to monitor the operation and impact of the new tariff. It lacked, however, any statutory or legislative powers: in effect its impact would depend on the willingness of individual Ministers for Communication to accept its recommendations. In addition to the establishment of Advisory Group, the Department of Social Welfare announced that those subscribers in receipt of free telephone rental would henceforth also receive 20 free call units (60 minutes of peak time local calls) every two months.<sup>66</sup> Finally Telecom Eireann themselves established a £500,000 fund to establish limited freephone facilities for eight charity organisations including the Samaritans, Childline and the Rape Crisis Centre.<sup>67</sup> Since the basic changes to the charging structures remained intact, however, the concessions were considered "irrelevant"<sup>68</sup> by consumer groups. Nonetheless the new tariff structure would remain in place.

### **8.5 Conception of the Telephone**

The shift observed in the 1960s and 1970s from the view that the telephone was simply a tool of commerce towards a perception that it was an essential infrastructure requirement for national economic development if anything increased in the 1980s and 1990s. The internationalisation of the Irish economy, brought about in part by the ongoing IDA pursuit of employment creation through the wooing of foreign firms to Ireland, created an ever more open economy. This had rendered :

“any deficiencies in physical and social infrastructure... more evident, because infrastructure is now readily compared...with what is available in other countries.”<sup>69</sup>

That national economic success depended on an efficient telecommunications service was simply not up for debate in the 1980s. Mark Killilea, Minister of State for Posts and

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<sup>66</sup> Geraldine Kennedy “New phone advisory body seen as token”, *The Irish Times* 1/7/93.

<sup>67</sup> Ibid.

<sup>68</sup> Ibid.

Telegraphs, commented in 1981 that “an efficient and developed telecommunications service is an essential adjunct to the industrial development.”<sup>70</sup> Successive government policy documents on national development in the 1980s and 1990s devoted extensive space to the same assertion. In July 1981, a National Economic and Social Council (NESC) report noted:<sup>71</sup>

“Ireland's general need for development of good telecommunications in line with development of the economy is reinforced by its high dependence on exports and on direct foreign investment (relative to GNP)...Both place a premium on the efficient and rapidly hauling (sic) of information not only within Ireland but also between Ireland and the rest of the world.”<sup>72</sup>

Similarly the White Paper on Investment and National Development 1979 - 1983 stressed that in an open and relatively isolated economy such as Ireland's “it is essential that the telecommunications service at least matches that available to our competitors.”<sup>73</sup> Furthermore the collapse of the domestic manufacturing base in the 1970s and 1980s as competition from other EEC nations increased saw infrastructure singled out as critical to improving the competitiveness of Irish industry vis-à-vis the rest of the EEC. Thus the National Planning Board's April 1984 document “Proposals for Plan 1984-1987” stressed the need to bring telecommunications prices down to the level prevailing in the rest of the EEC “within a period of not more than four years.”<sup>74</sup>

By the end of the 1980s, the turnaround in the telephone service effected by Telecom Eireann had sufficiently eased problems with the quality of the service that in May 1988, Ray Burke noted that the standard of service “has been improved to such a degree that it is now a major contributory factor to present day successes in wooing foreign firms to our shores.”<sup>75</sup>

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<sup>69</sup> The Importance of Infrastructure to Industrial Development in Ireland NESC No. 59, July 1981, p. 1.

<sup>70</sup> DD 328, p 3061, 14/5/81.

<sup>71</sup> The Importance of Infrastructure to Industrial Development in Ireland NESC No. 59, July 1981.

<sup>72</sup> Ibid., p. 38.

<sup>73</sup> White Paper on Investment and National Development 1979 - 1983 - Laid by the Government before each House of the Oireachtas, January 1980. pp. 50 - 51.

<sup>74</sup> Ibid., p. 118.

<sup>75</sup> DD 380, p. 2385, 24/5/88.

Nonetheless national development plans continued to stress the importance of telecommunications to overcoming what it was argued were major cost disadvantages faced by Irish industry due to its peripheral and island location. The "National Development Plan 1989 – 1993", drawn up to request European Structural Funding noted that notwithstanding the £1.46 billion invested in the modernisation and development of the telecommunications service since 1980 that:

"...compared with most Member States of the Community, the level of telecommunications development remains low... The cost of developing the telecommunications service is very high in Ireland due to the low population density and, in particular, to the low urbanisation ratio, which reduces economies of scale. The high development costs are reflected in relatively high prices to customers, which reduce national competitiveness and slow the rate of telecommunications growth. A national priority, therefore, must be to reduce the cost of telecommunications services, while enhancing their range and quality."<sup>76</sup>

The perceived importance of telecommunications to industry was if anything increased by the IDA decision in the early 1990s to promote Ireland as an international base for teleservices operations, an industry which it argued exhibited strong employment growth potential.<sup>77</sup> Thus whilst Telecom Eireann justified the 1993 price changes on the grounds of the need to "give Irish business a competitive edge in international markets and to make Ireland a more attractive location for overseas companies", it also referred to the need to "increase telemarketing activity - the sale of goods and services by telephone."<sup>78</sup> The same rationale for 1993 charge increase was advanced by Minister Brian Cowan during the Dail debate on the 1993 changes:

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<sup>76</sup> National Development Plan 1989 - 1993. Submitted to the European Commission on 22 March 1989. P. 22.

<sup>77</sup> "Everywhere, world-wide significant employment growth is foreseen in service industries. These industries depend for their life blood on the availability of the communications facilities of the highest quality. In many instances the quality and cost of communications facilities is the key factor in the decision-making process affecting the location of industrial activity. In this dynamic and cut-throat environment top class Irish communications facilities are essential if the Government are to achieve their job creation targets." Ray Burke, DD 381, pp. 502-503, 27/5/88.

<sup>78</sup> Telecom Eireann (1993), Annual Report and Accounts for year ended 1 April 1993, p. 10.

“The importance of competitive international telephone charges to job creation and retention cannot be overstressed... More than 2,000 back office jobs have been created in Ireland... I understand that the IDA estimates that there is the potential for the creation of 1,000 to 2,000 jobs per annum in this area if the conditions are right in the nature of telecommunications services and prices.”<sup>79</sup>

Ultimately then the start of the 1990s saw telecommunications not only remain a prerequisite for national economic growth, but actually constitute a substantial part of that growth.

Yet while national and supranational bodies stressed the role of telecommunications in economic development, in the Dail itself there was a growing body of opinion throughout the period under review that the telephone’s social function was an equally important function. Fine Gael TD, John Kelly characterised it as a consumption norm essential for modern day living:

“...one is as dependent in the late 20th century on posts and telegraphs as one is on every public service... It is no use telling somebody not to use the postal service or telephone. People must use them. Only hermits or members of enclosed orders... are in the situation of not being dependent on these services.”<sup>80</sup>

This conception was reflected in the Postal and Telecommunications Services Bill 1982, Section 14 of which defined the objectives of Telecom Eireann as meeting “the industrial, commercial, and *social* needs of the country for efficient telecommunications services, and, to satisfy all reasonable demands throughout the country.”<sup>81</sup> (Italics added) In the Dail debates that followed the introduction of the Bill, some Deputies sought a more specific definition of the company's social function arguing that Article 14 did not lay sufficient emphasis “on the social needs of the community.”<sup>82</sup> Despite this the wording remained unchanged.

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<sup>79</sup> DD 430, p.p. 2062-2063, 18/5/93.

<sup>80</sup> John Kelly, DD 336, p. 1133, 22/6/82.

<sup>81</sup> Green Paper on the Reorganisation of Postal and Telecommunications Services, p. 9.

<sup>82</sup> DD 334, p. 1692, 19/5/82.

Beyond this the perceived social function of the telephone was emphasised by rapid developments in the Department of Social Welfare's free rental programme. In May 1980 Albert Reynolds announced that Pensioners qualifying for the Free Telephone Rental Scheme would be placed in the priority category for telephone connections.<sup>83</sup> Furthermore over the course the 1980s and 1990s the numbers availing of the scheme increased dramatically from 9,752 in 1979 to 114,179 (or more than 10% of all subscribers) by the end of 1993.<sup>84</sup> This would cost the Department of Social Welfare nearly £16 million per annum by 1993.<sup>85</sup>

The focus on the free rental scheme as fulfilling the social objective of the telephone service, however, meant that the telephone's social role was officially understood as limited to allowing pensioners "living alone to have a telephone in order to be able to summon help in an emergency."<sup>86</sup> Requests to expand the qualification criteria were rejected on grounds of the already "very considerable" commitment of Exchequer funds to the scheme. Thus the notion that the telephone might have any further social (and subsidisable) role to play (in the sense of maintaining the very existence of society through facilitating communications between its members), was much rarer and, at an official level, simply not acknowledged for the bulk of the period under review.

However, having become a *de facto* household consumption norm as a result of the increases in residential penetration during the 1980s, the introduction of the 1993 round of rate "rebalancing" prompted a wave of criticism based on the impact that the changes would have on the telephone's social function. The effective increase in local call costs (as a result of the reduction in the duration of the local call unit) was characterised as an attack on the needs of "the most vulnerable members of society... the sick, lonely and isolated."<sup>87</sup> Furthermore, much of the criticism unconsciously expressed the extent to which the telephone had become an essential tool in a modern society. Complaining about the peak time local charges, Workers Party TD Eamonn Gilmore argued that:

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<sup>83</sup> Albert Reynolds, DD 320, p. 1886, 15/5/80.

<sup>84</sup> Department of Social Welfare (1993), *Statistical Information on Welfare Services 1993*, p. 66

<sup>85</sup> *Ibid.*, p. 75.

<sup>86</sup> DD 413, p. 1068, 26/11/91.

<sup>87</sup> Des Rushe "Government's scant regard for the most vulnerable", *The Irish Independent*, 18/8/93.

“As I pointed out yesterday, the pensioner wanting to contact the department of Social Welfare, a parent wanting to telephone the school, a family wanting to talk to their doctor cannot leave these calls till after 6 o’clock in the evening or until the weekend nor can the length of call always be determine by the caller. How many of us have made calls to firms or, indeed to Government departments, to be left holding on for interminable periods and then passed from section to section before the query can be dealt with?”<sup>88</sup>

Furthermore, in a tacit acknowledgment of the telephone’s critical role in negotiating citizenship rights, Minister for Social Welfare, Joan Burton, noting that her Department was already amongst Telecom Eireann’s five biggest customers (with a bill of £2.7 million in 1993) stated that she would be negotiating with Telecom for greater use of freephone or fixed charge calls for those contacting the department.<sup>89</sup> As noted above (section 8.4) Burton’s department also introduced a 20 unit free call allowance in the wake of the charges. Although at a glance this appeared to add little to the extant free rental allowance, it was critical in terms of the implied conception of the telephone. Whereas previously the free rental allowance had been justified simply because it allowed “elderly and disabled people summon help in emergencies,”<sup>90</sup> the introduction of free call units suggested that the telephone had a further function of maintaining societal links. Hence Burton stated of the rental and call allowance that their purpose was twofold:

“first, to allow elderly and disabled people summon help in emergencies and, second, *enable them remain active in the community and keep in touch with relatives and friends.*”<sup>91</sup> (Italics added)

## 8.6 Conceptions of the Telephone Service 1980 - 1983

As noted above the increased emphasis on the importance of telecommunications for national economic development in the 1980s meant that at one level, the Post Office and subsequently

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<sup>88</sup> DD 430, p. 1568, 12/5/93.

<sup>89</sup> DD 430, pp. 225-226, 19/5/93.

<sup>90</sup> Joan Burton. DD 430, p. 225, 19/5/93.

<sup>91</sup> Ibid.



Telecom Eireann were perceived as the infrastructure providers for industry and commerce. Thus whilst an Industrial Policy Review Group (“The Culliton Report”) recommended in 1992 an immediate reduction in the cost of overseas telephone calls as a prerequisite for reducing industrial costs,<sup>92</sup> one of the submissions to the group on the “Impact of Communications on Industry and Industrial Development” went so far as to make the (ultimately rejected) suggestion that responsibility for telecommunications policy formation be transferred from the Department of Communications to the Department of Industry.<sup>93</sup>

With regard to the commercial orientation of the service, little changed in the period under review. Responding to complaints from deputies about charge increases introduced in 1980, Albert Reynolds argued that to provide services below cost, would create an artificial demand that would divert capital and labour which might be spent elsewhere more productively.<sup>94</sup> Thus Reynolds and his successors continued to refer back the standard Departmental policy since the foundation of the State: that the Post Office services be self-supporting, placing no burden on the taxpayer.<sup>95</sup>

Nor was this approach altered with regard to Telecom Eireann. In considering the basic objectives and duties of Telecom Eireann, sections 14 and 15 were critical. Section 14 laid out the following as the principal objects of the telecommunications company:

“(a) to provide a national telecommunications service within the State and between the State and places outside the State.

(b) to meet the industrial, commercial, social and household needs of the State for comprehensive and efficient telecommunications services, and, so far as the company

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<sup>92</sup> Industrial Policy Review Group (1992), A Time for Change: Industrial Policy in the '90s. (Dublin: The Stationery Office), pp. 46-47.

<sup>93</sup> Dr. Jim Mountjoy on behalf of Euristix Ltd. (1992), The Impact of Communications on Industry and Industrial Development - A study undertaken for The Industrial Policy Review Group, (Dublin: The Stationery Office), p. m8.

<sup>94</sup> DD 321, p 812, 27/5/80.

<sup>95</sup> Of course to a large extent the distinction between taxpayers and users of the service is somewhat illusory. Given the fact that taxation in some form (direct or indirect) was unavoidable, all users of the service were also taxpayers. The language of the government often seems to suggest that taxpayers and users of the service were two separate and distinct groups.

considers reasonably practicable, to satisfy all reasonable demands throughout the State, and

(c) to provide such consultancy, advisory, training and contract services inside and outside the State as the company thinks fit.”<sup>96</sup>

Meanwhile Section 15 on the general duties of the company, stated that:

“It shall be the general duty of the telecommunications company to conduct the company's affairs so as to ensure that-

(a) charges for services are kept at the minimum rates consistent with meeting approved financial targets, and

(b) revenues of the company are not less than sufficient to-

(i) meet all charges properly chargeable to revenue account (including depreciation of assets and proper allocation to general reserve) taking one year with another.

(ii) generate a reasonable proportion of capital needs, and

(iii) remunerate capital industrial, commercial, social and household needs and repay borrowings.”<sup>97</sup>

The inclusion of the phrase “consistent with meeting approved financial targets” in section 15, established as the company's first priority in setting charges the need to break even, thus retaining the principle previously adhered to by the Post Office.

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<sup>96</sup> Postal and Telecommunications Services Act, 1983, Section 14.

<sup>97</sup> Postal and Telecommunications Services Act, 1983, Section 15, paragraph 1.

Looking at the obligations laid upon Telecom Eireann in Sections 14 and 15, the most notable aspect is the ambiguity contained within paragraphs (a) and (b) of Section 14. Although the combination of paragraph (a) and (b) appeared to require the new company to provide a “comprehensive and efficient telecommunications services” throughout the state, the requirement was qualified by the inclusion of the term “reasonable demand”. Furthermore the Act expressly placed the power to decide what constituted “reasonable” into the hands of the company. In addition, Paragraph (2) of Section 15 which made reference to the previous section stated that:

“Nothing in section 14 of this section shall be construed as imposing on the company, either directly or indirectly, any form of duty or liability enforceable by proceedings before any court to which it would not otherwise be subject.”<sup>98</sup>

Furthermore, Section 88 of the Act specifically rendered the company “immune from all liability” in the event that it failed or delayed in “providing, operating or maintaining a telecommunications service.”<sup>99</sup> Legally, therefore, not merely did the Act place no concrete obligations on the company but it explicitly protected the company from the consequences of failing to provide service.

The implications of this did not go unnoticed during the Dail Debates. Stressing the need to service “the whole community”<sup>100</sup> and for “unity of service throughout the country”,<sup>101</sup> Labour TD Dick Spring stressed the need to guarantee a geographically universal service:

“People living in remote parts of the country are entitled to the same kind of service as those living in urban areas.”<sup>102</sup>

Thus the parties of the left (Labour and the Workers Party) argued for an alternative wording for Section 14:

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<sup>98</sup> Postal and Telecommunications Services Act, 1983, Section 15.

<sup>99</sup> Postal and Telecommunications Services Act, 1983, Article 88, para 1 (a).

<sup>100</sup> DD 336, p. 1198, 22/6/82.

<sup>101</sup> DD 336, p. 1198, 22/6/82.

<sup>102</sup> DD 336, p. 1198, 22/6/82.

“a comprehensive and efficient postal service of the highest attainable standard to satisfy as far as possible the industrial commercial and social needs of the State”<sup>103</sup>

However in the face of Fianna Fail/Fine Gael agreement on the Section, such changes were rejected.

Technically, however, Telecom Eireann had far from *carte blanche* to act as it liked. Section 90 required the company to seek Ministerial approval for any charge increases,<sup>104</sup> whilst the Postal and Telecommunications Users Councils established under the Act were given the function of “considering charges”,<sup>105</sup> a function outside the remit of the Post Office Users Council that had preceded them. Furthermore, whilst the underlying aim of the entire Act was to place Telecom Eireann at arms length from Civil Service control, Section 110 did give the Minister for Communications extensive powers over the company, requiring it to:

“(a) comply with policy decisions of a general kind made by the Government concerning the development of the postal or telecommunications services of which he may advise the company from time to time,...”<sup>106</sup>

The Act's treatment of the question of the company's monopoly status also raised the question of the company's social obligations. Section 87 justified the new telecommunications body's monopoly status (or “exclusive privilege”) in part “because a viable national telecommunications service involves subsidization of some loss-making services by profit-making services.”<sup>107</sup> As noted in chapter 7, the Dargan Report had suggested that, should Telecom Eireann be required to operate loss-making services (implicitly for social reasons) in the course of meeting its statutory obligations, “it should be compensated specifically for

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<sup>103</sup> DD 343, p. 1679, 15/6/83.

<sup>104</sup> “The company shall not increase any charge under a scheme under this section without the concurrence of the Minister.” Postal and Telecommunications Services Act, 1983, Section 90, paragraph 2.

<sup>105</sup> Michael Wilson, DD 334, p. 1580, 19/5/82.

<sup>106</sup> Postal and Telecommunications Services Act, 1983, Article 110, para 1 (a).

<sup>107</sup> Postal and Telecommunications Services Act, 1983, Article 81. Paragraph 2 (c).

doing so.”<sup>108</sup> Had such a recommendation been adopted it would have required that the social element of Telecom Eireann’s service obligations be identified, costed and thereafter that it be funded by a system of transparent subsidies from the central exchequer. Thus the specifics of what the social obligation comprised would necessarily have been made explicit.

However the Green Paper preceding the 1983 Post and Telecommunications Act rejected the Dargan Report’s proposal. It stated that whilst the Government acknowledged that the new body would be required to provide loss-making socially oriented service,<sup>109</sup> it could not:

“accept the implication...that a state-sponsored body, particularly one entrusted with a public monopoly should be entitled as of right to compensation for loss-making services whether or not these are provided on the instructions of the Minister.”<sup>110</sup>

In short the Act ruled out the creation of any universal service fund. Section 51 of the Act stated that where the Minister for Posts and Telegraphs considered that a specific loss-making service should be provided but where the company disagreed, that the company could “increase its charges to compensate for the losses incurred.”<sup>111</sup> In short it was acknowledged that socially oriented loss-making services would be funded by internal cross-subsidy rather than from external sources.

By rejecting the Dargan Report’s transparent subsidy suggestion the Green Paper would make it difficult thereafter to define either the maximum or minimum extent of Telecom Eireann’s social obligation. Yet given the fact that the extent of ministerial and public oversight over the telephone service would be lessened by the Act there was a greater need than ever before for some such definition. The only guidelines Telecom Eireann would be able to look to were the charging structures inherited from the Post Office which effectively established rate averaging as the minimum extent of its social obligation. At the other end of the scale, the consistently

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<sup>108</sup> Quoted in p. 10 of the Green Paper on the Reorganisation of Postal and Telecommunications Services, May 1980.

<sup>109</sup> The Green Paper cited as examples of loss-makers “new services which may initially incur losses, residence telephones rented by under-privileged groups for emergency use, public call offices in some post offices and so on.” *Ibid.*, p. 11.

<sup>110</sup> *Ibid.*

<sup>111</sup> Postal and Telecommunications Services Act, 1983, Article 51, Para 1.

expressed view of Telecom Eireann's predecessor between 1980 and 1982, that the subsidization of free telephone rental whilst "a very desirable social objective... was not the duty of the telephone system,"<sup>112</sup> allowed Telecom Eireann to infer the maximum extent of their obligation. There were, however, no specific guidelines as to where exactly on this minimalist-maximalist continuum Telecom Eireann's social obligation lay.

### 8.6.1 Conceptions of the Telephone Service 1984 – 1993

Telecom Eireann's first annual report contained a statement of how the company understood its own role:

"Telecom Eireann exists to provide a service to the community. It discharges its social responsibility mainly through the corporate purpose laid down for it by law, which is in the provision of comprehensive and efficient telecommunications service at the lowest prices consistent with meeting reasonable financial obligations."<sup>113</sup>

In practical terms, however, such a statement was almost meaningless since it committed the company to only the most general objectives. The absence of better defined social objectives might not, however, have been an important issue after Telecom Eireann took over the running of the telephone service had Ministers for Communications used their powers of coercion and oversight vis-à-vis Telecom after 1984. As one TD pointed out in 1988 the 1983 Act permitted the Government quite extensive authority over the company:

"The existing procedures in regard to public accountability are laid down as follows: they ensure that the following role of the Government in relation to both bodies provides for these safeguards - Government appointment of the boards, Government approval of corporate plans, Government approval of capital expenditure, Government approval of prices, adherence to Government policy on pay and Government control of licensing. If one takes these key areas as an example of the

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<sup>112</sup> Jim Mitchell. DD 343, p. 1788, 15/6/83. For a similar response, see also Mark Killilea to Frank Cluskey (DD 322, p. 261, 11/6/80) and Paddy Harte to Mervyn Taylor ( DD 331, p. 1443, 9/12/81.)

<sup>113</sup> Telecom Eireann (1985), 1<sup>st</sup> Report & Accounts for the period ended 4<sup>th</sup> April 1985, p. 11.

degree of public accountability for a company like Bord Telecom Eireann, it is clearly the case that a bond exists between democratic control and commercial purpose.”<sup>114</sup>

In practice, however, the years between 1984 and 1993 witnessed the state’s almost total withdrawal from the telecommunications policy-making arena. It would appear that the Dargan analysis that state control had been largely responsible for the chaos of the 1970s created a political atmosphere which left successive Ministers for Communications reluctant to intervene in the running of the company. Furthermore, the company’s substantial inherited debt burden, which increased for most of the 1980s, appears to have made Ministers reluctant to impose any obligations on the company that would worsen its already precarious financial position. It became clear that despite the company’s nominal status as a public body committed to the public service objectives, that Telecom Eireann would be permitted (indeed, in light of the need to reduce the debt burden, encouraged) to pursue a more commercially-oriented development path. Such an orientation was further encouraged by the changing market environment in which Telecom Eireann found itself operating as the 1980s: the privatization of British Telecom in 1984, together with EU-led moves towards liberalization of European telecommunications markets created a market environment quite different from that which had prevailed during the Post Office’s tenure of the telephone service.

Yet arguably from its inception, Telecom Eireann has enjoyed the kind of liberty denied to most commercial firms. From 1984 the company was exempted from the purview of the National Prices Commission (and therefore from public price controls) on the grounds that the anticipated need for heavy capital investment in the telephone service meant that the:

“criteria normally used by the National Prices Commission for determining whether or not to recommend an increase in prices would not necessarily be compatible with the special requirements applicable in the case of the two new companies.”<sup>115</sup>

Similarly, in October 1987, then Minister for Communications, Ray Burke, disbanded the Telecommunications Users Council as part of the Government’s “on-going review of public

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<sup>114</sup> Tomás MacGiolla. DD 381, pp. 813-814, 31/5/88.

<sup>115</sup> DD 334, p. 1583, 19/5/82.

expenditure.”<sup>116</sup> The decision was largely justified on the grounds that in April 1985, the ambit of the Ombudsman's office had been extended to cover complaints about the telecommunications service, thus apparently duplicating the work of the two users councils.<sup>117</sup> However, in addition to the fact that there was plenty of evidence that the office of the Ombudsman was unable to cope with its existing workload,<sup>118</sup> the Ombudsman lacked the Users Council's “right to consider *any* matter other than matters of internal management relating to the services provided by BTE”.<sup>119</sup> Although the Council's power to proactively monitor Telecom Eireann's operations was limited, the Board had nevertheless had some effect. In January 1986, it prevailed upon Minister Jim Mitchell to reduce a proposed 5.6% charge increase to 4.4%. Indeed even Telecom Eireann acknowledged that its watchdog role had “proved invaluable both from the viewpoint of the Company and of its customers.”<sup>120</sup> In effect then, its closure removed the only channel independent of both the company and the Government through which customers were able to make their feelings about the company and its level of service heard.

As a result, the job of monitoring Telecom Eireann's performance became the exclusive province of the Department of Communications itself. At the time, Minister Ray Burke assured the Dail that he had stressed to both companies the need for “an increased awareness of the quality of service being provided to their customers and to be particularly vigilant and responsive to complaints”,<sup>121</sup> yet he was unwilling to offer any specific standards by which the company would be judged beyond the following: “I will be keeping a close eye on the matter but the only bench mark I would have is that they would satisfy the legitimate demands of their customers.”<sup>122</sup>

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<sup>116</sup> DD 374, p. 430, 15/10/87.

<sup>117</sup> From this date onwards the scope of the Ombudsman's office had been expanded to include consumers complaints relating to Telecom Eireann and An Post. Annual Report of the Telecommunications Services Users' Council 1985-86, p. 7.

<sup>118</sup> Particularly since, as part of the same Government expenditure review it had had its staffing levels reduced. See DD 374, p. 432, 15/10/87.

<sup>119</sup> Annual Report of the Telecommunications Services Users' Council 1985-86, p. 7.

<sup>120</sup> Telecom Eireann (1985), 1<sup>st</sup> Report and Accounts for the period ended 4<sup>th</sup> April 1985.

<sup>121</sup> Ray Burke, DD 370, p. 430, 15/10/87.

<sup>122</sup> Ray Burke, DD 374, p. 431, 15/10/87.



In practice, however, Ray Burke consistently refused to do even this. Faced with requests to order Telecom Eireann to drop its refusal to connect applicants located more than 500 metres from the nearest telephone line, Burke noted that:

“There are no funds available to me from which I could provide subsidization to enable people whose houses are not convenient to existing telephone lines to obtain a new telephone service and there are no special arrangements which I could make in this regard.

The priority given to connections is a matter of day-to-day administration of Bord Telecom Eireann in which it would not be appropriate for me to intervene.”<sup>123</sup>

Yet if extending the network by 500 metres was implicitly considered an “illegitimate” customer demand, then the practical application of Telecom Eireann’s own mission statement (above) to provide a comprehensive service was clearly very limited. Furthermore Burke’s attempt to avoid intervening in the running of Telecom by describing the company’s connection priorities as a question of “day-to-day administration” suggested a minimalist interpretation of ministerial rights with regard to the company under the 1983 Act. The question was raised that if intervention in this area was not appropriate, where could it be?

*De facto* it appeared that the limits of the company’s social obligation were encompassed within its rate structure. In November 1987 Ray Burke offered what remains the most detailed description of the working of universal service in Ireland:

“Tariff principles for telecommunications have developed historically out of a complex trade-off between commercial considerations and universal service goals rather than in response to articulated scientific, social and accounting bases...

So far as cross-subsidization is concerned, the legislation setting up Board Telecom Eireann acknowledges, in granting its exclusive privilege for providing telecommunications messages within the State, that a viable national telecommunications system involves subsidization of some loss-making services by

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<sup>123</sup> DD 382, pp. 1934 -1935, 28/6/88.

profit-making services. It is clear, therefore, that any uniform structure of telecommunications charges must involve complex systems of cross-subsidization...

In general terms, under the present structure the *more frequent users subsidize the lower users, business customers subsidize the residential customers, areas with high telephone density subsidize the low density areas, call charges subsidize rental and connection charges, short local calls subsidize long local calls and international charges subsidize national charges.* That is roughly the way the system works.”<sup>124</sup> (Italics added)

Although there was clearly a social element within this, it did not extend to the provision of a geographically universal service. In effect Telecom Eireann interpreted its social obligations in terms of the common carriage principle: equal treatment of customers *given a pre-existing infrastructure.*

Some attempt was made in the late 1980s to arrest Telecom Eireann’s growing freedom of action. Richard Bruton’s Postal and Telecommunications Service Amendment Bill in 1988 sought the publication of more data on Telecom Eireann’s performance and its future objectives whilst seeking to impose more extensive regulation upon the company than that implicit in Ministerial overseeing. Introducing his bill, Bruton reminded the Dail that:

“These companies were not set up to make a profit or to compete. They have been told that profit is not their objective. They have been told that they are to be monopolies, that they are to have exclusive privilege in the area. They do not have a commercial bottom line... They do not have to maximise profits like private companies. They are there to provide us with a quality of service and a low price. The Dail has a clear function to oversee those bodies.”<sup>125</sup>

The response from the government side of the Dail made clear, however, the extent to which Telecom’s commercial orientation was taken for granted:

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<sup>124</sup> Ray Burke, DD 375, pp. 1332-1333, 19/11/87.

<sup>125</sup> DD 381, p. 1147, 1/6/88.

“If this Government or any Government politician or political party were to introduce a similar Bill imposing such a public disclosure clause on the private sector, they would tell them where to go. It is unthinkable and an unheard of concept in the world of business. Let us not forget for one moment that Telecom Eireann and An Post are as much part of the commercial milieu as any private company.”<sup>126</sup>

The defeat of the Bill appeared to signal to Telecom Eireann that its primary function was the pursuit of commercial rather than social goals. In the absence of ministerial intervention, the company effectively began to set its own priorities and to that extent became the *de facto* maker of Irish telecommunications policy, albeit within the pro-competition framework of European Union telecommunications legislation. (The fact that in 1988 the company decided to explore the possibility of its own privatization without even informing the Minister at the time that this was being considered is indicative of this freedom of action.) This occurred in spite of the fact that this ran contrary to the role assigned to semi-state bodies in Irish political theory, which considers them executors rather than the makers of policy.<sup>127</sup>

And given its commercial outlook, Telecom Eireann has, particularly since the beginning of the 1990s, largely pursued the objectives that a private firm would. Despite the fact that as a public body Telecom Eireann is not in theory driven by the profit motive, the substantial debt burden (which peaked at over £1 billion in 1989<sup>128</sup>), has forced Telecom Eireann to maximise profits to fund interests and the reduction of the principle. Arguably this has occurred at a cost to its public service obligations. In the wake of the introduction of local call timing, an Irish Times editorial commented that:

“The company ought to recognise that it is not exclusively in the business of profit maximisation. It has an obligation to provide a service at the lowest reasonable cost...

The extra cost to Telecom Eireann of long telephone conversations is minimal. Furthermore the introduction of metering would be quite inequitable in that

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<sup>126</sup> Thomas ("G.V.") Wright, DD 381, p. 803, 31/5/88.

<sup>127</sup> See T.J Barrington (1980), *The Irish Administrative System*, (Dublin: Institute of Public Administration).

<sup>128</sup> Telecom Eireann (1990), *Report and Accounts for the year ended 29<sup>th</sup> March 1990* p. 6.

it would hurt the people on fixed incomes hardest. It would also render more expensive one of the few comforts that attend the elderly living alone...

Telecom Eireann must not abuse its monopoly and it must recognise its social obligation not to impact hardest on the people who can least afford it.”<sup>129</sup>

Nonetheless defending the 1993 changes in Telecom Eireann tariff structure, Minister for Communications, Brian Cowan argued:

“If the House does not wish to withdraw the commercial mandate given to Telecom Eireann it should allow it to operate in a manner which enables it to compete on something approaching an equal footing with its competitors in Europe and the USA.”<sup>130</sup>

### 8.7 Summary: Universal Service 1980 -1993

Looked at from any objective standards, the years 1980 to 1993 witnessed a remarkable transformation in the fortunes of the Irish telephone service. The number of exchange lines rose from 483,000<sup>131</sup> in 1980 to 1.113 million by March 1993.<sup>132</sup> This was equivalent to 30 telephone exchange lines per 100 head of population. Furthermore although there remained substantial regional disparities in the penetration of the telephone - 27.6 household telephones per head of population in the “01” (Dublin) area as opposed to only 22 per hundred in the “07/09” (the West and North-West) - by the close of 1993, the “01” Dublin area accounted for only 38% of all subscriber lines, approximately in keeping with the overall distribution of the Irish population.

With the closure of the last manual exchange in 1987, the last major regional disparity in service quality disappeared, although arguably a new disparity appeared in the distinction between those subscribers connected to digital exchanges (and thus able to access Telecom Eireann’s range of Value-Added Services) and those connected to analogue exchanges. The

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<sup>129</sup> “The Trouble with Monopolies”, *Irish Times*, 23/2/91.

<sup>130</sup> DD 430, p. 2066, 18/5/93.

<sup>131</sup> Central Statistics Office (1980), *Statistical Abstracts*, (Dublin: The Stationery Office), p. 332.

<sup>132</sup> Telecom Eireann (1993), *Report and Accounts for the year ended 1<sup>st</sup> April 1993* p. 6.

pattern of exchange digitisation followed that of automation, commencing in urban areas in 1980 and spreading gradually to less densely populated areas: by 1993 67% of all subscribers were connected to digital exchanges.<sup>133</sup> In terms of first time call connection rates, the objectives set out in the Dargan Report - 97% for local calls and 95% for trunk calls - were achieved on target, by the close of 1984 and were met or surpassed for the duration of the period under review. As of March 1993 the national figures for local and trunk call failure were 1% and 2% respectively.<sup>134</sup>

In terms of residential penetration the period under review also saw impressive gains: just under 50% of Irish households were connected when Telecom Eireann came into being in 1984. Less than a decade later, the figure had risen to 75%, contributing to the recognition in the Dail during the 1993 tariff structure debates that it was increasingly difficult to function in a modern society without access to the telephone.

The extraordinary growth was prompted by a number of factors. The technical basis for the growth lay in the completion of the Accelerated Development Programme between 1979 and 1984. As noted in Chapter Seven, the programme itself was not just a result of the Dargan Report's recommendation that it be undertaken but of the acceptance on the part of the state that future economic growth would require an up-to-date telecommunications infrastructure, one capable of coping with any conceivable level of demand for service and of offering the kind of value-added services that, in particular, US firms locating in Ireland would take for granted. Consequently the Department had invested heavily both in new digital exchange technology and in the infrastructure necessary to support the creation of a nationally integrated digital network. New microwave radio links and 30 channel Pulse Code Modulation systems were brought into service to act as transmission systems for the new digital network.<sup>135</sup>

In addition to allowing the subscriber to use new telecommunications services, the digitization of the network also offered cost advantages to the Post Office. Fault testing, service provision

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<sup>133</sup> Telecom Eireann Information and Public Relations Division (1987), Step-by-Step to the Digital Exchange, (Dublin: Telecom Eireann).

<sup>134</sup> Telecom Eireann (1993), Report and Accounts for the period ended 4th April 1985, p. 1.

<sup>135</sup> Wall op. cit., pp. 129-130.

and cessation adjustments to the charging structures could all be made without electrical modifications and could, assuming the prior existence of infrastructure be carried out remotely reducing the telephone service's personnel requirements. Further reductions in personnel needs resulted from the lower maintenance associated with the digital exchange: in contrast to its step-by-step and crossbar predecessors, the digital switches had no moving parts and consequently were far less vulnerable to wear and tear. In consequence Telecom Eireann's first annual report would praise its predecessors foresight in deciding to convert the entire network to digital working which the report noted were "most cost-effective and reliable... providing the potential for more diversified services and for the integration of speech and data services."<sup>136</sup>

(Fibre optic technology would prove a massive boon to the development of the international and trunk system from the late 1980s onwards. Using glass fibre rather than co-axial cable permitted a huge increase in information carrying capacity<sup>137</sup> contributing in turn to a rapid decline in the cost of international and trunk calls. In 1988 Telecom Eireann commenced work on building a spur to PTAT, the first transatlantic fibre optic link and from 1989 onwards would increasingly augment the existing trunk network with fibre optic links, leading to successive decreases in international and trunk rates.)

Once the Department had invested heavily in this material however, it was incumbent on Telecom Eireann which inherited responsibility for paying off the debt created by the ADP, to maximise the revenue potential of the newly developed system. Hence financial factors prompted Telecom to actively seek to increase subscriber numbers: the charging structure which in the 1960s and 1970s had been designed to dampen demand to artificially low levels was radically overhauled: the demand for advance rentals was abandoned and more attractive terms were introduced for paying connection fees. However for the first time in the history of the telephone service, the period under review saw no dramatic improvements in the cost of basic telephone rental relative to wages. The social partnership agreements from 1987 onwards stressed the need for pay restraint as part of a programme of measures designed to

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<sup>136</sup> Telecom Eireann (1985), 1<sup>st</sup> Report and Accounts for the year ended 4<sup>th</sup> April 1985, p. 23.

<sup>137</sup> Illustrative of this is the distinction between the carrying capacity of the TAT 7 a transatlantic telephone cable laid in 1983 and that of the first transatlantic fibre optic cable, the PTAT laid five

life the economy out of recession. Thus whilst the four years from 1980 to 1984 saw a 65% increase in the average industrial wages,<sup>138</sup> the period from 1987 to 1993 saw only a 26% increase.<sup>139</sup> Thus whilst the average industrial wage in 1980 was £5021, this had risen to £12,975. by the start of 1993, a total increase of 158%.<sup>140</sup> During the same period telephone rentals increased from £58.12 to £132.80, an increase of 129%.

In short the massive increase in residential demand for the telephone cannot be ascribed to the relatively minor improvement in its affordability. Rather one must conclude that the telephone had, in part as a result of its own success, reached a critical mass point whereby subsequent development became self-generating. In effect, having gone through the stages of being a luxury item in the home and then of being a consumer durable, an item which the average family could reasonably aspire to, the telephone finally arrived at the status of a consumption norm, an object critical to facilitating day-to-day existence in the modern world. As noted, this status was a consequence of the extent of the telephone's development: as residential penetration approached 50% in the mid-1980s, domestic access to a telephone was increasingly taken for granted and Irish society began to adapt accordingly. Indicative of this was the introduction in December 1984 by Telecom Eireann of the freephone service. Amongst the first customers were the Carroll's Irish Open Golf Tournament and significantly the government itself which established a freephone number in January 1985 to offer information on the annual Budget which was read before the Dail during that month. In short the potential of the telephone to facilitating access to both consumer and citizenship information become increasingly recognized. As such services were developed, it would become increasingly difficult to operate without a telephone in Ireland of the 1980s and 1990s.

Despite the increasing importance of the phone in the period under review, underlined by the state's tacit identification of its potential as a means of disseminating citizenship information, the practical policy definition of universal service in the period under review remained almost totally unchanged. The Postal and Telecommunications Services Act 1983 offered the first

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years later in 1988. Whereas the TAT 7 could carry 4,200 circuits, the PTAT carried nearly 40,000. Arthur C. Clarke (1992), *How the World was One*, (London: Victor Gollancz), p. 255.

<sup>138</sup> CSO (1985), *Statistical Abstract 1982-1985*, p. 155.

<sup>139</sup> CSO (1993), *Statistical Abstract 1993*, p. 147.

opportunity to redefine the objectives and functions of the telephone service in Ireland since the 1869 Telegraph Act, which had simply assigned to the Postmaster General “exclusive privilege of transmitting telegrams within the United Kingdom of Great Britain and Ireland.”<sup>141</sup> However the Act was ultimately notable more for what it omitted than for what it included. Arguably, the act was a missed opportunity to develop and express a philosophy underlying the role of communications in Irish society, a philosophy beyond the bare objectives laid out in Section 14 of the Act. Speaking during the debate on the Bill in 1982, Labour TD, Justin Keating argued that the absence of such a philosophy had been critical in the poor performance of the Department of Posts and Telegraphs:

“...the public service for years has had no goal or target. No member of the Department of Posts and Telegraphs, no member active in the postal and telecommunications services, has any idea whatever of where they are going, what is their work and what is expected of them. They operate within no framework, no goal, no target, no objective of any kind...”<sup>142</sup>

Furthermore, as argued above in section 8.6, the rejection in the 1980 Green Paper (on which the 1983 Postal And Telecommunication Bill was based) of the Dargan Report’s proposal that Telecom Eireann be specifically compensated for the providing those loss-making socially oriented services its public service remit required was also a rejection of the opportunity to define what those socially oriented services were. As a National Planning Board (NPB) report on semi-state bodies would argue in 1984, the practice whereby semi-states invisibly funded their social obligations by internal cross-subsidy effectively left the decision as to which social services to fund in the hands of the semi-state body itself. Yet the board concluded, in keeping with the understanding of the split between the role of the policy-maker and policy executor inherent in Irish political theory, “that the decision on whether a public enterprise should provide a social service, or include a social element in any service, should be made by the

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<sup>140</sup> CSO (1985), *Statistical Abstract 1982-1985*, p. 155.

<sup>141</sup> Section 4, Telegraph Act 1869 (“An Act to alter and amend “The Telegraph Act” 1868.). A telegram was defined as “any message or communications transmitted or intended for transmission by a telegraph. A telegraph in turn was defined as “any apparatus for transmitting messages or other communications by means of electric signals.” Section 3, *Ibid*. These definitions saw the telephone fall under the Postmaster-General’s exclusive privilege in an 1880 court decision.

<sup>142</sup> DD 336, pp. 1248, 23/6/82.



Government, and not by the public enterprise.”<sup>143</sup> Thus the report argued that the social element in the service provided by any state-sponsored body should be identified and costed. Thereafter, exchequer payments would be made “by way of contract payments directly related to the minimum cost to the public enterprise of meeting *precisely defined social needs*.”<sup>144</sup> (Italics added).

However, the Board’s approach assumed that social obligations once identified could be costed as discrete items. Related to this, Richard Bruton's 1988 Postal and Telecommunications Amendment Bill (which appears to have been largely based on the NPB Report) required that each section of the telephone service provide separate accounts so as to facilitate an examination of which parts of the service were profitable and which were not with a view to replacing the internal cross-subsidy system with a system of exchequer transfers to fund universal service.<sup>145</sup> Yet in response to this demand, Minister of State for Communications, Michael Kitt argued that such calculations were effectively impossible:

“...the integrated nature of the telecommunications network makes a conventional type of capital appraisal difficult and inappropriate in many cases, as the costs and benefits of specific items of expenditure cannot readily be identified in isolation from the network as a whole...The telecommunications network is a single structure and while certain costs may be directly attributed to individual exchanges or to sub-networks within the network, the bulk of the company's capital expenditure relates to the provision of the main countrywide telecommunications system and the costs incurred for the various elements are for the common benefit of all users of the network.”<sup>146</sup>

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<sup>143</sup> National Planning Board (April 1984), Proposals for Planning 1984-1987, (Dublin: NPB), p. 121.

<sup>144</sup> *Ibid.*, p. 121.

<sup>145</sup> Richard Bruton, DD 380, p. 2380, 24/5/88.

<sup>146</sup> Michael Kitt, DD 381, pp. 791-792, 31/5/88.

This was apparently confirmed by Ray Burke's comment a year earlier that:

“Tariff principles for telecommunications have developed historically out of a complex trade-off between commercial considerations and universal service goals rather than in response to articulated scientific, social and accounting bases...”<sup>147</sup>

In consequence, then, Burke could only explain that any “uniform structure of telecommunications charges must involve complex systems of cross-subsidization,”<sup>148</sup> and offer the following description of how that cross-subsidization worked:

“the more frequent users subsidize the lower users, business customers subsidize the residential customers, areas with high telephone density subsidize the low density areas, call charges subsidize rental and connection charges, short local calls subsidize long local calls and international charges subsidize national charges.”<sup>149</sup>

These cross-subsidies effectively embodied the extent of Telecom Eireann's commitment to a universal service objective, which could therefore be summed up as “uniform pricing”<sup>150</sup> or rate averaging. (Indeed during the debate on Richard Bruton's Amendment bill, Michael Kitt explicitly identified the provision of “services to isolated parts of the country without any extra charge”<sup>151</sup> as part of Telecom Eireann's “social role.”<sup>152</sup>) Given this the reduction of international charges whilst effectively increasing local call charges (by reducing the duration of the local call unit) in 1991 and again in 1993 effectively undermined the universal service objective described in 1987. However in the absence of any figures from Telecom Eireann it remains impossible to make any assessment of the specific effect of the rate rebalancing on the cross-subsidies referred to by Burke in 1987. Indeed it is even impossible to confirm or refute the assertion made during the Dail debate on the 1993 tariff changes that rebalancing effectively meant that residential users were subsidizing business customers.

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<sup>147</sup> Ray Burke, DD 375, pp. 1332-1333, 19/11/87.

<sup>148</sup> Ibid.

<sup>149</sup> Ray Burke, DD 375, pp. 1332-1333, 19/11/87.

<sup>150</sup> Michael Kitt, DD 381, pp. 793-794, 31/5/88.

<sup>151</sup> DD 381, p. 796, 31/5/88.

<sup>152</sup> Ibid.

In effect then, by 1993, the extent of the universal service obligation placed upon the Irish telephone service provider itself was no different from that which had prevailed at the close of the 1970s: common carriage. To understand why this was the case, one considered the political economic environment in which state and service provider operated in the 1980s. There is little doubt that the experience of both the major political parties with regard to the telephone service during the terms of office in the 1970s had not been happy ones. Conor Cruise O'Brien's biographer has noted of his term as Minister for Posts and Telegraphs that his time in the Dail was spent responding to a barrage of orchestrated complaints forcing him to explain:

“why his department was not responding to the urgent need for the erection of telephone kiosks at Burncourt, Cahir, County Tipperary; why the phone service in Bracknagh was unsatisfactory ... even to Charlie Haughey's demand that Conor arrange to have a public telephone kiosk provided on the pier at Howth in the vicinity of the yacht club for the use of fishermen.”<sup>153</sup>

Thus on the one hand, the telephone was increasingly recognised to have a vital national infrastructure role as increased, significantly strengthening the position of the Department within Cabinet. On the other Ministers and governments took the brunt of the blame for the decline in the service during the 1970s (as indeed the concept of the “corporation sole” (referred to in chapter three) required that they should be). Thus when the Dargan report recommended that the service be taken out of the direct control of the Department of Posts and Telegraphs, the Fianna Fail government which had been in power during the worst period for the service - between 1978-79 - leapt at the opportunity to free itself of the politically troublesome department.

Furthermore, as noted in section 8.6.1, the precarious financial position both of the company itself given its debt position during the 1980's and the fact that it was operating in the context of a decade-long depression, left the government unwilling to interfere with the running of the company in any way that might further jeopardise its prospects. In effect Telecom Eireann

was effectively left to establish its own priorities and as section 8.6.1 suggests these included protecting the company's own future, limiting its willingness to engage upon the unreproductive spending associated with universal service objectives.

It would be incorrect, however to suggest that Telecom Eireann's actions were totally divorced from the wishes of the state: indeed given the perceived importance of telecommunications infrastructure to the rest of the economy, such a situation would have been bizarre. Nonetheless the state's influence on the development of the telephone service changed from direct control to an agenda setting function. This was largely effected via the re-emergence of national plan during the 1980s: the persistence of the 1980s recession saw a succession of three year development plans drawn up by successive governments, each promising a way out of economic decline. As noted in section 8.5 each report stressed the central role of telecommunications for economic growth. However, there were few equivalent reports on the condition of Irish society: indeed it was implicit within the national plans that the problems of Irish society were related to the economy and that "fixing" the latter would result in all-round improvements in the former. In short what external influences there were on Telecom Eireann during the period under review stressed the company's key role in the Irish economy, not within Irish society. In consequence Telecom Eireann would pursue a minimalist version of universal service.

However, while the question of the extent to which the uniform pricing/cross-subsidization was socially oriented remained unanswered, the development of the free telephone rental scheme during the 1980s and 1990s made it clear that in one area at least the provision of the telephone was recognised as an objective of social policy. The ongoing increases in household penetration augmented the social utility of the telephone. Thus notwithstanding the fact that the free rental scheme did not cover connection costs, the period under review saw an increase of over 100,000 people availing of the scheme.

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<sup>153</sup> Donald Harman Akenson (1994), *Conor, A Biography of Conor Cruise O'Brien: Volume I. Narrative*, (Montreal and Kingston: McGill-Queen's University Press), p. 396.

<b>Date</b>	<b>Free Telephone Rental Allowance</b>
end 79	9,572
end 80	12,112
end 81	16,500
end 82	22,700
end June 84	29,600
end 85	40,747
end 86	49,967
end 87	51,781
end 88	65,284
end 89	73,091
end 90	78,515
end 91	94,804
end 92	105,443
end 93	114,179

Furthermore, it is possible to argue that by the end of the period under review, the scope of the philosophy underlying such social spending was becoming increasingly expansive: whilst at the outset of the period it was both implicit in the qualification criteria and explicit in the statements of Government Ministers that the scheme was effectively a safety measure for elderly people living alone, the introduction of the free call units in the wake of the 1993 tariffs restructuring implied a much greater role - one of societal cohesion - than hitherto. (Indeed it could be argued that the Department recognized that the telephone already played such a role and that the allowance was simply an acknowledgment that that particular function would be undermined by the increase in call charges). Joan Burton's description of the allowance' purpose in May 1993 confirmed this:

*“first, to allow elderly and disabled people summon help in emergencies and, second, enable them to remain active in the community and keep in touch with relatives and friends.”*<sup>154</sup>

Critically, however, the thinking behind the second function was not necessarily limited to the elderly: it might also apply to virtually any section of the community. Arguably therefore by advertng to this role of the telephone for one section of the community and by implicitly approving it in the decision to use Department of Social Welfare funding to pay for it, Burton

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<sup>154</sup> Ibid.

laid the philosophical foundations for a far wider conception of universal service, one that might ultimately apply to a greater portion of the population than pensioners living alone.

That such a philosophy was not given application in the development of a widely applicable socially-oriented universal service policy, however, indicates the extent to which the state assumed that the apparently self-generating increases in residential penetration recorded in the 1980s and 1990s would continue unchecked of their own accord. In effect outside the confines of the free telephone rental scheme, the state implicitly left the achievement of universal service objectives in the hands of the market. Given the ongoing increase in penetration there was apparently no need to consider the possibility that such a policy might see anything less than 100% household penetration achieved.

# **CHAPTER NINE**

## **SUMMARY**

## **9.1 Introduction**

This chapter sets out to bring together the variety of technological, social, economic, and political influences identified in chapters one to three and to explore their bearing on the development of both the telephone service in Ireland and of Irish universal service policy. It is broken down into three sections. Section 9.2 offers a brief summary of the diffusion of the network between 1880 and 1993 in numerical and geographical terms, with a view to offering a context for the rest of the chapter. Similarly, Section 9.3 summarises the parallel development of universal service policy over the same period. Finally in section 9.4, this research examines how technological, social, economic and political/policy factors have shaped the modern Irish telephone service and universal service policy. Since the ultimate objective of this research is to consider universal service policy, the last of these factors is given particular prominence.

## **9.2 Diffusion of POTS in Ireland 1880 - 1993**

Telephone exchange service in Ireland began almost simultaneously in Dublin and Belfast in 1880. It was not until the raising of the statutory limit on the private companies' radius of operations in 1884, however, that any further geographical expansion occurred. Then, in fact, it was the Post Office that first extended the service outside Dublin, establishing exchanges in Galway, Cork and Waterford during the 1880s. These operations attracted few subscribers, however. Only when the Telephone Company of Ireland (TCI) opened exchanges in these cities did the telephone service begin to expand beyond Dublin in any significant way.

During the 1890s the development by the Post Office of the trunk network began to gradually expand the geographical reach of the telephone network, but the service nonetheless remained limited to urban areas. Thus by the close of the 1890s service was limited to larger towns situated on the trunk routes running from Dublin to Belfast, Waterford, Cork and Limerick. Nonetheless, it is apparent that the 1900s and 1910s saw the service gradually diffuse further, to the extent that by 1922 all but three of the 26 counties of the Irish Free State were connected to the national trunk system.

Nonetheless, the Irish Post Office inherited a telephone system that was unprofitable and, relative to the rest of the United Kingdom, underdeveloped. There were just under 12,000



subscribers in Ireland by 1922, equivalent to less than 7 phones per 1000 people. Furthermore, the total normal service area of the 192 exchanges in operation accounted for only 2.5 per cent of the area of the state. Within a year of the end of the Civil War hostilities in 1923, however, the Post Office commenced a programme to expand the network. Thus although the number of exchanges only quadrupled between 1920 and 1940, the area of the country included in the telephone service's 'total normal service area' increased from 2½% to over 60% in the same period. Subscriber numbers failed to match the rate of this expansion however: the 1918 figure of 12,500 had barely doubled to 25,817 by 1938. Furthermore, the setting of distance dependent rentals ensured that development was concentrated in urban areas: by 1936 Dublin accounted for 64% of all subscribers.

The introduction of automatic exchanges to Dublin in 1926 gave subscribers there a 24 hour service that offered immediate connection. Meanwhile, those subscribers living outside Dublin were until 1949 reliant on manual exchanges with slower connection times. Furthermore, during the 1920s and 1930s, hours of service at the smaller rural exchanges (serving 30 subscribers or less) were limited. Although the Department of Posts and Telegraphs would, during the late 1930s, make some attempt to extend automatic working beyond Dublin by experimenting with semi-automatic exchanges, the experiment was shelved in the first year of the war.

World War II was to prove a critical watershed for the service, however. Defence requirements saw the network expanded along the coastline to connect army posts positioned around the country. Furthermore, the limits placed on transportation by fuel shortages prompted a huge growth in the use of the existing telephone network. Call traffic on trunk lines, for example, increased by 100% during the war whilst local calls increased by 50%. This growth encouraged the powerful wartime Cabinet Committee on Economic Planning to approve a plan to triple the subscriber base in the 15 years after the close of the war, and to expand the rural call box network, bringing a telephone to every sub-post office in the country before 1950.

A side effect of the Rural Call Box Programme was to lay the basic foundation of the provincial trunk network upon which subsequent development would occur. The 1953 decision to introduce standard rentals across the country (albeit with only a 2 mile free-

mileage radius outside Dublin, Limerick and Cork) reflected the extent to which the network had permeated the country.

It is apparent that the spread of the network via the Rural Call Box Programme prompted the beginnings of a significant increase in demand for the telephone outside Dublin. The Programme had explicitly intended that call boxes be converted into exchanges, once subscribers situated near the call box sought their own exchange line. Provincial applications were further encouraged by the commencement of exchange automation outside Dublin in 1948. As a result the increasing concentration of exchange lines in the Dublin area witnessed in the 1920s and 1930s ceased during the 1950s as the rate of increase in urban and rural areas began to even out. Thus, by 1961, Dublin subscribers accounted for 7% less (57%) of the total number of lines than they had a quarter of a century earlier.

As the 1950s drew to a close, and with the 1946 Development Plan near or on target with most of its objectives, the Department called in an expert from the Dutch Telecommunications Service under the UN Technical Assistance Programme to assist in future development planning. The resulting plan greatly expanded local call charging areas and placed farmers in the residential subscriber category rather than in the business category in which they had been since the 1880s. The 1960s, however, saw the consequences of earlier failures to make sufficient capital investments in the service (notably the attenuated sum voted in the 1956 Telephone Capital Act) come to light. As the post programme for Economic Development Irish economy grew at a previously unknown rate, the demand for telephones also grew at an unprecedented pace. The under-funded service was unable to cope with this increased demand, however. The 1960s thus saw the beginning of a waiting list that would continually expand until the 1980s. Although investment in the service gradually crept up during the 1960s, this did not occur at anything like the rate necessary to keep up with applications for service, prompting the Department of Posts and Telegraphs to actively dampen demand by means of introducing a connection fee and an advance rental charge.

The increased demand persisted into the 1970s contributing to the growing crisis. This came to a dramatic climax between 1977 and 1978 with a series of lengthy Post Office strikes in the late 1970s which crippled the service and saw waiting lists approach six figures. Notwithstanding the chaos, however, the 1960s and 1970s saw the number of

subscriber lines quadruple and witnessed a substantial increase in demand from provincial applicants, who accounted for 60% of all lines connected between 1972 and 1978. Nationwide, there were just under half a million exchange lines by 1980.

As a result of the crisis of the 1970s, however, the Government of the day established the Post Office Services Review Group to analyse the root of the telephone service's problems. The resulting Dargan Report concluded that the operation of the telecommunications service as a branch of Government had constituted a block to its effective and efficient operation and recommended that it be re-established as a state-sponsored body. It further recommended the adoption of a major programme to develop the telephone service to a point where it could begin to actively market its services as opposed to its previous policy of actively discouraging connections.

Both recommendations were immediately accepted. The period from 1979 to 1984 saw the completion both of a £650 million Accelerated Development Programme and of the process of passing the telephone service from Civil Service hands into those of a new semi-state body, Telecom Eireann.

Faced with a still substantial waiting list and a heavy debt burden, Telecom Eireann initially concentrated on increasing subscriber line connections. 1984 to 1989 saw the company effect a total transformation of the service, effectively wiping out the waiting list, earning (from 1987) consistent profits and, by the end of the 1990s, beginning to reduce the principle amount of the debt burden. The number of exchange lines rose from 483,000<sup>1</sup> in 1980 to 1.113 million by March 1993. Furthermore, although there remained regional disparities in the penetration of the telephone by the close of 1993, the "01" Dublin area accounted for only 38% of all subscriber lines, approximately in keeping with the overall distribution of the Irish population.

### **9.3 Universal Service 1880 - 1993**

Having looked at the basic diffusion of the telephone network from 1880 to 1993, it is now possible to consider how the concept of USO and explicit or implicit policies related to universal service developed in parallel.

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<sup>1</sup> Central Statistics Office (1980), Statistical Abstracts, (Dublin: The Stationery Office), p. 332.

Looking at the period from 1880 until 1946, there was a consistent refusal on the part of the British and Irish Post Offices to consider any subsidisation of telephone network. From the perspective of both the British Post Office and the Department of Posts and Telegraphs the telephone was only one communication option amongst several offered by the Post Office. There was thus no pressing need to encourage its development. Thus the touchstone of telephone policy was that the service should be financially self-sustaining. The practice of setting distance-dependent rentals (particularly at the specially assessed exchanges) ensured that the fees charged for service were cost-oriented. Thus, whilst a differential between business and residential rentals was introduced in 1925, there is no evidence that this constituted cross-subsidisation from business users to residential subscribers. In effect, then, universal service was simply not an issue with regard to the telephone service. Nonetheless, the telephone did play a role in ensuring that the universal service obligation faced by the Post Office was achieved. The telephone service in this period was to earn the profits that would subsidise the acceptable losses from the telegraph service and from rural Post Offices, which were explicitly identified as performing a social function.

The first step towards universal service goals with regard to the telephone service emerged with the Rural Call Box Programme. At the heart of the programme was the assumption that the telephone service should, at least partially, serve a social function. Furthermore losses incurred on the programme could be cross-subsidised from the earnings of more profitable areas of the service. Thus, whilst profits from the telephone would continue to even out the losses from the telegraphs and postal service, the fact that the service could also internally cross-subsidise itself marked an about-turn with regard to the telephone. The commencement of a follow-up rural kiosk programme in 1969 was similarly a recognition of the social role of the telephone service (although the programme was somewhat less ambitious than its predecessor - it did not, for example, place a kiosk in every town that had a Post Office call box).

The other key element of universal service in this period was the gradual move towards rate-averaging. The decision in 1953 to end the practice of specially assessing rentals at very small exchanges was the first step towards uniform pricing. From 1953 onwards, standard rentals were established nationally (although it remained the case that the full extent of the free mileage radius was limited to subscribers in Dublin, Cork and Limerick). Furthermore, it is apparent that the Department gradually relaxed its principle that rental

charges should cover the cost of interest and maintenance of individual subscribers' lines during the late 1940s and 1950s. In effect, then, rental charges were kept artificially low by cross-subsidisation from call charges thereafter, as a means of encouraging the take-up of the telephone. Having said this, however, the advances towards nationally uniform rates made in the 1950s were somewhat undermined by the introduction in 1965 of the advance rental requirement, the scale of which varied according to a given applicant's distance from the exchange.

The 1970s saw the beginnings of a dual (and a more explicit) policy approach to universal service, the two aspects of which were differentiated by the source of funding. The first aspect was the introduction during the 1970s of nationally standardised rentals (or rate averaging), i.e. one rental regardless of location. Thus, by the late 1980s, universal service in part consisted of a complex system of cross-subsidisation on the part of the service provider. As Ray Burke, then Minister for Communications, outlined in 1987:

“The more frequent users subsidise the lower users, business customers subsidise the residential customers, areas with high telephone density subsidise the low density areas, call charges subsidise rental and connection charges, short local calls subsidise long local calls and international charges subsidise national charges.”<sup>2</sup>

The second aspect of universal service developed with the decision of the Department of Social Welfare to subsidise free telephone rental for Old Age Pensioners from 1977. The extension of the scheme during the 1980s and 1990s to the extent that 10% of all subscribers qualified for it made it clear that in one area at least the provision of the telephone was recognised as an objective of social policy. Furthermore, whilst the scheme was initially considered a safety measure for elderly people living alone, the introduction of the free call units in the wake of the 1993 tariffs restructuring implied a somewhat different role: i.e. that the telephone had a function in maintaining social networks and was an integral part of the social infrastructure. Critically, such a rationale could be used to argue for the connection to the telephone network of any section of the community, on the grounds that otherwise they would no longer be part of the larger community. Although, as of 1993 there was no indication that such a rationale would actually lead to any

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<sup>2</sup> Ray Burke, DD 375, pp. 1332-1333, 19/11/87.

practical expansion of the universal service objective in Ireland, the philosophical foundations for such a move had nonetheless been laid.

#### **9.4 Influences**

Having looked at the development both of the service itself and of the universal service policies which informed its development, the following sections examine in detail the respective influences of technological, social, economic and political factors in shaping both the diffusion of the system and the development of universal service policy.

##### **9.4.1 Technology**

As the following sections argue, technological innovations do not appear to have had a pro-active influence on Irish telecommunications policy, where social and political factors were proportionately much greater influences. That is, in the Irish context, new technology has rarely (if ever) been a determining influence on any substantial development of the system. Nonetheless a review of the application of new technology over the period covered by this research does suggest that without the use of such technologies policy decisions to develop the network could not have been fulfilled to the extent they were. Thus whilst technology was unable to surmount the problems posed for the early development of the network (1880 – 1921) - i.e. the cost of the telephone relative to average income and the country's low population density - it can nonetheless be argued that the introduction of the first exchange in Dublin in 1880 did reduce the cost of telephony, by substantially reducing the cost of interconnecting subscribers. Indeed as argued in chapter four, the introduction of the exchange meant that marginal costs of adding new subscribers fell, ensuring that it was in the interests of the service provider to encourage new subscriptions once a given exchange had been opened.

However, as a result of the slow pace of network growth (itself due to the factors identified in the sections that follow), other technical innovations associated with declining telecommunications costs simply were not introduced to Ireland until the establishment of the Free State. The introduction to the UK of exchange automation in 1912, for example, was necessitated by the pressures placed on operators by increasing subscriber numbers. The absence of such stresses on the Irish system meant that there was no need for automatic exchanges until the 1920s.

Once automatic exchanges were introduced to Dublin (in response to the growing number of subscribers there), however, a combination of social and economic factors made it impossible to consider an early extension of the automatic service beyond any Irish cities or very large towns. The high initial capital expense of automatic exchanges limited their application economically to areas with high population densities, a fact which related not just to the cost of the exchanges themselves but also to the cost of cabling from the exchange to the subscriber. The high cost of cable needed to connect subscribers to automatic exchanges made the introduction of the service to sparsely populated rural areas impossible in the short term. Nonetheless, the absence of such a service on a nationwide scale would remain a problem from the users' perspective, not just because of the extra service hours the automatic exchange permitted relative to manual exchanges. As Fielding and Hartley point out, the ability to dial numbers directly, by empowering the subscriber, encourages use of the telephone, ultimately rendering it more useful:

“However it can be argued that . . . the introduction of direct dialling, replacing the need to go through an operator, created a user-transparent medium which people see as enabling them to establish simple, direct and private contact between themselves and another individual. Before this, the presence of an operator represented, and indeed created, a medium which was complex, indirect and essentially public.”<sup>3</sup>

Given the above and the rejection of the rural party line on the grounds that it was not sufficiently private, automation was thus identified in Ireland as critical to overcoming the perception of the telephone as an “essentially public” communications system.

Nonetheless, the 1930s did see new technology contribute to the development of the provincial service. As trunk traffic grew beyond the capacity of the existing system in the 1930s, the installation and application of three carrier trunk systems proved a more economic means of adding capacity for distances of 60 miles or more, effectively trebling the capacity of those trunk lines to which the systems were applied.<sup>4</sup>

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<sup>3</sup> Fielding and Hartley (1987), "The Telephone: A Neglected Medium" in Asher Casheden and Martin Jordan (eds.) *Studies in Communication* (London: Basil Blackwell), p. 115.

<sup>4</sup> A.J. Litton (1961), *The Growth and Development of the Irish Telephone System*, in *The Journal of the Statistical and Social Inquiry Society of Ireland*. Vol. 20, Part 5, pp. 79-115, p. 110.

As Table 9.1 below suggests, the Department's introduction of 19 systems on the major national trunk routes, between 1931 and 1939, increased the carrying capacity of the national trunk system by 40% above its maximum capability prior to investment in the new technology.

<b>Year</b>	<b>Physical Circuit (1000s miles)</b>	<b>Carrier Circuit (1000s miles)</b>	<b>Trunk Mileage(1000s miles)</b>
1931	14.5		14.5
1932	14.8	0.3	15.1
1933	14.9	0.3	15.2
1934	15.1	0.5	15.6
1935	15.2	0.8	16.0
1936	15.4	1.3	16.7
1937	15.5	3.8	19.3
1938	15.8	4.7	20.5
1939	16.5	5.7	22.2
1940	16.8	7.0	23.8
1941	17.4	8.0	25.4
1942	17.9	8.6	26.5
1943	18.1	9.4	27.0
1944	18.7	11.9	28.1
1945	19.1	12.8	31.0
1946	20.0	19.2	32.8
1947	20.5	20.2	39.7
1948	21.0	20.6	41.2
1949	21.6	20.6	42.2
1950	22.3	22.2	42.9

Technology was also a key factor in shaping the Cabinet Committee's post-war development plan. Developments in semi-automatic exchange technology, trunk carrier systems and co-axial cable, reduced both per subscriber automation cost and the cost of extending the trunk service. Thus, new technology made investing in the extension and automation of the telephone system in rural areas financially viable, even given the Department's still cautious attitude with regard to the service. As table 9.2 overleaf illustrates, the combination of installing automatic exchanges in the larger provincial towns and semi-automatic exchanges in the smaller ones, meant that by 1959, 76% of subscribers were receiving automatic service.<sup>5</sup>

<sup>5</sup> Ibid.



<b>Year</b>	<b>Subscriber Numbers</b>	<b>% Connected to Automatic Exchanges</b>
1940	25,896	59% auto
1941	26,359	61% auto
1942	27,471	61% auto
1943	28,676	61.5%
1944	29,657	60.5%
1945	33,471	60%
1946	34,667	59%
1947	38,091	59.5%
1948	41,277	59.5%
1949	48,982	65%
1950	54,972	66%
1951	60,672	67%
1952	65,495	69%
1953	70,267	69.5%
1954	74,368	70.5%
1955	79,166	71%
1956	85,043	70.5%
1957	89,896	75.5%
1958	96,291	76.5%
1959	102,652	76.5%
1960	114,731	76%

Ironically, the post-war plan, which had been made possible by technology, would in turn demand the application of newer technology still. As the number of provincial subscribers increased, so did the volume of trunk traffic. However, by the start of the 1960s the potential for adding capacity by way of applying three or 12 channel carrier systems had been exhausted, whilst the rising cost both of cable and of digging cable routes threatened to place very strict limits on new long-line development. However, from 1961 onwards, the Department was able to use microwave transmitters, which used no cable and thus required no trenching, as a means of augmenting trunk routes. Indeed wireless additions to the national infrastructure would often prove the only economic means of bringing the service to the most remote areas. The obvious example noted in this research is that of the Black Valley in Kerry which was finally connected to the national network via a radiotelephony system in the late 1980s.

New technology was finally critical in achieving the aims set out in the Dargan Report. Consequently the Department had invested heavily both in new digital exchange technology and in the infrastructure (new microwave radio links, 30 channel Pulse Code Modulation systems and ultimately fibre optic cable) necessary to support the creation of

a nationally integrated digital network.<sup>6</sup> In addition to allowing the subscriber to use new telecommunications services, the digitalisation of the network also offered cost advantages to the Post Office. Fault-testing, service provision and cessation adjustments to the charging structures could all be made without electrical modifications and could, assuming the prior existence of infrastructure be carried out remotely, reduce the telephone service's personnel requirements. Further reductions in personnel needs resulted from the lower maintenance associated with the digital exchange: in contrast to its step-by-step and crossbar predecessors, the digital switches had no moving parts and consequently were far less vulnerable to wear and tear. Consequently, more reliable than its predecessors, digital technology was critical in achieving the quality of service indicators demanded by the Dargan Report. In 1978, before digitalisation, only 61.1% of local calls and 37.7% of STD calls were successful on the first attempt. Six years later and five years after the digitisation programme began, the figures had improved to 97% for local calls and 95% for trunk calls. As of March 1993 the national figures for local and trunk call failure were 1% and 2% respectively.<sup>7</sup>

In sum, the advances in technology over the period covered by this research played a vital role in facilitating the diffusion of the network. Furthermore, the application of such technology, although frequently expanding the capacity of the network both in terms of subscriber numbers and of traffic, was often more expensive in the short term than that which preceded it. The cost savings offered by new technology related to falling 'per subscriber' or 'per call' costs. To derive the full benefits of these savings, the service provider often needed to increase subscriber numbers or the level of call traffic. Thus initial capital investment in new technology was frequently followed by drives to develop the network, to justify the initial expense (most notably in the aftermath of the 1979 - 1984 Accelerated Development Programme). In short, once the initial policy decision to sanction investment had been made, the cost of the new technology actually encouraged the service provider to increase subscriber numbers, contributing to the overall development of the network.

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<sup>6</sup> Wall, *op. cit.*, pp. 129-130.

<sup>7</sup> Telecom Eireann (1993), Report and Accounts for the year ended 1<sup>st</sup> April 1993, p. 6.

### 9.4.2 Social Influences

This research has consistently argued that social and socio-spatial factors have been a critical force in shaping both the development of the telephone system, and in influencing universal service policy, not least because, as of the late 1990s, residential subscribers account for more than two-thirds of all subscribers. This research has specifically identified three social factors as particularly important to the development of the telephone system over the period under review:

- population density per square kilometre
- rising incomes and standards of living relative to the cost of the telephone
- what might generally be described as the forces of modernity.

In considering the first period covered by this research, the fact that private operators sought to earn the greatest possible profits in the shortest possible time (due to the political factors discussed in chapter four), made the social factors of Irish income levels and population distribution, critical determinants of in the early development of the telephone. Given their uncertainty about their own future, the TCI and subsequently the NTC adopted a business strategy which can be summarised thus: setting rental charges to the maximum level that the market would bear and focusing development on those areas that could be served at the lowest possible cost per customer. This strategy would have serious implications for the development of the telephone in the Irish context.

As the table 9.1 below indicates, rental charges in Ireland between 1880 and 1922 fluctuated enormously. However, given the estimates of average Dublin family incomes during the 1910s (22/6 per week<sup>8</sup>), even the lowest figure in the chart placed the telephone beyond the means of the great bulk of the Irish population. Thus only commercial or state subscribers could afford it, an analysis borne out by the fact that at late as 1936, residential subscribers accounted for only 28% of all Irish exchange lines.

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<sup>8</sup> F.S.L. Lyons (1973), Ireland Since the Famine, (London: Fontana), p. 69.

<b>Table 9.3: Rental charges per annum 1880 - 1995.</b>	
<b>Year</b>	<b>Rental</b>
1880	£20 per annum
1886	TCI offered telephones to domestic subscribers at £10 rental
1887	£15 exchange tariff in Belfast (NTC)
1890	£12 - £15 (NTC rates)
1891	£10 for first line, £8 10s for subsequent lines within a 1 mile radius of the nearest exchange. For each additional half-mile, the annual rental was increased by £2 10s. (NTC rates)
1897	½ mile radial distance £8, ¾ mile £9, one mile £10
1899	£12 10s NTC Annual rental (unlimited local calls)
1900	£3 7s NTC rental (1d per local call)
1900	½ mile radial distance £7 10 and £1 5s for each additional ¼ mile (PO Office)
1902	£3 within ½ mile radial distance (plus message rate introduced - 1d for each local call, the subscriber guaranteeing to spend at least 30s per annum in respect of such calls. (Post Office) Therefore total cost at least £4 10s.
1907	Minimum message rate up to £5 (included 500 free local calls). Unlimited rate totally withdrawn.
1907	£4 up to 2m radial distance
5/1907	PO & NTC agree £5 minimum annual rental (covering 500 local calls)
1914	£4 surcharge placed on all new applications
4/1921	Flat and measured rates abolished - all subscribers come under the measured rate , paying 1½d per local call and an annual rent of £8 10s (London), £8 (Birmingham, Glasgow, Liverpool and Manchester) and £7 10s (Provinces - inc. Dublin)
1922	£7 10s up to 1m radial distance. 25/- per one-eighth mile (furlong) over (or £10 per mile).

The second policy, low cost service provision, required a certain population density to justify the initial capital expense of building an exchange. Yet Ireland had a low and falling population density in the second half of the 19th century. The failure of the British industrial revolution to spread to Ireland and the seismic effects of the famine meant that the Irish population remained predominantly rural throughout the 19th century relative to the UK. By 1911, 70% of the population was classified as living in rural areas.<sup>9</sup> Even within this overall decline, there were substantial regional disparities in population density. The western seaboard in particular lost people both to emigration and to internal migration towards the east of the country.

<b>Table 9.4: Irish Population Density by Province 1881 -1956</b>								
<b>Province</b>	<b>1881</b>	<b>1891</b>	<b>1901</b>	<b>1911</b>	<b>1926</b>	<b>1936</b>	<b>1946</b>	<b>1956</b>
LEINSTER	64.7	60.3	58.4	58.7	58.2	61.8	64.8	67.8
MUNSTER	55.1	48.5	44.5	44.8	40.1	39	37.9	36.3
ULSTER	78.2	72.7	71.1	70.9	37.2	34.7	32.7	29.2
CONNAUGHT	46.4	40.6	36.5	34.5	31.2	29.7	27.8	25.2
IRELAND	61.7	56.1	53.3	52.2	35.4	35.4	35.2	34.5

<sup>9</sup> Ibid., p. 46.

Ireland's political and economic orientation with respect to the United Kingdom ensured that the administrative and commercial centre were located on the east coast - that is to say Dublin and Belfast. Furthermore, post-famine internal migration from the country to the cities meant that notwithstanding the overall population decline, the counties of Dublin and Antrim (of which Belfast is the county town), saw their population density increase after the famine, reaching 487 and 149 people per square kilometre respectively. Consequently, it was initially only the two cities of Dublin and Belfast which offered both the most economically viable locales for service provision, and which were likely to house those firms or civic institutions most likely to find a use for the new service during its initial development stages.

Thus Dublin and Belfast would be the hubs of national development. Development outside these areas largely depended on the centre. Hence the first trunk line in Ireland connected both cities, consequently leading to the establishment of new exchanges along the route of the trunk. Thus, notwithstanding the fact that there was substantial demand for telephone service outside the Dublin-Belfast axis, this demand was only met when either the TCI/NTC or Post Office adjudged the cost of service provision to be sufficiently low to justify expansion. In short, NTC/Post Office policies actively militated against development in areas of low population density, under which heading most of Ireland could be classed in the late 19th and early 20th century. Thus the combination of NTC/Post Office policies and Irish population distribution network would a) necessarily spread geographically from east to west and b) ensure that the spread of the network would occur slowly, given the fact that population density outside Dublin and Belfast would continue to decline until the 1960s.

Even when the Post Office actively attempted to extend the network into the more rural areas of Ireland in the 1910s the same social factors hindered the attempt. The main policy measure for so-doing, the rural party line, faced not merely the social barriers of a reluctance of potential Irish subscribers to accept a non-private communications system but also the fact that even the party line required a population density that simply did not obtain in most of Ireland.

In any case, there is little to suggest that the telephone fulfilled any supervening social needs in Irish society in the late 19th century and early 20th century. Those areas on the

western seaboard hit hardest by emigration and thus with the most obvious communications needs were also the areas least likely to receive service. Furthermore, the dual function served by the mails - of conveying not just news but also money via postal orders - was beyond the capacity of the telephone.

Furthermore, the State in the late nineteenth century understood social communication as referring to the content of a given communication medium rather than the form of that medium. Thus the telegraph could be considered a means of social communication to the extent that it permitted the transmission of messages of a non-business nature. The inherently social nature of telephonic communications was not overly stressed in the initial phase of marketing the telephone (indeed there is evidence that telephone companies were often at pains to discourage such use which was considered a frivolous use of a business instrument). Thus at Government level the telephone was not seen as significantly distinct from the telegraphs but rather as an augmented data transmitting and receiving device. Given this, the telephone apparently offered no substantial social utility over the existing telegraphs systems and the state saw no social grounds on which to subsidise the service.

The absence of any pressing social need for a telephone service persisted into the 1920s and 1930s, particularly as the relatively low number of subscribers limited the potential for social interaction over the telephone. In any case, despite the fact that incomes increased two and half times faster than telephone charges between 1925 and 1946,<sup>10</sup> telephone charges remained very expensive relative to average incomes, contributing to the perception of the telephone as a business instrument. By 1938, assuming that the average annual expenditure on a residential line was around £8 per annum (rental plus calls), the telephone would have accounted for nearly 6% of the gross average male industrial wage. Consequently residential phones which accounted for roughly 25% of all main lines in 1929 only gradually increased their share of the total, reaching approximately 30% of all main lines by the close of the 1930s.<sup>11</sup> Thus only 8,000 Irish homes would have had a telephone by the close of this period, a household penetration rate of less than 1.4%.<sup>12</sup>

*The critical factor in creating an important new cluster of social and economic needs (and thus demand for the telephone) occurred during wartime. Limitations on physical*

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<sup>10</sup> Own calculations based on figures provided in Appendices XXIVa and XXVIIIa.

<sup>11</sup> CSO Statistical Abstract 1946.

<sup>12</sup> Own calculations based on data in Appendices IV and XXXI.

movement resulting from fuel shortages and a curtailed public transport service forced both businesses and individual citizens to explore the potential of the telephone, a fact reflected in the extent to which local and trunk call traffic increased during the war years. Having successfully established its utility amongst non-business users under wartime conditions, telephony became an increasingly important element in the changing social and consumption norms of both the urban and rural publics in the post-war era. The telephone became a much sought after item during the brief post-war consumer boom. Thereafter, in the 1950s, residential demand was sustained by the increased affordability of the telephone relative to income over this period. Thus, although the 1950s represented a period of slow economic growth compared to other industrial economies, nonetheless it was noted in 1956 that:

“The small increases in rentals and call rates as compared with the much greater increases in money incomes have undoubtedly put telephones within the reach of people who could not afford them pre-war.”<sup>13</sup>

Whilst the average annual wage for a man working in industry and services rose from £142 pounds in 1938 to £484 in 1960 - an increase of 330%<sup>14</sup> - the price of standard residential telephone rental rose from £5 to £7 10s over the same period - an increase of just 50%.

A second key social factor sustaining demand for the telephone was the ongoing urbanisation of Irish society. This was complicated in the post-war era by the beginning of the process of the suburbanisation of Irish cities, particularly of Dublin. Many of these new settlements were without “any of the essential social amenities...”<sup>15</sup> Consequently just as wartime conditions had prompted an increase in traffic, so the relative difficulty of life in the new estates prompted residential telephone penetration rates to increase substantially during the 1940s and in particular during the 1950s. Residential lines would increase from accounting for just 31.8%<sup>16</sup> of all main exchange lines in 1940 to 48.6% in

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<sup>13</sup> DD 159, p. 23, 3/7/56.

<sup>14</sup> CSO Statistical Abstract 1968.

<sup>15</sup> Brown, *op. cit.*, p. 207.

<sup>16</sup> NAD S 13086 A.

1960.<sup>17</sup> By the close of the 1950s, nearly 47,000 Irish households had acquired the telephone, a household penetration rate of over 7%.<sup>18</sup>

Economic growth, both in the 1960s and in the 1970s, would generate substantial social change in the fabric of Irish society. Four per cent annual economic growth during the 1960s contributed to a simultaneous rise of “about 50% in material living standards.”<sup>19</sup> This encouraged a reduction in the rate of emigration in the early 1960s and net immigration in the 1970s, creating a bigger, wealthier population. In this context “consumerist values made swift advances”<sup>20</sup> and telephone ownership became one of the visible indices not just of individual prosperity but also of one’s inclusion in the changes of modernity. In short, the telephone acquired the status of an essential consumer good, a product which an individual family might reasonably expect to acquire, as opposed to a luxury item.

This status was augmented by the ongoing decrease in the cost of the residential rentals relative to average wages. The average male industrial wage increased from £534 in 1960 to £1,067 by 1969, an increase of almost exactly 100%.<sup>21</sup> At the same time residential rental charges increased from £7 10s to £12 10s, an increase of only 66%. Meanwhile in the 1970s, the average industrial wage rose from £1,005 in 1970 to £5,020 by 1980, a 500% increase.<sup>22</sup> Indeed it is apparent that the changing relative cost of the telephone, in this period in particular, created a situation whereby for the first time a substantial proportion of the population perceived the utility of the telephone to be greater than its cost (as table 9.5 overleaf illustrates). The period witnessed a dramatic increase in residential demand for the telephone. From constituting 48.6% of all lines in 1960,<sup>23</sup> residential lines came to account for 57% by 1979, a household penetration rate of 28%.<sup>24</sup> Furthermore, had the Department been able to accommodate effective demand (i.e. those residential applicants on the waiting list) there would have been a further 65,000 residential connections by 1980.

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<sup>17</sup> Litton, *op. cit.*

<sup>18</sup> Own calculations based on data in Appendices IV and XXXI.

<sup>19</sup> Lee, *op. cit.*, p. 360.

<sup>20</sup> Terence Brown (1981), *Ireland: A Social and Cultural History 1922-1979*. (London: Fontana), p. 260.

<sup>21</sup> Note: these figures are the decimal equivalents of the average annual wages in these years. CSO (1978), *Statistical Abstract 1977*, pp. 144-145.

<sup>22</sup> CSO (1986), *Statistical Abstract 1982-1985*, pp. 155-157.

<sup>23</sup> Litton, *op. cit.* p. 105.

<sup>24</sup> Own calculations based on Appendices V and XXXI.



<b>Table 9.5: Annual phone rental as a percentage of average weekly wages 1938 – 1980)</b>					
Year	Annual Rental		Weekly Wage		Annual Rental as % of weekly wage
	£	s/p	S.	D.	
1938	5		54	11	110%
1945	5	5	70	8	92%
1950	5	5	107	11	60%
1955	7	10	146	5	64%
1960	710	10	186	4	50%
1965	12		267	2	53%
1980	2		2	2	51%

The social changes noted in the 1950s - ongoing urbanisation and the associated process of suburbanisation - continued apace during the 1960s and 1970s. The majority of the Irish population lived in urban areas by 1971 and the bulk of those new urban dwellers lived in suburban estates. Such internal migration had social consequences, however, breaking up older communities in both rural and urban areas. This was a critical factor in shaping the social environment which witnessed the introduction of the free telephone rental scheme in 1977. Although the free rental scheme was explicitly justified on the grounds that the telephone served a critical emergency function for old age pensioners living alone, recipients of free rental also had much to gain in terms of maintaining familial and friendship links. In short the 1977 decision implicitly acknowledged the telephone's growing role as the "nervous system of society," a conclusion supported by the fact that the scheme was directly funded by the Department of Social Welfare.

As residential penetration passed the 50% mark in the mid-1980s, the telephone's role as society's "nervous system" increased creating a virtuous circle. The more pervasive the telephone became in Irish society, the more essential it was to have access to the telephone, leading in turn to increased demand.

<b>Year</b>	<b>Number</b>
1936	1
1946	1.7
1961	8
1971	18
1984/85	48
1985/86	50
1986/87	54
1987/88	57
1988/89	60
1989/90	64
1990/91	67
1991/92	70
1992/93	71
1993/94	75
1994/95	78
1995/96	82

The fact that the State was amongst the first customers for Telecom Eireann's new freephone service, when it was introduced in 1985, is indicative of the extent to which even government tacitly recognised the telephone's social importance. As the 1980s progressed, domestic access to the telephone was increasingly taken for granted, and access to it was considered vital to operate in modern society - not least by beneficiaries of the free telephone rental scheme who, being pensioners, were not amongst the richest sectors of society. Despite this and the fact that the scheme did not cover connection costs, the number of people availing of the scheme increased by 100,000 people between 1979 and 1993.

<b>Date</b>	<b>Free Telephone Rental Allowance</b>
end 79	9,572
end 80	12,112
end 81	16,500
end 82	22,700
end June 84	29,600
end 85	40,747
end 86	49,967
end 87	51,781
end 88	65,284
end 89	73,091
end 90	78,515
end 91	94,804
end 92	105,443
end 93	114,179

Despite the increasing importance of the telephone in society during the 1980s and 1990s, this did not lead to any substantial developments in government policies aimed at encouraging its take-up. Nonetheless, the charge increases of 1993 forced both the State and the service provider to concede the increasing extent of the telephone's vital social role. Telecom Eireann's decision to create a fund from which to finance freephone lines operated by charities, stressed the extent to which charities such as the Rape Crisis Centre and Childline could not operate without the telephone system. Furthermore, the scope of the philosophy underlying the Department of Social Welfare's free telephone rental scheme became increasingly wide. Whilst at the outset of the period, it was both implicit in the qualification criteria, and explicit in the statements of Government Ministers that the scheme was effectively a safety measure for elderly people living alone, the introduction of the free call units in the wake of the 1993 tariffs restructuring implied a much greater role than hitherto stated - i.e. one of societal cohesion. Indeed it could be argued that the Department recognised that the telephone already played such a role, and that the allowance was simply an acknowledgement that that particular function would be undermined by the an increase in call charges. Joan Burton's description of the allowance's purpose in May 1993 confirmed this:

“first, to allow elderly and disabled people summon help in emergencies and, second, enable them to remain active in the community and keep in touch with relatives and friends.”<sup>25</sup>

### **9.4.3 Economic Factors**

As noted in section 6.4.2, the shape of the Irish economy indirectly influenced the initial diffusion of the telephone. Given that the marketing and the pricing of the telephone identified it as a business tool, the initial development of the telephone service was focused on Ireland's commercial centres - Belfast and Dublin. However, whilst the telephone's utility as a tool for individual businesses was taken for granted from the outset, the idea that it might have a wider role to play in the economy was not. In particular the state saw no relationship between the development of a national telephone infrastructure and national economic growth. Thus early requests from organisations representing industry and commerce to extend the trunk telephone network were rarely acceded to. Furthermore, the adherence to a *laissez-faire* political economic orthodoxy by both British

administrations and the first Irish administration, meant that the state was unwilling to invest in an infrastructure that would largely benefit private capital. In any case the main fiscal objective of the Cumann na nGaedhael administration between 1922 and 1932 was to aid the farming community, by minimising the tax burden and thus state expenditure. This was not a political economic environment conducive to encouraging heavy investment in capital intensive telecommunications infrastructure and equipment. In short, the absence of any perceived link between the economy and the telecommunications network during the early part of the period under review in this research meant that the economy was unlikely to play a determining role in the initial development of the telephone network.

Although far more committed to actively shaping the national economy, the first Fianna Fail administration of 1932 to 1948, like its predecessor, did not identify the telecommunications infrastructure as a means to do so. Thus despite that party's active promotion of industrial development during the 1930s, the telephone system was largely left to its own devices, its diffusion dictated by the presence or absence of effective demand. Even the decision that would ultimately lead to the creation of a truly national trunk system, the Cabinet Committee's 1944 post-war development programme, was apparently not prompted by national economic considerations. There are no explicit references to the importance of the plan for the national economy in either the memos flowing between the Committee and the Department of Posts and Telegraphs during the period in which the post-war plan was developed despite the fact that Sean Lemass, later one of the architects of the opening up of the Irish economy at the close of the 1950s, was a member of the Committee

In fact, it would take developments in the economy itself to force re-evaluation of the link between telecommunication and economic growth. The opening up of the Irish economy from 1958 saw the state actively encourage the development of domestic export-oriented companies and direct inward investment. The re-orientation of the economy towards exports together with the presence of multinational companies in Ireland made the importance of the telecommunications infrastructure to economic development suddenly and spectacularly clear. A 1978 a Department of Economic Planning submission to the Dargan Report would argue that:

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<sup>25</sup> DD 430, p. 25, 19/5/93.

“Our telecommunications needs had to be related to such exceptional factors as our unfavourable geographic location, the high degree of dependence on foreign trade and the need to attract substantial and sustained foreign investment to promote economic development and to create jobs.”<sup>26</sup>

However, the re-orientation of the economy also highlighted the inherent weaknesses not just of the existing telephone infrastructure but also of a development policy which had previously been demand-led. The apparent inability of the service to cope with unexpected increases in demand (as was the case during the 1960s and 1970s) emphasised the need to develop the service in anticipation of demand. The analysis that such long-term planning was beyond the ability of the state, ultimately led to the Dargan Report's recommendation that the service be placed in the hands of a semi-state body. In effect then, economic change and industrial development concerns in particular indirectly prompted the total re-organisation of the telephone service.

It also led successive governments to accept as an article of faith that economic development depended on the prior existence of a highly developed telecommunications system, especially in the late 1980s and 1990s when Government economic developmental rhetoric increasingly stressed the importance of information and service industries for future Irish employment. (Furthermore as teleservice industries developed in the late 1980s and 1990s, the telephone would increasingly constitute an industry in its own right.) The succession of three year development plans drawn up by Irish governments in the 1980s and 1990s each stressed the central role of telecommunications for economic growth. In consequence, industrial development policy and thus the needs of industry would increasingly come to dominate Irish telecommunications development and policy decisions. (A fact emphasised by the fact that a submission to the Culliton Report on Irish Industrial Policy in the 1990s, could seriously suggest simply handing responsibility for telecommunications policy over to the Department of Industry and Commerce.) Thus although some of the new services introduced by the Department of Posts and Telegraphs and Telecom Eireann in the 1980s and 1990s would eventually benefit residential customers, the majority of such services were directed at the business market. It is difficult to avoid the conclusion that the introduction of a digital network, the Eircell mobile phone service, the DASSNET data service, the EIRPAGE paging service etc., were not primarily driven by the needs of commercial users.

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<sup>26</sup> Dargan Report, para 5.4, p. 25.

The full implications for universal service of the new emphasis on intimate links between economic performance and economic growth were not evident by the close of the 1970s. Economic growth did not have exclusively negative consequences for universal service policy. The perception informing Fianna Fail's 1977 manifesto that the country would continue to experience growth and prosperity was arguably critical in the creating the environment where the state could consider the free telephone rental scheme. Nonetheless in the longer term the influence of the telecommunications/economic development orthodoxy would have serious implications for development of POTS and USO. The tone of one NESC report on the importance of infrastructure for industrial development was ominous in this regard:

"It is tempting to conclude that first-class telecommunications throughout Ireland is unequivocally desirable.. (but) there must be priorities and it is not obvious that there is a commercial case for a first-class service in all areas of the country, including the remotest ones . . . The likely outcome at present will be some compromise between lower standards and uneven coverage . . . There is therefore a strong case for concentrating the provision of infrastructure for those with intensive requirements - roads, telecommunications and water - in limited areas, many of them probably urban . . ."27

As a result of the experience of the 1970s, there is little question that post-Dargan, the outlook of the telephone service provider changed quite dramatically. Although Telecom Eireann was established as a semi-state company with a public service remit, the move to semi-state status was justified on the grounds that it would lead to a more commercial outlook on the part of the service provider (and by implication a better service). Furthermore, the fact that the telecommunications operator had become a critical factor in national economic development made the state less willing to interfere with or in any way jeopardise the prospects of the company. As suggested in chapter eight, however, this effectively left Telecom Eireann to establish its own priorities. Faced with a substantial debt burden and, in the 1980s, a depressed overall economic context, the company thus had no incentive to expand the commitment to the universal service objective it inherited

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<sup>27</sup> Christopher D. Foster/NESC (1981), The Importance of Infrastructure to Industrial Development in Ireland: Road, Telecommunications and Water Supply, (Dublin: Stationery Office), p. 79.

from the state: common carriage. Even as the company's economic position began to improve in the 1990s with the reduction of its debt burden and the recovery in the national economy, the increasingly competitive nature of the market environment within which Telecom Eireann operated led the company to become more commercially minded than ever.

Yet ironically the increasing industrial development orientation of telephone service forced the state to re-examine its social role and thus saw the beginnings of a more coherent understanding of the question of universal service. Gerry Collins' querying of the rationale for funding social services in 1972 raised the question of why an institution that was a) explicitly required to run its finances along commercial lines and b) increasingly a factor in the development of the national economy should also fund a loss-making socially-oriented service. The Dargan report too would argue that explicitly socially-oriented services should not be considered part of the service obligations of the semi-state body that would replace the Telephone Section. Furthermore, argued the report, should the Government require that body to operate such services, "it should be compensated specifically for so doing."<sup>28</sup> The Department of Social Welfare decision to subsidise free telephone rental for Old Age Pensioners from 1977 effectively anticipated this recommendation by placing the burden of financing the scheme in the hands of the Department of Social Welfare. In effect, then, the explicit recognition of the telephone's social role and thus of the policy most readily identified as universal service-oriented, was indirectly caused by a change in the overall direction of the economy.

In sum, for the first half of the period covered by this research there appears to have been little recognition that the impact of telecommunication was not limited to its use as a business tool. The idea that investment in telecommunication infrastructure might constitute part of the basis for economic growth only emerged *in the wake of* economic growth during the 1960s and 1970s. Since then, however, it has been an article of faith amongst successive governments that telecommunication investment is a prerequisite for any economic development, especially in the light of the promotion of the notion (discussed in more detail in chapter ten) that the Irish economy in the 1990s is moving into an information economy. Thus just as electricity had previously been identified as the critical infrastructural tool for developing a manufacturing base so telecommunications had been identified here as the infrastructure of the international information and services

economy. In effect the period since the 1960s has increasingly established economic rather than social development as the role of the telecommunications service provider.

#### **9.4.4 Political influences.**

Given that the operation of the Irish telephone service has lain in the hands of one of two states for the bulk of its existence, political factors have clearly had an enormous influence in the development of the service over that time. Thus an understanding of the Irish political process, Irish political culture and the specific circumstances of the Department of Posts and Telegraphs/Communications is critical to understanding the development of universal service policy in Ireland.

Under British rule, the Post Office was required to be financially self-sustaining as an overall institution. Whilst losses could be tolerated in some areas (as was the case with regard to the Telegraph service from the 1880s), this was limited by the extent to which they could be cross-subsidised from others. With regard to the telephone service, then, the prior existence of a cheap, efficient and ubiquitous public communications system based around the postal and telegraphs services made it a luxury that the Post Office (or perhaps more accurately the Treasury) was unwilling to subsidise. This conception of the telephone service as a commercial operation was reflected by the minimal legal service provision obligations placed on the Post Office. Successive Postmaster Generals (and indeed Ministers for Posts and Telegraphs) effectively faced no legal obligations of any kind with regard to the provision of the telephone service. The critical legislation throughout this period - the Telegraph Act, 1869 - was designed not to place any obligations on the Postmaster General but to guarantee his exclusive privilege to transmit telegrams. When, following the "Edison" case in 1880, the British High Court held that a telephone was a telegraph within the meaning of the Telegraph Acts 1863 and 1869, the Postmaster General's exclusive privilege simply expanded to include the telephone.

This was the outlook of the service when the Irish Department of Posts and Telegraphs took over in 1922. The essential conservatism of the Irish and their political leaders at this time, meant the administrative handover in 1922 did not engender any substantive alteration of the political institutions or services taken over. The smoothness of the transfer of political power from Britain to Ireland, in 1921, meant that the Department of

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<sup>28</sup> Dargan Report, para 4.7, p. 17.



Posts and Telegraphs did not question the existing administrative framework or its priorities: the Ministers and Secretaries Act 1924 simply allocated to the Department “the administration and business generally of public services in connection with posts, telegraphs and telephones and all powers, duties and functions connected with the same.”<sup>29</sup> The Post Office as a whole would, as the nearest state approach to a commercial operation, retain the imperative to be financially self sustaining. Thus also adopting the perception that the telephone was either a business implement or a luxury in the home, the Department of Posts and Telegraphs would initially rule out the possibility of any subsidisation of the telephone network development in this period. From the Department of Posts and Telegraphs’ perspective the telephone remained one of several communication options offered by the Post Office: there was thus no pressing need for its development.

The politically imposed need to be financially self-sufficient would prove to be a key influence on both the diffusion of the service and the willingness of the Department of Posts and Telegraphs to pursue universal service-type policies. Hence during the 1920s when both the Post Office and the telephone service consistently lost money, the Department refused to permit the extension of public Telephone Call Boxes into rural areas, without a strong expectation or actual guarantee that such provision would be financially self-supporting. As a consequence call box provision, the single method which permitted non-subscribers access to the telephone, effectively ceased in rural areas in the mid-1930s when it became impossible to find any new locations that satisfied the financial requirement. Furthermore the Post Office’s one experiment between 1924 and 1928 with expanding the service in anticipation of demand (and thus profits) actually saw an increase in the scale of the deficits. This proved to be a critical lesson. It was a decade and a half before any concerted move to expand the network would again be undertaken.

Conversely, when the service began to earn a profit in the 1930s, the Department began to engage in some rate averaging, extending the free mileage area to a three mile radius from the nearest exchanges. Even the telephone service’s profitability, however, was not sufficient to guarantee that the Department would actively develop the service. From having been a service that could not be subsidised between 1880 and the 1930s, once the service did begin to earn profits, these were identified as a means of subsidising losses on

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<sup>29</sup> Ministers and Secretaries Act 1924, Section 1(IX).

the other services which had an explicit social remit. As one secretary of the Department noted:

“When I went to the Post Office and for some years afterwards, the postal and telephone services taken together paid their way; that is to say, taking one year with another an offsetting the eggs that the golden telephone goose had started to lay against the expensive labour-intensive postal machine.”<sup>30</sup>

Only when both the Post Office and the Telephone service began to make unprecedented profits during the second world war was a serious development of the telephone system considered. The extra revenue resulting from the increased wartime call-traffic fed back into government policy-making convincing the Cabinet Committee on Economic Planning to recommend the abandonment of the previous blanket policy that each individual element of the telephone service be self-supporting, and to permit some subsidisation of rural call boxes.

<b>Date</b>	<b>Post</b>	<b>Telegraphs</b>	<b>Telephones</b>	<b>Total</b>
1940/41	(£115,257)	(£130,203)	£90,390	(£155,070)
1941/42	£91,465	(£115,573)	£180,165	£157,057
1942/43	£52,803	(£103,917)	£242,043	£190,929
1943/44	£114,621	(£73,685)	£247,703	£288,639
1944/45	(£20,101)	(£122,663)	£267,289	£124,525
1945/46	£32,512	(£116,001)	£298,004	£214,515

The profitability or otherwise of both the telephone section and the Post Office as a whole would remain a key influence on telephone development policy in the 1950s. Hence the Government’s willingness to adopt the Kamerbeek recommendations and thus lose an estimated £125,000 per annum in revenue, was again almost certainly coloured by the record profits earned by the telephone section in the last few years of the 1950s.

Only when telecommunications was ascribed a central role in the nation’s economic performance was the narrow profit and loss focus of the Department of Posts and Telegraphs relaxed. Thereafter the cost of developing the service was considered secondary to the overall economic cost to the country of not developing the system. However the political identification of the performance of the economy and the condition

<sup>30</sup> Leon O’Broin (1985), *Just Like Yesterday*, (Dublin: Gill and MacMillan), p. 163.

of its telecommunications infrastructure, meant that industrial policy would increasingly influence telecommunications development.

One of the side effects of the political perception that the Post Office was essentially a commercial operation was to downgrade its status in cabinet, a fact made clear in the first Cumann na nGaedhael administration Ernest Blythe's control of the portfolio between 1927 and 1932, whilst he was simultaneously the Minister for Finance, then as now one of the most senior cabinet positions. Similarly in all three coalition administrations between 1932 and 1980, the Ministry of Post and Telegraphs was assigned to a member of the junior party. Again not until the telecommunications system's importance for the national economy became clear would Posts and Telegraphs or Communications be regarded as an important cabinet appointment.

The combination of the perception that the Post Office and in particular the telephone service should be run along commercial lines and the Department's relatively low cabinet status had unhappy implications for the Department's ability to access the capital essential for the expansion of the network. Just as the British Treasury had limited the British Post Office's freedom of action with regard to the telephone service, the Department of Finance consistently placed serious strictures on the Post Office's telephone capital budget. Leon O'Broin, Secretary of the Department of Posts and Telegraphs from the 1940s to the 1960s has noted of his Ministers that none

“were able to fight in the cabinet room or with the Minister for Finance who controlled the money supply. The Post Office always suffered from a shortage of capital for telephone development and with Ministers allowing themselves to be treated like small boys there was never any real hope of catching up on the demand. The officials did the best they could with their opposite numbers in Finance but there was a limit to what they could do once the priorities had been fixed. The Post Office was always down towards the bottom of the list. We obviously did not count for much politically.”<sup>31</sup>

Again it was not until the external influence of the economy augmented the role of telecommunications that this situation was altered, as table 9.7 (below) suggests. The biographer of Conor Cruise O'Brien, Minister between 1973 and 1977 notes that “even in

the days of the oil crisis, his department received more than its fair share and that is why his department was relatively peaceful.”<sup>32</sup>

<b>Year</b>	<b>Amount</b>
1925	£126,000
1930	£97,000
1935	£50,000
1940	£151,000
1945	£54,000
1950	£1.357m
1955	£1.588m
1960/61	£2 m
1965/66	£6.5 m
1970/71	£9.5m
1975	£44.6m
1980	£100m

A further consequence of the perceived commercial status of the Post Office and the telephone service was to seriously limit the extent to which it was considered an element of policy. O’Broin again has noted of his Ministers that they were for the “most part, modest men who came to the Post Office without much in the way of ideas but who recognised that the best way to get results was to allow an old and well-tried machine to function efficiently.”<sup>33</sup> Indeed O’Broin suggests that Patrick Little, the Fianna Fail Minister in charge of the Department for most of the 1940s was advised by then Taoiseach Eamon De Valera, on taking office to “concentrate on broadcasting, that the post office would look after itself.”<sup>34</sup>

In short there was little willingness on the part of politicians to engage in much long-term policy thinking with regard to the telephone service until its role became clear in the one area where strategic thinking had been applied since the close of the 1950s - national economic development. In consequence a Post Office left to itself was effectively left in the hands of the civil service. However, as note above the Irish Civil Service had inherited from its British predecessor an unwillingness to engage in long-term thinking, favouring a focus on ensuring the day-to-day operation of the various aspects of the Irish administration. Furthermore, this approach has arguably persisted until the present day, as

<sup>31</sup> Ibid..

<sup>32</sup> Donald Harman Akenson (1994), *Conor. A Biography of Conor Cruise O’Brien: Volume I. Narrative*, (Montreal and Kingston: McGill-Queen’s University Press), p. 396.

<sup>33</sup> O’Broin, op. cit., p. 162.

<sup>34</sup> O’Broin, op. cit., p. 170.

the negative response to the public administrations reforms contained in the Devlin Report suggests. The consequences this had for the telephone service should be obvious. Firstly there was a lack of any internal imperative to reconsider development policy on the part of either the civil service or indeed on the part of their political masters. Furthermore, the focus on day-to-day thinking meant that any fundamental problems with the service had a tendency to be allowed develop until they precipitated a crisis. Policy then was only reconsidered in the face of crisis or semi-crisis situations: hence the major development pushes of the period between 1922 and 1984 (in 1924-1928, 1946-1959 and 1979-1984) would only occur *in response* to external developments relating to the telephone system rather than as a result of proactive policy-making. Furthermore, once Ireland had literally and figuratively signed up to the EEC in 1973, the advent of a European telecommunications policy was likely to have a determining effect on Irish telecommunications policy, notwithstanding the fact that, post-Maastricht, Ireland could legally invoke subsidiarity as means of avoiding complete acceptance of European policy. The ongoing tendency of the Department of Communications to react rather than to take pro-active measures, meant that in the absence of any serious threats to the national service from European legislation, such legislation was likely to be adopted in full.

Other influences on policy-making in general in Ireland have had implications for the development of the telephone service. As noted in chapter three the predominance of a clientalist or populist politics in Ireland has often militated against the development of universalistic or national policies, favouring instead the short-term satisfaction of different constituencies. Clearly this could hardly be conducive to the development of a geographically diffused telephone system. Nonetheless it is critical to understanding the immediate rationale behind the introduction of the free telephone rental scheme in 1977. Although the logic advanced for the scheme at the time of its introduction was that it would facilitate the access to “a lifeline” for elderly people living alone, the telephone had arguably had this potential since its inception. At its most basic, the initial decision was, as part of the most generous election manifesto in the history of the state, a piece of naked electioneering and a classic example of a populist political system in operation.

It should finally be noted with regard to the influence of political factors on the development of universal service in Ireland that the sudden leap from conceiving of the service as a market led organisation to one driven by the demands of industrial policy, undermined any possibility that the telephone’s social role might be given some serious

thought. In consequence, the close of the period under review was marked by the absence of any clear philosophy amongst Irish communications policy-makers of the role of communications in Ireland beyond the recognition of its importance to a modern economy. This has had serious consequences for universal service policy. Although there has been a recognition of the telephone's social importance via the free telephone rental scheme, the practical import of this has remained limited. Furthermore there has been no official recognition at all of its political significance. As noted in chapter two, universal service in the U.S.

“derives its significance from a promise rooted in the nature of the political system. All Americans are issued equal access to basic channels of communications because the citizens of a democracy need to be able to communicate in order to avail themselves of the information necessary to make reasoned political choices.”<sup>35</sup>

Arguably the Irish political system has accorded quite the same importance to the roles of communications and communication systems to the operation of a democratic society. As noted in chapter three, Irish decision-making processes have tended to be centralised and secretive: it is indicative that the country's first Freedom of Information Act was only passed in 1997 and has in any case been described as embodying a passive rather than positive concept of information freedom.<sup>36</sup> Arguably, however, without such an understanding of the political role of communications, universal service policy in Ireland is unlikely to develop much beyond its current limits.

## 9.5 Conclusion

For the greatest part of its history, the assumption on the part of the various telephone service providers that the telephone service has been a commercial service meant that the development of the Irish service occurred largely in response to demand. Furthermore its commercial orientation ensured that overall the service had to avoid losses: thus the

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<sup>35</sup> Jorge Reina Schement (1995), “Beyond universal service: Characteristics of Americans without telephone, 1980-1993”, *Telecommunications Policy*, Vol. 19, No. 6, pp. 477-485. p. 484.

<sup>36</sup> A positive concept of information freedom would state that “there will be no secrets except in cases A, B and C.” A passive concept on the other hand states that “there will be secrets except in the case of A, B and C.” Based on personal interview notes with Paul Daly, Labour Party Press Office.

overall expansion of the network depended either on the overall profitability of the service or on the contribution that new technology could make to allowing the service to be extended cost-effectively. In short the diffusion of the telephone was largely market led. This demand was initially led by business users but as the course of the 20th century wore on, changing social patterns generated residential demand so that by the 1960s, domestic subscribers accounted for the majority of all subscribers. The telephone service would not be driven by a self-conscious developmental trajectory until the changing direction of the Irish economy in the 1960s emphasised the importance of telecommunications for national economic development. Thereafter, the national telecommunications service was not merely proactively developed, but was heavily influenced by the requirements of trade and commerce.

The development of universal service policies - considered here not just to include socially-oriented programmes explicitly aimed at encouraging service but also the geographical expansion of the network, rate-averaging, etc. - were thus influenced by a combination of the factors above. As noted above the geographical expansion of the network depended both on such expansion being financially viable and technologically feasible. Rate-averaging was generally only extended in the wake of overall profitability. Critically, however, it was social change that prompted the development of the core universal service policy - the free telephone rental scheme. Although initially prompted by a populist political impulse, the development of the scheme and the expansion of the philosophy behind it were an acknowledgement that in modern society life is increasingly difficult without access to the telephone.

# **CHAPTER TEN**

## **CONCLUSION**



## 10.1 Introduction: The Future of Universal Service

As is argued in chapter two, the emergence of universal service as a policy debate in Europe and America since the 1970s has been largely prompted by the introduction of competition into both national and international telecommunications markets. However it is impossible to ignore the influence that the emergence of new information and communications technologies over the last 20 years has had on extending the parameters of the debate. The convergence of telecommunications with the previously separate industries of computing and broadcasting promises the emergence of a major new technology platform, hugely expanding the existing functionality of the telecommunications network. Together with the perception that information is increasingly the key resource in global markets, the potential development of an information infrastructure has seen both the Clinton Administration in America and the European Commission promote the notion that western society is poised on the cusp of becoming an Information Society. This, they predict, will provoke societal change akin to that which followed the Industrial Revolution. Consequently, the possibility has been raised that the telephone may be supplanted as the basic electronic communications network by new telecommunications technologies. This raises obvious questions for the future of universal service obligations: should they be applied to new technologies and if so to which ones?

This chapter looks at the visions that drive international Information Society policy and how new versions of the USO have been conceptualised in that context. It also argues, however, that the claims made for the social benefits universally accruing from an information society are unconvincing and that proposed future USO measures fall far short of the previous conception of USO. Furthermore, it suggests that before considering new versions of USO, attention should be paid to the extent to which existing obligations are being fulfilled. With regard to the future of universal service in Ireland it concludes that in the absence of any coherent philosophy of universal service, or even an explicit policy to achieve universal telephone service, universal service as a telecommunications policy goal will remain a phantom and practically useless notion.

## 10.2 Daniel Bell's Information Society Theory

The idea of an information society or information age is not a new one. Indeed, the single most influential theory of the information society is largely derived from Daniel Bell's "The Coming of the Post-Industrial Society"<sup>1</sup> published in 1973. And since the influence of Bell's theory on both US and EU telecommunications policy is readily apparent, (see below), a brief summation of his hypothesis is necessary before exploring the policies that embody it.

Bell argues that western society is entering a new system, a post-industrial society, characterised by the "heightened presence and significance of information."<sup>2</sup> His typology of societies is based on the predominant mode of employment at any given stage. Thus in pre-industrial societies, agricultural labour is ubiquitous, whilst factory work is the norm in industrial societies. In post-industrial societies, however, it is service employment that predominates. Bell conceives of service employment as "games between persons"<sup>3</sup> in which information is the basic resource: bankers handle money transactions, therapists conduct dialogues with their clients, teachers communicate knowledge, etc.

Bell's vision of the post-industrial or information society<sup>4</sup> is an extremely optimistic one. He argues that anarchy of the free market will not survive in an information society but that the pre-eminence of professionals, or knowledge experts, will see such a society develop a more self-conscious developmental trajectory. Furthermore, argues Bell, an information society will be a more caring society: since the bulk of employment will be in services, that is in "games between persons", the quality of interpersonal relationships will come to the forefront. A people-oriented society will be a caring society: Thus a combination of the propensity to plan along with the impulse to care will see the information society develop a new communal consciousness, promoting the welfare of the community as a whole rather than that of the individual. Thus community concerns such as the environment, care of the elderly, education etc., will take precedence over concerns

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<sup>1</sup> Daniel Bell (1973), The Coming of the Post-Industrial Society: A Venture in Social Forecasting, (Harmondsworth: Penguin).

<sup>2</sup> Frank Webster (1995), Theories of the Information Society, (London: Routledge), p. 31.

<sup>3</sup> *Ibid.*, p. 127.

<sup>4</sup> Although Bell's original work originally referred to a "post-industrial" society, Frank Webster argues that Bell himself took to "substituting the words 'information' and 'knowledge' for the prefix 'post-industrial' around 1980 when a tidal wave of enthusiasm for futurology was swelled by interest in developments in computer and communications technologies." *Ibid.*, p. 30.

with economic output and competitiveness. In sum, Bell predicts a shift to a society that differs radically in both social and economic terms from the norms that prevail today.

Coming when it did, Bell's work remained of largely academic interest throughout the 1970s. However, in the wake of the microelectronic revolution of the early 1980s, Bell's work was seized upon as offering both an explanation and a context for the rapidly changing technological environment.<sup>5</sup> Yet it was a further ten years before western telecommunications policy began to reflect Bell's vision. To understand why, it is necessary to understand the political-economic context within which such policy has developed.

### **10.2.1 European Union and NTIA Views on the Information Society/Global Information Infrastructure**

The economic importance of telecommunications both as an industry in its own right, and as a service for other industries, has increased substantially over the last two decades. Revenues from the global trade in telecommunications equipment and services, which rose from US\$500 billion in 1990 to almost US\$800 billion in 1995, are expected to breach one trillion dollars by 1998.<sup>6</sup> In terms of market capitalisation, telecommunications is now the world's third largest industry after health care and banking.<sup>7</sup> With regard to the importance of telecommunications for other industries, there is also substantial evidence that telecommunications costs constitute an increasing portion of business expenditure, despite a general downwards trend in telecommunications costs. According to ITU figures, the average annual expenditure per telecommunications user rose by almost US\$100 to US\$905 between 1990 and 1995,<sup>8</sup> whilst annual global increases in telecommunications expenditure have run at twice that of global Gross Domestic Product since 1990.<sup>9</sup> In short, not just are telecommunications services being used by more people,<sup>10</sup> but existing subscribers are making more intensive use of such services.

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<sup>5</sup> *Ibid.*, p. 30.

<sup>6</sup> ITU World Telecommunication Indicators Database quoted in: ITU (1997), World Telecommunication Development Report 1996/97, (Geneva: ITU Publications).

<sup>7</sup> *Ibid.*, p. 4.

<sup>8</sup> *Ibid.*, p. 5.

<sup>9</sup> *Ibid.*

<sup>10</sup> 38 million and 45 million new fixed lines were connected worldwide in 1994 and 1995 respectively. *Ibid.*, p. 4.

What has driven this expansion in the importance of the role of telecommunications is a complex and much debated question. What is critical for this research, however, is to understand that policy-makers both in the US and the EU member states have concluded that telecommunications is a (perhaps the) key determinant of their economic future. Although, as this research has indicated, the telephone has been seen as a useful tool for business, the European Commission, for example, now argues that “companies’ operations *have become unthinkable* without the use of ICTs.”<sup>11</sup> (Italics added.) Allied to this is the key assumption that information will become an increasingly important resource for all industries, and that as such, the quality of national telecommunications services will have an enormous influence on the economic health of a given nation. Hence the European Commission’s 1993 White Paper on Growth, Competitiveness and Employment, identifies better access to information as critical for competing in an increasingly pressured marketplace:

“The jobs situation has generally remained more favourable in companies which have introduced microelectronics than in those companies that have not used this technology... To be able to compete worldwide, European industry must exploit all possible ways of improving its competitiveness by making growing and effective use of ICTs.”<sup>12</sup>

The significance of the issue is heightened by the increasing mobility of trans-national corporations seeking lower labour costs. For national governments, anxious both to attract foreign investment and retain domestic business, the provision of advanced telecommunications networks is a means of establishing a competitive advantage. This is evidenced by Irish telecommunications policy, arguably since as early as the 1970s.

As a result, the developed world in particular has scrambled to develop strategies that will protect their share of both the telecommunications equipment and services market itself and of those markets which rely on advanced telecommunications services: in particular those converging with telecommunications such as computing and media industries. The result has been the development and espousal by the EU and US of their respective Information Society and Global Information Infrastructure policies. Thus since the early

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<sup>11</sup> CEC (1993), Growth, Competitiveness, Employment: The Challenges and Ways Forward into the 21<sup>st</sup> Century, (Luxembourg: Office for Official Publications of the European Communities).

1990s, the Clinton Administration has used various international fora to push for the creation of a Global Information Infrastructure - “networks of distributed intelligence (which) will allow us to share information, to connect, and to communicate as a global community”<sup>13</sup> - based on the core principles of US domestic telecommunications and information policy. At the March 1994 International Telecommunications Union Conference, US Vice-President Al Gore enunciated those principles:

- “
- i) encourage private investment
  - ii) promote competition
  - iii) create a flexible regulatory framework that can keep pace with rapid technological and market changes
  - iv) provide open access to telecommunications networks for all information providers and
  - v) ensure universal services.”<sup>14</sup>

As such these principles encapsulate the “free flow of information” principles pursued by successive US administrations since the close of the second world war, principles which have largely focused on ensuring access to global media and audio-visual markets for American companies. The European Union, meanwhile has sought to distance its policy from the United States’ GII strategy, criticising the use of the term “information highway” as implying a “technology-based based appreciation of what is happening.”<sup>15</sup> Instead the EU has adopted what it terms an “Information Society” strategy to reflect “European concerns with the broader social and organisational changes which will flow from the information and communications revolution.”<sup>16</sup> Nonetheless, there’s little of substance to distinguish EU policy from that of the US. Whilst EU documents argue that a “revolution in information and communications technologies”<sup>17</sup> will see Europe “steadily transformed into an essentially new society”<sup>18</sup> it is hard to avoid the conclusion that European documents usually use the term “Information Society” to refer to an Information *economy*.

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<sup>12</sup> Ibid., p. 93.

<sup>13</sup> Al Gore (1994), “Forging a new Athenian Age of democracy”, *Intermedia*, Vol. 22, No. 2, pp. 4-7. The article is a shortened version of Gore’s inaugural speech to the ITU World Telecommunication Development Conference, in March 1994.

<sup>14</sup> Ibid.

<sup>15</sup> ISPO “Introduction to the Information Society the European way” from URL

“<http://www.ispo.ccc.be/infosoc/backg/brochure.html>” last updated March 27, 1995, p. 1.

<sup>16</sup> Ibid.

<sup>17</sup> Ibid. p. 1.

<sup>18</sup> Ibid.

The EU's 1994 White Paper on Growth, Competitiveness and Employment, singling out the "information industries"<sup>19</sup> as key markets of the developing global economy, makes explicit the EU's interest in the economic aspects of the Information Society:

"Turnover in what may be called *the information society markets*...in the EU reached ECU 313 billion in 1993, 5.4% higher than the year before. Equivalent sales figures for the US and Japan were ECU 389 billion (+12.4%) and ECU 172 billion (+4.1%)."<sup>20</sup> (Italics added)

Furthermore, the same White Paper has had a substantial influence on shaping subsequent EU Information Society policy. In effect a paper theoretically focused the future of the European *economy* has set the terms of debate for subsequent discussions which are nominally on the future of European *society*.<sup>21</sup> Its influence on the agenda setting report, "Europe and the Global Information Society" (more commonly known as "The Bangemann Report") is obvious.<sup>22</sup> Despite the reference to *society* in the report's title, two-thirds of the document is largely focused on the *economic* importance of new ICTs and related services:

"competitive suppliers of networks and services from outside Europe are increasingly active in our markets...if Europe arrives late our suppliers of technologies and services will lack the commercial muscle to win a share of the enormous global opportunities which lie ahead."<sup>23</sup>

Nonetheless, it is impossible to deny the social dimension inherent in US and EU Information Society policies. The socially-oriented and highly alluring language used in the documents is highly reminiscent of that of Daniel Bell. The documents promise that the widespread diffusion of new information and communications technologies will lead to the enhancement of all three elements of citizenship rights: political, civil and social. Al Gore, for example, has argued that the creation of such an infrastructure would lead to:

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<sup>19</sup> Ibid., p. 4.

<sup>20</sup> Ibid.

<sup>21</sup> For example, references to shifting the provision of services hitherto provided by the public sector to the market in the White Paper appear virtually verbatim in ISPO documents.

<sup>22</sup> This is unsurprising given that the report was commissioned by the same December 1993 European Council meeting which approved the White Paper on Growth, Competitiveness and Employment.

“robust and sustainable economic progress, strong democracies, better solutions to global and local environmental challenges, improved health care, and - ultimately - a greater sense of shared stewardship of our small planet.”<sup>24</sup>

Again the EU vision is virtually indistinguishable from that of the US, emphasising that information and communication technologies have the potential to “improve the quality of life of all Europeans.”<sup>25</sup> More specifically the EU’s Information Society Project Office (ISPO) points to:

- “i) improved health care
- ii) teleworking allowing people to spend more time at home
- iii) better traffic management
- iv) distance learning/education
- v) videoconferencing permitting greater social interaction
- vi) better consumer protection
- vii) strengthened democracy due to better channels of communication between governing and governed.”<sup>26</sup>

Furthermore ISPO argues that access to “the riches of knowledge” will be “so much easier” in the information society: “libraries and historical artefacts, technical data, expert judgement, entertainment, teaching - these and virtually every other store of knowledge will be available electronically, on demand for individual use and manipulation.”<sup>27</sup>

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<sup>23</sup> Members of the High Level Group on the Information Society (1994), Europe and the global information society (AKA The Bangemann Report). (Brussels: CEC), p. 7.

<sup>24</sup> Ibid.

<sup>25</sup> CEC (1994), Europe’s Way to the Information Society, Communication from the Commission to the Council and the European Parliament and the Economic and Social Committee and the Committee of Regions, COM (94) 347 final.

<sup>26</sup> ISPO "Introduction to the Information Society the European way" from URL "<http://www.ispo.cec.be/infosoc/backg/brochure.html>" last updated March 27, 1995, p. 2.

<sup>27</sup> Ibid., p. 3.

This claim that access to information will become easier is far from unproblematic however. Robin Mansell has written that in a modern society the:

“exchange of social, cultural and business information often requires access to complex services based upon networks which combine advanced computing and telecommunication hardware and software.”<sup>28</sup>

Thus, Mansell at least partially agrees with the EU/NTIA claims on the growing social importance of new ICTs. However, she also argues that public access to such technologies cannot be guaranteed with public (i.e. state) intervention:

“Public policy, whether through state provision of telecommunications services or through public regulation of private monopolies, has been necessary to promote access to basic telephone services, although the success of such policies has varied considerably. The accessibility of some of the advanced intelligent networks services must be encouraged if increasing numbers of smaller firms and residential consumers are not to be excluded from the electronic communication environment in the coming decades.”<sup>29</sup>

In short, Mansell points to the risk of social exclusion from the Information Society.

Significantly, there is at least an awareness of the potential for such exclusion at both US and EU level. The Green Paper on social aspects of the Information Society - “Living and Working in the Information Society: People First” stresses that new ICTs can only contribute to the European democratic process if equal access is ensured:

“For true, inclusive, democracy to exist, the whole population must have equal access to information to make choices effectively and equitably. The information society can enhance democracy by ensuring equal and public access to the ICT infrastructure, to networked information services and to the skills required to access these services.”<sup>30</sup>

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<sup>28</sup> Robin Mansell (1993), *The New Telecommunications*, (London: Sage), p. x.

<sup>29</sup> Ibid. p. XI

<sup>30</sup> European Commission *Living and working in the information society: People First*. Green Paper, pp. 23-24.



Both NTIA and European Commission documents generally sound a note of warning as to the potentially socially detrimental effects of an Information Society, generally understood as the risk of creating “a two-tier society of haves and have-nots, in which only a part of the population has access to the new technology, is comfortable using it and can fully enjoy its benefits.”<sup>31</sup> Thus even such pro-market documents as the Bangemann report argue that public authorities must ensure “fair access to the infrastructure” and “provision of universal service, the definition of which must evolve in line with the technology.”<sup>32</sup> In the US, the National Telecommunications and Information Administration goes even further:

“There are legitimate questions about linking universal service solely to telephone service in a society where individuals' economic and social well-being increasingly depends on their ability to access, accumulate, and assimilate information. While a standard telephone line can be an individual's pathway to the riches of the Information Age, a personal computer and modem are rapidly becoming the keys to the vault. The robust growth recently experienced in Internet usage illustrates this promise as new and individual subscribers gravitate to on-line services. This suggests a need to go beyond the traditional focus on telephone penetration as the barometer of this nation's progress toward universal service.”<sup>33</sup>

In sum, policy-makers in both the US and EU policy suggest that universal service, as it has been traditionally understood, may not fulfil the needs of a modern society.

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<sup>31</sup> Members of the High Level Group on the Information Society (1994), Europe and the global information society (AKA The Bangemann Report). (Brussels: CEC), p. 6.

<sup>32</sup> Ibid.

<sup>33</sup> National Telecommunication and Information Administration (1995), Falling Through the Net: A Survey of “Have Nots” in Rural and Urban America. (Washington D.C.: US Department of Commerce).

### 10.2.2 Ireland's Information Society Strategy

At national level, Ireland's own strategy for an Information Society, expressed in a benchmark report by the Irish Information Society Steering Committee, rehearses that of the EU. The Committee takes it as a given that "information and communications technologies (ICTs) will transform Ireland's economy and society over the next few years,"<sup>34</sup> and acknowledges the global economic dimensions of the debate, describing the Information Society as:

"a global phenomenon, facilitated by a global telecommunications infrastructure and the emergence of a global economy, in turn creating an unprecedented global competitive challenge for all businesses."<sup>35</sup>

Again as with US and EU documents, the Irish report, adverts to the possible benefits of an Information Society, referring to the possibility of a better quality of life, greater access to government, more control of working lives and an outlet for individual creativity. Thus whilst the actual term "universal service" does not appear in the Steering Committee report, it nonetheless favours the provision of "affordable access to information networks and services" to "every citizen and enterprise."<sup>36</sup> In short, with regard to not just new ICTs but also the skills and technology necessary to utilise them, it appears to favour a more demanding public service obligation than has hitherto been applied to POTS.

### 10.2.3 New ICTs and USO – From Universal Service to Universal Access?

Although, as noted above, there is a consensus that the universal service obligation may have to be redeveloped for an "information age", actual implementation brings new obstacles. A key question is which technologies should the universal service obligation be applied to? For whilst the application of USO has traditionally been limited to basic voice telephony, there are now a wide (and ever increasing) range of services which might potentially be offered over existing copper wire and developing broadband networks. Furthermore, the cost of universal service in an information age may be quite different to the cost of traditional universal service provision. For example, NTIA literature frequently

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<sup>34</sup> Information Society Steering Committee (1997), Information Society Ireland: Strategy for Action, (Dublin: Forfás), p. iii.

<sup>35</sup> *Ibid.*, p. 4.

points to the Internet as a major service that will sit upon the new national or global information infrastructure. Thus, universal service is extended to include access not merely to a telephone and a telephone line but also to the considerably more expensive personal computer, modem and an internet service provider. The expense of bringing such technologies to every home in America makes it impossible for the NTIA to favour subsidising it. Thus the NTIA acknowledges that “connectivity to all such households will not occur instantaneously.”<sup>37</sup>

As a consequence, both the NTIA and European Commission have developed a multi-levelled approach to defining universal service in the information age. At the level of infrastructure, both the 1996 US Telecommunications Act,<sup>38</sup> and the 1995 ONP Voice Telephony Directive<sup>39</sup> have called for the widest possible provision of access to infrastructure permitting the use of advanced services. This differs from the universal service obligation with regard to the telephone in so far as instead of universal *service* it calls for advanced services to be universally accessible. However such accessibility will implicitly be subject to the ability of the individual to afford the prerequisites for services (a PC, modem, etc.)

Thus the NTIA argues that in the interim, public access to the information superhighway will be made available through the “traditional providers of information access for the general public” - the public schools and libraries:

“These and other ‘community access centres’ can provide, at least during an interim period, a means for electronic access to all those who might not otherwise have such access. Policy prescriptions that include public “safety nets” would

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<sup>36</sup> *Ibid.*, p. vi.

<sup>37</sup> National Telecommunication and Information Administration (1995), Falling Through the Net: A Survey of “Have Nots” in Rural and Urban America, (Washington D.C.: US Department of Commerce).

<sup>38</sup> “ACCESS TO ADVANCED SERVICES: Access to advanced telecommunications and information services should be provided in all regions of the Nation.” 1996 US Telecommunications Act, Section 254(b)(2) on the principles for the preservation and advancement of universal service.

<sup>39</sup> “National regulatory authorities shall ensure the provision, subject to technical feasibility and economic viability, of the facilities listed in Annex III (1)...” Article 9(1) Directive 95/62/EC of the European Parliament and the Council on the application of open network provision (ONP) to voice telephony. The first facility mentioned in Annex III is DTMF, a standard permitting fax and 9600 bps data transmission.

complement the long-term strategy of hooking up all those households who want to be connected to the NII.”<sup>40</sup>

Again this is reflected in Section 254 of the US Telecommunications Act of 1996 when it states that “Elementary and secondary schools and classrooms, health care providers, and libraries should have access to advanced telecommunications services...” The very fact that the Bill anticipates that access to the NII will occur via the traditional purveyors of information in society - schools and libraries - appears to suggest that despite the rhetoric about new ICTs facilitating a revolutionary change in society, that in fact the NII is merely an extension of existing public information services, albeit one with the potential to offer a far greater range of information.

Furthermore, as is the case in the US, the High Level Group of Experts suggests that universal service with regard to “new information services” might be initially limited to “universal community service”, that is limiting the universal obligation to “educational, cultural, medical, social or economic institutions of local communities.”<sup>41</sup> As in the US, this suggests an evolutionary rather than a revolutionary increase in the level of information available to members of society.

#### **10. 2. 4 The Irish Version of USO in an Information Society**

At national level, the specifics of what universal service will entail in the context of an Information Society are less concrete. However, having favoured the provision of “affordable access to information networks and services” to “every citizen and enterprise,”<sup>42</sup> the Irish Information Society Steering Committee report envisages that this will be achieved by using “fiscal incentives” to encourage enterprises and households to acquire PCs/information appliances. Adopting the European approach again, it also envisages the deployment of “appropriate access technology at convenient points in local

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<sup>40</sup> National Telecommunication and Information Administration (1995), Falling Through the Net: A Survey of “Have Nots” in Rural and Urban America, (Washington D.C.: US Department of Commerce).<sup>40</sup>

<sup>41</sup> Article 9(1) Directive 95/62/EC of the European Parliament and the Council on the application of open network provision (ONP) to voice telephony, p. 3.

<sup>42</sup> Information Society Steering Committee (1997), Information Society Ireland. Strategy for Action, (Dublin: Forfás), p. vi.

communities”<sup>43</sup> Furthermore, looking to the question of infrastructure provision, it recommends the enhancement of existing cable and wireless networks to provide interactive services with a view to providing “access to broadband services for the majority of Irish households.”<sup>44</sup>

### **10.2.5 The Weaknesses of Information Society Theory**

The previous material notwithstanding, this research would argue that there are two major flaws in theories underlying the pursuit of Information Society policies - flaws which are sufficient to prompt a reconsideration of whether there is yet any real value in reconceptualising universal service to account for new ICTs. The two flaws are:

- a) The problem of the notion of technological determinism
- b) The validity of the concept of information poverty.

#### **10.2.5.1 Technological Determinism**

Daniel Bell’s post-industrial or information society thesis has long been subject to the criticism that his analysis is solely predicated on changes in the nature of work. As Frank Webster argues:

“There is no inherent reason why increases in professionals... should lead one to conclude that a new age is upon us. For instance, it seems perfectly reasonable to suppose that if, say the pattern of industrial ownership remained the same and the dynamic which drove the economy stayed constant, then the systems - occupations apart - would remain intact. No one has suggested, for example, the a country such as Switzerland, because it is heavily reliant on banking and finance is a fundamentally different society to, say, Norway or Spain where occupations are differently spread.”<sup>45</sup>

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<sup>43</sup> Information Society Steering Committee (1997), Information Society Ireland: Strategy for Action, (Dublin: Forfás), p. vi.

<sup>44</sup> Information Society Steering Committee (1997), Information Society Ireland: Strategy for Action, (Dublin: Forfás), p. vii.

<sup>45</sup> Frank Webster (1995), Theories of the Information Society, (London: Routledge), p. 38.

Furthermore, however, Bell argues that the move to a post-industrial society occurs as a result of technology which permits increased productivity and thus creates the income that Bell assumes will be spent on services. In short Bell's analysis is driven by technological determinism, a theory which, as Webster argues, has long been considered "suspect"<sup>46</sup> by the social sciences. Technological determinism argues that a) technologies alone are the decisive agents of social changes but that b) despite this, technologies themselves are immune from any social shaping. As a result, technological determinism ignores the acknowledged influence of "people, capital, politics, classes" etc., on the shape of society. As Webster puts it:

"Can it seriously be suggested that technologies are at once the motor of change and simultaneously untouched by social relations?"<sup>47</sup>

However, when one examines EU/NTIA conceptions of the Information Society, one is struck by the intellectual conservatism manifested in the extent to which they take for granted the notion that technological advances alone will provoke societal change. EU/NTIA Information Society literature is virtually a case study of technological determinism. For example, to take the first of the seven advances referred to section 10.2.2 above, that ISPO predicts an Information Society will bring about: "improved health care." The ISPO document simply assumes that because it is technologically feasible to create a medical system pervaded by new ICTS, that an unstoppable momentum will result in such advances. The question of whether governments will allocate funds to facilitate such advances in health care is taken by the ISPO document to be a moot point. The spread of such technology is taken to be driven by an internal momentum for which public policy has no relevance.

Similarly, the suggestion that democracy will be strengthened by better channels of communications between the governed and the government seems particularly fatuous, suggesting that only the existing (implicitly inefficient) communications system bars voters from communicating with and influencing their public representatives. Yet it might reasonably be argued that the postal system and the telephone would be sufficient to permit such effective communication, were it not for the fact that individual public representatives interpose gatekeepers between them and the public they represent: for

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<sup>46</sup> *Ibid.*, p. 39.

<sup>47</sup> *Ibid.*

example the TD's secretary who answers the phone. The question of why new channels of communications between voters and their representatives would lead the latter group listening to the former any more than is the case via letters and the telephone system is not addressed. Is there any reason to believe that gatekeepers would not also have a role in "an information society"?

The "technologically determinist" argument can perhaps most easily be levelled at the Irish Information Society document. Considering the social impact of the Information Society, the Report predicts that once Ireland decides that access to skills and information will be universal and affordable, "many groups considered disadvantaged in the context of Ireland's present economic and social structures will find it considerably easier to participate in the economic benefits of the Information Society."<sup>48</sup> The underlying issue however – economic inequities in Ireland's social structure – is ignored in favour of a technological fix for the problem of the "disadvantaged." Furthermore, with regard to the political impact of an Information Society, the Report claims that "decision-making processes will be more localised, allowing community and regional democracy to flourish."<sup>49</sup> Again, technology is imbued with what in communications theory would be termed the hypodermic needle effect, suggesting that the "injection" of technology will be sufficient to overcome traditionally centralised and secretive decision-making processes. The fact that the potential inherent in the technology would need to be accompanied by a political willingness to decentralise power is ignored.

In short, the EU/NTIA Information Society vision is almost exclusively driven by the perceived socially transformative powers of technology despite the fact that as at least one EU report (that of the Social Affairs Directorate-General's High Level Group of Experts on the Information Society) opportunities for:

"renewed growth, higher welfare and quality of life depend crucially on what we would call the congruence between the technological, economic and social dimensions of the Information Society."<sup>50</sup>

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<sup>48</sup> Information Society Steering Committee (1997), Information Society Ireland: Strategy for Action, (Dublin: Forfás), p. 10.

<sup>49</sup> *Ibid.*, p. 22.

<sup>50</sup> High Level Group of Experts (1996), Building the European Information Society for Us All, (Brussels: DG V, European Commission), Letter of submission by Professor Luc Soete, Chairman of the Group.

That is, the introduction of new technology alone is unlikely to lead to a new society, whilst existing patterns of industrial ownership and social relations persist.

#### 10.2.5.2 The Validity of the Concept of Information Poverty

As noted above (section 10.2.1), the key rationale underlying proposals to extend the universal service obligation to new ICTs is a concern that the Information Society will develop into a two-tier society, of information haves and have-nots. As Brennon M. Martin puts it: “Someone who has a network connection in the home is said to be information rich relative to someone who does not.”<sup>51</sup> Yet as Martin again points out, this conceptualisation is inadequate since it:

“fails to recognise that there is nothing inherently informative about anything written, typed, spoken, drawn or photographed. Information is something intangible that must be mined from data in any form and put to use by whoever is doing the mining.”<sup>52</sup>

Arguably, with regard to accessing information over a new technology such as the internet, there are two levels of accessibility. First there is the need to have access to the technology - PC, modem, etc. - but thereafter actual information, i.e. meaningful, useful data - can only be accessed if the reader is capable of understanding what the author is trying to say. To illustrate the point Martin cites a hypothetical case of two people living in the same town: a university student with access to college Internet access and an immigrant with no income and no English. By the traditional conception of information poverty the student would clearly be far richer than the immigrant. However in the hypothetical scenario, the student loses his wallet and keys during the holidays, and is locked out of his home with no money. As night falls and the snow starts to fall the student has little choice but to roam the streets until the next morning when his housemates will return. Meanwhile however, the immigrant is sitting sipping warm soup in the local homeless shelter she has heard about from other indigent immigrants. In this context, it is the immigrant who is information rich.

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<sup>51</sup> Brennon M. Martin (1996), Universal Service and Information Poverty: A New Look at an Old Problem, p. 3. Sourced from <http://weber.u.washington.edu/~brennon/html/papers/tis96.html>.



The point is that information poverty is a situational condition and thus it is “impossible to classify any one individual as being information rich or poor except in very specific instances.”<sup>53</sup> As a result, a policy of universal service which seeks to provide universal access to communications technologies may not alleviate specific instances of information poverty.

However this does not necessarily rule out any role for a communications network in problem solving. Martin notes that a communications network might assist in this context “either by providing information from an outside source or by helping the community to produce its own information.”<sup>54</sup>

### 10.2.5.3 Back to the Future: the Case for Universal Service and POTS

In considering the future of universal service, the interim report from the EU’s High Level Group of Experts on the Social and Societal Aspects of the Information Society noted that “in the newly emerging Information Society the old basic provisions *might* no longer fulfil basic communication needs.”<sup>55</sup> (Italics added) It went on to stress that, in considering the future of the universal service obligation, it is important not to “get lost in technical standards” but rather to consider “the ‘functionality’ of the services and alternative technologies.”<sup>56</sup> Implicitly then, the Report acknowledged that the existing basic level of universal service might be sufficient to ensure full participation even in an information society.

Looked at in this light, the Information Society Ireland Report’s commitment to universal service with regard to new ICTs appears somewhat short-sighted. The Report consistently fails to offer any convincing rationale as to why universal service should be pursued with regard to new ICTs, beyond the implication that new ICTs will become so pervasive in an Information Society that those without access to them will become increasingly peripheral

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<sup>52</sup> Ibid.

<sup>53</sup> Ibid., p. 15.

<sup>54</sup> Ibid.

<sup>55</sup> High Level Group of Experts on the Social and Societal Aspects of the Information Society *Building the European Information Society for Us All*, p. 41.

<sup>56</sup> Ibid.

to the core of society (which implicitly will increasingly be constituted by those with access to such technology).

Yet if such a rationale can be applied to new technologies which may or may not become widely diffused, is there not a far stronger case for applying it to that information and communication technology that is already so pervasive in Ireland: the telephone?

Furthermore, the telephone is a technology which is inherently better suited to satisfying the criteria laid down by Martin (above) for dealing with the possibility of information poverty. Martin notes that access to new ICTs is not necessarily equivalent to accessing information. This is particularly the case with one-way ICTs which cannot easily be interrogated by the user. Furthermore, even new two-way communication technologies such as electronic mail do not offer the potential for clarification of data that a telephonically-mediated dialogue, rich in the subtle nuances of voice, can provide.

In short, before moving beyond POTS to consider new universal service obligations for ICTs, the argument can be made, using the terms of the universal service with regard to new ICTs debate, for a return to the still unresolved question of universal service with regard to the telephone in Ireland.

### 10. 3 The Future of the USO with Regard to POTS in Ireland

According to a March 1995 report from the Telephone Users' Advisory Group (TUAG), the body established by then Minister for Communications, Brian Cowan, in the wake of the 1993 tariff change, set the specific objectives of rebalancing to:

- protect the revenue base of Telecom Eireann
- improve business competitiveness by reducing costs
- promote more efficient use of the telephone system through reducing the cost of short duration calls, charging a "realistic rate" for long duration calls and shifting less essential calls to off-peak periods
- develop and extend the use of the telephone system for social purposes by reducing very considerably the cost of using an under-utilised system during off-peak hours.

Looked at objectively, it appears that the rebalancing reversed Telecom Eireann's tariff structures almost overnight. Although Ireland has, since 1992, followed the general international trends towards lower international/long distance call rates and increased local call rates and line rental, it appears to have done so to an extreme degree. From having amongst the cheapest local calls in Europe immediately pre-rebalancing, as of May 1996 (largely because the introduction of local call timing in January 1992 occurred later than in most EU countries<sup>57</sup>), Ireland has the fifth most expensive peak rate local calls in the EU<sup>58</sup>. At the same time, Ireland is among the three cheapest nations in Europe from which to make calls to the US and the rest of Europe.<sup>59</sup>

It has been impossible to accurately estimate the full impact of the 1993 changes on different categories of customers. Although the primary purpose of the Telephone Users' Advisory Group was to do precisely this, the Group itself acknowledges that in the absence of sufficient historical data prior to rebalancing, it has been forced to use a call

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<sup>57</sup> Telephone Users' Advisory Group Report of the Telephone Users' Advisory Group, September 1996, (Dublin: TUAG, September 1996), p. 13.

<sup>58</sup> *Ibid.*, p. 52.

basket based on an average telephone bill for a two week period in September 1993. Since this period coincided with the implementation of the tariff changes, and thus a temporary but substantial decline in overall traffic levels, the resulting basket was clearly unrepresentative.<sup>60</sup> Nonetheless, even using this basket, TUAG concluded by March 1995 that 60% of residential subscribers had subsequently experienced increases in their telephone bills. Indeed nearly a third of residential customers experienced increments of more than 10%.<sup>61</sup> By contrast, some 78% of business subscribers experienced decreases, while in percentage terms, those businesses experiencing increases in their bills, experienced smaller increases than those typical of the residential subscriber. Yet despite this, in the longer term, the rebalancing has had no apparent impact on the demand for residential lines, which rose from 75 per 100 homes in 1994 to 82 in 1996. Thus one of the key universal service indicators survived the changes intact.

However, the pressures of competition which led to the rebalancing have, if anything, increased since 1993. This has been encouraged, not just by ongoing EU progress towards liberalization, but also by Ireland's acceptance of the General Agreement on Trade in Services when it signed the last GATT agreement in 1994.<sup>62</sup> Thus, in Telecom Eireann's 1993/94 annual report, chairman Ron Bolger noted of the launch of several new competitive services that year, that while it was not Telecom Eireann's first experience of competition, "the scale and intensity were new."<sup>63</sup> Telecom increasingly faces competition in virtually all of its markets. Esat Telecom, first licensed in December to compete with Telecom Eireann over leased lines, announced plans in March 1995 to extend its network nation-wide, having previously focused on the Dublin market.<sup>64</sup> A second mobile phone operator, Esat Digifone, was licensed in October 1995 and commenced operations in March 1997. Meanwhile, the provision of leased line services in particular, and the ability of service providers to set up 'closed user groups' has continued to enhance the capacity of

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<sup>59</sup> Ibid., pp. 55-58.

<sup>60</sup> Ibid., p. 19. Serious doubts must be raised as to the validity of this assertion. Over 60% of TE subscribers were attached to digital exchanges by 1993, thus accurate data should exist for such customers prior to the changes.

<sup>61</sup> Ibid., p. 20.

<sup>62</sup> Drahos and Joseph note that the Appendix on Telecommunications attached to the GATS effectively requires the liberalisation of telecommunications services when states open up certain service sectors. Peter Drahos and Richard A. Joseph (1995), "Telecommunications and Investment in the Great Supranational Regulatory Game," *Telecommunications Policy*, Vol. 19, No. 8, pp. 619-635.

<sup>63</sup> Telecom Eireann (1994), *Annual Report and Accounts for the Year Ended 31 March 1994*, p. 8.

<sup>64</sup> Tom McEnaney, "Esat plans £25 million network", *Irish Times* 31/3/95.

major users of international telecommunications services to bypass Telecom Eireann in order to obtain the most cost-effective services for international traffic. Call-back technology also continues to have an impact on Telecom Eireann's international traffic.<sup>65</sup> Furthermore, the liberalisation from July 1997 of alternative infrastructures (such as those owned by other state utilities) will add yet another dimension to the already substantial competitive pressures faced by Telecom.

Telecom Eireann's business market has proved vulnerable to cherry-picking from new market entrants: as of September 1995, just 1,600 customers in the large corporate category account for £78.5 million of Telecom Eireann's revenue. As TUAG pointed out at the time, the loss of these customers, just 0.2% of the entire customer base, would wipe out most of Telecom Eireann's profitability. Furthermore, since 95% of them were headquartered around Dublin city, they have been relatively easy targets for new market entrants.<sup>66</sup> Thus, a second Irish-based leased lines operator, TCL, had, by January 1993, won almost 300 corporate customers from Telecom Eireann.

Given this, ongoing changes in Telecom's pricing structure have clearly been designed to retain the largest possible share of the business market. Noting in the company's 1995/96 annual report that "our prices must fall considerably if we are to remain competitive," Telecom Chief Executive, Alfie Kane, also announced a £65 million package of reductions in international and national trunk calls.<sup>67</sup> Furthermore, as of mid 1996, Telecom Eireann tariffs for international freefone calls were amongst the lowest in Europe and "a significant factor in attracting telemarketing and telesales companies to Ireland."<sup>68</sup>

Telecom have consistently argued that their international tariffs were not merely uncompetitive but objectively overpriced, and has cited EU pressures to move towards cost-oriented tariffs as requiring it to reduce its international tariffs. Yet it is unlikely that reductions seen in international and trunk call tariffs since 1993 will continue indefinitely without a further rebalancing, i.e. an increase in local rates. In a submission to the European Union, the Irish government has suggested that unit based call charging may be

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<sup>65</sup> Ibid., pp. 16-17.

<sup>66</sup> Telecom Eireann Staff, The Future of the Telecommunications Industry in Ireland - a submission on behalf of the staff of Telecom Eireann. Cited in *ibid.*, p. 38.

<sup>67</sup> *Ibid.*, p. 16.

<sup>68</sup> Work Research Centre (1996), *The Future of Dublin City: Employment through Telework and Telebusiness*, (Dublin: WRC), p. 8.

replaced by duration-based charges (i.e. calls timed by the second).<sup>69</sup> Furthermore, the assertion in the same submission that connection and rental charges are loss-making for Telecom Eireann, along with the EU requirement that all tariffs be cost-oriented (emphasised in the Commission response), will see a mounting pressure for increases in these areas as well.<sup>70</sup>

Yet despite Telecom Eireann's assertions, the company has yet to publish any factual data that would either confirm or refute its argument about its cost structures and the need to adjust them. This is a critical issue, however, since as TUAG has argued, the allocation of costs with regard to telecommunications is, far from being objective, to a large degree a political question:

“Operators have traditionally argued that rental and local call rates have been subsidised at the expense of long distance and international rates and that the allocation of costs where they lie will mean upward pressure on local rates... The Group would like to note one caveat regarding the general idea of operators moving to cost-based tariffing. In telecommunications operations, a high proportion of costs is not directly attributable and there is considerable flexibility in allocation costs to various parts of the business. An operator has to allocate costs somewhere, and there could be substantial disagreement among different commentators as to how this should be done.”<sup>71</sup>

Given that Telecom faces competition in the business market, but has a monopoly in the residential market, it could be argued that it would be in the interest of the company to ascribe as much of the cost of running the network as possible to those calls most associated with residential customers, i.e. local calls, with a view to using profits from the residential users to subsidise low prices in the competitive market. If such a practice were ongoing, the absence of any obligation on the company to publish its cost structure means that the company could continue such a practice indefinitely.

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<sup>69</sup> CEC (1996), Commission Decision of 27 November 1996 concerning the additional implementation periods requested by Ireland for the implementation of Commission Directives 90/388/EEC and 96/2/EC as regards full competition in the telecommunications markets, (97/114/EC) OJ No. L 4/8-21.

<sup>70</sup> *Ibid.*

<sup>71</sup> *Ibid.*, p. 34.

Such would not be the case if Telecom Eireann faced a defined and costed universal service objective. Yet whilst the driving influence of European Union directives in promoting competition in the Irish market has clearly been felt, the EU has, as of 1997, offered no corresponding directive on universal service. EU thinking on universal service, however, was if anything made more critical for Ireland, when the possibility emerged in 1996 that the EU might establish a supranational telecommunications regulatory body, once the majority of the EU members states fully liberalised their markets in 1998. In the ensuing debate over the pros and cons of a supranational authority vis-a-vis an NRA (National Regulatory Authority), the principle of subsidiarity was inevitably raised, since the question basically came down to one of whether such regulation could be sufficiently achieved at national level or whether it could be better dealt with at European level. As yet the issue remains to be fully resolved: nonetheless Cave and Crowther<sup>72</sup> have offered four criteria - efficiency, equity, accountability and consistency with the single market - by which to judge where responsibility for telecommunications regulation should lie according to the subsidiarity concept. They concluded that some regulatory functions would be better handled at Community level rather than national level: for example, externalities would flow from placing licensing and spectrum allocation under the aegis of a single pan-European telecommunications body.<sup>73</sup> Conversely, however, the same authors have concluded, with regard to the regulation of universal service in particular, that "accountability factors would strongly suggest that some form of national regulation is most appropriate."<sup>74</sup> Furthermore, they noted that universal service could only be regulated at a European level if:

"Europe consisted of a homogenous group of people, all with identical preferences as to which services should be regarded as falling within a universal service obligation."<sup>75</sup>

Since this was not the case (as this research argues), any European regulator seeking to impose universal service obligations would have to be "perfectly informed about different political pre-occupations and values in all the different Member States."<sup>76</sup> However since

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<sup>72</sup> Martin Cave and Peter Crowther (1996), "Determining the level of regulation in EU telecommunications," *Telecommunications Policy*, Vol. 20. No. 10, pp. 725 - 738.

<sup>73</sup> *Ibid.*, p. 730.

<sup>74</sup> *Ibid.*, p. 729.

<sup>75</sup> *Ibid.*

<sup>76</sup> *Ibid.*

gathering such information would cost so much, the efficiency criterion would require that universal service regulation remain in national hands. Ultimately then Cave and Crowther argue that they can find “no compelling theoretical arguments... in favour of the institution of an independent regulator,” suggesting instead that a set of EU framework legislation would be sufficient.

In the interim, what activity there has been at EU level, on considering the future of universal service in a competitive environment, appears to concur with Cave and Crowther’s logic. The March 1996 European Commission’s document on universal service: “Universal Service for Telecommunications in the Perspective of a Fully Liberalised Environment,” offered a framework definition of universal service under the three headings of scope, affordability and financing.

Scope referred to the “provision of voice telephony via a fixed connection which will also allow a fax and modem to operate, as well as the provision of operator assistance, emergency and directory enquiry services...and the provision of public payphones.”<sup>77</sup> Users were also to have access to “published information about the cost and prices of services<sup>78</sup> as well as quality of service indicators. Users were to be given “the possibility of accessing not only the defined voice telephony services but all services that can be provided over today's telecommunications networks”<sup>79</sup> (e.g. the internet). Affordability, although described as “crucial to the extension of telecommunications services to every citizen,” was nonetheless to be dealt with at a national level, “because it is so closely linked to specific national circumstances.”<sup>80</sup> Finally, financing also remained ill-defined beyond the assertion that any “financial burden associated with providing universal service be shared out amongst market players.”<sup>81</sup> However, the Commission did envisage payments being made into an independent universal service fund or directly to those operators providing universal service as an additional payment for interconnecting with their network.<sup>82</sup>

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<sup>77</sup> Universal Service for Telecommunications in the Perspective of a Fully Liberalised Environment COM(96) 73 Final, 13th March 1996, p. 5.

<sup>78</sup> Ibid.

<sup>79</sup> Ibid.

<sup>80</sup> Ibid., p. 6.

<sup>81</sup> Ibid., p. 6.

<sup>82</sup> Ibid., p. 6.



Crucially, however, by placing the question of affordability into national hands, the European Commission has returned responsibility for universal service to the hands of the national regulators. Since 1983, the Department of Communications has occupied the dual role of sole shareholder and regulator of the company, although as noted in chapter eight, there's little evidence that it has actively fulfilled the latter role. However, in June 1996, the Government agreed the sale of 35% of Telecom Eireann (characterised as "strategic alliance") to a KPN/Telia consortium. This fact, combined with the introduction of competition into the mobile telecommunications market,<sup>83</sup> required the government to pass the "Telecommunication (Miscellaneous Provisions) Bill, 1996." This bill permitted the transfer of shares in Telecom to KPN/Telia and transferred the regulatory function of the Minister for Communications to the then unappointed Director of Telecommunications Regulation.<sup>84</sup> Given that the Act defines the duties of the regulator, it might have been expected that it would include some criteria by which the regulator could assess the performance of companies competing in the Irish market (including Telecom Eireann). Instead, however, the Bill simply stated that any licence granted by the Director to a telecommunications company "shall include public service requirements,"<sup>85</sup> without offering any description of what these requirements might entail.

Yet, by late 1996, the absence of such a requirement was becoming increasingly worrisome: although between 1984 and 1996, household penetration had increased at a steady pace, Telecom Eireann's 1997 annual report noted that the level of penetration had actually fallen from its figures of 82 per 100 households in 1996 to 81 in 1997.<sup>86</sup> It has been suggested that this decline might be partially accounted for by a boom in new house building, but figures presented to the European Commission by the Department of Communications, as part of a request for a derogation in the introduction of competition into the Irish voice telephony market, suggested that as a result of "a combination of demographic and economic factors specific to Ireland there is actually no demand for further telephone lines by households."<sup>87</sup> The paucity of the reasoning used to explain this

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<sup>83</sup> In March 1997, Esat Digifone, a private mobile phone system operator licenced by the state commenced operations.

<sup>84</sup> Telecommunications (Miscellaneous Provisions ) Bill, 1996.

<sup>85</sup> Ibid. p. 5.

<sup>86</sup> Telecom Eireann (1997), Annual Report and Accounts for the Year ending 3 April 1997, p.17.

<sup>87</sup> CEC (1996), Commission Decision of 27 November 1996 concerning the additional implementation periods requested by Ireland for the implementation of Commission Directives 90/388/EEC and 96/2/EC as regards full competition in the telecommunications markets, (97/114/EC) OJ No. L 4/8-21.

(that larger household size in Ireland reduces the potential for additional residential penetration<sup>88</sup>) raises concerns that what is really missing is effective demand, that is, demand backed up by an ability to pay. The suggestion that one fifth of Irish households may simply not want a telephone, although not impossible, seems less plausible than the suggestion that demand is dropping because of the rising cost of residential telephony. Given this, there is if anything a greater need than ever before for a far more proactive version of universal service than has been the case hitherto in Ireland.

Attention has been called to the absence of “a clearly defined, transparent and publicly known policy concerning universal service obligations”<sup>89</sup> by what remains the only detailed public examination to date in Ireland of the question of universal service: that contained within the March 1995 TUAG document “Future Trends as they Relate to Tariffs in the Telecommunications Sector.” Since the Advisory Group is the only Irish public body with a mandate from the Minister for Communications to consider social aspects of Irish telecommunications policy, its conclusions represent the state of the art so far as public thinking on universal service has gone in Ireland up to this point.

The key assumption underlying the report is that competitive pressures on Telecom Eireann will increase in the future, creating pressure for further rebalancing. However, in a veiled criticism of the failure thus far on the part of Telecom Eireann to provide any documented evidence that international calls are in fact subsidising local calls, the report argues that any further rebalancing could only occur if there is transparent information about imbalances between costs and revenues for specific call categories. It further argues that the social impact of any rebalancing should be taken into account in deciding exactly how any future changes in charging structures will be put into effect.<sup>90</sup>

Furthermore, adverting to the fact that an increasing proportion of Telecom Eireann’s investment in technology has been dedicated to the development of advanced services aimed primarily at the business community, the Group argues that:

“these investments should be recovered through the tariffs for new services in line with the European Union's overall policy in relation to cost-based tariffs. The cost

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<sup>88</sup> Ibid.

<sup>89</sup> Telephone Users' Advisory Group (March 1995), Future Trends as they relate to Tariffs in the Telecommunications Sector, (Dublin: TUAG), p. 42.

of new services should not, in particular, be levied on the existing public voice telephony services.”<sup>91</sup>

Moving to the financing of universal service, the report recommends the establishment of an independent regulator to ensure that “costs in relation to universal service be shared equally” between companies operating in a fully competitive market.<sup>92</sup> Considering the sourcing of universal funds, the Group is adamant that in the event that the cost is included in the prices of services (as opposed to a universal service fund), the costs should not be borne by connection fees, rental charges and local call tariffs in isolation. Noting that international calls would be impossible without the prior existence of the local loop, it argues that if, for example, international calls account for 20% of all call revenues, international calls tariffs should bear 20% of the costs of the universal service obligation.

In sum, the Group recommends that:

“A clearly defined, transparent and publicly known policy concerning universal service obligations should be established. This should ensure that the costs of universal service are shared equally between both service providers and between services. In the latter context, it is emphasised that long distance and international call charges should include a reasonable element of the costs of universal service. Access deficits which are recoverable through future rental charges and contributions from call revenues should not be included in the costs of universal service.”<sup>93</sup>

However, the group’s ultimate definition of universal service remains relatively passive. Offering a working definition, the Group describes universal service objectives as “an obligation imposed on a telecommunications operator to serve all customers, regardless of geographical location or social standing, at an affordable (common) price.”<sup>94</sup> In effect then, the most detailed Irish public discussion of universal service still conceives of it as little more than common carriage.

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<sup>90</sup> Ibid., p. 6.

<sup>91</sup> Ibid., p. 28.

<sup>92</sup> Ibid., p. 32.

<sup>93</sup> Ibid., p. 42.

<sup>94</sup> Ibid., p. 39.

#### 10.4 “The Citizenship Thesis”: The Future of Universal Service?

Despite the detail in which TUAG have considered the question of universal service, the fact remains that the Group’s deliberations have remained focused on the question of the “what” of universal service. What is still missing from any Irish debate on the subject is the question of “why universal service?” Although in the short term, the focus on ensuring that service costs remain affordable is logical, in the longer term, the absence of any coherent philosophy of why the achievement of universal service is necessary may see its attainment undermined.

In the absence of any external philosophy, this research proposes the pursuit of the “citizenship” approach to the concept outlined below. Encouragingly, given its agenda-setting influence, the European Commission’s most detailed consideration to date of USO, “Universal Service for Telecommunications in the Perspective of a Fully Liberalised Environment,” eschews the general tendency in EU telecommunications policy documents to refer to subscribers as consumers. Instead it refers to facilitating access to all citizens. It similarly argues that too narrow a definition of universal service might keep citizens “out of full participation in society,”<sup>95</sup> explicitly recognising the “citizenship thesis” of universal service outlined below.

Anthony Giddens<sup>96</sup> has argued that late capitalism/modernity is characterised by an increase in individual mobility and in spatial scales of social as well as economic relations. Increasingly, workers (particularly in open economies such as Ireland) must be prepared to relocate internationally in the pursuit of employment. This contributes to an even greater dispersal of family and friendship relations. Furthermore, the course of the 20th century has seen our non-work lives become increasingly privatised and focused in intimate relations. In an age where limited mobility also limited the number of people one was likely to encounter in a given day, there was less need for gradations of intimacy. In a modern society, however, particularly an urbanised one where one may encounter many individuals on a daily working basis, the relative importance of intimate relations in the private sphere increases. Hence, modernity sees a community-oriented way of life increasingly undermined by a more individualistic, home-oriented way of life. In this

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<sup>95</sup> Universal Service for Telecommunications in the Perspective of a Fully Liberalised Environment COM(96) 73 Final, 13th March 1996, p. 8.

<sup>96</sup> Anthony Giddens (1991), Sociology. (London: Sage).

context, the telephone offers a means of maintaining a virtual community between individuals.

Yet, whilst the private home increasingly becomes the focus of modern existence, the average individual requires and has to process a very wide range of different types of (often specialised) information. Individuals have to encounter and negotiate rights/entitlements with a wide range of agencies and bureaucracies. And (as chapter eight suggests) the assumption is made by these agencies themselves that access to the telephone on the part of the citizen is a given. Thus, the telephone acts as conduit between the public and private spheres. Yet public information (such as that provided by Social Welfare Agencies) ceases to be public (and in fact becomes a private commodity) if the means of accessing that information (the telephone) is not available as a right. Thus, in a modern society, where the telephone has become a consumption norm, it becomes more and more important to have access to POTS in order to fully exercise one's rights as a citizen.

A politico-philosophical rationale would make the facilitation of the exercise of citizenship rights the primary aim of any universal service objective. Yet it is not sufficient to argue for universal service in general terms, as the TUAG discussion above does, in the hope that the aims implicit in the politico-philosophical version of universal service will be achieved. Unless they are put forward as explicit aims of universal service, it is unlikely that they will be achieved: thus Telecom Eireann's stated goal<sup>97</sup> of 100% household penetration by the year 2000 does not actually commit the company to achieving it and has in any case been undermined by the suggestion that having reached 80% household penetration thus far, there may be a substantial drop in effective demand thereafter. Thus, the social goal of universal service in Ireland remains limited to emergency prevention (via the free telephone rental scheme).

The cost objections raised to any suggestion that the social objectives of universal service be extended to cover the population as a whole (that is to expand penetration via an expanded social welfare subsidy which targets not just pensioners living alone but any group unable to afford the telephone) reflect the fact that the telephone is still seen as a consumer good. But this conception should be open to question in a modern world. Most international and national declarations of human rights describe communication as a

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<sup>97</sup> Telecom Eireann (1996). Annual Report and Accounts for the Year ended 4 April 1996, p.18.

fundamental right: however, in a society where communication is frequently mediated by communications technology, it can be argued that access to that technology should also be a right. From this perspective, access to the telephone is no less of a basic right of citizenship than the right to vote. As such, questions of how to pay for those rights should be secondary rather than primary concerns.

Citizenship rights today (no more than in the past) are not fixed or pre-given, but they are defined and asserted in the process of political struggle and conflict. Universal service is but the latest site for that conflict. Before Ireland moves to consider the danger that a two-tier society may emerge with regard to access to new ICTS, it would be logical to first rectify the existing "two-tieredness" with regard to the most basic telecommunications technology - the telephone.

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**Appendix 1: Ministers for Posts and Telegraphs 1922 - 1997**

<b>Party Affiliation</b>	<b>Minister</b>	<b>Term of Office</b>	<b>Parliamentary Secretary (If any)</b>
Cumann Na nGaedhael	JJ Walsh	1922 - 1927	
Cumann Na nGaedhael	Ernest Blythe	1927 - 1932	Michael R. Heffernan
Fianna Fail	Joseph Connolly	1932 - 1933	
Fianna Fail	Gerry Boland	1933 - 1937	
Fianna Fail	Oscar Traynor	1937 - 1939	
Fianna Fail	Thomas Derrig	1939	
Fianna Fail	Patrick Little	1939 - 1948	
Labour	James Everett	1948 - 1951	
Fianna Fail	Erskine Childers	1951 - 1954	
Fine Gael	Michael Keyes	1954 - 1957	
Fianna Fail	Neal Blaney	1957	
Fianna Fail	Sean Ormonde	1958 - 1959	
Fianna Fail	Michael Hilliard	1959 - 1965	
Fianna Fail	Joseph Brennan	1965 - 1967	
Fianna Fail	Erskine Childers	1967 - 1969	Patrick Lalor
Fianna Fail	Patrick Lalor	1969	
Fianna Fail	Gerry Collins	1970 - 1973	
Labour	Conor Cruise O'Brien	1973 - 1977	
Fianna Fail	Padraig Faulkner	1977 - 1979	
Fianna Fail	Albert Reynolds	1979 - 1981	
Fine Gael	Patrick Cooney	1981 - 1982	
Fianna Fail	John Wilson	Feb-Nov 1982.	
Fine Gael	Jim Mitchell	1982 - 1987	
Fianna Fail	Ray Burke	1987 - 1991	
Fianna Fail	Seamus Brennan	1991 - 1992	
Fianna Fail	Maura Geoghegan-Quinn	1992	
Fianna Fail	Brian Cowan	1992 - 1994	
Fine Gael	Michael Lowry	1995 - 1997	
Fine Gael	Alan Dukes	1997-	

Annex 11: Number of Telephones in Great Britain 1884 - 1920.						
Year	P.O.	N.T.C.	Guernsey	Hull	Other Municipalities	Total
1884	748	10,600 <sup>1</sup>				
1887		18,912 <sup>2</sup>				
1890	5,000	40,000				45,000
1895	7,000	92,000				99,000
1900	8,800	200,200	1,000			210,000
1905	54,100	362,500	1,400	1,900	18,100	438,000
1910	121,100	534,400	1,900	3,100	2,500	663,000
1914	764,229			8,000 <sup>3</sup>		
1915	804,500		2,100	11,400		818,000
1920	970,000		2,600	13,200		986,000 <sup>4</sup>

Appendix III: Number of telephone sets in service in Ireland 1894-1984					
Year	Number	Business Sets	Private Sets	Connected to Automatic exchanges	Other Info.
31/1894	3,319				(Of which 1,350 in Dublin, 1,237 in Belfast, 461 in Cork, 116 in Derry and 155 in Limerick. <sup>5</sup> )
1914/15	23,706 <sup>6</sup>				
1915/16	23,693 <sup>7</sup>				
1922	19,218				
1923	18,453 <sup>8</sup>				
1924	19,467 <sup>9</sup>				
1925	20,577 <sup>10</sup>				
1926	22,525 <sup>11</sup>				
1927	24,937 <sup>12</sup>				
1928	25,317 <sup>13</sup>				
1929	26,934 <sup>14</sup>	24,613	4,378 <sup>15</sup>		
1930	27,992 <sup>16</sup>				
1931	29,422 <sup>17</sup>				
1932	30,835 <sup>18</sup>	27,288	5,285 <sup>19</sup>		
1933	31,486 <sup>20</sup>				
1934	32,284 <sup>21</sup>				
1935	35,820	29,873	5,947 <sup>22</sup>		
1936	37,712	31,052	6,660 <sup>23</sup>		
1937	40,382				
1938	42,521			22,000 - all in Dublin	
1939	44,260			24,000 - all in Dublin	
1939	50,000				18,000 (approx.) in provinces <sup>24</sup>
1940	46,340 <sup>25</sup>				
1941	48,100 <sup>26</sup>				
1942	49,621 <sup>27</sup>				
1943	50,578 <sup>28</sup>				
1944	52,631 <sup>29</sup>				
1945	54,105 <sup>30</sup>				
1946	56,356 <sup>31</sup>				
1947	58,759 <sup>32</sup>				
1948	66,589 <sup>33</sup>				
1949	73,431 <sup>34</sup>				
1950	82,031 <sup>35</sup>				
1951	90,307 <sup>36</sup>				
1952	97,388 <sup>37</sup>				
1953	103,792 <sup>38</sup>				40,000 (approx.) in provinces <sup>39</sup>
1954	109,734 <sup>40</sup>				
1955	116,224 <sup>41</sup>				
1956	123,619 <sup>42</sup>				
1957	129,553 <sup>43</sup>				
1958	137,587 <sup>44</sup>				

Appendix III: Number of telephone sets in service in Ireland, 1959 - 1984. (Contd.)

Year	Number	Business Sets	Private Sets	Connected to Automatic exchanges	Other Info.
1959	145,881 <sup>45</sup>				
1959 (1/1)	131,657				
1960	c. 150,000				
1961	160,350 <sup>46</sup>				
1962	172,340 <sup>47</sup>				
1963	184,079 <sup>48</sup>				
1964	195,225 <sup>49</sup>				
1965	206,149 <sup>50</sup>				
1966	217,102 <sup>51</sup>				
1968-69	274,134				
1972	328,480 <sup>52</sup>				
1973	348,291 <sup>53</sup>				
1974	372,811 <sup>54</sup>				
April-Dec					
1974	372,811 <sup>55</sup>				
1975	444,000 <sup>56</sup>				
1976	480,000 <sup>57</sup>				
1977	519,000 <sup>58</sup>				
1978	554,000 <sup>59</sup>				
1979	586,000 <sup>60</sup>				
1980	650,000 <sup>61</sup>				
1981	721,000 <sup>62</sup>				
1982	780,000 <sup>63</sup>				
1983	824,000 <sup>64</sup>				
1984	894,138 <sup>65</sup>				

Appendix IV: Number of Subscribers (Main/Exchange Lines) 1880 - 1918					
Date	Area	Company	Exchange	Private	Total
1880	Dublin	TTC	5 <sup>66</sup>		
7/1881	Dublin	UTC	20 <sup>67</sup>		
7/1881	Belfast	STE	133 <sup>68</sup>		
1/1882	Dublin	TCI	87	64 <sup>69</sup>	
3or4/1882	Dublin	TCI	166 <sup>70</sup>		
6/1882	Dublin	TCI	"Nearly 200" <sup>71</sup>		
7/1882	Dublin	TCI	206	80 <sup>72</sup>	
7/1882	Belfast	NTC	207 in <sup>73</sup>		
8/1882	Dublin	TCI	212	83 <sup>74</sup>	
9/1882	Dublin	TCI	229	86 <sup>75</sup>	
10/1882	Dublin	TCI	244	91 <sup>76</sup>	
11/1882	Dublin	TCI	271 <sup>77</sup>	95 <sup>78</sup>	
12/1882	Dublin	TCI	275	95 <sup>79</sup>	
1/1883	Dublin	TCI	301	105 <sup>80</sup>	
2/1883	Dublin	TCI	320	108 <sup>81</sup>	
3/1883	Dublin	TCI	341	113 <sup>82</sup>	
4/1883	Dublin	TCI	366	117 <sup>83</sup>	
5/1883	Dublin	TCI	381 <sup>84</sup>		
5/1883	Dublin	TCI	388	124 <sup>85</sup>	
6/1883	Dublin	TCI	411	127 <sup>86</sup>	
9/1883	Dublin	TCI	450 <sup>87</sup>	131 <sup>88</sup>	
10/1883	Belfast	NTC	231 <sup>89</sup>		
12/1883	Dublin	TCI	507	141 <sup>90</sup>	647
6/1884	Dublin	TCI	568	168 <sup>91</sup>	736
10/1884	Dublin	NTC	568 <sup>92</sup>		
6/1885	Dublin	TCI			845 <sup>93</sup>
12/1885	Dublin	TCI			878 <sup>94</sup>
12/1886	Dublin	TCI			915 <sup>95</sup>
1/1887	Belfast	NTC	419	101 <sup>96</sup>	
6/1887	?????	TCI			856
12/1887		TCI			936 <sup>97</sup>
1888	Dublin				500
12/1888	Dublin	TCI	"upwards of 700" <sup>98</sup>		970 <sup>99</sup>
1/1889	Cork	TCI	24 <sup>100</sup>		
4/1889	Cork	TCI	100 <sup>101</sup>		
12/1889	Ireland	TCI			1,309 <sup>102</sup>
12/1889	Cork	TCI	295 <sup>103</sup>		
12/1890	Ireland	TCI			1,473 <sup>104</sup>
12/1892	Ireland	TCI			1,538 <sup>105</sup>
8/1891		TCI	809 <sup>106</sup>		
8/1892		TCI	878 <sup>107</sup>		
5/1893		TCI	943 <sup>108</sup>		
1/1893		TCI	1530 <sup>109</sup>		
1894		TCI	1550 <sup>110</sup>		

Appendix IV: Number of Subscribers, Miles of Lines, and Exchanges, 1880-1915 (continued)					
Date	Area	Company	Exchange	Private	Total
8/1909					700 in Cork <sup>112</sup>
1/1911					6595 Dublin subscribers/7267 Belfast subscribers <sup>113</sup>
1918					12,400 <sup>114</sup> of which 6,400 in Dublin <sup>115</sup>

Appendix V: Main Subscribers 1923 - 1951					
Year	Number	Residential Subscribers	#/% Connected to Automatic Exchanges	#/% connected to Digital	Other Info
1923	11,978 <sup>116</sup>				
1924	12,472 <sup>117</sup>				
1925	13,206 <sup>118</sup>				
1926	14,540 <sup>119</sup>				
1927	15,924 <sup>120</sup>				
1928	16,953 <sup>121</sup>				
1929	17,998 <sup>122</sup>				
1930	18,584 <sup>123</sup>				
1931	19,380 <sup>124</sup>		6,750 auto - all Dublin <sup>125</sup>		
1932	20,182 <sup>126</sup>				
1933	20,395 <sup>127</sup>				
1934	20,639 <sup>128</sup>				
1935	21,223 <sup>129</sup>				
1936	21,773 <sup>130</sup>	17,000 business / 6,100 residential <sup>131</sup>			13,889 Dublin <sup>132</sup>
1937	23,293 <sup>133</sup>				
1938	24,394 <sup>134</sup>				
1939	24,981 <sup>135</sup>				
1940	25,896 <sup>136</sup>	31.8% residence	59% auto <sup>137</sup>		
1941	26,359 <sup>138</sup>	32% res	61% auto <sup>139</sup>		
1942	27,471 <sup>140</sup>	32.5% res (20,213 business / 8,683 residential <sup>141</sup> )	61% auto <sup>142</sup>		17,764 Dublin <sup>143</sup>
1943	28,676 <sup>144</sup>	31.4%	61.5% <sup>145</sup>		
1944	29,657 <sup>146</sup>	32.3%	60.5% <sup>147</sup>		
1945	33,471	32.6%	60% <sup>148</sup>		(Of 839 exchanges in Ireland 732 offered only restricted service hours to 5,900 subscribers. the other 107 offered continuous service to 27,300 subscribers) <sup>149</sup>
1946	34,667	32%	59% <sup>150</sup>		
1947	38,091	31%	59.5% <sup>151</sup>		
1948	41,277	32%	59.5% <sup>152</sup>		
1949	48,982	33%	65% <sup>153</sup>		
1950	54,972	34.3%	66% <sup>154</sup>		
1951	60,672	36%	67% <sup>155</sup>		

Appendix V. Main Subscribers 1923 - 1995 (Cont'd.)					
Year	Number	Residential Subscribers	#/% Connected to Automatic Exchanges	#/% connected to Digital	Other Info
1952	65,495	36.2%	69% <sup>156</sup>		
1953	70,267	36.5%	69.5% <sup>157</sup>		
1954	74,368	39%	70.5% <sup>158</sup>		
1955	79,166	39.5%	71% <sup>159</sup>		
1956	85,043	40.8%	70.5% <sup>160</sup>		
1957	89,896	42%	75.5% <sup>161</sup>		
1958	96,291	43.7%	76.5% <sup>162</sup>		
1959	102,652	46.5%	76.5% <sup>163</sup>		
1960	114,731	48.6%	76% <sup>164</sup>		
1961	114,800 <sup>165</sup>	(54,000 residence / 61,000 non-residence) <sup>166</sup>			
1962	124,750 <sup>167</sup>				
1963	134,524 <sup>168</sup>				
1964	143,832 <sup>169</sup>				
1965	152,449 <sup>170</sup>				
1966	161,000	(83,000 residence / 78,000 non-residence) <sup>171</sup>			
1969	207,934 (exchange lines)				
1971	238,000	126,000 residence / 112,000 non-residence <sup>172</sup>			
12/1971	248,000				
1972	251,436 <sup>173</sup>				
1973	268,080 <sup>174</sup>				
1974	289,080 <sup>175</sup>				
April-Dec					
1974	306,212 <sup>176</sup>				
1975	330,000 <sup>177</sup>				
1976	357,000 <sup>178</sup>				
1977	365,000	200,000 residence / 165,000 non-residence <sup>179</sup>			
1977	385,614 <sup>180</sup>				
1978	401,889 <sup>181</sup>				
1979	427,875	57% <sup>182</sup>			
1979	436,000 <sup>183</sup>				
1980	483,000 <sup>184</sup>				



Appendix V: Main Subscribers 1923 - 1995 (Contd.)					
Year	Number	Residential Subscribers	#/% Connected to Automatic Exchanges	#/% connected to Digital	Other Info
1981	535,000 <sup>185</sup>				
1982	579,600 <sup>186</sup>				
1983	613,459 <sup>187</sup>				
1984	667,267 <sup>188</sup>				
1984/85	664,000 <sup>189</sup>	64% <sup>190</sup>	96.8% <sup>191</sup>		
1985/86	694,000		98% <sup>192</sup>	30% <sup>193</sup>	
1986/87	746,000		100% <sup>194</sup>	45% <sup>195</sup>	
1987/88	789,000 <sup>196</sup>				
1988/89	856,000	66% <sup>197</sup>		50% <sup>198</sup>	
1989/90	916,000 <sup>199</sup>			56% <sup>200</sup>	
1990/91	983,000 <sup>201</sup>				
1991/92	1.048m <sup>202</sup>			63% <sup>203</sup>	
1992/93	1.113m <sup>204</sup>				(Confusingly there are stated to be 758,000 residential lines and 325,000 business lines at the end of 1992/93 although this adds up to 1.083m) <sup>205</sup>
1993/94	1.17m <sup>206</sup>			67% <sup>207</sup>	
1994/95	1.24m <sup>208</sup>				
1995/96	1.31m <sup>209</sup>				

Appendix VI. Telephones per 1,000 of Estimated Population 1925-1996.	
1925	7.7 <sup>210</sup>
1930	1.03 <sup>211</sup>
1935	12.1 <sup>212</sup>
1940	15.5 <sup>213</sup>
1945	19.3 <sup>214</sup>
1950	20.8 <sup>215</sup>
1955	40 <sup>216</sup>
1959	48 <sup>217</sup>
1960	56.5 <sup>218</sup>
1/1/61	53.4 <sup>219</sup>
1/1/62	58.3 <sup>220</sup>
1/1/63	64.2 <sup>221</sup>
1/1/64	67.8 <sup>222</sup>
31/3/67	80 (telephone sets)
25/6/68	6.2% pop subscribers. # phones connected to public equivalent to 8.5% of the population.
1970	104
1971	109
1972	113
1973	120
1974	130
1/1/75	127.5
1976	140 <sup>223</sup>
10/77	150
1979	172 (telephone sets) <sup>224</sup>
1988	245 <sup>225</sup>
1989	260 <sup>226</sup>
1996	320 <sup>227</sup>

**Annex VII: Television sets per 100 households**

<b>Year</b>	<b>Number</b>
1936	1 <sup>228</sup>
1946	1.7 <sup>229</sup>
1961	8 <sup>230</sup>
1971	18 <sup>231</sup>
1984/85	48 <sup>232</sup>
1985/86	50 <sup>233</sup>
1986/87	54 <sup>234</sup>
1987/88	57 <sup>235</sup>
1988/89	60 <sup>236</sup>
1989/90	64 <sup>237</sup>
1990/91	67 <sup>238</sup>
1991/92	70 <sup>239</sup>
1992/93	71 <sup>240</sup>
1993/94	75 <sup>241</sup>
1994/95	78 <sup>242</sup>
1995/96	82 <sup>243</sup>

Appendix VIII: Residential phone lines as a percentage of all main lines 1940-1989	
Year	Percentage
1940	31.8% <sup>244</sup>
1941	32% <sup>245</sup>
1942	32.5% <sup>246</sup>
1943	31.4% <sup>247</sup>
1944	32.3% <sup>248</sup>
1945	32.6% <sup>249</sup>
1946	32% <sup>250</sup>
1947	31% <sup>251</sup>
1948	32% <sup>252</sup>
1949	33% <sup>253</sup>
1950	34.3% <sup>254</sup>
1951	36% <sup>255</sup>
1952	36.2% <sup>256</sup>
1953	36.5% <sup>257</sup>
1954	39% <sup>258</sup>
1955	39.5% <sup>259</sup>
1956	40.8% <sup>260</sup>
1957	42% <sup>261</sup>
1958	43.7% <sup>262</sup>
1959	46.5% <sup>263</sup>
1960	48.6% <sup>264</sup>
1966	51.5% <sup>265</sup>
1971	52.9% <sup>266</sup>
1977	54.7% <sup>267</sup>
1979	57% <sup>268</sup>
1984/85	64% <sup>269</sup>
1988/89	66% <sup>270</sup>

Appendix IX: New Exchange lines per annum 1930 - 1996

Year	Number	Other Info
1930	900	
1931	200	
1932	300	
1933	600	
1934	600	
1935	1,500	
1936	560	
1937	557	
1938	1,171	
1939	406	
1940	1,362	
1941	1,175	
1942	1,105	
1943	1,330	
1944	1,113	
1945	1,295	
1946	3,424	
1947	3,186	
1948	7,705	
1949	5,990	
1950	6,505	(Dublin 4,271, Provinces 2,234)
1951	6,637	
1952	7,234	
1953	7,601	(Dublin 5,060, Provinces 2,541)
1954	6,543	(Dublin 4,010, Provinces 2,533)
1955	7,841	
1956	9,397	
1957	8,980	
1958	10,550 (approx)	
1959	11,577	
1960	15,288	
1961	14,547	
1962	14,787	
1963	14,353	
1964	13,726	
1965	14,500	
1966	13,245	
1966/67	15,528	(financial year)
1967	19,125	
1967/68	19,393	(financial year)
1968	21,669	
1968/69	22,300	(financial year)
1970	23,700	
1971/72	21,000	
1972/73	27,000	
1974	30,700	
1974/75	31,700	

Appendix IX: New Exchange lines per annum 1930 - 1996 (Contd.)		
Year	Number	Other Info.
1975	36,400	
1976	38,700	
1977	41,600	
1978	39,100	
1979	32,200	
1980	62,000 <sup>271</sup>	(24,500 in Dublin)
1981	68,000 <sup>272</sup>	(35,000 in Dublin)
1982	59,000	
1984	73,000 <sup>273</sup>	
1985/86	72,000 <sup>274</sup>	
1986/87	75,000 <sup>275</sup>	
1987/88	78,000 <sup>276</sup>	
1988/89	91,000 <sup>277</sup>	
1989/90	105,000 <sup>278</sup>	
1990/91	118,000 <sup>279</sup>	
1991/92	125,500 <sup>280</sup>	
1993/94	120,500 <sup>281</sup>	
1994/95	147,000 <sup>282</sup>	
1995/96	163,000 <sup>283</sup>	

Appendix X: Annual Number of Applications for Patenting Service 1950-1992

Year	Number
1950/1	6,669
1951/2	6,069
1952/3	5,564
1953/4	5,227
1954/5	6,653
1955/6	8,274
1957	9,600
1958	10,500
1959	13,200
1960	16,500
1964	15,300 <sup>284</sup>
1967	16,000
1968	17,700
1969	21,400
1970	25,000 approx.
1971	26,000
1973	41,000
1974	39,000
1975	37,000
1976	36,000
1977	44,000
1978	58,000
1979	57,000 approx.
1980	57,000 approx.
1984	46,000 approx. <sup>285</sup>
1984/5	73,000 <sup>286</sup>
1985/86	62,000 <sup>287</sup>
1986/87	77,000 <sup>288</sup>
1988	81,250 <sup>289</sup>
1988/89	92,000 <sup>290</sup>
1989/90	102,000 <sup>291</sup>
1990/91	113,000 <sup>292</sup>
1991/92	123,000 <sup>293</sup>

Appendix XI: Telephone Subscription Waiting List 1952 - 1992			
Year	Number	Location	Other Information
5/46	4,000		
6/47	7,116		
5/48	6,300		
2/49	5,800		
31/12/52	5,000		
31/3/53	4,810	(2,826 Dublin, 1,984 Provinces)	
31/12/53	3,250		
31/12/55	4,200		
1/4/56	4,320	(2,940 Dublin, 1,380 Provinces)	
19/7/56	3,600		
31/12/56	2,800		
31/3/57	3,100	(2,100 Dublin, 1,000 Provinces)	
31/1/58	3,242		
31/12/59	4,630		
12/7/60	4,570		
31/12/60	5,330		
29/3/62	10,000		
1/1/63	9,114		
31/12/63	11,617		
14/4/64	13,198	(6,804 Dublin, 1,004 Cork, 5390 Rest of Ireland)	4,536 waiting over one year, 1,237 over two, 379 over three and 29 over four.
31/3/65	14,260		1965 (averaged): 13,460
31/3/66	13,300		1966 (averaged): 13,160
25/10/66	13,200		
31/4/67	9,700	Ditto	1967 (averaged): 8,745
1967	7,620		
31/3/68	7,585		1968 (averaged): 7,620
17/7/69	10,330	(4805 Dublin, 5,525 rest of country)	
12/69	c. 11,000		
28/10/70	14,830	(6405 Dublin, 8,425 rest of country)	
31/12/70	14,600		
11/71	18,500		
31/12/71	20,650		
1/72	20,500 (approx)		
30/2/72	21,000	(6,000 in 01 area)	
4/72	22,500		
31/12/72	30,900		
31/3/73	32,000		
1/6/73	30,000		
31/12/73	33,000		



Appendix XI: Telephone Subscription Waiting List 1952 - 1992. (Contd.)			
Year	Number	Location	Other Information
1/6/74	38,000		
31/8/74	39,000		
31/12/74	42,000		
31/8/75	42,000		
31/12/75	42,600	(30/6/75:20,500 in Dublin alone)	
31/3/76	43,000		
31/12/76	40,000		
31/3/77	40,600		
4/78	53,000		(Average waiting time 13 months)
31/5/78	54,000		
10/78	60,000		17,000 Business apps, 43,000 Residence apps
12/78	62,000		
1/1/79	58,000		
1/2/79	65,000		
9/79	75,880	30,810 in '01' area.	
9/80	94,000	40,000 approx in Dublin	26,000 waiting two years or more.
1/1/81	60,000 <sup>294</sup>		
1/1/82	86,000 <sup>295</sup>		
15/7/82	c. 85,000		
1/1/83	78,000 <sup>296</sup>		
28/4/83	71,900	47,500 in Dublin <sup>297</sup>	Of the Dublin applications 25,700 were business and 21,800 residential. <sup>298</sup>
21/6/83	60,000	46,000 in 01 area, 24,000 elsewhere. <sup>299</sup>	
1/1/84	60,000 <sup>300</sup>	46,000 in 01 area.	
1/1/85	50,513 <sup>301</sup>		
Mar 1985	40,000 <sup>302</sup>		
Mar 1986	30,000 <sup>303</sup>		
Mar 1987	22,000 <sup>304</sup>		
Mar 1988	16,000 <sup>305</sup>		
1988	13,460 <sup>306</sup>		
1988/89	8,000 <sup>307</sup>		
1989/90	6,000 <sup>308</sup>		
1991/92	1,500 <sup>309</sup>		

Appendix XIa: Calls per annum 1882 - 1883	
Year	# Local Calls
3/1882	200 daily (Dublin Exchange) <sup>310</sup>
6/1882	1250 daily (Dublin Exchange) <sup>311</sup>
5/1883	4200 daily (Dublin Exchange) <sup>312</sup>

Appendix XIb: Calls 1923 - 1936			
Year	Trunk Calls		Local Calls
	Internal	External	
1923	880,000	67,000	10,000,000
1926	1,251,000	97,000	17,220,000
1929	1,710,000	130,000	20,142,000
1932	1,958,000	131,000	23,138,000
1935	2,159,000	140,000	27,269,000
1936	2,398,000	161,000	28,487,000

Appendix XI: Calls 1923 - 1976

Year	Trunk Calls	Local Calls	Total (where available)
1923	948,000	16,052,000	
1924	1,067,000	16,699,000	
1925	1,162,000	17,158,000	
1926	1,311,000	17,281,000	
1927	1,481,000	17,345,000	
1928	1,689,000	19,088,000	
1929	1,839,000	20,166,000	
1930	1,914,000	21,569,000	
1931	2,069,000	22,499,000	
1932	2,088,000	23,000,000	
1933	2,073,000	24,250,000	
1934	2,181,000	25,109,000	
1935	2,299,000	29,901,000	
1936	2,568,000	28,864,000	
1937	2,996,000	30,920,000	
1938	3,297,000	31,321,000	
1939	3,657,000	32,549,000	
1940	4,039,000	32,646,000	
1941	4,966,000	35,969,000	
1942	5,499,000	38,235,000	
1943	5,944,000	40,366,000	
1944	6,565,000	42,412,000	
1945	7,120,000	49,170,000	
1946	7,450,000	52,880,000	
1947	7,460,000	53,800,000	
1948	8,110,000	57,710,000	
1949	8,340,000	62,610,000	
1950	9,430,000	69,290,000	
1951	10,120,000	75,530,000	
1952	10,640,000	77,340,000	
1953	11,770,000	80,320,000	
1954	12,790,000	82,420,000	
1955	13,640,000	89,050,000	
1956	13,970,000	91,870,000	
1957	14,540,000	95,850,000	
1958	15,430,000	107,180,000	
1959	14,560,000	123,430,000 <sup>313</sup>	
1960	12,440,000	142,140,000	
1961	13.46m	136m <sup>314</sup>	
1962	14.5m	144m <sup>315</sup>	
1963	16.6m	153m <sup>316</sup>	
1964	18m	164m <sup>317</sup>	
1965	20.9m	177.7m <sup>318</sup>	
1966	22.7m	192.8m <sup>319</sup>	
1967	27.5m	226.5m	254m
1968	32m	259m	291m

Appendix XIc: Calls 1923 - 1976 (Contd.)			
Year	Trunk Calls	Local Calls	Total (where available)
1970/71	42m	285m	327m
1972	46.9m	320m <sup>320</sup>	
1973	54m	351m <sup>321</sup>	
1974	68m	421m <sup>322</sup>	
1974 April-Dec	52m	346m <sup>323</sup>	
1975	70m	461m <sup>324</sup>	
1976			866m <sup>325</sup>

(All figures above from 1926 to 1960 from Litton, op. cit., p. 108)

Appendix VIII: Calls 1977-1992

Year	Operator Assisted Trunk Calls	Local and STD Metered Units
1977	36m	988m <sup>326</sup>
1978	31m	1,130m <sup>327</sup>
1979	22m	1,445m <sup>328</sup>
1980	34m	1,622m <sup>329</sup>
1981	35m	1,694m <sup>330</sup>
1982	32.6m	1,698m <sup>331</sup>
1983	27m	1,977m <sup>332</sup>
1984	21m	2,207m <sup>333</sup>
1985	14.8m	2298m <sup>334</sup>
1986	10.5m	2569m <sup>335</sup>
1987	7.7m	2799m <sup>336</sup>
1988	7.1m <sup>337</sup>	
1989	6.4m <sup>338</sup>	
1990	6.6m	3474m <sup>339</sup>
1991	5.5m	4010m <sup>340</sup>
1992	3.0m	4330m <sup>341</sup>

**Appendix XIII: Public Call Offices (includes lists) 1922 - 1996**

<b>Year</b>	<b>Number</b>	<b>Other Info.</b>
1922	552 <sup>342</sup>	
1923	588 <sup>343</sup>	
1931	1256 <sup>344</sup>	
1935	1381	
1936	1422	
1936 Dec	1357 <sup>345</sup>	
1937 (April)	1,357 <sup>346</sup>	
1942 April	1,501 <sup>347</sup>	
1960	2,970 <sup>348</sup>	
1961	3,026 <sup>349</sup>	
1962	3,093 <sup>350</sup>	
1963	3,146 <sup>351</sup>	
1964	3,161 <sup>352</sup>	
1965	3,196 <sup>353</sup>	
1966	3,244 <sup>354</sup>	
1968	3,398	
1972	3,557 <sup>355</sup>	
1973	3,587 <sup>356</sup>	
1974	3,640 <sup>357</sup>	
1974 April-Dec	3,589 <sup>358</sup>	
1975	3,655 <sup>359</sup>	
1976	3,701 <sup>360</sup>	
1977	3846 <sup>361</sup>	
1978	3935 <sup>362</sup>	
1979	4012 <sup>363</sup>	
1980	4127 <sup>364</sup>	
1981	4,415 <sup>365</sup>	
1982	4,452 <sup>366</sup>	
1983	4,644 <sup>367</sup>	
1984	4,727 <sup>368</sup>	
1985	4,851 <sup>369</sup>	
Mar 198	5,000 <sup>370</sup>	
1986	5,033 <sup>371</sup>	
1987	5,133 <sup>372</sup>	
1990	4,758 <sup>373</sup>	
1991	6,080 <sup>374</sup>	
Mar 1992	6,200	(2,500 cardphones) <sup>375</sup>
1992	6440 <sup>376</sup>	
Mar 95	6,300 <sup>377</sup>	
Mar 96	6,500 <sup>378</sup>	

Appendix XIV: Number of Kiosks only 1922 - 1993			
Year	Number	Dublin Kiosks	Provincial Kiosks
1922	0 <sup>379</sup>		
1926	1		
1931	14 <sup>380</sup>		
1935	70		
1936 April	90 <sup>381</sup>		
1937	99		
1939	159		
1942 April	152 <sup>382</sup>		
6/54	450 (Total)	200	250
1/59	720 (Total)	320	400
3/71	1,780 (Total)	500	1,280
2/75	2,530 (Total)	610	1,920
12/78	2,960 (Total)	700	2,260 Provinces
3/90	5,400 countrywide <sup>383</sup>		
3/93	6,200 <sup>384</sup>		

Appendix XV. Number of Telephone Exchanges 1880 - 1989.

Year	Number	Other Information
1880	1	
1888	3 in Dublin	
1900	56 <sup>385</sup>	
1907	89	67 NTC / 22 Post Office <sup>386</sup>
1908	118	(85 NTC / 33 Post Office <sup>387</sup>
1918	212	(25 in Dublin <sup>388</sup>
1922	192	Total normal service area extended to 2½% of the area of the country. <sup>389</sup>
1926	444	
1927	516	
1928	617	
1929	654	
1930	683	
1931	711	
1932	723	
1933	725	
1934	732	
1935	740	
1936	753	
1937	774	
1938	779	Total normal service area extended to 60% the area of the country <sup>390</sup>
1939	789	
1940	824	
1941	829	
1942	832	
1943	831	
1944	832	
1945	836	
1945	839	127 automatic / 732 manual
1946	841	
1947	869	
1948	893	
1949	900	
1950	906	
1951	917	
1952	956	
1953	964	
1954	972	
1955	980	
1956	972	
1957	968	
1958	967	
1959	968	
1960	964	
1961	1,026 <sup>391</sup>	
1962	1,055 <sup>392</sup>	
1963	1,078 <sup>393</sup>	



Appendix XV: Number of Telephone Exchanges 1880 - 1989. (Contd.)		
Year	Number	Other Information
1964	1,097 <sup>394</sup>	
1965	1,108 <sup>395</sup>	
1966	1,131 <sup>396</sup>	
1967	1,121 <sup>397</sup>	
1968	1,098 <sup>398</sup>	
1969	1,093 <sup>399</sup>	
1970	1,083 <sup>400</sup>	
1971	1,075 <sup>401</sup>	
1972	1,058 <sup>402</sup>	
1973	1,049 <sup>403</sup>	
1974	1,039 <sup>404</sup>	
April-Dec		
1974	1,034 <sup>405</sup>	
1975	1,032 <sup>406</sup>	
1976	1,031 <sup>407</sup>	
1977	1,026 <sup>408</sup>	
1978	1,021 <sup>409</sup>	
1979	1,024 <sup>410</sup>	
1980	1,061 <sup>411</sup>	
1981	1,080 <sup>412</sup>	
1982	1,097 <sup>413</sup>	
1983	1,051 <sup>414</sup>	
1984	1,053 <sup>415</sup>	
1987	1,023 <sup>416</sup>	All automatic
1988	1046 <sup>417</sup>	
1989	1018 <sup>418</sup>	

Appendix XVI: Telecom Eircann Staff 1985 - 1996

Year	Number
Mar 1985	17,260 <sup>419</sup>
Mar 1986	15,850 <sup>420</sup>
Mar 1987	15,080 <sup>421</sup>
Mar 1988	14,560 <sup>422</sup>
Mar 1989	14,270 <sup>423</sup>
Mar 1990	14,215 <sup>424</sup>
Mar 1991	13,544 <sup>425</sup>
Mar 1992	13,425 <sup>426</sup>
Mar 1993	13,033 <sup>427</sup>
Sept 1993	12,790 <sup>428</sup>
Mar 1995	12,282 <sup>429</sup>
Mar 1996	11,707 <sup>430</sup>

Appendix XVII: Annual Capital Expenditure on Telephones 1922 - 1995		
Year	Amount Expended	Amount Projected
1922	£0 <sup>431</sup>	
1923	£53,000 <sup>432</sup>	
1924	£25,000 <sup>433</sup>	
1925	£126,000 <sup>434</sup>	
1926	£206,000 <sup>435</sup>	
1927	£154,000 <sup>436</sup>	
1928	£128,000 <sup>437</sup>	
1929	£78,000 <sup>438</sup>	
1930	£97,000 <sup>439</sup>	
1931	£84,000 <sup>440</sup>	
1932	£49,000 <sup>441</sup>	
1933	£32,000 <sup>442</sup>	
1934	£31,000 <sup>443</sup>	
1935	£50,000 <sup>444</sup>	
1936	£84,000 <sup>445</sup>	
1937	£117,000 <sup>446</sup>	
1938	£261,000 <sup>447</sup>	
1939	£260,000 <sup>448</sup>	
1940	£151,000 <sup>449</sup>	
1941	£192,000 <sup>450</sup>	
1942	£116,000 <sup>451</sup>	
1943	£70,000 <sup>452</sup>	
1944	£80,000 <sup>453</sup>	
1945	£54,000 <sup>454</sup>	
1946	£94,000 <sup>455</sup>	
1947	£381,000 <sup>456</sup>	
1948	£440,000 <sup>457</sup>	
1949	£1.087m <sup>458</sup>	
1950	£1.357m <sup>459</sup>	
1951	£1.834m <sup>460</sup>	
1952	£2.384m <sup>461</sup>	
1953	£1.914m <sup>462</sup>	
1954	£1.078m <sup>463</sup>	
1955	£1.588m <sup>464</sup>	
1956	£1.655m <sup>465</sup>	
1957	£1.627m <sup>466</sup>	
1958	£1.207m <sup>467</sup>	
1959	£1.418m <sup>468</sup>	
1960/61	£2 m	
1961/62	£2.4 m	
1962/63	£3.5 m	
1963/64	£4.5m	
1964/65	£6m	
1965/66	£6.5 m	
1966/67	£5.5 m	
1967/68	£5.8 m	

**Appendix XVII: Annual Capital Expenditure on Telephones 1922 - 1995. (Contd.)**

<b>Year</b>	<b>Amount Expended</b>	<b>Amount Projected</b>
1968/69	£6.4 m	
1969/70	£7.5m	
<b>1970/71</b>	<b>, £9.5m spent.</b>	<b>£9.3 m projected</b>
<b>1971/72</b>	<b>£11.4m spent.</b>	<b>£11.11m projected</b>
1972/73	£13.73m	
<b>1972/73</b>	<b>, £16.6m spent</b>	<b>£17.2 m projected</b>
<b>1973/74</b>	<b>£24m spent</b>	<b>£24m projected</b>
<b>April - Dec 1974</b>	<b>, £23.1m spent</b>	<b>£23m projected</b>
<b>1975</b>	<b>£44.6m spent</b>	<b>£45.1 projected</b>
<b>1976</b>	<b>, £46.1m spent</b>	<b>£50m projected</b>
<b>1977</b>	<b>, £48.3m spent</b>	<b>£57m projected</b> <sup>469</sup>
<b>1978</b>	<b>£61m</b>	
<b>1979</b>	<b>£75.3m</b>	
<b>1980</b>	<b>£100m</b>	
1981	£220 million <sup>470</sup>	
1982	£220 million <sup>471</sup>	
1984	£220 million <sup>472</sup>	
1985	£173m	
1986	£129m	
1987	£138m <sup>473</sup>	
1988/89	£136m <sup>474</sup>	
1993/4	£164m <sup>475</sup>	
1994/5	£172m <sup>476</sup>	

(Sources All 1960s figures from DD 324, p 1490, 27/11/80.

All figures from 1970-1980 excluding 1972/73 from DD 308, p. 385, 17/10/78.)

Appendix XVIII. Annual Post Office Profit and Loss, 1922 - 1982

Date	Post	Telegraphs	Telephones	Total
1922/23	(£656,210)	(£406,036)	(£46,014)	(£1,108,260)
1923/24	(£403,756)	(£344,328)	(£25,665)	(£773,749)
1924/25	(£290,119)	(£178,507)	(£3,348)	(£471,974)
1925/26	(£216,548)	(£163,443)	(£33,976)	(£413,967)
1926/27	(£170,260)	(£165,305)	(£44,191)	(£379,756)
1927/28	(£71,307)	(£142,212)	(£49,255)	(£262,774)
1928/29	(£8,683)	(£147,955)	(£34,719)	(£191,357)
1929/30	(£19,392)	(£127,231)	(£16,055)	(£162,678)
1930/31	£69,053	(£106,099)	(£8,061)	(£45,107)
1931/32	£116,735	(£89,077)	£39,289	£66,947 <sup>477</sup>
1932/33	£94,598	(£118,854)	£41,613	£17,357
1933/34	£97,463	(£105,765)	£44,009	£35,707
1934/35	£233,070	(£104,277)	£78,067	£206,860
1935/36	£307,893	(£95,783)	£105,702	£317,812
1936/37	£232,222	(£104,263)	£73,833	£201,792
1937/38	£154,117	(£121,820)	£61,286	£93,583
1938/39	£115,431	(£129,737)	£65,627	£51,321 <sup>478</sup>
1939/40	£48,595	(£141,562)	£80,519	(£12,449)
1940/41	(£115,257)	(£130,203)	£90,390	(£155,070)
1941/42	£91,465	(£115,573)	£180,165	£157,057
1942/43	£52,803	(£103,917)	£242,043	£190,929
1943/44	£114,621	(£73,685)	£247,703	£288,639
1944/45	(£20,101)	(£122,663)	£267,289	£124,525
1945/46	£32,512	(£116,001)	£298,004	£214,515
1946/47	(£26,980)	(£140,515)	£253,430	£85,935
1947/48	(£14,134)	(£250,805)	£165,328	(£99,611)
1948/49	(£62,961)	(£260,511)	£122,860	£200,612
1949/50	£2,077	(£282,827)	£113,499	(£167,251)
1950/51	(£154,239)	(£231,260)	£67,733	(£317,766)
1951/52	(£368,889)	(£403,397)	(£68,376)	(£840,662)
1952/53	(£171,151)	(£300,085)	(£33,522)	(£504,758)
1953/54	(£101,592)	(£351,715)	£109,447	(£343,860)
1954/55	(£98,606)	(£377,897)	£228,102	(£248,404)
1955/56	(£264,617)	(£238,299)	£134,437	(£368,479)
1957/58	£104,999	(£177,556)	£366,377	£293,820
1958/59	£4,672	(£140,144)	£413,048	£277,576
1959/60 <sup>479</sup>	£129,771	(£136,867)	£396,179	£389,083
1960/61 <sup>480</sup>	£91,291	(£149,525)	£426,822	£368,588
1961/62 <sup>481</sup>	(£75,485)	(£195,113)	£281,634	£11,036
1962/63 <sup>482</sup>	(£99,031)	(£201,095)	£346,734	£46,608
1963/64 <sup>483</sup>	(£170,447)	(£191,228)	£197,111	(£164,564)
1964/65 <sup>484</sup>	(£144,798)	(£279,264)	£356,783	(£67,279)
1965/66 <sup>485</sup>	£38,659	(£192,145)	£494,415	£340,929
1966/67 <sup>486</sup>	(£252,297)	(£205,284)	£26,859	(£430,722)
1967/68 <sup>487</sup>	(£585,557)	(£244,707)	£363,040	(£467,224)
1968/69 <sup>488</sup>	(£1,130,578)	(£353,190)	£660,368	(£823,400)
1969/70 <sup>489</sup>	(£361,373)	(£18,728)	£892,857	£512,756

Appendix XVIII: Annual Post Office Profit and Loss 1972 - 1982. (Contd.)				
Date	Post	Telegraphs	Telephones	Total
1970/71	(£1.608 m)	(£261,000)	£162,000	(£1.707 m)
1971/72	(£95,469)	(£367,569)	(£958,616)	(£1.421 m)
1972/73	(£774,292)	(£275,205)	(£2,506,561)	(£3.556 m)
1973/74	(£1,191,508)	(£768,271)	(£4,588,388)	(£6.548 m)
April-Dec '74	(£252,188)	(£503,099)	(£4,885,088)	(£5.640m)
1975	(£1,191,177)	(£1,065,783)	(£14,338,998)	(£16.595m)
1976	£4,242,845	(£598,280)	(£11,754,877)	(£8.110m)
1977	£1,216,924	(£418,487)	(£6,857,892)	(£6.059m)
1978	(£2,565,100)	(£802,499)	(£14,404,413)	(£17.772m)
1979	(£17,010,550)	(£430,488)	(£23,344,677)	(£40.785m)
1980	(£17,764,420)	(£861,052)	(£21,511,657)	(£39,137,129) <sup>490</sup>
1981	(£8,100,000)	n/a	(£28,372,000)	(£37m approx)
1982	£5,400,000	n/a	(£32,397,000)	(£27m approx) <sup>491</sup>

Appendix XIX: Telecom Eireann Profits 1984 - 1996

Year	Profit/(Loss)
1984/85	(£82m) <sup>492</sup>
1985/86	(£24m) <sup>493</sup>
1986/87	(£8m) <sup>494</sup>
1988/89	£53m <sup>495</sup>
1989/90	£79m <sup>496</sup>
1990/91	£94m <sup>497</sup>
1991/92	£91m <sup>498</sup>
1992/93	£50m <sup>499</sup>
1993/94	£81m <sup>500</sup>
1994/95	£23m <sup>501</sup>
1995/96	£66m <sup>502</sup>

**Appendix XX. Number of Private Dwellings/Houses In State 1881-1991**

<b>Year</b>	<b>Number</b>
1881	914,108 <sup>503</sup>
1891	870,578 <sup>504</sup>
1901	858,158 <sup>505</sup>
1911	861,057 <sup>506</sup>
1926	627,216 <sup>507</sup>
1936	629,410 <sup>508</sup>
1946	654,444 <sup>509</sup>
1961	676,402 <sup>510</sup>
1971	705,180 <sup>511</sup>
1981	875,816 <sup>512</sup>
1991	1,006,506 <sup>513</sup>

(Note: 1926-1991 figures refer to 26 counties only)



Appendix XXI: Numbers availing of Social Welfare Allowances 1979 - 1993			
Date	Free Telephone Rental Allowance	Electricity	Television Licence
end 79	9,572	134,038	79,484
end 80	12,112	145,405	92,956 <sup>514</sup>
end 81	16,500	153,059	100,345
end 82	22,700	158,840	105,840 <sup>515</sup>
end June 84	29,600	165,366	125,737 <sup>516</sup>
end 85	40,747	170,343	125,090 <sup>517</sup>
end 86	49,967	171,810	127,467 <sup>518</sup>
end 87	51,781	175,360	152,160 <sup>519</sup>
end 88	65,284	170,393	154,962 <sup>520</sup>
end 89	73,091	175,307	154,947 <sup>521</sup>
end 90	78,515	178,486	164,946 <sup>522</sup>
end 91	94,804	180,875	169,361 <sup>523</sup>
end 92	105,443	184,146	171,552 <sup>524</sup>
end 93	114,179	187,508	171,479 <sup>525</sup>

Appendix XXII: Total Expenditure on Free Schemes 1981 - 1993 (in £Mmillions)				
Date	Free Telephone Rental Allowance	Free Electricity Allowance	Free Television Licence	Total Expenditure on Free schemes (Inc. all other schemes)
1981	1,137	11,760	3,021	28,024
1982	1,963	15,143	3,145	36,344
1983	3,706	16,786	3,858	44,073
1984	3,840	18,646	4,433	49,034
1985	5,136	20,663	4,878	55,034
1986	6,710	22,024	6,397	60,756
1987	7,570	21,693	6,685	61,471
1988	8,861	20,404	6,861	62,306
1989	10,333	20,384	6,972	63,813
1990	10,646	21,559	7,258 <sup>526</sup>	65,618 <sup>527</sup>
1991	13,674	22,769	7,369	72,190
1992	14,206	23,571	7,546 <sup>528</sup>	75,119
1993	15,984	24,171	8,449 <sup>529</sup>	78,374 <sup>530</sup>

Appendix XXIII: Connection Charges 1923 - 1996		
Year	Amount	Other Information
1923	£15 <sup>531</sup>	
1964	£10 <sup>532</sup>	(A reintroduction - since such fees had been phased out - don't know when).
1965	Advance rentals introduced.	
1968	£15 <sup>533</sup>	
1970	£25	Pre-decimal <sup>534</sup>
1971	£25 <sup>535</sup>	Post-decimal
1974	£40 <sup>536</sup>	
Pre 1980	£60 <sup>537</sup>	
1980	£100 <sup>538</sup>	
1981	£160 <sup>539</sup>	
1982	£180 <sup>540</sup>	
1985	£180	1 years advance rental requirement removed and connection fee payment split into £100 on signature and £80 on receipt of the initial account. <sup>541</sup>
1986	£120 (	Service was available for an initial deposit of £50, with the remaining £70 being paid off over the first year's bills). <sup>542</sup>

Appendix XXIV: Rental charges per annum 1880 - 1995	
Year	Rental
1880	£20 per annum <sup>543</sup>
1880	Following a reduction of 25% in their rates, the STE offered service at rentals between £7 10s and £15 according to the facilities required. <sup>544</sup>
1886	TCI offered telephones to domestic subscribers at £10 rental <sup>545</sup>
1887	£15 exchange tariff in Belfast (NTC) <sup>546</sup>
1890	£12 - £15 <sup>547</sup> (NTC rates)
1891	£10 for first line, £8 10s for second lines within a 1 mile radius of the nearest exchange. <sup>548</sup> For each additional half-mile, the annual rental was increased by £2 10s. <sup>549</sup> (NTC rates)
1897	½ mile radial distance £8, ¾ mile £9, one mile £10 <sup>550</sup>
1899	£12 10s NTC Annual rental (unlimited local calls) <sup>551</sup>
1900	£3 7s NTC rental (1d per local call)
1900	½ mile radial distance £7 10 and £1 5s for each additional ¼ mile <sup>552</sup> (PO Office)
1902	£3 within ½ mile radial distance <sup>553</sup> (plus message rate introduced - 1d for each local call, the subscriber guaranteeing to spend at least 30s per annum in respect of such calls. (Post Office) <sup>554</sup> Therefore total cost at least £4 10s.
1907	Minimum message rate up to £5 (included 500 free local calls). Unlimited rate totally withdrawn. <sup>555</sup>
1907	£4 up to 2m radial distance <sup>556</sup>
5/1907	PO & NTC agree £5 minimum annual rental (covering 500 local calls) <sup>557</sup>
1914	£4 surcharge placed on all new applications <sup>558</sup>
4/1921	Flat and measured rates abolished - all subscribers come under the measured rate, paying 1½d per local call and an annual rent of £8 10s (London), £8 (Birmingham, Glasgow, Liverpool and Manchester) and £7 10s (Provinces - inc. Dublin) <sup>559</sup>
1922	£7 10 up to 1m radial distance. 25/- per one-eighth mile (furlong) over (or £10 per mile). <sup>560</sup>
1925	£6 10 Business, £5 Residence up to 1 mile radial distance. <sup>561</sup> 25/- per one-eighth mile (furlong) over (or £10 per mile). "These rentals apply only to exchanges open before the transfer of services in 1922. For Business and Private Residence lines at Exchanges opened subsequent to the transfer of services in 1922 rental of £7 10s still applies. <sup>562</sup>
1936	As above but free mileage increased to 3 miles. <sup>563</sup> Beyond three miles, additional rental at the rate of £10 per mile still applied. For Business and Private Residence lines at Exchanges opened subsequent to the transfer of services in 1922 the rental of £7 10s was reduced to £6 10s for business lines and £5 for private residence lines. <sup>564</sup>
1941	As above + 5% (£6 16s 6d business / £5 5s residence) <sup>565</sup>
1951	As 1936 +25% (£8 2s 6d business / £6 5s residence) <sup>566</sup>
1953	£10 business. £ 7 10 residence <sup>567</sup>
1962	£11 10 business, £9 residence <sup>568</sup>
1964	£14 business, £12 residence <sup>569</sup>
1969	£14 10 business, £12 10 residence <sup>570</sup>
1970	£22 business, £20 residence £1.60 per annum per furlong charged for distance in excess of 3 miles from exchange. <sup>571</sup>
1973	£7.67 per quarter (£30.68 p.a.) Business / £7.08 per quarter (£28.32 p.a.) Residence <sup>572</sup>
1975	£10.50 per quarter (£42 p.a.) Business / £9.69 per quarter (£38.76 p.a.) Residence <sup>573</sup>
1977	£52.48 business / £48.44 residence <sup>574</sup>
1979	£62.96 business / £58.12 <sup>575</sup>
1981	£89.32 (auto) business / £82.88 (auto) residence <sup>576</sup>
1982	£109 (auto) business / £101.28 residence <sup>577</sup>
1983	£128 (auto) business / £118.16 (auto) residential <sup>578</sup>
1985	£138.24 (auto) business / £127.60 (auto) residential <sup>579</sup>

Appendix XXIVa: Rental charges per annum 1880 - 1995 (Contd.)

Year	Rental
1986	£144.32 (auto), £107.24 (man) business / £133.20 (auto) £99.04 (man) residence <sup>380</sup>
1988	£36.08 (£144.32 p.a.) per quarter business / £33.30 (£132.80 p.a.) per quarter residential <sup>381</sup>
1995	£145.20 (inc VAT) £145.20 (inc VAT) <sup>382</sup>

**Appendix XXIVb - "Specially Assessed Exchanges"**

At some very small exchanges (usually up to about eight lines) standard rentals had never applied and the rentals were based on the cost of providing the service. The rentals had varied enormously but in November 1941, the following scale of fixed rentals was introduced for small or "Specially Assessed" exchanges.<sup>583</sup>

<b>No. of Subscribers' Lines at Exchange</b>	<b>Annual Rental per mile within three miles</b>
1	£15. 15s. 0d.
2	£11. 15s. 0d.
3	£10. 5s. 0d.
4	£9. 10s. 0d.
5	£9. 0s. 0d.
6	£8. 10s. 0d.
7	£8. 0s. 0d.
8	£7. 10s. 0d.
9	£7. 0s. 0d.
10	£6. 10s. 0d. <sup>584</sup>

Appendix XXV: Local Call Tariffs, 1897-1991		
Year	0-5m	5-7½m
1897	Flat Rate	Flat Rate
1900	Flat Rate	Flat Rate
1902	1d	2d
1907	1d	2d
1922	1½	3d
1925	1¼	2d
1936	1d	2d
1941	as 1936 + 5%	as 1936+5%
1951	as 1936 + 25%	as 1936 + 25%
1953	1½	3d <sup>585</sup>
1956	2d	2d
1959	2d	(Local call area extended to 7½ miles),
1964	3d <sup>586</sup>	
1968	4d <sup>587</sup>	
1972	1.66p <sup>588</sup>	
1974	2p <sup>589</sup>	
1975	2.36p <sup>590</sup>	
1976	3.2p <sup>591</sup>	
1978	4p <sup>592</sup>	
1980	4.84p <sup>593</sup>	
1980	5.85p <sup>594</sup>	
1982	7.1p <sup>595</sup>	
1986	11.17p <sup>596</sup>	
1988	11.17p <sup>597</sup>	
1991	11.42p	

**Appendix XXVb: Local Call Charges 1992 - 1996**

(In 1992 local call timing and peak/off-peak units were introduced)

<b>Month/Year</b>	<b>Price</b>	<b>Peak Unit:</b>	<b>Off-peak Unit:</b>
Jan '92	11.42p	15 mins	30 mins
Mar '92 <sup>598</sup>	11.78p	15 mins	30 mins
Jan '93	11.78p	15 mins	30 mins
Mar '93 <sup>599</sup>	12.28p	15 mins	30 mins
Sept '93	11.02p	3 mins	15 mins
Apr '94	11.5p	3 mins	15 mins
Jan '95	11.5p	3 mins	15 mins



Appendix XXVI: Irish Population Density by County 1881-1901							
County	Area in Sq. kms	1881		1891		1901	
		Pop.	Density Sq. kms	Pop.	Density Sq. kms	Pop	Density Sq. kms
Carlow	895	46,568	52	41,964	46.9	37,748	42.2
Dublin	920	418,206	454.6	416,860	453.1	448,206	487.2
Kildare	1,693	75,804	44.8	70,206	41.5	63,566	37.5
Kilkenny	2,060	99,531	48.3	87,496	42.5	79,159	38.4
Laois (Queens)	1,718	73,124	42.6	68,611	39.9	57,417	42.6
Longford	1,090	61,009	56	52,647	48.3	46,672	42.8
Louth	820	77,684	94.7	71,914	87.8	65,820	80.3
Offaly (Kings)	1,999	72,852	36.4	63,563	31.8	60,187	30.1
Meath	2,341	87,469	37.4	76,111	32.5	67,407	28.8
Westmeath	1,838	71,798	39.1	68,611	37.3	61,629	33.5
Wexford	2,352	123,854	52.7	112,063	47.6	104,104	43
Wicklow	2,023	70,386	34.8	64,492	31.9	60,824	30.1
<b>LEINSTER</b>	<b>19,756</b>	<b>1278285</b>	<b>64.7</b>	<b>1191782</b>	<b>60.3</b>	<b>1152829</b>	<b>58.4</b>
Clare	3,147	141457	44.9	126,244	40.1	112,334	35.7
Cork	7,456	495607	66.5	429,432	57.6	404,611	54.3
Kerry	4,745	201039	42.4	179,136	37.8	165,726	34.9
Limerick	2685	180632	67.3	158,912	59.2	146,098	54.4
Tipperary	4,302	199612	46.4	175,217	40.7	160,232	37.2
Waterford	1,836	112768	61.4	95,702	52.1	87,187	47.5
<b>MUNSTER</b>	<b>24,175</b>	<b>1331115</b>	<b>55.1</b>	<b>1173643</b>	<b>48.5</b>	<b>1076188</b>	<b>44.5</b>
Antrim	3,105	421,943	135.9	430865	138.8	461634	148.7
Armagh	1,320	163,177	123.6	137877	104.5	125392	95
<b>Cavan</b>	<b>1,931</b>	<b>129,476</b>	<b>67.1</b>	<b>111917</b>	<b>58</b>	<b>97541</b>	<b>50.5</b>
Derry	2,087	204,035	97.8	185635	88.9	173723	83.2
<b>Donegal</b>	<b>4,841</b>	<b>272,107</b>	<b>56.2</b>	<b>269734</b>	<b>55.7</b>	<b>289525</b>	<b>59.8</b>
Down	2,503	84,879	33.9	74170	29.6	65430	26.1
Fermanagh	1,808	164,991	91.3	152009	84	144494	79.9
<b>Monaghan</b>	<b>1,294</b>	<b>102,748</b>	<b>79.4</b>	<b>86206</b>	<b>66.6</b>	<b>74611</b>	<b>57.7</b>
Tyrone	3201	197,719	61.8	171401	53.5	150567	47
<b>ULSTER</b>	<b>22,276</b>	<b>1743075</b>	<b>78.2</b>	<b>1619314</b>	<b>72.7</b>	<b>1582826</b>	<b>71.1</b>
Galway	6,147	242,005	39.4	211227	34.4	192540	31.3
Leitrim	1,588	90,372	56.9	78618	49.5	69354	43.7
Mayo	5,585	245,212	43.9	218695	38.2	199164	35.7
Roscommon	2,546	132,490	52	116552	45.8	101791	40
Sligo	1,836	111,578	60.7	94416	51.4	84083	45.8
<b>CONNAUGHT</b>	<b>17,704</b>	<b>821657</b>	<b>46.4</b>	<b>719511</b>	<b>40.6</b>	<b>646932</b>	<b>36.5</b>
<b>IRELAND</b>	<b>83,911</b>	<b>5174836</b>	<b>61.7</b>	<b>4704750</b>	<b>56.1</b>	<b>4468775</b>	<b>53.3</b>

(Sources: Own calculations based on data from Census Returns - 1881, 1901, 1911)

Appendix XXV: Population Density by County/Province 1911 - 1936							
		1911		1926		1936	
Carlow	895	30,151	33.7	34,476	38.5	34,452	38.5
Dublin	920	476,909	518.4	505,654	549.6	586,925	638
Kildare	1,693	66,496	39.3	58,028	34.3	57,892	34.2
Kilkenny	2,060	74,821	36.3	70,990	34.5	68,614	33.3
Laos (Queens)	1,718	54,362	31.6	51,540	30	50,109	29.2
Longford	1,090	43,794	40.2	39,847	36.6	37,847	34.7
Louth	820	68,402	83.4	62,739	76.5	64,337	78.5
Offaly (Kings)	1,999	56,769	28.4	62,696	31.4	61,405	30.7
Meath	2,341	64,920	27.7	52,592	22.5	51,308	21.9
Westmeath	1,838	59,812	32.5	56,818	30.9	54,706	29.8
Wexford	2,352	102,287	43.5	95,848	40.8	94,245	40.1
Wicklow	2,023	60,603	30	57,591	28.5	58,569	29
LEINSTER	19,756	1,160,328	58.7	1,149,092	58.2	1,220,411	61.8
Clare	3,147	104,064	33.1	95,064	30.2	89,879	28.6
Cork	7,456	319,190	42.8	365,747	49.1	355,957	47.7
Kerry	4,745	159,268	33.6	149,171	31.4	139,834	29.5
Limerick	2,685	142,846	53.2	140,343	52.3	141,153	52.6
Tipperary	4,302	151,951	35.3	141,015	32.8	137,835	32
Waterford	1,836	83,766	45.6	78,562	42.8	77,614	42.3
MUNSTER	24,175	1,083,085	44.8	969,902	40.1	942,272	39
Antrim	3,105	478,603	154.1				
Armagh	1,320	119,625	90.6				
Cavan	1,931	91,071	47.2	82,452	42.7	76,670	39.7
Derry	2,087	168,420	80.7				
Donegal	4,841	304,589	62.9	152,508	31.5	142,310	29.4
Down	2,503	61,811	24.7				
Fermanagh	1,808	140,621	77.8				
Monaghan	1,294	71,395	55.2	65,131	50.3	61,289	47.4
Tyrone	3,201	142,437	44.5				
ULSTER	22,276 (Three counties: 8,066)	1,578,572	70.9	300,091	37.2	280,269	34.7
Galway	6,147	181,686	29.6	169,366	27.6	168,198	27.4
Leitrim	1,588	63,557	40	55,907	35.2	50,908	32.1
Mayo	5,585	191,969	34.4	172,690	30.9	161,349	28.9
Roscommon	2,546	93,904	36.9	83,556	32.8	77,566	30.5
Sligo	1,836	78,850	42.9	71,388	38.9	67,447	36.7
CONNAUGHT	17,704	609,966	34.5	552,907	31.2	525,468	29.7
<b>IRELAND</b>	<b>83,911</b>	<b>4,381,961</b>	<b>52.2</b>	<b>2,971,992</b>	<b>35.4</b>	<b>2,968,420</b>	<b>35.4</b>

Appendix XXV: Population Density by County 1946-1956							
		1946		1951		1956	
Carlow	895	34,081	38.1	34,162	38.2	33,888	37.9
Dublin	920	636,193	691.5	693,022	753.3	705,781	767.2
Kildare	1,693	64,849	38.3	66,437	39.2	65,915	38.9
Kilkenny	2,060	66,712	32.4	65,235	31.7	64,089	31.1
Laois (Queens)	1,718	49,697	28.9	48,430	28.2	47,087	27.4
Longford	1,090	36,218	33.2	34,553	31.7	32,969	30.2
Louth	820	66,194	80.7	68,771	83.9	69,194	84.4
Offaly (Kings)	1,999	66,232	3.1	66,337	33.2	66,762	33.4
Meath	2,341	53,686	22.9	52,544	22.4	51,970	22.2
Westmeath	1,838	54,949	29.9	54,463	29.6	54,122	29.4
Wexford	2,352	91,855	39.1	90,032	38.3	87,259	37.1
Wicklow	2,023	60,451	29.9	62,590	30.9	59,906	29.6
LEINSTER	19,756	1,281,117	64.8	1,336,576	67.7	1,338,942	67.8
Clare	3,147	85,064	27	81,329	25.8	77,176	24.5
Cork	7,456	343,668	46.1	341,284	45.8	336,663	45.2
Kerry	4,745	133,893	28.2	126,644	26.7	122,072	25.7
Limerick	2,685	142,559	53.1	141,239	52.6	137,881	51.4
Tipperary	4,302	136,014	31.6	133,313	31	129,415	30.1
Waterford	1,836	76,108	41.5	75,061	40.9	74,031	40.3
MUNSTER	24,175	917,306	37.9	898,870	37.2	877,238	36.3
Antrim	3,105						
Armagh	1,320						
Cavan	1,931	70,355	36.4	66,377	34.4	61,740	32
Derry	2,087						
Donegal	4,841	136,317	28.2	131,530	27.2	122,059	25.2
Down	2,503						
Fermanagh	1,808						
Monaghan	1,294	57,215	44.2	55,345	42.8	52,064	40.2
Tyrone	3,201						
ULSTER(Three counties)	8,066	263,887	32.7	253,252	31.4	235,863	29.2
Galway	6,147	165,201	26.9	160,204	26.1	155,553	25.3
Leitrim	1,588	44,591	28.1	41,209	26	37,056	23.3
Mayo	5,585	148,120	26.5	141,867	25.4	133,052	23.8
Roscommon	2,546	72,510	28.5	68,102	26.7	63,710	25
Sligo	1,836	62,375	34	60,513	33	56,850	31
CONNAUGHT	17,704	492,797	27.8	471,895	26.7	446,221	25.2
<b>IRELAND</b>	<b>83,911</b>	<b>2,955,107</b>	<b>35.2</b>	<b>2,960,593</b>	<b>35.3</b>	<b>2,898,264</b>	<b>34.5</b>

Appendix XXVI: Irish Population Density by County 1961 - 1971							
County	Area in Sq. kms	1961		1966		1971	
		Pop.	Density Sq. kms	Pop.	Density Sq. kms	Pop.	Density Sq. kms
Carlow	895	33,342	37.3	33593	37.5	34025	38
Dublin	920	718,332	780.8	795047	864.2	849542	923.4
Kildare	1,593	64,420	38.1	66404	39.2	71522	42.2
Kilkenny	2,060	61,668	29.9	60463	29.4	61811	30
Laois (Queens)	1,718	45,069	26.2	44595	26	45349	26.4
Longford	1,090	30,643	28.1	28989	26.6	28227	25.9
Louth	820	67,378	82.2	69519	84.8	74899	91.3
Offaly (Kings)	1,999	51,533	25.8	67323	33.7	71616	35.8
Meath	2,341	65,122	27.8	51717	22.1	51834	22.1
Westmeath	1,838	52,861	28.8	52900	28.8	53557	29.1
Wexford	2,352	83,308	35.4	83437	35.5	85892	36.5
Wicklow	2,023	58,473	28.9	60428	29.9	66270	32.8
LEINSTER	19,756	1,332,149	67.4	1414415	71.6	1494544	75.7
Clare	3,147	73,702	23.4	73597	23.4	74844	23.8
Cork	7,456	330,443	44.3	339703	45.6	351735	47.2
Kerry	4,745	116,458	24.5	112785	23.8	112941	23.8
Limerick	2685	133,339	49.7	137357	41.2	140370	52.3
Tipperary	4,302	123,822	28.8	122812	28.5	123196	28.6
Waterford	1,836	71,439	38.9	43238	23.6	45237	24.6
MUNSTER	24,175	858,742	35.5	859334	35.5	880018	36.4
Antrim	3,105						
Armagh	1,320						
Cavan	1,931	56,594	29.3	54022	28	52674	27.3
Derry	2,087						
Donegal	4,841	113,842	23.5	108549	22.4	108000	22.3
Down	2,503						
Fermanagh	1,808						
Monaghan	1,294	47,088	36.4	45732	35.3	46231	35.7
Tyrone	3201						
ULSTER(Three counties)	8,066	217,524	27	208303	25.8	206905	25.7
Galway	6,147	149,887	24.4	148340	24.1	148220	24.1
Leitrim	1,588	33,470	21.1	30572	19.3	28313	17.8
Mayo	5,585	123,330	22.1	115547	20.7	109497	19.6
Roscommon	2,546	59,217	23.3	56228	22.1	53497	21
Sligo	1,836	53,561	29.2	51263	27.9	50236	27.4
CONNAUGHT	17,704	419,465	23.7	401950	22.7	389763	22
<b>IRELAND</b>	<b>83,911</b>	<b>2,818,341</b>	<b>33.6</b>	<b>2,884,002</b>	<b>34.4</b>	<b>2,971,230</b>	<b>35.4</b>

Appendix XXXI: Population Density by County 1981-1986					
County	Area in Sq. kms	1981		1986	
		Pop.	Density Sq. kms	Pop.	Density Sq. kms
Carlow	895	39,820	44.5	40988	45.8
Dublin	920	1,003,164	1090.4	1021449	1110.3
Kildare	1,693	104,122	61.5	116247	68.7
Kilkenny	2,060	70,806	34.4	73186	35.5
Laois (Queens)	1,718	51,171	29.8	53284	31
Longford	1,090	31,140	28.6	31496	28.9
Louth	820	88,514	107.9	91810	112
Offaly (Kings)	1,999	95,419	47.7	103881	52
Meath	2,341	58,312	24.9	59835	25.6
Westmeath	1,838	61,523	33.5	63379	34.5
Wexford	2,352	99,081	42.1	102552	43.6
Wicklow	2,023	87,449	43.2	94542	46.7
LEINSTER	19,756	1,790,521	90.6	1852649	93.8
Clare	3,147	87,567	27.8	91344	29
Cork	7,456	402,465	54	412735	55.4
Kerry	4,745	122,770	25.9	124159	26.2
Limerick	2,685	161,661	60.2	164569	61.3
Tipperary	4,302	135,261	31.4	136619	31.8
Waterford	1,836	88,591	48.3	91151	49.6
MUNSTER	24,175	998,315	41.3	1020577	42.2
Antrim	3,105				
Armagh	1,320				
Cavan	1,931	53,855	27.9	53965	27.9
Derry	2,087				
Donegal	4,841	125,112	25.8	129664	26.8
Down	2,503				
Fermanagh	1,808				
Monaghan	1,294	51,192	39.6	52379	40.5
Tyrone	3201				
ULSTER(Three counties)	8,066	230,159	28.5	236008	29.3
Galway	6,147	172,018	28	178552	29
Leitrim	1,588	27,609	17.4	27035	17
Mayo	5,585	114,766	20.5	115184	20.6
Roscommon	2,546	54,534	21.4	54592	21.4
Sligo	1,836	55,474	30.2	56046	30.5
CONNAUGHT	17,704	424,410	24	431409	24.4
IRELAND	83,911	3,443,405	41	3504643	41.8

(Sources: Own calculations based on data from Census Returns 1986)

**Appendix XXVII: Wages Earners 18 years of Age and over in Industries producing transportable goods.**

Year	Average Weekly Wage			
	Male		Female	
	S	D	S	D
1938	58	3	29	10
1939	59	6	31	6
1940	61	4	32	7
1941	62	2	32	5
1942	64	4	31	11
1943 <sup>600</sup>	68	8	35	3
1944 <sup>601</sup>	73	4	38	4
1945 <sup>602</sup>	76	1	40	5
1946 <sup>603</sup>	81	7	44	10
1947 <sup>604</sup>	97	9	52	0
1948 <sup>605</sup>	107	1	56	4
1949 <sup>606</sup>	111	9	59	4
1950	114	7	61	9
1951	125	10	66	5 <sup>607</sup>
1952	133	4	71	11 <sup>608</sup>
1953	142	2	76	3
1954	146	5	77	8 <sup>609</sup>
1955	153	7	82	6 <sup>610</sup>
1956	161	6	86	9 <sup>611</sup>
1957	166	8	88	1 <sup>612</sup>
1958	175	6	94	1 <sup>613</sup>
1959	182	3	98	8
1960	195	8	104	9
1961	210	3	109	3
1962	230	3	120	9
1963	240	6	126	1
1964	266	2	137	5
1965	276	5	141	11
1966	306	3	157	3 <sup>614</sup>
1967	320	0	163	7 <sup>615</sup>



Appendix XXVIII: Average Earnings-All industries and services 1938-1965

Year	Average per week			
	Male		Female	
	S	D	S	D
1938 <sup>616</sup>	54	11	29	10
1943 <sup>617</sup>	64	6	35	1
1944 <sup>618</sup>	67	10	38	0
1945 <sup>619</sup>	70	8	40	1
1946 <sup>620</sup>	76	6	44	3
1947 <sup>621</sup>	91	1	51	5
1948 <sup>622</sup>	100	5	55	11
1949	105	5	59	0 <sup>623</sup>
1950	107	11	61	6
1951	119	9	66	4 <sup>624</sup>
1952	124	10	71	8 <sup>625</sup>
1953	134	4	75	9
1954	138	6	77	2 <sup>626</sup>
1955	146	5	81	11 <sup>627</sup>
1956	153	8	86	2 <sup>628</sup>
1957	157	10	87	6 <sup>629</sup>
1958	167	2	93	6 <sup>630</sup>
1959	172	5	98	0
1960	186	4	104	1
1961	202	9	108	5
1962	220	2	119	11
1963	231	2	125	1
1964	255	7	136	8
1965	267	2	141	1 <sup>631</sup>

**Appendix XXVIII: Average Earnings - All Industries and services 1965-1968**

*(Note: In 1965 the CSO stopped including the building and construction industry in their calculations of average industrial wage. Thus whilst the figure for 1965 above does include building and construction, the figures below (inc. 1965) do not.)*

Year	S	D	S	D
1965	265	10	141	2
1966	294	10	156	2 <sup>632</sup>
1967	309	8	162	8 <sup>633</sup>
1968 (in decimal)	17.20		8.97	

**Appendix XXVIII: Average earnings: industries and services 1969-1980**

*From 1969 on, the average industrial wage was calculated from adult rates only. Previously it had been calculated from the earnings of 18 years old and upwards. This contributed to a slightly unusual rise.*

Year	Mining et al		Manufacturing		Service		Total Transportable Goods Inds	
	M	F	M	F	M	F	M	F
1969	20.95	7.60	20.67	9.76	18.64	8.66		
1970	22.75	9.06	24.00	11.53	20.89	10.14		
1971	27.34	10.72	27.11	13.12	23.31	11.95		
1972	32.60	11.43	30.98	15.08	NA	NA		
1973	37.78	15.93	36.96	18.69	32.21	15.45 <sup>634</sup>		
1974	42.02	19.83	43.57	22.05	NA	NA		
1975	52.78	23.79	56.16	29.56	NA	NA <sup>635</sup>		
1977	77.84	35.05	75.68	40.09			75.84	40.08
1978	86.37	40.94	86.00	47.72			86.02	47.71
1979	96.68	51.07	100.73	58.04			100.43	58.03
1980	116.46	55.88	111.68	66.45			112.02	66.43



Appendix XXIX. Average rates of wage per half year.  
 Categories over 21 years of age with full board and  
 lodging free.

Year	Male Agricultural Labourers		Female Farm Servants	
	£	s	£	s
1925	15	14	9	17
1926	17	7	10	0
1927	14	12	9	14
1928	14	10	10	7
1929	14	11	10	2
1930	14	7	10	0 <sup>636</sup>
1931	14	1	9	16 <sup>637</sup>
1932	13	15	9	11 <sup>638</sup>
1933	12	13	8	19 <sup>639</sup>
1934	12	6	8	12 <sup>640</sup>
1935	12	3	8	12 <sup>641</sup>
1936	12	11	8	16 <sup>642</sup>
1937	13	1	9	4
1938	16	0	9	17 <sup>643</sup>
1939	16	17	10	4 <sup>644</sup>

Appendix XXX. Average Weekly Wage of Permanent Male Labourers over 21 years of age without free house or allowance of any kind

Year	S. D	Year	S. D	Decimal	Year	S.D	Decimal
1925	26 3	1944	40 3 <sup>645</sup>		1963	122 6	6.13
1926	25 6	1945	40 3 <sup>646</sup>		1964	145 3	7.26
1927	25 6	1946	45 3 <sup>647</sup>		1965	160 9	8.04
1928	24 9	1947	51 3 <sup>648</sup>		1966	173 6	8.67
1929	25 0	1948	56 3 <sup>649</sup>		1967	180 6	9.03
1930	24 6	1949	61 3 <sup>650</sup>		1968	195 9 <sup>651</sup>	9.79
1931	24 3	1950	61 3 <sup>652</sup>		1969		11.56
1932	23 6 <sup>653</sup>	1951	68 9		1970		13.07
1933	22 6 <sup>654</sup>	1952	74 0		1971		16.27 <sup>655</sup>
1934	21 0 <sup>656</sup>	1953	81 6 <sup>657</sup>	4.07	1972		17.77
1935	21 3 <sup>658</sup>	1954	85 6 <sup>659</sup>	4.27	1973		19.78 <sup>660</sup>
1936	21 9 <sup>661</sup>	1955	85 6 <sup>662</sup>	4.27	1974		24.78
1937	22	1956	96 9 <sup>663</sup>	4.84	1975		30.42 <sup>664</sup>
1938	27 3 <sup>665</sup>	1957	96 9 <sup>666</sup>	4.84	1976		33.07
1939	27 6 <sup>667</sup>	1958	96 9 <sup>668</sup>	4.84	1977		38.57
1940	30 3 <sup>669</sup>	1959	102 9 <sup>670</sup>	5.14	1978		42.57
1941	30 3	1960	106 9 <sup>671</sup>	5.34	1979		49.94
1942	33 3	1961	109 9	5.49	1980		61.71 <sup>672</sup>
1943	36 3 <sup>673</sup>	1962	122 6	6.13			

Appendix XXXI: Number of Miles of Trunk Telephone lines 1923 - 1979

Year	Physical Circuit (1000s miles)	Carrier Circuit (1000 miles)	Trunk Mileage(1000s miles)	Number of Circuits
1922	9.3		9.3	
1923	9.4		9.4	
1924	10.4		10.4	
1925	10.9		10.9	
1926	12.6		12.6	
1927	13.0		13.0	
1928	13.2		13.2	
1929	13.4		13.4	
1930	13.9		13.9	
1931	14.5		14.5	
1932	14.8	0.3	15.1	
1933	14.9	0.3	15.2	
1934	15.1	0.5	15.6	
1935	15.2	0.8	16.0	
1936	15.4	1.3	16.7	
1937	15.5	3.8	19.3	
1938	15.8	4.7	20.5	
1939	16.5	5.7	22.2	
1940	16.8	7.0	23.8	
1941	17.4	8.0	25.4	
1942	17.9	8.6	26.5	
1943	18.1	9.4	27.0	
1944	18.7	11.9	28.1	
1945	19.1	12.8	31.0	
1946	20.0	19.2	32.8	
1947	20.5	20.2	39.7	
1948	21.0	20.6	41.2	
1949	21.6	20.6	42.2	
1950	22.3	22.2	42.9	
1951	28.6	35.3	50.8	
1952	29.8	43.4	65.1	2,238
1953	30.6	47.6	74.0	2,563
1954	37.7	54.2	85.3	2,882
1955	38.1	60.2	92.3	3,165
1956	40.9	64.1	101.1	3,420
1957	45.9	68.5	110.0	3,668
1958	47.0	77.1	115.5	3,936
1959	48.5	86.0	125.6	4,227
1960	49.5	90.7	137.4	4,560
1961	50.3		140.0	4,775
1961			22,445 <sup>674</sup>	
1962			139,972 <sup>675</sup>	
1963			158,460 <sup>676</sup>	
1964			171,495 <sup>677</sup>	
1965			218,648 <sup>678</sup>	
1966			260,887 <sup>679</sup>	

Appendix XXI. Number of Miles of Trunk Telephone Lines 1972-1979.  
 (Contd.)

Year	Physical Circuit (1000s miles)	Carrier Circuit (1000 miles)	Trunk Mileage(1000s miles)	Number of Circuits
1972			291,107 <sup>680</sup>	
1973			571,561 <sup>681</sup>	
1974 April- Dec			643,042 <sup>682</sup>	
1974			755,451 <sup>683</sup>	
1975			832,396 <sup>684</sup>	
1976			934,623 <sup>685</sup>	
1977			1,008,000 <sup>686</sup>	
1978			1,165,000 <sup>687</sup>	
1979			1,181,303 <sup>688</sup>	
			1,209,375 <sup>689</sup>	

Appendix XII. Principal Truck Rates at Various Times															
Year	Miles														
	7½/10	10/12½	12½/15	15/20	20/25	25/35	35/50	50/75	75/100	100/125	125/150	150/200	200/250	250/300	Over 300
1897	3d					6d		9d	1s	For every additional 40 miles or part 6d					
1916															
Day	4d					8d		1/-	1/4	2/- up 140 miles	For every additional 40 miles or part 8d				
Night	4d					Half day rate									
1922															
Day	3d	4d	5d	7d	9d	1/-	1/6	2/-	2/6	3/-	3/6	4/6	For every 50 miles or part 1/-		
Night	3d	3d	3d	4d	5d	6d	9d	1/-	1/3	1/6	1/9	2/3	Ditto 6d		
1925															
Day	3d	4½d	6d	7½	9d	1/-	1/6	2/-	2/6	3/-	3/6	4/6	5/6	6/6	7/-
Night	3d	4½d	6d	6d	7d	8d	9d	1/-	1/3	1/6	1/9	For every 50 miles of part 6d			
1936															
Day	3d	4d	5d	7d	9d	1/-	1/3	1/6	1/9	2/-	2/3	2/6	3/-	3/6	4/-
Night	3d	3d	3d	4d	5d	6d	9d	9d	1/- within State or 6 counties. 1/6 to GB						
1940	1936 charges increased by 5%														
1951	1936 charges increased by 25%														
1953															
Day	4½d	6d		9d	1/-	1/4	1/9	2/3		3/-					
Night	4½d	6d		9d	9d	9d	1/3	1/6							
1956															
Day	6d			10d	1/2	1/6	2/-	2/6		3/6					
Night	6d			10d		1/-	1/6			2/-					

Appendix XXXII: Petrol and Trunk Rates at Various Times (Contd.)

Years	Miles														
	7½/10	10/12½	12½/15	15/20	20/25	25/35	35/50	50/75	75/100	100/125	125/150	150/200	200/250	250/300	Over 300
1959 <sup>1</sup>															
Day	1/-						2/-	3/-							
Night	8d						1/-	2/-							
1964 <sup>2</sup>															
Day	1/-						2/3	3/-							
Night	9d						1/6	2/3							
1968 <sup>3</sup>															
Day	1/-						2/-	3/-							
Night	8d						1/4	20							
1971 <sup>4</sup>															
Day	5p						10p	15p							
Night	3.33p						6.66p	10p							
1973 <sup>5</sup>															
Day	6p						12p	18p							
Night	4p						8p	12p							

<sup>1</sup> Group Charging Introduced

<sup>2</sup> Telephone (Amendment) Regulations, 1964. Statutory Instrument No. 153 of 1964.

<sup>3</sup> Telephone (Amendment) Regulations, 1968. Statutory Instrument No. 274 of 1968.

<sup>4</sup> Telephone (Amendment) Regulations, 1971. Statutory Instrument No. 63 of 1971.

<sup>5</sup> Telephone (Amendment) Regulations, 1973. Statutory Instrument No. 193 of 1973.



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## Endnotes

<sup>1</sup> Charles R. Perry.(1977), "The British Experience 1876-1912: The Impact of the Telephone During the Years of Delay." in Ithiel De Sola Pool (ed.) The Social Impact of the Telephone. (Cambridge, MA: MIT Press), p. 85.

<sup>2</sup> F. C. G Baldwin (1925), The History of the Telephone in the United Kingdom. (London: Pitman), p. 655.

<sup>3</sup> Hansards Series 5, Vol. 63, p. 1603. 6/4/1914.

<sup>4</sup> Perry, op. cit., Appendix I, p. 91.

<sup>5</sup> Report of the Select Committee on the Telephone Service 1895, Appendix No 13, p. 325. Note this excludes Dundalk and Drogheda both of which were connected by 1893 according to Litton, op. cit., p. 82.

<sup>6</sup> Thomas Wall (1992), Some notes towards a history of telecommunications with particular reference to Ireland. Unpublished manuscript, p. 109.

<sup>7</sup> Ibid.

<sup>8</sup> Department of Posts and Telegraphs memo Cabinet Committee on Economic Planning, 16 October 1944. NAD S 13086A.

<sup>9</sup> Ibid.

<sup>10</sup> Ibid.

<sup>11</sup> Ibid.

<sup>12</sup> Ibid.

<sup>13</sup> Ibid.

<sup>14</sup> Ibid

<sup>15</sup> DD, Vol. 65, p. 1427, 10/3/1937.

<sup>16</sup> Department of Posts and Telegraphs memo Cabinet Committee on Economic Planning, 16 October 1944. NAD S 13086A.

<sup>17</sup> Ibid.

<sup>18</sup> Ibid.

<sup>19</sup> DD, Vol. 65, p. 1427, 10/3/1937.

<sup>20</sup> Department of Posts and Telegraphs memo Cabinet Committee on Economic Planning, 16 October 1944. NAD S 13086A.

<sup>21</sup> Ibid.

<sup>22</sup> DD, Vol. 65, p. 1427, 10/3/1937.

<sup>23</sup> DD, Vol. 65, p. 1427, 10/3/1937.

<sup>24</sup> (Source: Erskine Childers speech at Dundalk Chamber of Commerce 4/11/53. Quoted in Irish Press 5/11/53.)

<sup>25</sup> AJ Litton (1961), "The Growth and Development of the Irish Telephone System", *Journal of the Statistical and Social Inquiry Society of Ireland*, Vol. 20, Part 5, p. 105.

<sup>26</sup> Ibid.

<sup>27</sup> Ibid.

<sup>28</sup> Ibid.

<sup>29</sup> Ibid.

<sup>30</sup> Ibid.

<sup>31</sup> Ibid.

<sup>32</sup> Ibid.

<sup>33</sup> Ibid.

<sup>34</sup> Ibid.

<sup>35</sup> Ibid

<sup>36</sup> Ibid

<sup>37</sup> Ibid.

<sup>38</sup> Ibid.



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- <sup>39</sup> (Source: Erskine Childers speech at Dundalk Chamber of Commerce 4/11/53. Quoted in Irish Press 5/11/53.)
- <sup>40</sup> Ibid.
- <sup>41</sup> Ibid.
- <sup>42</sup> Ibid.
- <sup>43</sup> Ibid.
- <sup>44</sup> Ibid.
- <sup>45</sup> Ibid.
- <sup>46</sup> CSO Statistical Abstracts 1966, p. 318.
- <sup>47</sup> CSO Statistical Abstracts 1966, p. 318.
- <sup>48</sup> CSO Statistical Abstracts 1966, p. 318.
- <sup>49</sup> CSO Statistical Abstracts 1966, p. 318.
- <sup>50</sup> CSO Statistical Abstracts 1966, p. 318.
- <sup>51</sup> CSO Statistical Abstracts 1966, p. 318.
- <sup>52</sup> CSO Statistical Abstracts 1976, p. 282.
- <sup>53</sup> CSO Statistical Abstracts 1976, p. 282.
- <sup>54</sup> CSO Statistical Abstracts 1976, p. 282.
- <sup>55</sup> CSO Statistical Abstracts 1976, p. 282.
- <sup>56</sup> CSO Statistical Abstracts 1976, p. 282.
- <sup>57</sup> CSO Statistical Abstracts 1976, p. 282.
- <sup>58</sup> CSO Statistical Abstracts 1980, p. 332.
- <sup>59</sup> CSO Statistical Abstracts 1980, p. 332.
- <sup>60</sup> CSO Statistical Abstracts 1980, p. 332.
- <sup>61</sup> CSO Statistical Abstracts 1980, p. 332.
- <sup>62</sup> CSO Statistical Abstracts 1982-1985, p. 352.
- <sup>63</sup> CSO Statistical Abstracts 1982-1985, p. 352.
- <sup>64</sup> CSO Statistical Abstracts 1982-1985, p. 352.
- <sup>65</sup> CSO Statistical Abstracts 1982-1985, p. 352.
- <sup>66</sup> Litton, op. cit. p. 81.
- <sup>67</sup> Ibid.
- <sup>68</sup> The Electrician 13/1/1883, P. 206
- <sup>69</sup> The Freeman's Journal 18/5/1883.
- <sup>70</sup> Of which 47 max are non-business. Wall, op. cit. p. 82.
- <sup>71</sup> Freemans Journal, 21/6/1882.
- <sup>72</sup> Freemans Journal 8/5/1883
- <sup>73</sup> The Electrician 13/1/1883, P. 206
- <sup>74</sup> Freemans Journal 19/5/1883
- <sup>75</sup> Freemans Journal 19/5/1883
- <sup>76</sup> Freemans Journal 19/5/1883
- <sup>77</sup> Telephone Company of Ireland, *List of Subscribers to the Dublin Exchange System* November 1882. Directory in the Joly Collection, National Library.
- <sup>78</sup> Freemans Journal 19/5/1883
- <sup>79</sup> Freemans Journal 19/5/1883
- <sup>80</sup> The Freeman's Journal 18/5/1883.
- <sup>81</sup> Freemans Journal 8/9/1883
- <sup>82</sup> Freemans Journal 8/9/1883
- <sup>83</sup> Freemans Journal 8/9/1883
- <sup>84</sup> The Irish Times 19/5/1883.
- <sup>85</sup> Freemans Journal 8/9/1883
- <sup>86</sup> Freemans Journal 8/9/1883
- <sup>87</sup> Wall, op. cit., p. 87.
- <sup>88</sup> Freemans Journal 8/9/1883
- <sup>89</sup> The Electrician 17/1/1883, P. 206

- <sup>90</sup> Freemans Journal 17/4/1884.
- <sup>91</sup> The Electrician 18/10/1884, P. 524.
- <sup>92</sup> Wall, op. cit., p. 88.
- <sup>93</sup> Freemans Journal 22/10/1885
- <sup>94</sup> Freemans Journal 3/4/1886
- <sup>95</sup> Freemans Journal 1/4/1887
- <sup>96</sup> The Electrician 7/1/1887. P. 193.
- <sup>97</sup> Freemans Journal 29/3/1888
- <sup>98</sup> Freemans Journal 8/4/1889
- <sup>99</sup> The Electrician 29/3/1889 P. 607
- <sup>100</sup> Wall, op. cit., p. 91.
- <sup>101</sup> Ibid.
- <sup>102</sup> The Electrician 25/4/1890
- <sup>103</sup> Wall, op. cit. p. 91.
- <sup>104</sup> The Electrician 31/7/1891, pp. 370-371.
- <sup>105</sup> The Electrician 12/8/1892, p. 412/3.
- <sup>106</sup> Wall, op. cit. p. 91.
- <sup>107</sup> Ibid. Note however that The Irish Times of 6/4/1892 reported that there were 1000 TCI subscribers in Dublin and 600 NTC subscribers in Belfast.
- <sup>108</sup> Wall, op cit., p. 92.
- <sup>109</sup> Baldwin, op. cit.
- <sup>110</sup> Report of the Select Committee on the Telephone Service 1895 (Evidence from James Staat Forbes, President of the NTC), p 226. However according to Forbes, "subscribers" were calculated according to how many wires there were with a telephone at the end of them.
- <sup>111</sup> In the absence of definite figures this figure has been "guesstimated" from the fact that there were 3,319 NTC lines in Ireland. Looking at those cities where both the number of subscribers and the number of station is known, it appears that for every 8 subscribers there were roughly 10 phones. Hence 80% of 3,319 is approximately 2,700. See figs in Report of the Select Committee on the Telephone Service 1895 , Appendix No 13, p 325 and p. 328.
- <sup>112</sup> Wall, op. cit., p. 106.
- <sup>113</sup> Ibid.
- <sup>114</sup> Telecom Eireann (1991), REcalling: The Telephone in Ireland - how it all began. (Dublin: Telecom Eireann), p. 12.
- <sup>115</sup> Litton, op. cit..
- <sup>116</sup> Appendix V of Memo (Unsigned) from Department of Posts and Telegraphs to Cabinet Committee on Economic Planning dated 16<sup>th</sup> September 1944. From NAD S 13086A.
- <sup>117</sup> Ibid.
- <sup>118</sup> Ibid.
- <sup>119</sup> Ibid.
- <sup>120</sup> Ibid.
- <sup>121</sup> Ibid.
- <sup>122</sup> Ibid.
- <sup>123</sup> Ibid.
- <sup>124</sup> Ibid.
- <sup>125</sup> Anonymous survey of the operations of the Irish Post Office from 1922-1932. Prepared in response to request from Diarmuid O'hEigceartuigh, Secretary of the Department of the President 11/11/1933. Contained in NAD D/T S221.
- <sup>126</sup> Ibid.
- <sup>127</sup> Ibid.
- <sup>128</sup> Ibid.
- <sup>129</sup> Ibid.
- <sup>130</sup> Ibid.

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- <sup>131</sup> Cabinet Committee on Economic Planning Extract from minutes of meeting of 7th January 1943. Appendix 5. S 13086A.
- <sup>132</sup> Anonymous: "Telephones. Crown Alley (and Exchequer Street) Trunk Exchanges. Comparative figures of Traffic and Staff - 1936 - 1942". NAD S 11992.
- <sup>133</sup> Ibid.
- <sup>134</sup> Ibid.
- <sup>135</sup> Ibid.
- <sup>136</sup> Ibid.
- <sup>137</sup> Ibid.
- <sup>138</sup> Ibid.
- <sup>139</sup> Ibid.
- <sup>140</sup> Ibid.
- <sup>141</sup> Cabinet Committee on Economic Planning. Extract from minutes of meeting of 7th January 1943. Appendix 5. NAD S 13056 A ("Telephone Development.")
- <sup>142</sup> Ibid.
- <sup>143</sup> Anonymous: "Telephones. Crown Alley (and Exchequer Street) Trunk Exchanges. Comparative figures of Traffic and Staff - 1936 - 1942". NAD S 11992.
- <sup>144</sup> Ibid.
- <sup>145</sup> Ibid.
- <sup>146</sup> Ibid.
- <sup>147</sup> Ibid.
- <sup>148</sup> Litton, op. cit., p. 87.
- <sup>149</sup> Ibid.
- <sup>150</sup> Litton, op. cit., p 105.
- <sup>151</sup> Ibid.
- <sup>152</sup> Ibid.
- <sup>153</sup> Ibid.
- <sup>154</sup> Ibid.
- <sup>155</sup> Ibid.
- <sup>156</sup> Ibid.
- <sup>157</sup> Ibid.
- <sup>158</sup> Ibid.
- <sup>159</sup> Ibid.
- <sup>160</sup> Ibid.
- <sup>161</sup> Ibid.
- <sup>162</sup> Ibid.
- <sup>163</sup> Ibid.
- <sup>164</sup> Ibid.
- <sup>165</sup> CSO Statistical Abstract 1966, p. 318.
- <sup>166</sup> DD 303, p 336, 1/2/78.
- <sup>167</sup> CSO Statistical Abstract 1966, p. 318.
- <sup>168</sup> CSO Statistical Abstract 1966, p. 318.
- <sup>169</sup> CSO Statistical Abstract 1966, p. 318.
- <sup>170</sup> CSO Statistical Abstract 1966, p. 318.
- <sup>171</sup> DD 303, p 336, 1/2/78.
- <sup>172</sup> DD 303, p 336, 1/2/78.
- <sup>173</sup> CSO Statistical Abstracts 1976, p. 282.
- <sup>174</sup> CSO Statistical Abstracts 1976, p. 282.
- <sup>175</sup> CSO Statistical Abstracts 1976, p. 282.
- <sup>176</sup> SO Statistical Abstracts 1976, p. 282.
- <sup>177</sup> CSO Statistical Abstracts 1976, p. 282.
- <sup>178</sup> CSO Statistical Abstracts 1976, p. 282.
- <sup>179</sup> DD 303, p 336, 1/2/78.

- <sup>180</sup> CSO Statistical Abstracts 1980, p. 332.
- <sup>181</sup> CSO Statistical Abstracts 1980, p. 332.
- <sup>182</sup> ITU (1990), Yearbook of Public Telecommunication Statistics.
- <sup>183</sup> CSO Statistical Abstracts 1980, p. 332.
- <sup>184</sup> CSO Statistical Abstracts 1980, p. 332.
- <sup>185</sup> "Number of telephone lines to double - report" *The Irish Times*, 29 May 1982.
- <sup>186</sup> CSO Statistical Abstracts 1982-1985, p. 352.
- <sup>187</sup> CSO Statistical Abstracts 1982-1985, p. 352.
- <sup>188</sup> CSO Statistical Abstracts 1982-1985, p. 352.
- <sup>189</sup> Telecom Eireann (1985), 1st Report & Accounts for the period ended 4th April 1985.
- <sup>190</sup> TU (1990), Yearbook of Public Telecommunication Statistics. Telecom Eireann claims that by March 1985 the level of household penetration was 68%.
- <sup>191</sup> Telecom Eireann (1985) 1st Report & Accounts for the period ended 4th April 1985.
- <sup>192</sup> Telecom Eireann (1987), Annual Report and Accounts for the year ended 2nd April 1987
- <sup>193</sup> Telecom Eireann Information and Public Relations Division (1987), Step-by- Step to the Digital Exchange. (Dublin: Telecom Eireann.)
- <sup>194</sup> Telecom Eireann (1987), Annual Report and Accounts for the year ended 2nd April 1987.
- <sup>195</sup> Telecom Eireann Information and Public Relations Division , op. cit.
- <sup>196</sup> Telecom Eireann (1988), Annual Report and Accounts for the year ended 31st March 1988.
- <sup>197</sup> ITU (1990), Yearbook of Public Telecommunication Statistics.
- <sup>198</sup> Telecom Eireann Information and Public Relations Division, op. cit.
- <sup>199</sup> Telecom Eireann (1991), Annual Report and Accounts for the year ended 4th April 1991
- <sup>200</sup> Telecom Eireann Information and Public Relations Division , op. cit.
- <sup>201</sup> Telecom Eireann (1991), Annual Report and Accounts for the year ended 4th April 1991
- <sup>202</sup> Telecom Eireann (1993), Annual Report and Accounts for the year ended 1st April 1993
- <sup>203</sup> Telecom Eireann Information and Public Relations Division, op. cit.
- <sup>204</sup> Telecom Eireann (1993), Annual Report and Accounts for the year ended 1st April 1993
- <sup>205</sup> Telecom Eireann (1993), Annual Report and Accounts for the year ended 1st April 1993, p 12. The confusion may be down to what the "total lines" figure includes. The 1990 annual report notes that "total lines" includes Telecom service lines and public payphones. Perhaps this accounts for the discrepancy of some 30,000 lines.
- <sup>206</sup> Telecom Eireann (1994), Annual Report and Accounts for the year ended 31st March 1994.
- <sup>207</sup> Telecom Eireann Information and Public Relations Division, op. cit.
- <sup>208</sup> Telecom Eireann (1996), Annual Report and Accounts for the year ended 4th April 1996.
- <sup>209</sup> *Ibid.*
- <sup>210</sup> Litton, op. cit, p. 105.
- <sup>211</sup> *Ibid.*
- <sup>212</sup> *Ibid.*
- <sup>213</sup> *Ibid.*
- <sup>214</sup> *Ibid.*
- <sup>215</sup> *Ibid.*
- <sup>216</sup> *Ibid.*
- <sup>217</sup> DD 175, p. 361.
- <sup>218</sup> Litton, op. cit, p. 105.
- <sup>219</sup> DD 194, p. 1029
- <sup>220</sup> DD 200, p. 603.
- <sup>221</sup> DD 208, p. 52.
- <sup>222</sup> DD 215, p 1468.
- <sup>223</sup> Ruth Dudley Edwards (1981), An Atlas of Irish History. (London: Methuen), p. 195.
- <sup>224</sup> ITU, op. cit.
- <sup>225</sup> Telecom Eireann (1990), Annual Report and Accounts for the year ended 29th March 1990.
- <sup>226</sup> *Ibid.*

- <sup>227</sup> Sean MacMahon (1995). "Competition and telecommunications infrastructure in Ireland", *Telecommunications Policy* Vol.19, No. 4., pp. 299-305, p. 300.
- <sup>228</sup> Own calculations based on Appendices XXXI and IV.
- <sup>229</sup> Ibid.
- <sup>230</sup> Ibid.
- <sup>231</sup> Ibid.
- <sup>232</sup> Telecom Eireann (1985), Annual Report and Accounts for the year ended 4th April 1985.
- <sup>233</sup> Telecom Eireann(1986), Annual Report and Accounts for the year ended 3rd April 1986.
- <sup>234</sup> Telecom Eireann (1987), Annual Report and Accounts for the year ended 2nd April 1987.
- <sup>235</sup> Telecom Eireann (1988), Annual Report and Accounts for the year ended 31st March 1988.
- <sup>236</sup> Telecom Eireann (1989), Annual Report and Accounts for the year ended 30th March 1989.
- <sup>237</sup> Telecom Eireann (1991), Annual Report and Accounts for the year ended 4th April 1991.
- <sup>238</sup> Ibid.
- <sup>239</sup> Telecom Eireann (1992), Annual Report and Accounts for the year ended 2nd April 1992.
- <sup>240</sup> Telecom Eireann (1993), Annual Report and Accounts for the year ended 1st April 1993.
- <sup>241</sup> Telecom Eireann (1994), Annual Report and Accounts for the year ended 31st March 1994.
- <sup>242</sup> Telecom Eireann (1995), Annual Report and Accounts for the year ended 30th March 1995.
- <sup>243</sup> Telecom Eireann (1996), Annual Report and Accounts for the year ended 4th April 1996.
- <sup>244</sup> Ibid.
- <sup>245</sup> Ibid.
- <sup>246</sup> Ibid.
- <sup>247</sup> Ibid.
- <sup>248</sup> Ibid.
- <sup>249</sup> Litton, op. cit., p. 87.
- <sup>250</sup> Ibid., p. 105.
- <sup>251</sup> Ibid.
- <sup>252</sup> Ibid.
- <sup>253</sup> Ibid.
- <sup>254</sup> Ibid.
- <sup>255</sup> Ibid.
- <sup>256</sup> Ibid.
- <sup>257</sup> Ibid.
- <sup>258</sup> Ibid.
- <sup>259</sup> Ibid.
- <sup>260</sup> Ibid.
- <sup>261</sup> Ibid.
- <sup>262</sup> Ibid.
- <sup>263</sup> Ibid.
- <sup>264</sup> Ibid.
- <sup>265</sup> DD 303, p 336, 1/2/78.
- <sup>266</sup> DD 303, p 336, 1/2/78.
- <sup>267</sup> DD 303, p 336, 1/2/78.
- <sup>268</sup> ITU, op. cit.
- <sup>269</sup> Ibid. Telecom Eireann claims that by March 1985 the level of household penetration was 68%.
- <sup>270</sup> Ibid.
- <sup>271</sup> "68,000 new phones in 1981, says Harte." *The Irish Times*, 5 Feb. 1982.
- <sup>272</sup> Ibid.
- <sup>273</sup> Telecom Eireann (1986), Annual Report and Accounts for the year ended 3rd April 1986.
- <sup>274</sup> Ibid.
- <sup>275</sup> Telecom Eireann (1988) Annual Report and Accounts for the year ended 31st March 1988.
- <sup>276</sup> Ibid.
- <sup>277</sup> Telecom Eireann (1990), Annual Report and Accounts for the year ended 29th March 1990.
- <sup>278</sup> Ibid.

- <sup>279</sup> Telecom Eireann (1991), Annual Report and Accounts for the year ended 4th April 1991.
- <sup>280</sup> Telecom Eireann (1992), Annual Report and Accounts for the year ended 2nd April 1992.
- <sup>281</sup> Telecom Eireann (1994), Annual Report and Accounts for the year ended 31st March 1994.
- <sup>282</sup> Telecom Eireann (1996), Annual Report and Accounts for the year ended 4th April 1996.
- <sup>283</sup> Ibid.
- <sup>284</sup> DD 217, p. 2022, 21/7/65.
- <sup>285</sup> ITU, op. cit.
- <sup>286</sup> Telecom Eireann (1985), Annual Report and Accounts for the year ended 4th April 1985.
- <sup>287</sup> Telecom Eireann (1986), Annual Report and Accounts for the year ended 3rd April 1986.
- <sup>288</sup> Telecom Eireann (1987), Annual Report and Accounts for the year ended 2nd April 1987.
- <sup>289</sup> ITU, op. cit.
- <sup>290</sup> Telecom Eireann (1990), Annual Report and Accounts for the year ended 29th March 1990.
- <sup>291</sup> Ibid.
- <sup>292</sup> Telecom Eireann (1992), Annual Report and Accounts for the year ended 2nd April 1992.
- <sup>293</sup> Ibid.
- <sup>294</sup> Annual Report of the Telecommunications Services Users' Council 1984-1985, p. 8. Published by the Telecommunications Services Users' Council.
- <sup>295</sup> Ibid.
- <sup>296</sup> Ibid.
- <sup>297</sup> DD 341, p. 2330, 28/4/83. A more detailed breakdown of the waiting list in each telephone area is contained on this page.
- <sup>298</sup> DD 342, p. 404, 4/5/83.
- <sup>299</sup> DD 343, p. 2285, 21/6/83.
- <sup>300</sup> Annual Report of the Telecommunications Services Users' Council 1984-1985, p. 8. Published by the Telecommunications Services Users' Council.
- <sup>301</sup> Ibid.
- <sup>302</sup> Telecom Eireann (1985), Annual Report and Accounts for the year ended 4th April 1985.
- <sup>303</sup> Telecom Eireann (1987), Annual Report and Accounts for the year ended 2nd April 1987.
- <sup>304</sup> Ibid.
- <sup>305</sup> Telecom Eireann (1988), Annual Report and Accounts for the year ended 31st March 1988.
- <sup>306</sup> ITU, op. cit.
- <sup>307</sup> Telecom Eireann (1990), Annual Report and Accounts for the year ended 29th March 1990.
- <sup>308</sup> Ibid.
- <sup>309</sup> Telecom Eireann (1992), Annual Report and Accounts for the year ended 2nd April 1992.
- <sup>310</sup> Wall, op. cit., p. 81.
- <sup>311</sup> Ibid.
- <sup>312</sup> *The Irish Times* 19/5/1883.
- <sup>313</sup> Reduction more apparent than real: due to the extension of the local call area. Therefore calls previously considered trunk calls became local calls.
- <sup>314</sup> CSO Statistical Abstracts 1966, p. 318.
- <sup>315</sup> CSO Statistical Abstracts 1966, p. 318.
- <sup>316</sup> CSO Statistical Abstracts 1966, p. 318.
- <sup>317</sup> CSO Statistical Abstracts 1966, p. 318.
- <sup>318</sup> CSO Statistical Abstracts 1966, p. 318.
- <sup>319</sup> CSO Statistical Abstracts 1966, p. 318.
- <sup>320</sup> CSO Statistical Abstracts 1976, p. 282.
- <sup>321</sup> CSO Statistical Abstracts 1976, p. 282.
- <sup>322</sup> CSO Statistical Abstracts 1976, p. 282.
- <sup>323</sup> CSO Statistical Abstracts 1976, p. 282.
- <sup>324</sup> CSO Statistical Abstracts 1976, p. 282.
- <sup>325</sup> CSO Statistical Abstracts 1976, p. 282.
- <sup>326</sup> CSO Statistical Abstracts 1980, p. 332.
- <sup>327</sup> CSO Statistical Abstracts 1980, p. 332.

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- <sup>328</sup> CSO Statistical Abstracts 1980, p. 332.
- <sup>329</sup> CSO Statistical Abstracts 1980, p. 332.
- <sup>330</sup> CSO Statistical Abstracts 1982-1985, p. 352.
- <sup>331</sup> CSO Statistical Abstracts 1982-1985, p. 352.
- <sup>332</sup> CSO Statistical Abstracts 1982-1985, p. 352.
- <sup>333</sup> CSO Statistical Abstracts 1982-1985, p. 352.
- <sup>334</sup> CSO Statistical Abstracts 1990, p. 329.
- <sup>335</sup> CSO Statistical Abstracts 1990, p. 329.
- <sup>336</sup> CSO Statistical Abstracts 1990, p. 329.
- <sup>337</sup> CSO Statistical Abstracts 1990, p. 329.
- <sup>338</sup> CSO Statistical Abstracts 1990, p. 329.
- <sup>339</sup> CSO Statistical Abstracts 1993, p. 341.
- <sup>340</sup> CSO Statistical Abstracts 1993, p. 341.
- <sup>341</sup> CSO Statistical Abstracts 1993, p. 341.
- <sup>342</sup> Wall, op. cit., p. 122.
- <sup>343</sup> Anonymous survey of the operations of the Irish Post Office from 1922-1932. Prepared in response to request from Diarmuid O'hEigceartuigh, Sectrary of the Department of the President 11/11/1933. Contained in NAD D/T S221.
- <sup>344</sup> Ibid.
- <sup>345</sup> The Irish Times 23/4/1937
- <sup>346</sup> DD 66, p. 1521, 22/4/1937.
- <sup>347</sup> Cabinet Committee on Economic Planning Extract from minutes of meeting of 17th April 1944. "Post War Telephone Development in Cities and Larger Towns." Appendix IV. NAD S 13056A ("Telephone Development")
- <sup>348</sup> Litton, op. cit., p. 102.
- <sup>349</sup> CSO Statistical Abstracts 1966, p. 318.
- <sup>350</sup> CSO Statistical Abstracts 1966, p. 318.
- <sup>351</sup> CSO Statistical Abstracts 1966, p. 318.
- <sup>352</sup> CSO Statistical Abstracts 1966, p. 318.
- <sup>353</sup> CSO Statistical Abstracts 1966, p. 318.
- <sup>354</sup> CSO Statistical Abstracts 1966, p. 318.
- <sup>355</sup> CSO Statistical Abstracts 1976, p. 282.
- <sup>356</sup> CSO Statistical Abstracts 1976, p. 282.
- <sup>357</sup> CSO Statistical Abstracts 1976, p. 282.
- <sup>358</sup> CSO Statistical Abstracts 1976, p. 282.
- <sup>359</sup> CSO Statistical Abstracts 1976, p. 282.
- <sup>360</sup> CSO Statistical Abstracts 1976, p. 282.
- <sup>361</sup> CSO Statistical Abstracts 1980, p. 332.
- <sup>362</sup> CSO Statistical Abstracts 1980, p. 332.
- <sup>363</sup> CSO Statistical Abstracts 1980, p. 332.
- <sup>364</sup> CSO Statistical Abstracts 1980, p. 332.
- <sup>365</sup> CSO Statistical Abstracts 1982-1985, p. 352.
- <sup>366</sup> CSO Statistical Abstracts 1982-1985, p. 352.
- <sup>367</sup> CSO Statistical Abstracts 1982-1985, p. 352.
- <sup>368</sup> CSO Statistical Abstracts 1982-1985, p. 352.
- <sup>369</sup> CSO Statistical Abstracts 1990, p. 329.
- <sup>370</sup> Telecom Eireann (1985), Annual Report and Accounts for the year ended 4th April 1985.
- <sup>371</sup> CSO Statistical Abstracts 1990, p. 329.
- <sup>372</sup> CSO Statistical Abstracts 1990, p. 329.
- <sup>373</sup> CSO Statistical Abstracts 1993, p. 341.
- <sup>374</sup> CSO Statistical Abstracts 1993, p. 341.
- <sup>375</sup> Telecom Eireann (1992), Annual Report and Accounts for the year ended 2nd April 1992.
- <sup>376</sup> CSO Statistical Abstracts 1993, p. 341.

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- <sup>377</sup> Telecom Eireann (1996), Annual Report and Accounts for the year ended 4th April 1996.
- <sup>378</sup> Ibid.
- <sup>379</sup> Wall, op. cit., p. 122.
- <sup>380</sup> Ibid.
- <sup>381</sup> Cabinet Committee on Economic Planning Extract from minutes of meeting of 17th April 1944. "Post War Telephone Development in Cities and Larger Towns." Appendix IV, NAD S 13056A ("Telephone Development").
- <sup>382</sup> Ibid.
- <sup>383</sup> Telecom Eireann (1990), Annual Report and Accounts for the year ended 29th March 1990.
- <sup>384</sup> Telecom Eireann (1993), Annual Report and Accounts for the year ended 1st April 1993.
- <sup>385</sup> Litton, op. cit., p. 80.
- <sup>386</sup> Ibid., p. 84.
- <sup>387</sup> Ibid.
- <sup>388</sup> Ibid., p. 85.
- <sup>389</sup> Wall, op. cit., p. 125.
- <sup>390</sup> Ibid.
- <sup>391</sup> CSO Statistical Abstracts 1966, p. 318.
- <sup>392</sup> CSO Statistical Abstracts 1966, p. 318.
- <sup>393</sup> CSO Statistical Abstracts 1966, p. 318.
- <sup>394</sup> CSO Statistical Abstracts 1966, p. 318.
- <sup>395</sup> CSO Statistical Abstracts 1966, p. 318.
- <sup>396</sup> CSO Statistical Abstracts 1966, p. 318.
- <sup>397</sup> C.D. Foster et al (1981), The Importance of Infrastructure to Industrial Development in Ireland, NESC No. 57. (Dublin: Government Publications). p. 39.
- <sup>398</sup> Ibid.
- <sup>399</sup> Ibid.
- <sup>400</sup> Ibid.
- <sup>401</sup> Ibid.
- <sup>402</sup> CSO Statistical Abstracts 1976, p. 282.
- <sup>403</sup> Ibid.
- <sup>404</sup> Ibid.
- <sup>405</sup> Ibid.
- <sup>406</sup> Ibid.
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- <sup>408</sup> CSO Statistical Abstracts 1980, p. 333.
- <sup>409</sup> Ibid.
- <sup>410</sup> Ibid.
- <sup>411</sup> Ibid.
- <sup>412</sup> CSO Statistical Abstracts 1982-1985, p. 352.
- <sup>413</sup> Ibid.
- <sup>414</sup> Ibid.
- <sup>415</sup> Ibid.
- <sup>416</sup> Telecom Eireann Information and Public Relations Division. op. cit.
- <sup>417</sup> CSO Statistical Abstracts 1990, p. 329.
- <sup>418</sup> Ibid.
- <sup>419</sup> Telecom Eireann Annual Report and Accounts for the year ended 4th April 1985
- <sup>420</sup> Telecom Eireann Annual Report and Accounts for the year ended 3rd April 1986.
- <sup>421</sup> Telecom Eireann Annual Report and Accounts for the year ended 2nd April 1987
- <sup>422</sup> Telecom Eireann Annual Report and Accounts for the year ended 31st March 1988.
- <sup>423</sup> Telecom Eireann Annual Report and Accounts for the year ended 29th March 1990
- <sup>424</sup> Telecom Eireann Annual Report and Accounts for the year ended 29th March 1990
- <sup>425</sup> Telecom Eireann Annual Report and Accounts for the year ended 4th April 1991
- <sup>426</sup> Telecom Eireann Annual Report and Accounts for the year ended 1st April 1993



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<sup>427</sup> Telecom Eireann Annual Report and Accounts for the year ended 1st April 1993  
<sup>428</sup> Telecom Eireann Annual Report and Accounts for the year ended 1st April 1993  
<sup>429</sup> Telecom Eireann Annual Report and Accounts for the year ended 4th April 1996.  
<sup>430</sup> Telecom Eireann Annual Report and Accounts for the year ended 4th April 1996.  
<sup>431</sup> Litton, op. cit, p. 108.

<sup>432</sup> Ibid.

<sup>433</sup> Ibid.

<sup>434</sup> Ibid.

<sup>435</sup> Ibid.

<sup>436</sup> Ibid.

<sup>437</sup> Ibid.

<sup>438</sup> Ibid.

<sup>439</sup> Ibid.

<sup>440</sup> Ibid.

<sup>441</sup> Ibid.

<sup>442</sup> Ibid.

<sup>443</sup> Ibid.

<sup>444</sup> Ibid.

<sup>445</sup> Ibid.

<sup>446</sup> Ibid.

<sup>447</sup> Ibid.

<sup>448</sup> Ibid.

<sup>449</sup> Ibid.

<sup>450</sup> Ibid.

<sup>451</sup> Ibid.

<sup>452</sup> Ibid.

<sup>453</sup> Ibid.

<sup>454</sup> Ibid.

<sup>455</sup> Ibid.

<sup>456</sup> Ibid.

<sup>457</sup> Ibid.

<sup>458</sup> Ibid.

<sup>459</sup> Ibid.

<sup>460</sup> Ibid.

<sup>461</sup> Ibid.

<sup>462</sup> Ibid.

<sup>463</sup> Ibid.

<sup>464</sup> Ibid.

<sup>465</sup> Ibid.

<sup>466</sup> Ibid.

<sup>467</sup> Ibid.

<sup>468</sup> Ibid.

<sup>469</sup> It is a mark of the difficulty involved in pinning down such figures that in February 1980 then Minister for P&T Albert Reynolds offered figures for telephone capital expenditure allocations between 1976 and 1980 that basically conform to the figures above but which diverge in 1977 where according to Reynolds £54.5million was allocated, not £57 million as is noted above. (See DD 318, p. 473, 26/2/80)

<sup>470</sup> DD 341, p. 798, 24/3/83

<sup>471</sup> DD 341, p 798, 24/3/83 (Both 1981 and 1982 figures are approximate)

<sup>472</sup> Telecom Eireann Annual Report and Accounts for the year ended 4th April 1985.

<sup>473</sup> 1985 - 1987 figures from "Telecom Eireann Report and Accounts for the year ended 2nd April 1987."

<sup>474</sup> Telecom Eireann Annual Report and Accounts for the year ended 30th March 1989.

<sup>475</sup> Telecom Eireann Annual Report and Accounts for the year ended 30 March 1995, p 30.

<sup>476</sup> Ibid.

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- <sup>477</sup> 1922/23 - 1931/32 from Department of P&T Commercial Accounts for Year ending 31 March 1932, Government Publications.
- <sup>478</sup> 1932/33 - 1938/39 from Department of Posts and Telegraphs Commercial Accounts for Year ended 31 March 1948, Government Publications.
- <sup>479</sup> From Post Office Commercial Accounts year ending 31st March 1971, p 22.
- <sup>480</sup> Ibid.
- <sup>481</sup> Ibid.
- <sup>482</sup> Ibid.
- <sup>483</sup> Ibid.
- <sup>484</sup> Ibid.
- <sup>485</sup> Ibid.
- <sup>486</sup> Ibid.
- <sup>487</sup> Ibid.
- <sup>488</sup> Ibid.
- <sup>489</sup> Ibid.
- <sup>490</sup> 1971/72 - 1980 from Department of Posts and Telegraphs Commercial Accounts for year ending 31 December 1980, Government Publications.
- <sup>491</sup> From 1981 onwards the figures for telephones and telegraphs were presented together under the heading "telecommunications". 1981 and 1982 from DD 347, p 101-102, 18/1/84.
- <sup>492</sup> Telecom Eireann (1985) Annual Report and Accounts for the year ended 4th April 1985.
- <sup>493</sup> Telecom Eireann (1987) Annual Report and Accounts for the year ended 2nd April 1987
- <sup>494</sup> Ibid.
- <sup>495</sup> Telecom Eireann (1990) Annual Report and Accounts for the year ended 29th March 1990
- <sup>496</sup> Ibid.
- <sup>497</sup> Telecom Eireann (1991) Annual Report and Accounts for the year ended 4th April 1991
- <sup>498</sup> Telecom Eireann (1993) Annual Report and Accounts for the year ended 1 April 1993
- <sup>499</sup> Telecom Eireann (1994) Annual Report and Accounts for the year ended 31st March 1994
- <sup>500</sup> Ibid.
- <sup>501</sup> Telecom Eireann (1996) Annual Report and Accounts for the year ended 4th April 1996.
- <sup>502</sup> Ibid.
- <sup>503</sup> Census of Ireland for the Year 1911, p. 7.
- <sup>504</sup> Ibid.
- <sup>505</sup> Ibid.
- <sup>506</sup> Ibid.
- <sup>507</sup> Own calculations based on 1926-1946 census data and data in: P. Ó hUiginn (1959), "Some Social and Economic Aspects of Housing - An International Comparison", in *Journal of the Statistical and Social Inquiry Society of Ireland* Vol. 20. Part 3, pp. 36 - 57.
- <sup>508</sup> Ibid.
- <sup>509</sup> Ibid.
- <sup>510</sup> Statistical Abstract of Ireland 1966
- <sup>511</sup> Statistical Abstract of Ireland 1976
- <sup>512</sup> Statistical Abstract 1982-1985
- <sup>513</sup> Statistical Abstract 1996
- <sup>514</sup> Report of the Department of Social Welfare 1979-80, p 67-9
- <sup>515</sup> Ibid., 1981-82, p 63-5
- <sup>516</sup> Statistical Information on Social Welfare Services 1984 (Department of Social Welfare), p. 40.
- <sup>517</sup> Statistical Information on Social Welfare Services 1985 (Department of Social Welfare), p. 39.
- <sup>518</sup> Statistical Information on Social Welfare Services 1986 (Department of Social Welfare), p. 12. Interestingly this benefit is explicitly included under the heading "old age" as opposed to the other potential categories: "Family Income Support", "Illness", "Unemployment", etc.
- <sup>519</sup> Statistical Information on Social Welfare Services 1987 (Department of Social Welfare), p. 13.
- <sup>520</sup> Statistical Information on Social Welfare Services 1988 (Department of Social Welfare), p. 18.
- <sup>521</sup> Statistical Information on Social Welfare Services 1989 (Department of Social Welfare), p. 72.

- <sup>522</sup> Statistical Information on Social Welfare Services 1990 (Department of Social Welfare), p. 64.
- <sup>523</sup> Statistical Information on Social Welfare Services 1990 (Department of Social Welfare), p. 66.
- <sup>524</sup> Statistical Information on Social Welfare Services 1992 (Department of Social Welfare). It is worth noting, that on page 72, the 1992 report notes that 20,951 people applied for the free telephone rental allowance. Of these 5,650 were rejected (the biggest single rejection area compared with other free schemes - electricity, TV licence, gas and travel, despite having only the third highest figure for applications). Despite this 21,220 "claims" were awarded in this period suggesting that the Department awards the free rental allowance in many cases (over 25% in this year) automatically that the individual is seen to fit the criteria.
- <sup>525</sup> Statistical Information on Social Welfare Services 1993 (Department of Social Welfare), p. 66.
- <sup>526</sup> All figs Statistical Information on Social Welfare Services 1990 (Department of Social Welfare), p. 63
- <sup>527</sup> All total figs ('81 - '90) from Statistical Information on Social Welfare Services 1990 (Department of Social Welfare), p. 63.
- <sup>528</sup> 1991 and 1992 figures from Statistical Information on Social Welfare Services 1992 (Department of Social Welfare), p. 75.
- <sup>529</sup> Statistical Information on Social Welfare Services 1993 (Department of Social Welfare), p. 75.
- <sup>530</sup> Statistical Information on Social Welfare Services 1992 (Department of Social Welfare), p. 65.
- <sup>531</sup> 1923 Estimates Debate, Dail Eireann. *The Irish Times* 7/12/1923.
- <sup>532</sup> Telephone (Amendment) Regulations 1964. Statutory Instrument No. 153 of 1964
- <sup>533</sup> Telephone (Amendment) Regulations, 1968. Statutory Instrument No. 274 of 1968
- <sup>534</sup> Telephone (Amendment) Regulations, 1968. Statutory Instrument No. 213 of 1970
- <sup>535</sup> Telephone (Amendment) Regulations, 1968. Statutory Instrument No. 63 of 1971
- <sup>536</sup> Telephone (Amendment) Regulations, 1968. Statutory Instrument No. 363 of 1974
- <sup>537</sup> Telephone Regulations, 1980. Statutory Instrument No. 195 of 1980
- <sup>538</sup> Telephone Regulations, 1980. Statutory Instrument No. 195 of 1980
- <sup>539</sup> "Post, phone charges up 20%" *The Irish Times*, 16/3/82.
- <sup>540</sup> Ibid.
- <sup>541</sup> Telecom Eireann (1985), 1st Report and Accounts for the period ended 4th April 1985.
- <sup>542</sup> Telecom Eireann (1987), Annual Report and Accounts for the year ended 2nd April 1987. Furthermore the connection fee was divided into a £50 down-payment and £70 was added to the first bill.
- <sup>543</sup> Baldwin, op. cit. p. 108.
- <sup>544</sup> *Belfast Newsletter*, 31/7/1880.
- <sup>545</sup> *Irish Times* 13/4/1886.
- <sup>546</sup> *The Electrician* 7/1/1887. P 193
- <sup>547</sup> Report from the Select Committee on the Telephone Service London: HMSO. 189, p. 316.
- <sup>548</sup> Ibid. By 1895, the NTC had devised a four-tier rental (at a time when local calls (or calls within the 'free area') were free). The charges for the first tier, the London Metropolitan area are outside the concern of this research but were (all assuming a five year agreement) £17 for business users, £12 15 s for second business connections, and £10 for private houses). The figures above refer to the second charge tier, that of the great towns (of which Dublin and Belfast are explicitly mentioned as two). Thereafter we move into the large towns (possibly Cork? since the towns mentioned include Norwich, Exeter, etc.) - Within ½ miles of the exchange, the charge was £8, within ¾, £9 and within £10 within 1 mile. Again anything beyond that was an extra £2 10s per half-mile per annum. Finally there was the fourth tier, small and outlying towns (such as Elgin and Oban) where the charge was £6 10s within ½ mile of the exchange and £8 within one mile of the exchange. This is quite unusual since the economics suggest that charges should be cheaper in larger, more densely populated areas - could it perhaps be that the NTC charged according to how useful the service was (measured in terms of how many other subscribers a given subscriber could reach).
- <sup>549</sup> Report from the Select Committee on the Telephone Service (London: HMSO), 1895, p. 321.
- <sup>550</sup> Litton. op. cit. p. 110.
- <sup>551</sup> Wall, op. cit. p. 91.
- <sup>552</sup> Litton, op. cit., p. 110.
- <sup>553</sup> Ibid.

- <sup>554</sup> Wall, op. cit., p. 99.
- <sup>555</sup> Hansards 179, p. 449, 29/7/1907 Buxton Reply
- <sup>556</sup> Litton. op. cit., p. 110
- <sup>557</sup> Wall, op. cit., p. 91.
- <sup>558</sup> Ibid., p. 109.
- <sup>559</sup> Report of the Select Committee on the Telephone Service 1922 (London HMSO).p. 125.
- <sup>560</sup> Litton. op. cit., p. 110.
- <sup>561</sup> Ibid.
- <sup>562</sup> Cabinet Committee on Economic Planning. Extract from minutes of meeting of 17th April 1944. "Post War Telephone Development in Cities and Larger Towns." Appendix I. NAD S 13056A ("Telephone Development.")
- <sup>563</sup> Litton. op. cit., p. 110.
- <sup>564</sup> Cabinet Committee on Economic Planning. Extract from minutes of meeting of 17th April 1944. "Post War Telephone Development in Cities and Larger Towns." Appendix I. NAD S 13056A ("Telephone Development.")
- <sup>565</sup> Litton. op. cit., p. 110
- <sup>566</sup> Ibid.
- <sup>567</sup> Ibid.
- <sup>568</sup> See DD 194, p. 852, 29/3/62
- <sup>569</sup> DD 223, p. 1019, 22/6/66
- <sup>570</sup> DD 239, p. 241, 12/3/69.
- <sup>571</sup> DD 264, p. 91, 28/11/72
- <sup>572</sup> "Postal Charges go up 30% : phone calls up by 35%" *The Irish Times* (26/11/75)
- <sup>573</sup> Ibid.
- <sup>574</sup> Frank MacDonald "20% increase in phone and post charges announced" *Irish Times*, 6 July 1979.
- <sup>575</sup> Frank MacDonald, "20% increase in phone and post charges announced", *Irish Times*, 6 July 1979.
- <sup>576</sup> "Post, phone charges up 20%" *The Irish Times*, 16/3/82.
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- <sup>578</sup> Telecom Eireann (1985), 1st Report and Accounts for the period ended 4th April 1985.
- <sup>579</sup> Ibid.
- <sup>580</sup> Telephone (Amendments), 1986. Statutory Instrument No. 78 of 1986
- <sup>581</sup> Telecom Eireann, *Changes in Telephone Charges* 1/10/1988.
- <sup>582</sup> Own figures.
- <sup>583</sup> Cabinet Committee on Economic Planning. Extract from minutes of meeting of 17th April 1944. "Post War Telephone Development in Cities and Larger Towns." Appendix I. NAD S 13056A ("Telephone Development.")
- <sup>584</sup> Cabinet Committee on Economic Planning. Extract from minutes of meeting of 7th January 1943. "Post War Telephone Development in Cities and Larger Towns." Appendix I. NAD S 13056A ("Telephone Development.")
- <sup>585</sup> Telephone (Amendment) (No. 1) Regulations 1956. Statutory Instrument No. 117 of 1956.
- <sup>586</sup> Telephone (Amendment) Regulations 1964. Statutory Instrument No. 153 of 1964.
- <sup>587</sup> Telephone (Amendment) Regulations, 1968. Statutory Instrument No. 274 of 1968.
- <sup>588</sup> "01" Area Telephone Directory 1972.
- <sup>589</sup> "01" Area Telephone Directory 1974.
- <sup>590</sup> "01" Area Telephone Directory 1975.
- <sup>591</sup> "01" Area Telephone Directory 1976.
- <sup>592</sup> "01" Area Telephone Directory 1978.
- <sup>593</sup> "01" Area Telephone Directory 1980.
- <sup>594</sup> Telephone Regulations, 1980. Statutory Instrument No. 195 of 1980.
- <sup>595</sup> "01" Area Telephone Directory 1982.
- <sup>596</sup> Telephone (Amendment) Scheme, 1986. Statutory Instrument No. 78 of 1986.
- <sup>597</sup> Telecom Eireann, *Changes in Telephone Charges*, 1/10/1988.

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<sup>598</sup> VAT on services increased from 12.5% to 16%. Additional 3.5% was not absorbed by Telecom Eireann bringing the effective residential VAT rate to 5.45%. New rates applied to bills issued to residential customers after 1st May 1992.

<sup>599</sup> VAT on services increased from 16% to 21%. Additional 5% was not absorbed by Telecom Eireann bringing the effective residential VAT rate to 10%. New rates applied to bills issued to residential customers after 1st May 1993.

<sup>600</sup> CSO Statistical Abstract 1947-48

<sup>601</sup> Ibid.

<sup>602</sup> Ibid.

<sup>603</sup> Ibid.

<sup>604</sup> CSO Statistical Abstract 1949

<sup>605</sup> CSO Statistical Abstract 1950.

<sup>606</sup> Statistical Abstract 1951

<sup>607</sup> Statistical Abstract 1953

<sup>608</sup> Statistical Abstract 1954

<sup>609</sup> Statistical Abstract 1956

<sup>610</sup> Statistical Abstract 1957

<sup>611</sup> Statistical Abstract 1958

<sup>612</sup> Statistical Abstract 1959

<sup>613</sup> Statistical Abstract 1960

<sup>614</sup> Statistical Abstract 1968

<sup>615</sup> Statistical Abstract 1969

<sup>616</sup> CSO Statistical Abstract 1946

<sup>617</sup> Ibid.

<sup>618</sup> Ibid.

<sup>619</sup> CSO Statistical Abstract 1947 - 48

<sup>620</sup> Ibid.

<sup>621</sup> CSO Statistical Abstract 1949

<sup>622</sup> CSO Statistical Abstract 1950

<sup>623</sup> Statistical Abstract 1951

<sup>624</sup> Statistical Abstract 1953

<sup>625</sup> Statistical Abstract 1954

<sup>626</sup> Statistical Abstract 1956

<sup>627</sup> Statistical Abstract 1957

<sup>628</sup> Statistical Abstract 1958

<sup>629</sup> Statistical Abstract 1959

<sup>630</sup> Statistical Abstract 1960

<sup>631</sup> Statistical Abstract 1968

<sup>632</sup> Statistical Abstract 1968

<sup>633</sup> Statistical Abstract 1969

<sup>634</sup> Statistical Abstract 1972/73

<sup>635</sup> Statistical Abstract 1974/75

<sup>636</sup> All above from CSO Statistical Abstract 1931

<sup>637</sup> 1932

<sup>638</sup> CSO Statistical Abstract 1933

<sup>639</sup> Statistical Abstract 1934

<sup>640</sup> Statistical Abstract 1935

<sup>641</sup> Statistical Abstract 1936

<sup>642</sup> Statistical Abstract 1937

<sup>643</sup> All above Statistical Abstract 1938

<sup>644</sup> Statistical Abstract 1940

<sup>645</sup> Statistical Abstract 1944

<sup>646</sup> Statistical Abstract 1945

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- <sup>647</sup> Statistical Abstract 1946  
<sup>648</sup> Statistical Abstract 1947  
<sup>649</sup> Statistical Abstract 1949  
<sup>650</sup> Statistical Abstract 1950  
<sup>651</sup> All above from Statistical Abstract 1968  
<sup>652</sup> Statistical Abstract 1951  
<sup>653</sup> All above from CSO Statistical Abstract 1933  
<sup>654</sup> Statistical Abstract 1934  
<sup>655</sup> All decimal figures from Statistical Abstract 1970-71  
<sup>656</sup> Statistical Abstract 1935  
<sup>657</sup> Statistical Abstract 1953  
<sup>658</sup> Statistical Abstract 1936  
<sup>659</sup> Statistical Abstract 1954  
<sup>660</sup> Statistical Abstract 1972-73  
<sup>661</sup> Statistical Abstract 1937  
<sup>662</sup> Statistical Abstract 1955  
<sup>663</sup> Statistical Abstract 1956  
<sup>664</sup> Statistical Abstract 1974/75  
<sup>665</sup> All above Statistical Abstract 1939  
<sup>666</sup> Statistical Abstract 1957  
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<sup>671</sup> Statistical Abstract 1960  
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<sup>673</sup> All above Statistical Abstract 1943  
<sup>674</sup> Cabinet Committee on Economic Planning Extract from minutes of meeting of 17th April 1944. "Post War Telephone Development in Cities and Larger Towns." Appendix IV. NAD S 13056A ("Telephone Development.").  
<sup>675</sup> CSO Statistical Abstracts 1966, p. 318.  
<sup>676</sup> *Ibid.*  
<sup>677</sup> *Ibid.*  
<sup>678</sup> *Ibid.*  
<sup>679</sup> *Ibid.*  
<sup>680</sup> *Ibid.*  
<sup>681</sup> CSO Statistical Abstracts 1976, p. 282.  
<sup>682</sup> *Ibid.*  
<sup>683</sup> *Ibid.*  
<sup>684</sup> *Ibid.*  
<sup>685</sup> *Ibid.*  
<sup>686</sup> *Ibid.*  
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