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SOUTH DUBLIN COUNTY PROFILE

Prepared for

SOUTH DUBLIN COUNTY DEVELOPMENT BOARD

Ву

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Table of Contents

Introduction	5
Chapter 1. Dublin – Regional And National Context	6
Chapter 2. Socio-Economic Analysis	10
2.1 Demography	10
2.2 The Labour Force	12
2.3 Social Exclusion	14
2.4 Education	16
2.5 Social Classes	17
Chapter 3. A Classification Of Social Areas In Dublin	18
Factor 1: Social Status	18
Factor 2 - Family Areas	
Factor 3 – Youth And Maturity	20
A Typology Of Social Areas In Dublin	
Cluster 1 - Youthful, Middle Class+ Areas	
Cluster 2 – Lower Social Status / Educational Attainment Areas	
Cluster 3 – Mature Areas / Mixed Household Types	
Cluster 4 – Better Off / Settled Areas	
Local Development	23
Emerging Issues	24
List of Tables	<u>III</u>
List of Maps	<u>IV</u>

List of Tables

TABLE 1: INDUSTRIAL INDICATORS FOR DUBLIN AND MID EAST COUNTIES	7
TABLE 2: INCOME & OUTPUT INDICES	8
TABLE 3: POPULATION OF PRINCIPAL TOWNS AND CHANGES SINCE 1986 IN SOUTH	
Dublin	10
TABLE 4: AGE PROFILE AND DEPENDENCY RATIOS, 1996	11
TABLE 5: LABOUR FORCE PARTICIPATION RATES 1996	12
TABLE 6: NUMBER OF PERSONS AT WORK BY SECTOR, SOUTH DUBLIN	
TABLE 7: NUMBER OF PERSONS AT WORK BY SECTOR, COUNTY DUBLIN	13
TABLE 8: NUMBER OF RECIPIENTS OF SOCIAL WELFARE BENEFITS 1999 & PERCENT.	AGE
CHANGE 1996-99	15
TABLE 9: TRAVELLERS' HALTING SITES & STANDS BY FAMILY UNIT	15
TABLE 10: PERCENTAGE DISTRIBUTION OF POPULATION AGED OVER 15 YEARS BY	
HIGHEST LEVEL OF EDUCATION COMPLETED, 1996	16
TABLE 11: PERCENTAGE DISTRIBUTION OF POPULATION BY SOCIAL CLASSES, DUBLI	N
REGION 1996	17
TABLE 12: ACTIVITIES SUPPORTED BY PARTNERSHIP COMPANIES SOUTH DUBLIN	23

List of Maps

No.	Mapped Variable
Map 1	DED ID No. 1996, South Dublin
Map 2	South Dublin & counties Dublin City, Fingal & Dún Laoghaire Rathdown
Map 3	DED Names 1996 South Dublin
Map 4	Population Density – 1996
<u>Map 5</u>	Average No of Persons per Private Household 1996
Map 6	% Population Change 1991-96
<u>Map 7</u>	Age specific migration: % change in total 10-19 yr. ,1986-1996
<u>Map 8</u>	Age specific migration: % change in total 20-29 yr. ,1986-1996
<u>Map 9</u>	% Aged 0-14 yr. 1996
<u>Map 10</u>	% Aged 15-24 yr. 1996
<u>Map 11</u>	% Aged 25-44yr. 1996
<u>Map 12</u>	% Aged 45-64yr. 1996
<u>Map 13</u>	% Aged 65+ yr. 1996
<u>Map 14</u>	Youth Dependency Ratio –1996
<u>Map 15</u>	Elderly Dependency Ratio – 1996
<u>Map 16</u>	Vitality Ratio – 1996
<u>Map 17</u>	% Change in total at work – 1991-1996
<u>Map 18</u>	Labour Force Participation Rate, All persons 1996
<u>Map 19</u>	Labour Force Participation Rate, Females 1996
<u>Map 20</u>	% At work in Agriculture, Forestry & Fishing – 1996
Map 21	% At work in Manufacturing Industries – 1996
<u>Map 22</u>	% At work in Commerce, Insurance, Finance, & Bus. Services - 1996
<u>Map 23</u>	% At Work in Professional Services – 1996
Map 24	Unemployment Rate – 1996
<u>Map 25</u>	Long-term Unemployment Rate – 1996
Map 26	Lone Parent Families with all Children aged 15yrs or less as a % of total
	families with all children aged less than 15 years - 1996
<u>Map 27</u>	% Aged 65+ and Living Alone –1996
<u>Map 28</u>	Highest level of Education is lower Second level or less - 1996
<u>Map 29</u>	Highest level of Education is a Postgraduate Degree - 1996
<u>Map 30</u>	Persons in Social Class 5 & 6, 1996
<u>Map 31</u>	Persons in Social Class 1 & 2, 1996
Map 32	Factor 1 Social Status
<u>Map 33</u>	Factor 2 Family Areas
Map 34	Factor 3 Growth & Maturity
Map 35	Area Typology

South Dublin County Profile

INTRODUCTION

The main objective of this report is to provide a comprehensive assessment of the current situation in order to assist South Dublin County Development Board in the preparation of its strategy for economic, social and cultural development over the next ten years. The city and environs of Dublin now extend over a very extensive area, exceeding the boundaries of the Dublin administrative units. It represents a complex and dynamic functional entity with roles as both the national capital and the principal international gateway for the country. Since the mid 1990s the old county Dublin has been divided into four units for purposes of public administration, within each of which a City/County Development Board was established in 1999. As each Board is required to prepare a strategy for economic, social and cultural development, the approach adopted here is to provide an analysis that takes account of the wider context while also providing detailed small area analysis for the wards/DEDs of the CDB area.

This profile provides a summary of the current situation in respect of many indicators as suggested in the DOELG Guidelines document, *A Shared Vision for County/City Development Boards*. Comparative data for neighbouring counties and the region are provided where appropriate, and detailed mapping has been undertaken to illustrate patterns within the city wherever data has been available.

The report commences with a contextual overview of the regional, national and international roles of the city-region with particular attention to the underlying dynamics and impacts of the restructuring that has occurred since the late 1980s. This will be followed by a socio-economic profile of the South Dublin County area that relies heavily on small area census data to illustrate and analyse patterns related to demography, the labour force, social exclusion and educational attainment levels. This section concludes with a summary synthesis of a very large database of socio-economic indicators to identify five generalised types of social areas across the entire Dublin area including parts of neighbouring counties. It is followed by an overview of recent initiatives on local development and urban renewal. Finally a number of emerging issues are identified.

CHAPTER 1 DUBLIN – REGIONAL AND NATIONAL CONTEXT

South Dublin County forms part of the built-up area of the city and suburbs of the Dublin metropolitan region. Located to the west and southwest of the city's commercial, social, cultural, educational and administrative core, the socio-economic profile of South Dublin can only be understood by reference to trends in development across the entire city which extend across the administrative boundaries. Any future strategy for the city must take account of its regional, national and international roles. Recently completed research for the National Spatial Strategy confirms that the functional area of the city region extends into the neighbouring counties and beyond to include most of county Louth and parts of the Midlands and Southeast, especially the urban centres that are linked by National Primary routes and/or rail services. For much of this area the city functions not only as the commercial, retail and cultural and educational capital but also as the major source of employment in both manufacturing and services.

The strong centripetal forces exerted by the city centre draw in very large numbers of customers for services so that an extensive array of high-level functional outlets can be sustained. A countervailing trend has seen the emergence of large retail outlets and estates for manufacturing, wholesale and distribution in the outer suburbs. The pull of the city centre exerts negative impacts on smaller centres throughout the region, while also contributing to increasing levels of congestion, environmental pollution, pressure on physical infrastructure, and over recent years very substantial increases in house prices as supply has not been able to keep pace with demand.

While the city-region contains approximately 40% of the total population of the state, the dominance of the city in the economy and in many other facets of Irish life is even greater. Over 80% of State sponsored bodies are located in Dublin, which also is the location for about 70% of the headquarters of the major public and private companies and cooperatives. Furthermore all of the financial institutions have their headquarters in the city.

Related to the concentration of control functions, many of which are interdependent, the city and surrounding county area has emerged as the major location in Ireland, and also as a major centre in the European context, for inward investment. The combination of factors that have made Dublin such an attractive milieu for investments, especially since the early 1990s have, has proved central to the exceptional growth performance of the Irish economy and the country's improved international competitiveness rankings¹.

In the industrial sector the Dublin region has developed a very strong modern base linked to the attraction of blue chip companies especially in the electronics and computers sector. There has also been very significant expansion in the internationally traded services sector, which includes software production, financial services and customer services linked to ICT. Of critical importance here has been the provision of optical fibre international connections and development of dedicated spaces in the city landscape such as the Financial Services Centres in the former docklands, the National Digital Park at City West (South Dublin) and more recently the proposed Digital District in the vicinity of the Guinness Brewery.

6

¹ For a detailed assessment of the international importance of Dublin see "The Role of Dublin in Europe", report prepared by Goodbody Economic Consultants and the Department of Urban and Regional Planning, UCD for the Spatial Planning Unit, Department of the Environment and Local Government, 2000.

There were 318 foreign owned manufacturing and services companies in Dublin in 2000, of which 100 were classified as high tech firms and another 31 as R&D performing units. There was a further 59 foreign-owned firms throughout the neighbouring counties.

Table 1 contains a summary profile of the industrial base of Dublin and the surrounding counties. Dublin accounts for 32% of total employment in manufacturing and internationally traded services. According to Forfás almost 60% of the employment is in the advanced sectors, which results in exceptionally high levels of output per worker, 33% above the average for all industrial workers in the State. The dynamic growth of the manufacturing and internationally traded services sector is reflected in the fact that over half of the total increase in employment in these sectors between 1995 and 1999 took place in Dublin. Total employment in internationally traded and financial services in Dublin increased form 5,356 in 1989 to 15,404 in 1995 and 33,697 in 1998, which was 73% of the total State employment in these sectors.

Table 1: Industrial indicators for Dublin and Mid East counties

	Dublin	Kildare	Meath	Wicklow	Ireland
No. of Industrial plants 1999	1,716	141	138	135	5,474
Total employment in mfg. and Intl. traded services 1999	102,558	14,393	5,931	8,091	324,422
Net employment gain 1995-99 All firms	32,637	3,274	531	1,609	62,524
Net employment gain 1995-99 Foreign-owned	22,781	2,307	- 118	964	39,453
Net employment gain 1995-99 Irish-owned	9,856	967	649	645	23,071
% employed in advanced sectors	59.2	58.7	15.8	43.5	44.9
Share of employment in five Largest firms	7	49	21	29	N/A
GVA per person employed 1998 (Ireland = 100)	133.4	109.0	42.9	140.5	100.0
Wages and salaries as % of net output	25.9	16.7	42.6	13.4	16.9
Ratio of industrial to admin/ Technical workers	3.9	2.6	6.3	4.5	4.5

Source: Forfás database and CSO Census of Industrial Production, 1998

The attraction of such a large volume of industrial and service activities has generated an enormous demand for serviced sites including office space. The total area of office space let and sold between 1990 and 1998 was five times the amount for the period 1980-89. A feature of recent years has been a move by office developers form city centre locations to suburban estates such as at Sandyford, and City West. The locations of these new employment centres has generated new movement patterns that have contributed in some cases to a worsening of the traffic situation especially at peak times.

Another aspect of Dublin's international role is the volume of goods and passenger movements into and around the city. For example, the volume of goods passing through Dublin port rose from 8 million tonnes in 1993 to over 20 million tonnes in 2000².

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² Goodbody Report, The Role of Dublin 2000

The impact of such an enormous increase on the city's infrastructure is most evident along the city quays that provide the access routes for trucks coming from, and going to, all parts of the country.

The number of passengers entering through Dublin airport has increased from about five million in 1993 to almost fourteen million in 2000. Again this reflects the enhanced attractiveness of Dublin as an international city but it brings with it additional pressures on the quality of life in the city. Related to the growth in visitor numbers there was a doubling of the number of hotel bedrooms over the period 1990-99, mostly in city centre locations. A significant component of the visitor numbers are linked to business/conference meetings, the number of which more than doubled to 93,000 visitors in 1999. The importance of Dublin as a venue for such meetings in Ireland is evident from the fact that 85% of all conference visitor destinations were in the Greater Dublin Area, mainly Dublin city.

The dominant position of Dublin in the national economy is confirmed by data on wealth creation and incomes in **Table 2**. The per capita GVA index for 1998 was 134.8 (Ireland = 100) reflecting the very high levels of wealth creation in both manufacturing and internationally traded services.

Table 2: Income & Output Indices

	GVA per capita 1998	Disposable Income Per capita 1998	Percent of population Covered by medical Cards, September 2000
Dublin	135	114.1	25.6
Meath	68	90.9	27.8
Kildare	111	102.0	26.4
Wicklow	80	93.0	32.3
Mid East	88	95.8	N/A
Ireland	100	100.0	30.6

Source: CSO & Dept. of Health

Note: data on these indicators are not available for the new Dublin counties

While some of the value added generated in Dublin leaks out of the country and county by way of repatriation of profits and payments to workers who commute form other counties, the average per capita disposable incomes for the population in Dublin were 14% above the national average in 1998. However, these data need to be treated with some caution due to substantial differences in living costs, especially the cost of housing, between Dublin and the more rural parts of the country.

An index of low incomes is the percentage of the population covered by medical cards, which at 25.6% for September 2000 was the lowest of all the counties. This figure of course is calculated for the entire county and therefore conceals the fact that in some areas there are much larger proportions of the population with very low incomes, as has been established by research undertaken by, for example, the ESRI and will be confirmed by proxy variables that are mapped in the next section.

A further index of the level of the increasing level of affluence in Dublin over recent years is the growth in the number of new vehicles first licensed. In 1995 the total number of first licenses granted in Dublin was 37,663, by 1999 it had increased to 74,385 and in 2000 it exceeded 120,000.

The very remarkable increase has of course also contributed to a much higher level of traffic congestion throughout the city and suburbs, resulting in both increased environmental pollution and deterioration in the quality of life of many resident in the city.

The growth of the Greater Dublin Area over recent years has resulted in a further increase in the share of the total population and of the labour force that is resident in the region. Recently prepared forecasts for the Department of the Environment and Local Government (Spatial Planning Unit) suggest that the population of 'old' county Dublin had increased to 1,109,800 in 2000 and that it could increase to approximately 1.3 million in 2010 and possibly 1.444 million in 2020, by which time there could also be about 510,000 in the Mid East region compared to an estimated 387,300 in 2000.

Whether or not these projections will prove to be correct will depend on many factors, including the policies that may be adopted for the National Spatial Strategy that will be prepared by the end of this year. Whatever level of growth occurs it is clear that Dublin will continue to be the dominant national centre and international gateway for the country. It will remain the most important strategic location for maintaining and enhancing the competitiveness and growth potential of the Irish economy. The recent and future growth patterns will impact in different ways throughout the cityscape and in particular on different groupings within the city population.

The overview provided above establishes the broader context for examining the socioeconomic profile of each of the Local Authority areas that make up the city region. The profile of the South Dublin County area is undertaken in the next chapter.

CHAPTER 2 SOCIO-ECONOMIC ANALYSIS

The following topics are covered in this section: demography, the labour force, social exclusion and education. The final part presents a synthesis based on an analysis of 53 socio-economic variables.

The data are mapped within the framework of the 49 districts shown on (Map 1) which also includes the principal national roads and the M50 reference points. An index of the wards with their 1996 population totals is contained in Appendix 1. (N.B. The number of DED's which pertain to a particular category or class in all these CSO maps is given in the legend in brackets.)

2.1 DEMOGRAPHY

The analysis presented here is based largely on the small area statistics produced by the Central Statistics Office for the 1996 Census of Population. While there have undoubtedly been significant changes since 1996 there will not be another census until April 2002. After the publication of the results from that census, expected in 2003, it will be necessary to update the analysis presented here.

Much of the area of South Dublin County was developed in the relatively recent past with most of the growth of Tallaght and Clondalkin having taken pace during the 1970s and 1980s. However, there are still many areas throughout the county that are still semi-rural, particularly around Rathcoole, Saggart and Newcastle though many of those living in these areas are working in the core of the city (Map 2). Caution is required when examining the maps, which are to an extent visually dominated by the very large DEDs on the western and southern edge of the county (Map 3). These include the following DEDs Bohernabreena, Ballinascorney, Saggart, Rathcoole, and Newcastle. Collectively these districts occupy 58% of the county but less than 5% of the total population which was 218,728 in 1996, an increase of 9,989 (4.8%) over the previous five years. Furthermore, most of the population in these districts is concentrated around Rathcoole and Newcastle with smaller numbers in Saggart and Brittas, **Table 3**

Table 3: Population of principal towns and changes since 1986 in South Dublin

	Total 1996	Change 1986-91	Change 1991-96	Change 1986-96
Rathcoole	2,784	-65	-142	-207
Newcastle	1,289	51	89	140
Saggart	550	-43	-53	-96
Brittas	187	-1	-4	-5

Sources: CSO Census of Population 1986, 1991 & 1996

Because most of the county was developed *ab initio* and over a short period of time, it has a more uniform demographic structure than in the more mature parts of the city, which means that shifts from one phase of the life cycle to another, for example from school to labour force, tend to be more marked than in areas that have developed over a longer period.

There was considerable variation in population density in the area but even the areas with the highest density were still below the densities over a large part of the County Borough. Tallaght & Templeogue are the most densely populated areas with a smaller core around the centre of Clondalkin (Map 4). Elsewhere densities were relatively low, below 2,500 per square kilometre, especially when compared to the County Borough. Almost all of the population (98.8%) reside in private households, for which the average size is 3.5 persons, the highest for all counties (Map 5). By 1996, following two decades of population growth, Tallaght-Templeogue had started to decline in population, largely due to children having grown up and left their parents homes. This was also true of Newcastle and Rathcoole. In contrast, other parts of the county were still growing, including West Tallaght (Fettercairn, Jobstown), Clondalkin (Dunawley) as well as places on the edge of the already built-up area in Lucan and Edmonstown (Map 6).

The increase of almost 10,000 in the total population resulted from a high birth rate and inmigration of young couples to the new residential areas. (Maps 7 and 8) demonstrate the impact of in-migration on the size of the most mobile age cohorts. The maps also demonstrate the extent to which the districts of Newcastle, Saggart and Ballinascorney continued to experience a decline in population.

Comparative data for the age profile and derived ratios for South Dublin and the other Dublin counties are presented in **Table 4**. The most striking aspect is the comparative youthfulness of the population with 46.4% aged under 25 years compared with 40.6% for all of Dublin.

Table 4: Age profile and Dependency ratios, 1996

	South	Dublin	D/L-R	Fingal	Dublin	Ireland
	Dublin	Corp.				
% aged < 15	27.1	18.3	20.9	27.3	22.0	23.7
% aged 15-24	19.3	19.1	17.4	17.8	18.6	17.5
% aged 25-44	30.6	30.3	29.3	31.3	30.3	28.0
% aged 45-64	17.8	19.2	21.2	18.1	19.1	19.4
% aged 65 +	5.2	13.1	11.3	5.6	9.9	11.4
Youth dependency	40.1	26.6	30.7	40.6	32.3	36.5
Elderly dependency	7.7	19.0	16.7	8.3	14.6	17.6
Vitality ratio	6.0	2.7	2.8	5.7	3.4	2.6

Source: Census 96 Vol. 2 Table 3A

The variation between districts in the age-profile is shown on (Maps 9, 10, 11, 12, & 13). The highest proportions of children under the age of 15 years are in the newer residential areas in Jobstown and Fettercairn, parts of north Clondalkin and Palmerstown as well Edmondstown and the adjacent parts of Bohernabreena district. Most of these areas also have comparatively higher proportions of persons aged 25-44 years. Smaller proportions of children were recorded in the more mature residential estates in Tallaght, Lucan Heights and Lucan Esker as well as in the more rural parts in the west of the county. By contrast 15-24 and 45-64 years old persons are more strongly represented in the populations of these areas. Only six percent of the population are aged over 65 years, again these are most strongly represented in the more rural districts and the in east Tallaght-Templeogue.

The age-specific contrasts described above are more represented by the dependency ratios shown on (Maps 14 and 15) while (Map 16) identifies even more precisely the areas of greatest demographic vitality over the medium term.

2.2 THE LABOUR FORCE

In 1996, the census recorded a total labour force of 97,455, which represented an increase of 14,196 (17.1%) on the 1991 figure. Just over 85% of the labour force described as being at work, a two-percentage point improvement on 1991. The geographical pattern of change in the number at work closely mirrors the pattern of population change (Map 17) with the largest increases in parts of Tallaght, Lucan and Clondalkin.

While most of the increase in the labour force is associated with the recent demographic experience of the districts in the county the actual size of the labour force is also strongly influenced by participation rates. **Table 5** shows that the male participation rate in South Dublin area was the highest among the four Dublin counties while the female rate was close to the overall average.

Table 5: Labour Force Participation rates 1996

		Dublin Corp.	D/L-R	Fingal	Dublin
Male participation rate	76.4	70.1	69.6	75.3	72.0
Female participation rate	46.9	47.3	44.5	47.3	46.7

Source: CSO 1996

The geographical pattern of the overall participation rate (Map 18) is closely related to the age profile. While the female participation rate is lower everywhere (Map 19) the overall pattern is broadly similar to that on (Map 18). However, it is noticeable that the female rates are comparatively low in east Tallaght, Rathfarnham and the parts of Terenure in the county where the population is older.

The census of population provides information on the broad industrial sectors in which people are employed, but it should be noted that the information is recorded on the basis of where people reside rather than where they work. The following maps therefore do not indicate where various categories of employment are located nor do they show where gains in employment have occurred.

The distribution of persons at work by gender and sector in 1996 and the changes over the period 1991-96 are summarised in **Table 6** with comparable data for the entire county of Dublin in **Table 7**. The most notable aspects of **Table 6** are the dominance of the commerce and retail sectors which include insurance and finance; that the second largest sector is manufacturing followed by professional services where approximately two-thirds of those at work are females; the extent to which manufacturing is male dominated; and that there was an increase in all sectors except agriculture, forestry and fishing.

Table 6: Number of Persons at work by sector, South Dublin

	Males 1996	Females 1996	Total 1996	Males Change 1991-96	Females Change 1991-96	Total Change 1991-96
Agriculture, forestry, fishing	310	57	367	-214	-19	-233
Mining, quarrying, turf production	105	18	123	-16	-3	-19
Manufacturing	11,339	4,818	16,157	659	339	998
Electricity, gas and water supplies	650	159	809	-72	11	-61
Building and construction	5,337	443	5,780	540	133	673
Commerce, insurance, finance	12,407	10,151	22,558	1,757	2,525	4,282
Transport, communication, etc	5,387	1,276	6,663	830	383	1,213
Public admin. and defence	4,038	2,143	6,181	-89	436	347
Professional services	4,768	9,338	14,106	536	2,384	2,920
Others	4,596	5,638	10,234	1,476	2,202	3,678
Total	48,937	34,041	82,978	5,407	8,391	13,798

Table 7: Number of Persons at work by sector, County Dublin

	Males 1996	Females 1996	Total 1996	Males Change 1991-96	Females Change 1991-96	Total Change 1991-96
Agriculture, forestry, fishing	2,431	361	2,792	-1,221	-169	-1,390
Mining, quarrying, turf production	320	68	388	-65	-26	-91
Manufacturing	43,288	20,453	63,741	298	1,203	1,501
Electricity, gas and water supplies	2,967	897	3,864	-374	74	-300
Building and construction	19,631	1,789	21,420	-503	353	-150
Commerce, insurance, finance	59,817	48,544	108,361	7,761	8,709	16,470
Transport, communication, etc	25,841	8,863	34,704	1,047	6,788	7,835
Public admin. and defence	18,770	11,093	29,863	-884	-12,805	-13,689
Professional services	31,232	55,646	86,878	4,048	10,444	14,492
Others	26,487	30,655	57,142	8,129	9,390	17,519
Total	230,784	178,369	409,153	18,236	32,571	50,807

Sources: Census 1996 – Principal Economic Status and Industries Tables: 13a, 13b, 13c. Census 1991 – Industries Tables 8a, 8b, 8c.

Less than 370 persons were employed in primary activities in 1996 and these were mostly resident in the outlying districts (Map 20). The distribution of workers in manufacturing shows relatively large concentrations in west Tallaght and Clondalkin but much smaller proportions in west Lucan, Templeogue, Firhouse and Rathfarnham (Map 21). This pattern contrasts with the distributions of service workers (Maps 22 and 23).

In 1996 the unemployment rate for the South Dublin was approximately 15%. Above average unemployment rates were concentrated in west Tallaght and the districts to the south of it as well as parts of Clondalkin. In Jobstown, Fettercarin and Killinarden more than one-third of the labour force were unemployed, with equally high proportions in Rowlagh in north Clondalkin (Map 24). By contrast there were other districts around Lucan and east Tallaght and Rathfarnham where the rates were very low which to a very large extent reflects variations in education levels and the distribution of social classes.

2.3 SOCIAL EXCLUSION

With the decline in unemployment due to recent job creation, and the change from endemic emigration to net immigration, the nature of social exclusion, both nationally and in Dublin, has changed considerably. While the numbers affected have contracted, the severity of the problems faced by those groups still experiencing exclusion has arguably intensified. The introduction and successful implementation of measures to combat exclusion therefore remains a significant challenge for the years ahead.

Given the limited availability of appropriate data it is difficult to identify accurately the extent of social exclusion. The approach adopted here is to consider a number of proxy indicators. One such measure that may help to identify districts where some persons are at a high risk of being socially excluded is the distribution of long term unemployed persons. While the numbers involved are likely to have declined since 1996 the wards that had the highest levels of longterm unemployment are likely to be the areas where the risk of social exclusion remains highest. (Map 25) is almost identical to (Map 24), and thus confirms that the areas of very high unemployment are also the same areas where unemployment became a persistent problem requiring targeted local responses.

The unemployed are not the only group at risk of social exclusion: research also shows that lone parent families (especially those with young children) and elderly persons living alone also have a significantly higher risk of income poverty than that of the population at large. The distribution of lone parent families with young children as a percentage of all families (Map 26) shows a pattern that is very similar to that for long-term unemployment with particularly high ratios (approximately 30%) in Fettercairn, Jobstown and Killinarden in Tallaght and Dunawley and Rowlagh in Clondalkin. This geographical pattern confirms research based on household level data which shows that many local authority housing estates tend to have above average concentrations of households experiencing multiple deprivation.

The distribution of elderly persons living alone (Map 27) in broad terms reflects the overall demographic structure of the county, and contrasts very much with the patterns for lone parents and unemployment. The elderly living alone, which usually contains many more females than males, can be a very vulnerable group experiencing difficulties in relation to access to services (due to restricted mobility) and also increasingly about their personal security.

Additional data on the potential social exclusion is provided in **Table 8** which summaries at county level the number of recipients of a selection of social welfare benefits in 1999 and the change in numbers between 1996 and 1999.

Table 8: Number of recipients of Social Welfare benefits 1999 & percentage change 1996-99

	Dublin*	Meath	Kildare	Wicklow	Ireland
One parent family	26,983	1,540	2,468	2,289	70,387
Allowance 1999					
% change 1996-99	30.9	43.0	49.0	40.5	39.2
Disability payments	28,602	2,733	3,760	2,849	107,057
% change 1996-99	21.9	36.2	38.7	33.6	33.0
Invalidity pensions	15,920	477	1,414	1,199	46,946
% change 1996-99	6.0	- 2.1	12.3	8.3	9.1
No. on live register	45,483	2,753	4,347	4,784	176,539
% change 1996-99	- 45.6	- 30.4	- 44.7	- 36.8	-34.6

Source: Department of Social, Family and Community Affairs

Almost two-fifths of the total number of recipients in the State of the one parent family allowance resided in county Dublin, mostly in areas with high proportions of social housing. The table shows that relative to other counties the rates of increase in the number of Dublin resident recipients of the first three benefits was less than in the neighbouring counties and that the decline in the number on the live register was significantly greater than the level for the State.

Travellers are a group that are especially vulnerable to social exclusion. The provision of halting sites and stands for traveller families is an issue that has proven very difficult to address in a satisfactory manner. The level of provision of halting sites and stands by each local authority is summarised in the following **Table 9**.

Table 9: Travellers' Halting Sites & Stands by Family Unit

	South Dublin	Dublin Corp.	D/L-R	Fingal
Permanent Sites	7	8	4	8
Permanent Stands	58	248	16	93
Temporary Sites	3		2	
Temporary Stands	82		4	
L.A & Group Housing	97	157	28	20
Proposed Group		90		31
Housing				
Proposed Houses		14		38
Proposed Bay Halting		24		97
Emergency Sites	2			
Emergency Stands	7			
Unauthorised Sites	21	5		
Unauthorised Stands	69			

Source: Local Authorities

An additional group of people at risk of social exclusion are the recent ethnic immigrants, many of whom are refugees or asylum seekers. According to data provided by the Department of Justice, Equality and Law Reform the number of asylum applications has increased from a little over 400 in 1995 to 4,626 in 1998 and 10,938 in 2000.

^{*}Data are not published for the individual counties in Dublin.

By far the largest numbers of applications have been from Nigerian and Romanian nationals (31.1% and 21.8% of the total respectively in 2000). The vast majority are attracted to Dublin. The provision of housing for asylum applicants is a major challenge. The Directorate of Asylum Support Services is currently operating eight Reception Centres in the Dublin area providing accommodation for 617 persons. Seven of the Reception Centres are located in the inner city. In addition accommodation is provided at 47 other venues throughout Dublin. Accommodation was provided in South Dublin at the end of 2000 for just over 200 asylum seekers, mostly in Knocklyon and parts of Rathfarnham.

2.4 EDUCATION

The central role of education in social and economic transformation is widely acknowledged and has been identified by many as a significant contributory factor to the unprecedented level of economic expansion and social change that has occurred in Ireland since the early 1990s. Education has emerged as, perhaps, the most important influence on employment prospects and its importance has been amplified by the restructuring of employment towards more highly skilled occupations. Reflecting the changing norms in education and employment, those whose education extended to lower secondary level or less could be considered to be at a significant disadvantage in terms of access to higher status and more remunerative occupations. Measured in this way it is not surprising that the geographical patterns of educational attainment mirror some of maps presented previously on the labour force.

For those whose education had ceased by 1996, the percentage that had attained lower secondary or less was over two-thirds in the districts that have already been identified as having very high unemployment rates and also high percentages of lone parents (Map 28).

By contrast the distribution of those with the highest levels of formal education was very much concentrated in east Tallaght and Rathfarnham along with Lucan (Map 29). Comparative data on educational levels for the adjoining counties are provided in **Table 10** which highlight the extent to which educational attainment levels in the county are relatively low, especially when one takes into account the age youthful age profile of many of the districts.

Table 10: Percentage distribution of population aged over 15 years by highest level of education completed, 1996

			D/L-R	Fingal	Dublin
	Dublin	Corp.			
Primary	23%	30%	14%	18%	24%
Lower Secondary	23%	18%	14%	20%	18%
Upper Secondary	32%	25%	31%	35%	29%
Third level - non degree	10%	9%	14%	12%	10%
Third level - degree or higher	9%	12%	24%	13%	14%
Not Stated	2%	6%	3%	3%	4%
Total	100%	100%	100%	100%	100%

Source: CSO 1996

2.5 SOCIAL CLASSES

Educational attainment levels have a strong influence on occupational choices, which in turn impact on the social class to which persons are assigned. It is to be expected therefore that the geographical distribution of the population by social classes broadly correspond to the distributions by education. (Maps 30 and 31) that this indeed is the situation in South Dublin. The distribution of persons in social classes 5 & 6 representing semi-skilled and unskilled workers respectively is mostly concentrated in the areas where there are large employed in manufacturing or otherwise unemployed. By contrast, (Map 31) shows those social classes 1 & 2 representing the professional and managerial groups are predominantly in the districts where educational attainment levels are high and where above average numbers are employed in the service sectors.

Comparative county level data are presented in **Table 11**, which highlights the extent to which the social profile of the South Dublin population differs from those for the populations of Dún Laoghaire Rathdown and Fingal to a lesser extent.

Table 11: Percentage distribution of population by social classes, Dublin Region 1996

	South	Dublin	D/L-R	Fingal	Dublin
	Dublin	Corp.		-	
1. Professional workers	5%	5%	13%	7%	7%
2. Managerial and technical	22%	18%	34%	29%	24%
3. Non-manual workers	21%	19%	20%	21%	20%
4. Skilled manual Workers	23%	19%	12%	18%	18%
5. Semi-skilled manual Workers	13%	13%	7%	11%	12%
6. Unskilled Workers	6%	8%	4%	6%	6%
7. Others	10%	17%	10%	8%	13%
8. Total	100%	100%	100%	100%	100%

Source: CSO 1996

CHAPTER 3 A CLASSIFICATION OF SOCIAL AREAS IN DUBLIN³

The patterns described above point to a number of important demographic and socio-economic contrasts within the city and suburbs. While each of the maps is unique, it is clear that several of the variables on which they are based bear close similarity to each other and are, therefore, likely to be statistically intercorrelated, and appear to measure different aspects of the same phenomenon. By examining these similarities further, it is possible to group variables together on the basis of their inter-relationships into a small number of composite variables or 'factors', thereby summarising the complex social geography of the city. Each factor is derived from, and interpreted according to, the variables to which it is most closely related.

In applying factor analysis to census data for Dublin, a database of 53 variables was analysed for approximately 300 areal units for Dublin, covering the built up area of the city. The dataset contains measures of the social, demographic, economic, familial and commuting characteristics of each the residents of each area. In addition, a measure of population change from 1991-96 and data on housing characteristics from 1991 are also included, as data on these characteristics were not collected in the 1996 census. The complete list of variables is provided in Appendix 2a.

The analysis revealed that these variables could be reduced to just three factors; the list of variables that are strongly associated with each factor is contained in Appendix 2b. Using this information, a score was produced for each census area that indicates the strength of the association between the area and the particular factor. The higher or lower the score, the more the area resembles the ends of a continuum as will be described below. It must be remembered that the descriptions that follow are profiles of the entire populations of districts, and it must not be assumed that a given individual in a district will exhibit these aggregate characteristics.

Some care must be taken in interpreting the maps that follow. Many of the areal units (wards and DEDs) on the outskirts of the city are much larger in spatial extent than the norm for the city. In many cases, however, their population size is smaller than the norm and, consequently, they have a visual dominance that exceeds their importance. This is particularly so in the south-west of the city between Tallaght and the county boundary.

Factor 1: Social Status

This is the most important composite variable or factor and summarises the social status structure of the city. The spatial pattern of this factor is shown in (Map 32). It describes a continuum between what might be called "higher socio-economic status" areas and "lower socio-economic status areas". Areas characterised as "high status" are those with relatively (in an overall city sense) large numbers of people in the two highest social classes, as defined by the census. These are essentially people who are in higher or lower professional or managerial employment or are proprietors. Educational attainment is high; there are strong associations with people who have leaving certificates or degrees and who have remained in education beyond the age of 21 years. Unemployment in these areas is relatively low including unemployment in the under 25 age group.

³ This analysis was undertaken by Dr Joe Brady, Dept of Geography, UCD

Taking categories one and two together on (Map 32) it can be seen that such areas are concentrated in the south-eastern sector on the south side of the city with a more scattered distribution north of the Liffey which includes places such as Castleknock, Malahide, Portmarnock, Howth and the coastal strip to Clontarf.

The lower status areas are associated with social groups 5 and 6; semi-skilled manual or unskilled manual employment. These areas are associated with populations who have relatively lower levels of formal education, fewer at leaving cert or degree level and much more with lower secondary level education. A significant number have ceased formal education before the age of 15 years. The same areas are associated with relatively high levels of unemployment, including unemployment among the under 25 year olds. Relative to the numbers at work, there are relatively high numbers of adult dependents. There is a moderate association between these areas and the incidence of one-parent households and larger families. There is a moderate association with local authority housing. The areas so identified are mainly on the outskirts of the built-up city, in Tallaght (particularly the west), Ballyfermot, Clondalkin, parts of Finglas and the northern edge of the city.

There is a difference in terms of the mode of transport used by the two extremes of this continuum. The "higher" social areas have higher levels of car ownership and usage for travel to work while those at the opposite end tend to make greater use of buses. The relationships with mode of transport are quite strong and are persistent, having been first identified in a similar analysis for 1986 and suggest that there is more to increasing usage of buses among commuters than just making buses available.

Factor 2 - Family Areas

This composite factor summarises a distinction that can be made between what might be called "family areas" and those where household composition is more complex. The strong "family areas" are places with high proportions of married persons and couples with children in the population. In consequence, household sizes are correspondingly larger. Significant numbers of adults are engaged in home duties; mainly women working in the home though many married women are also participants in the labour force.

The geographic distribution of scores on this factor displays a broadly concentric pattern (Map 33). High scoring family areas are found in the south city in places such as central and east Tallaght (Kilnamanagh, Oldbawn) and parts of Firhouse, Templeogue and Terenure. Moving northwards, parts of Castleknock and Blanchardstown also score highly. There is also a large cluster of high scoring areas on the northern edge of the city and include both areas in the contiguous built-up city (parts of Finglas, Ballymun, Kilmore, Beaumont, Priorswood, Edenmore) as well as more suburban locations such as Portmarnock and, to a lesser degree Malahide and Swords.

At the other end of the continuum are areas where household types are more varied. There is a relatively high proportion of people living in flats and bedsits and one-person households and separated/divorced people are an important element in the structure of the area. These areas also have a younger population, the under 40s are a significant category, as well as couples who are in the pre-family stage of the life cycle. The rented accommodation sector is more important here than elsewhere in the city. Most of the inner city and north and south inner suburbs are found at this end of the continuum. The core areas are the classic flatland of the city (Rathmines, Rathgar, part of Clonskeagh) as well as parts of the inner city such as around Patrick Street, Sean McDermott Street, Summerhill and Ballybough. Some of these areas have experienced population growth in recent years and but such growth is not a uniform characteristic of these areas.

Factor 3 – Youth and Maturity

Dublin has a complex family structure distribution, largely because of the planning decisions of the 1970s and 1980s that concentrated growth on the outskirts of the city, ignoring in large measure the already-developed city. This factor identifies the rapidly growing areas of the city and contrasts them with areas that are mature and moving into the final stages of the life cycle.

The "growing areas" have relatively large proportions of children and young adults in their populations. These are areas where the youngest child will often be under the age of four years and families with children at school are a significant proportion of all families. A high proportion of the housing has been built post 1981. At the other end are those areas where the population is over the age of 40 years of age and where children have either left the family home or are aged over 15 years. Relatively greater numbers of households have moved into the "empty-nest" stage. These are not dynamic, growing areas and may well be areas in which resources are now under-utilised.

The pattern displayed in (Map 34) is complex. It shows the "growing areas" areas concentrated around the edge of the city and in the central area where the policies of urban regeneration and in-fill housing have resulted in additions of young people to a relatively settled community. These are the areas with the more complex household structure referred to in factor 2. Because of this complexity, these latter types of areas are not particularly associated with population growth. Many of the districts on the outskirts have grown strongly. These include Swords, Blanchardstown, Tallaght, Sandyford as well as some more suburban locations such as The Ward and Rathcoole.

The areas now reaching maturity are found in areas that were developed in the 1950s and 60s, or earlier in some cases, where new growth has yet to have a significant impact on the social structure. There are undoubtedly resources such as schools, churches and shops in these areas that are under-utilised but, equally, these areas may now require services appropriate to more mature adults. Crumlin falls into this category, as does Whitehall.

A TYPOLOGY OF SOCIAL AREAS IN DUBLIN

Taking account of the scores on all three composite variables or factors, it is possible to group DEDs and wards together by means of a clustering procedure and produce a mosaic of different social areas in the city. The clustering process involves assigning each area to a particular cluster such that the differences are maximised between the clusters. It was decided that five clusters would best summarise the social geography of the city, and the location of these is shown on (Map 35) which also shows the administrative boundaries so that it is easier to identify the types of social areas that are dominant in each administrative area.

The characteristics of each cluster can be discerned by comparing the mean value on each of the original variables for districts that form the cluster, with the mean value for the urban area as a whole (see Appendix 2c). The basic characteristics of the five clusters shown on (Map 35) are summarised in the remainder of this section.

Cluster 1 - Youthful, middle class+ areas

This is the largest cluster in terms of area and population (289,442 in 1996). It contains 28% of the total population, and had a growth rate of 12.7% (32,695) between 1991 and 1996. The districts in this cluster are concentrated on the edge of the built-up area of the city and form an almost complete ring. It is mostly concentrated in the southern part of Fingal, the eastern part of South Dublin and the southern edge of Dún Laoghaire Rathdown. Only a few wards in the Corporation area form part of the cluster. It includes Malahide, Swords, and parts of Blanchardstown, Castleknock, parts of Clondalkin, Tallaght, Firhouse as well as Killiney.

There are no such areas in the inner city and very few in the inner suburbs. These were the new areas of the city in 1996, with an average of 47% of housing built post 1981 compared to 21% for the city as a whole. This cluster has a relatively younger population with more than 50% of households consisting of families with children. Conversely only 7% of households are classified as "empty nest" and there is also a lower adult dependency. The cluster population tends to be have had access to higher levels of formal education than the city average which has contributed to a low unemployment rate of 10%. Housing tends to be privately owned rather than rented from the local authority.

Cluster 2 – Lower social status / educational attainment areas

The DEDs and wards that comprise this cluster are found in a number of distinct groupings of wards and DEDs, mostly in the northside of the Corporation area, and the western edge of South Dublin. There is a large group of areas around Crumlin, Walkinstown and Drimnagh, Finglas, Darndale and Kilbarrack, as well in some of the less built-up areas in the south county - Newcastle, Saggart, Ballinascorney

The population of this cluster (224,002 in 1996; 15,951 less than in 1991) represents 22% of the city population. The areas that form the cluster are characterised not so much by a dominant family type, rather by characteristics of social class, educational attainment and economic status. There are higher than average percentages of skilled and semi-skilled workers and both unemployment and adult dependency ratios are higher than the city norm. With an unemployment rate of 21% the cluster contains almost 30% of the total number of unemployed persons in the city. Educational attainment is lower with almost 40% having primary only education compared to 25% for the city as a whole, and 21% with lower secondary level education compared to 18% for the city.

Cluster 3 – Mature Areas / Mixed Household Types

The third of the clusters is almost totally concentrated in the southside of the Corporation area with some extensions into the north inner city. It comprises almost all of the inner city and most of the eastern inner suburbs as far south as Donnybrook and Ballsbridge. The total population of the cluster in 1996 was 164,107, which included an increase of 15,419 (10.4%), over 1991.

These are older mature areas with more mixed households structures. Flats and bedsits are much more common here than in any other part of the city. The share of one-person households is more than double the city average. The private rental sector is far more important in this zone than elsewhere in the city. Families are smaller than elsewhere but such families as there are in these areas are more likely to have children of school-going age. The distribution of social classes in this cluster is broadly representative of the city as a whole but the greater concentrations of areas in this cluster south of the Liffey give it, on average, a lower representation from the skilled and semi-skilled social groups. The unemployment rate for the cluster of districts was 16.7%.

Cluster 4 - Better off / Settled areas

The fourth cluster, which had a population in 1996 of 233,337 (1.8% less than in 1991) is discontinuous on both sides of the Liffey covering extensive parts of Dún Laoghaire Rathdown. On the north side it encompasses parts of Portmarnock, Howth, Clontarf, Glasnevin, Drumcondra and Clonsilla while south of the river it is concentrated in a band that includes Terenure, Dundrum, Churchtown, Stillorgan. Rathcoole is an outlier to the southwest. These are better off, more settled areas than the remainder of the city. Almost half the population are in the professional or managerial social groups compared to just over 30% for the city as a whole. Unemployment is low, just under half the city average. Over 20% ceased education at 21 years or over, seven percentage points above the average for the city. Car usage is much higher, over 50% use the car in the morning. The population is somewhat older than in the city as a whole, 23% aged 40-65 years; more people are married and there are more families with older children.

Cluster 5 – Marginal and Excluded Populations in Social Housing Areas

This group of areas exists on the outskirts of the city in West Tallaght, Clondalkin, Blanchardstown, Ballymun, Priorswood and a small number of inner city areas. The combined population of the districts that make up the cluster was 109,858, which was a small increase of 2200 (2.0%) over the 1991 total. The cluster is characterised by much higher percentages of unskilled and semi-skilled employees, over thirteen percentage points higher than for the city as a whole. There are correspondingly lower percentages of professionals and managers, only 1.28% in social group 1. Housing is dominated by local authority rentals. The city average in 1991 was 15.8% but in this cluster two out of every three housing units is rented from the Local Authority. Much of the housing is of recent origin, having been built in the 1980s. Educational attainment levels are much lower than the norm for the city; less than 6% with third level compared to almost 24% for the city as a whole. Adult dependency is approximately 70% higher than the city average and unemployment rates are double the average for the city. These are young areas with high percentages of children and young adults, 58% of the population is under twenty years of age. Families with children at school comprise over 60% of all families with children. This combination of large numbers of children and young adults, lower educational attainment, high unemployment and many unskilled and semi-skilled workers suggest that these are the main socially excluded and marginal areas in the city.

LOCAL DEVELOPMENT

There are a wide range of projects, programmes and organisations that are focused either specifically on attempts to promote social inclusion, or, more generally, on local development. In addition to government departments and national bodies with a remit in this area, the main local organisations involved include South Dublin County Council, South Dublin Development Board, Dublin Enterprise Board and Partnership Companies funded by ADM in Tallaght and Clondalkin.

With the decline in unemployment due to recent job creation, and the change from endemic emigration to net immigration, the nature of social exclusion, both nationally and in Dublin, has changed considerably. While the numbers affected have contracted, the severity of the problems faced by those groups still experiencing exclusion has arguably intensified. The introduction and successful implementation of measures to combat exclusion therefore remains a significant challenge for the years ahead.

The following table summarises the range of supports provided by the two Partnership Companies. Since 1997 assistance has been provided to 110 local groups in Clondalkin and 73 groups in Tallaght. The table also shows a marked difference between the two Partnerships in relation to the types of project supported.

Table 12: Activities supported by Partnership Companies South Dublin

Partnership Company	Business start-ups 1997-99	Job Placements 1997-99	Preventive Educ. Participants (No.) 1998-99	Complementary Educ. Participants (No.)1998-99
Tallaght	751	1378	1500	223
Clondalkin	317	604	2448	415
Total	1068	1982	3948	638

Source: ADM Ltd.

EMERGING ISSUES

A number of issues emerge from the analysis presented in the preceding sections, which need to be considered by the County Development Board in the formulation of its strategy. They are presented here in summary form so that they may be considered by the CDB.

- > The future role of the city as a national and international centre and the role of South Dublin in that context.
- An economic strategy is required that will maximise the contribution of South Dublin to the economy of metropolitan Dublin and also provide a broad range of employment opportunities for local residents so as to reduce the numbers travelling out of the county for work and thereby adding to the traffic congestion that is experienced throughout much of the city,
- > Public transport services need to be improved in order to encourage more users,
- Impacts that may arise from a policy of higher density development in the built up areas of the county need to be assessed,
- > Measures to combat and prevent social exclusion will need to be enhanced in targeted areas of the county.
- > The impacts of increasing congestion within South Dublin and on routes to other parts of the metropolitan region,
- > The impacts of suburbanisation on old villages
- ➤ The need for a planned approach to the expansion of the City region as envisaged in Strategic Planning Guidelines,
- A co-ordinated approach to landuse planning and the provision of public services including infrastructures throughout the Greater Dublin Area will require coordination of the strategies being prepared by all of the City and County Development Boards in the GDA.

APPENDIX 1

ID codes area and summary population totals for each district in South Dublin County.

DED ID	DED NAME	Area Sq Km	Pop. 1986	Pop. 1991	Pop. 1996	Pop. change 1991-96
3001	Ballinascorney	23.74	595	470	514	9.36
3002	Ballyboden	1.19	3841	4876	5260	7.88
3003	Bohernabreena	43.00	1996	2592	2681	3.43
3004	Clondalkin - Ballymount	3.00	1512	1613	1812	12.34
3005	Clondalkin - Cappaghmore	2.04	1335	1818	1825	0.39
3006	Clondalkin - Dunawley	4.78	8431	8761	9289	6.03
3007	Clondalkin - Monastery	3.83	6503	8040	8633	7.38
3008	Clondalkin - Moorfield	2.06	6115	6213	6697	7.79
3009	Clondalkin - Rowlagh	0.73	5605	5577	5238	-6.08
3010	Clondalkin – Village	6.08	5708	6730	8123	20.70
3011	Edmondstown	4.22	3914	4568	4863	6.46
3012	Firhouse - Ballycullen	2.82	1131	2662	4603	72.92
3013	Firhouse - Knocklyon	1.04	4091	4600	4629	0.63
3014	Firhouse – Village	2.37	5115	5442	6859	26.04
3015	Lucan – Esker	6.49	1977	3099	7451	140.43
3016	Lucan – Heights	3.65	5310	5263	5817	10.53
3017	Lucan - St. Helens	11.25	5791	6069	6915	13.94
3018	Newcastle	32.36	2576	2563	2374	-7.37
3019	Palmerstown - Village	1.15	4975	4436	3961	-10.71
3020	Palmerstown West	3.94	6924	7307	8449	15.63
3021	Rathcoole	14.52	3606	3575	3448	-3.55
3022	Rathfarnham - Ballyroan	0.68	3586	3263	2903	-11.03
3023	Rathfarnham - Butterfield	0.72	3970	3679	3323	-9.68
3024	Rathfarnham - Hermitage	0.76	2882	3797	4284	12.83
3025	Rathfarnham - St. Enda's	1.10	4589	4713	4493	-4.67
3026	Rathfarnham - Village	0.72	2422	2778	2757	-0.76
3027	Saggart	13.00	1592	1493	1408	-5.69
3028	Tallaght – Avonbeg	0.38	2563	2212	1967	-11.08
3029	Tallaght – Belgard	2.71	2110	2188	2067	-5.53
3030	Tallaght – Fettercairn	4.56	4471	5334	5513	3.36
3031	Tallaght – Glenview	0.50	1530	1491	1430	-4.09
3032	Tallaght – Jobstown	2.76	6071	6349	7294	14.88
3033	Tallaght - Killinarden	0.74	5389	5103	4970	-2.61

DED ID	DED NAME	Area Sq Km	Pop. 1986	Pop. 1991	Pop. 1996	Pop. change 1991-96
3034	Tallaght - Kilnamanagh	2.13	5325	5717	5633	-1.47
3035	Tallaght – Kiltipper	1.71	4939	5145	5237	1.79
3036	Tallaght - Kingswood	1.82	4097	4381	4539	3.61
3037	Tallaght – Millbrook	0.66	5520	5037	4508	-10.50
3038	Tallaght – Oldbawn	1.43	5308	5250	5040	-4.00
3039	Tallaght - Springfield	2.02	7864	7986	7803	-2.29
3040	Tallaght – Tymon	2.03	6797	6592	6289	-4.60
3041	Templeogue - Cypress	0.70	3150	3390	3253	-4.04
3042	Templeogue - Kimmage	1.01	3782	3613	3520	-2.57
3043	Templeogue-Limekiln	1.12	4616	4678	4261	-8.91
3044	Templeogue - Orwell	0.45	2864	3010	2871	-4.62
3045	Templeogue-Osprey	1.42	3047	3025	3029	0.13
3046	Templeogue - Village	0.58	2183	1931	1728	-10.51
3047	Terenure - Cherryfield	0.41	2876	2546	2341	-8.05
3048	Terenure – Greentree	0.62	4014	3544	3201	-9.68
3049	Terenure - St. James	0.65	4938	4220	3625	-14.10
	Totals	221.65	199,546	208,739	218,728	

APPENDIX 2(a)

Variables employed in the analysis

Variable	Abbreviation
Percentage population change 1991-96	pchange
children <1 year as a percentage of the total population	pbaby
children under 4 years as a percentage of the total population	punder4
children 5 to 19 years as a percentage of the total population	punder19
people 19-40 years as a percentage of the total population	p_40
people 40-65 years as a percentage of the total population	pmiddle
retired people as a percentage of the total population	Pretire
married people as a percentage of the total population	pmarry
separated people as a percentage of the total population	psep
people in flats or bedsits as a percentage of the total number of households	pflat
one person households as a percentage of the total number of households	hh1
one couple households as a percentage of the total number of households	hh2
couple with children as a percentage of the total number of households	hh2_ch
one parent households as a percentage of the total number of households	hh_1per
Couples with 2 or less children as a percentage of couples with children	fam 2
Couples with 5 or more children as a percentage of couples with children	fam_G5
Families with youngest child four years or younger as a percentage of	
families	yun_L4
Families with youngest child 15 years or older as a percentage of families	yun_G15
Families with children at school as a percentage of all families with children	school
Persons per household	pph
Prefamily households as a percentage of all households	prefam
Empty nest households as a percentage of all households	empty
Percentage of Labour force "at work"	atwork
Percentage of the labour force "unemployed"	unemp
Percentage of those aged 15+ year engaged in "home duties"	home
Persons under 25 unemployed as a percent of under 25 labour force	unem_25
Adults not at work as a ratio of those "at work"	dep_ad
Ever married females "at work" as a percentage of all females "at work"	f_mar_wk
Percentage population - Higher professional or managerial, employing	social_1
others	_
Percentage population -Lower professional or managerial, without	social_2
employees	
Percentage population -Other non-manual	social_3
Percentage population -Skilled manual	social_4
Percentage population -Semi-skilled manual	social_5
Percentage population -Unskilled manual	social_6
Mode of transport "foot"	foot
Mode of transport "bike"	bike
Mode of transport "bus"	bus
Mode of transport "train or DART"	train
Mode of transport "car"	car
Age dependency <15 and over 65 as a ratio of the labour force	dep_age
Percentage of population whose education ceased at 15 or under	educ_L15
Percentage of population whose education ceased at 21 or over	educ_G21
Percentage of population - no formal education, or primary level only.	Primary

Variable	Abbreviation
Percentage of population whose Highest level of education - lower	ed_inter
secondary level	
Percentage of population whose Highest level of education - leaving cert	ed_leav
Percentage of population whose Highest level of education - third level	ed_3l
sub degree	
Percentage of population whose highest level of education - degree level	ed_deg
at least	
Percentage of housing rented from LA 1991	pla
Percentage of housing stock as rented accommodation 1991	prented
Percentage of housing owner occupied with loan 1991	ploan
Percentage of housing owner occupied 1991	powner
Percentage of housing built between 1971 - 1981 (1991)	built71
Percentage of housing built post 1981 (1991).	built81

APPENDIX 2(b)

Variables with the strongest (positive and negative) association with each factor*

Factor 1 - Social Status

Percentage of population - no formal education, or primary level only.	-0.948
Percentage of population whose education ceased at 15 or under	-0.933
Percentage of the labour force "unemployed"	-0.912
Percentage population -Unskilled manual	-0.898
Percentage population -Semi-skilled manual	-0.871
Persons under 25 unemployed as a percent of under 25 labour force	-0.819
One parent households as a percentage of the total number of households	-0.773
Percentage of housing rented from LA 1991	-0.728
Mode of transport "foot"	-0.722
Adults not at work as a ratio of those "at work"	-0.713
Percentage of population whose Highest level of education - lower	-0.663
secondary level	
Mode of transport "bus"	-0.629
Separated people as a percentage of the total population	-0.569
Couples with 5 or more children as a percentage of couples with children	-0.566
One couple households as a percentage of the total number of	0.467
households	
Percentage of housing owner occupied with loan 1991	0.564
Percentage of population whose education ceased at 21 or over	0.784
Percentage of population whose highest level of education - degree level at least	0.788
Percentage population - Higher professional or managerial, employing	0.789
others	0.709
Percentage of population whose Highest level of education - leaving cert	0.821
Mode of transport "car"	0.850
Percentage of population whose Highest level of education - third level	0.924
sub degree	0.021
Percentage population -Lower professional or managerial, without	0.941
employees	

Factor 2 - Family Areas

People in flats or bedsits as a percentage of the total number of households	-0.889
One person households as a percentage of the total number of households	-0.871
Percentage of housing stock as rented accommodation 1991	-0.817
Pre-family households as a percentage of all households	-0.814
People 19-40 years as a percentage of the total population	-0.755
Percentage of those aged 15+ year engaged in "home duties"	0.616
Percentage of housing owner occupied with loan 1991	0.641
Ever married females "at work" as a percentage of all females "at work"	0.751
Persons per household	0.801
Married people as a percentage of the total population	0.828

Factor 3 - Growth and Decline

Empty nest households as a percentage of all households	-0.816
Families with youngest child 15 years or older as a percentage of families	-0.797
People 40-65 years as a percentage of the total population	-0.647
Couples with 2 or less children as a percentage of couples with children	-0.564
Children under 4 years as a percentage of the total population	0.711
Children 5 to 19 years as a percentage of the total population	0.784
Families with youngest child four years or younger as a percentage of families	0.808
Families with children at school as a percentage of all families with children	0.854

^{*} The closer the score is to either +1 or -1 the stronger the relationship of the variable to the factor

APPENDIX (2c)

MEAN CHARACTERISTICS OF EACH CLUSTER AND CITY AVERAGE

CLUSTER 1	Cluster	City
Children under 4 years as a percentage of the total population	8.35	6.40
Children 5 to 19 years as a percentage of the total population	37.98	29.04
People 19-40 years as a percentage of the total population	39.95	39.69
People 40-65 years as a percentage of the total population	17.77	19.68
Married people as a percentage of the total population	39.99	34.69
Separated people as a percentage of the total population	2.50	3.31
People in flats or bedsits as a percentage of the total number of households	1.35	15.95
Persons per household	3.49	2.98
One person households as a percentage of the total number of households	12.25	23.23
one couple households as a percentage of the total number of households	13.56	13.73
couple with children as a percentage of the total number of households	53.86	36.14
one parent households as a percentage of the total number of households	8.41	10.70
Couples with 2 or less children as a percentage of couples with children	60.47	63.95
Couples with 5 or more children as a percentage of couples with children	5.08	5.28
Families with youngest child four years or younger as a % of all families	25.60	20.07
Families with youngest child 15 years or older as a percentage of families	24.29	30.78
Families with children at school as a percentage of all families with children	53.27	44.52
Pre-family households as a percentage of all households	10.65	10.57
Empty nest households as a percentage of all households	7.37	13.87
Percentage of Labour force "at work"	90.06	83.51
Percentage of the labour force "unemployed"	9.94	16.49
Percentage of those aged 15+ year engaged in "home duties"	16.11	17.41
Persons under 25 unemployed as a percent of under 25 labour force	16.68	21.60
Adults not at work as a ratio of those "at work"	76.13	108.72
Ever married females "at work" as a percentage of all females "at work"	59.85	45.57
Percentage population - Higher professional or managerial, employing others	6.92	7.34
Percentage population -Lower professional or managerial, without employees	28.10	23.30
Percentage population -Semi-skilled manual	10.22	11.37
Percentage population -Unskilled manual	4.54	6.53
Mode of transport "bus"	17.32	18.38
Mode of transport "train or DART"	3.44	3.42
Mode of transport "car"	46.45	36.92
Percentage of population whose education ceased at 15 or under	12.26	18.58

CLUSTER 1	Cluster	City
Percentage of population whose education ceased at 21 or over	12.34	13.38
Percentage of pop. with no formal education or at most primary level.	16.80	24.59
Percentage of pop. whose Highest level of education - lower	19.92	17.66
secondary level		
Percentage of pop. whose Highest level of education - leaving cert	28.36	22.53
Percentage of pop. whose Highest level of education - third level	12.16	10.04
sub degree		
Percentage of pop. whose highest level of education - degree level	13.95	14.72
at least		
Percentage of housing rented from LA 1991	5.32	15.83
Percentage of housing stock as rented accommodation 1991	4.15	10.54
Percentage of housing owner occupied with loan 1991	70.03	41.64
Percentage of housing owner occupied 1991	15.56	25.39
Percentage of housing built between 1971 - 1981 (1991)	47.35	20.71
Percentage of housing built post 1981 (1991).	27.75	15.42

CLUSTER 2	Cluster	City
Children 5 to 19 years as a percentage of the total population	26.54	29.04
People 19-40 years as a percentage of the total population	36.38	39.69
People 40-65 years as a percentage of the total population	22.22	19.68
Married people as a percentage of the total population	36.45	34.69
Separated people as a percentage of the total population	3.36	3.31
People in flats or bedsits as a percentage of the total number of	7.43	15.95
households		
Persons per household	2.99	2.98
One person households as a percentage of the total number of	22.15	23.23
households		
One couple households as a percentage of the total number of households	14.25	13.73
Couple with children as a percentage of the total number of households	35.00	36.14
One parent households as a percentage of the total number of households	12.68	10.70
Couples with 2 or less children as a percentage of couples with children	65.39	63.95
Couples with 5 or more children as a percentage of couples with children	5.55	5.28
Families with youngest child four years or younger as a percentage of families	16.06	20.07
Families with youngest child 15 years or older as a percentage of families	38.92	30.78
Families with children at school as a percentage of all families with children	37.64	44.52
Pre-family households as a percentage of all households	5.91	10.57
Empty nest households as a percentage of all households	16.90	13.87
Percentage of Labour force "at work"	78.49	83.51
Percentage of the labour force "unemployed"	21.51	16.49
Percentage of those aged 15+ year engaged in "home duties"	20.34	17.41
Persons under 25 unemployed as a percent of under 25 labour force	25.28	21.60
Adults not at work as a ratio of those "at work"	125.47	108.72
Ever married females "at work" as a percentage of all females "at work"	42.41	45.57
Age dependency <15 and over 65 as a ratio of the labour force	50.71	48.28
Percentage population - Higher professional or managerial,	2.15	7.34
proprietors employing others		
Percentage population -Lower professional or managerial,	13.50	23.30
proprietors without employees	1.505	11.0=
Percentage population -Semi-skilled manual	16.85	11.37
Percentage population -Unskilled manual	10.04	6.53
Mode of transport "bus"	22.82	18.38
Mode of transport "train or DART"	2.15	3.42
Mode of transport "car"	29.97	36.92
Percentage of population whose education ceased at 15 or under	31.90	18.58
Percentage of population whose education ceased at 21 or over	4.93	13.38
Percentage of population whose highest level of education - lower secondary	20.74	17.66

CLUSTER 2	Cluster	City
Percentage of population whose highest level of education - leaving	18.27	22.53
cert		
Percentage of population whose highest level of education - third	5.70	10.04
level sub degree		
Percentage of population whose highest level of education - degree	4.71	14.72
level		
Percentage of housing rented from LA 1991	17.04	15.83
Percentage of housing stock as rented accommodation 1991	3.69	10.54
Percentage of housing owner occupied with loan 1991	36.07	41.64
Percentage of housing owner occupied 1991	27.61	25.39
Percentage of housing built post 1981 (1991).	5.04	15.42
Percentage of population - no formal education, or primary level only	39.95	24.59

CLUSTER 3	Cluster	City
Children under 4 years as a percentage of the total population	5.07	6.40
Children 5 to 19 years as a percentage of the total population	20.18	29.04
People 19-40 years as a percentage of the total population	50.08	39.69
People 40-65 years as a percentage of the total population	16.22	19.68
Married people as a percentage of the total population	22.84	34.69
Separated people as a percentage of the total population	4.40	3.31
People in flats or bedsits as a percentage of the total number of households	54.09	15.95
Persons per household	2.16	2.98
One person households as a percentage of the total number of households	42.15	23.23
One couple households as a percentage of the total number of households	12.79	13.73
Couple with children as a percentage of the total number of households	13.99	36.14
One parent households as a percentage of the total number of households	8.02	10.70
Couples with 2 or less children as a percentage of couples with children	69.29	63.95
Couples with 5 or more children as a percentage of couples with children	4.49	5.28
Families with youngest child four years or younger as a percentage of families	19.54	20.07
Families with youngest child 15 years or older as a percentage of families	24.99	30.78
Families with children at school as a percentage of all families with children	42.15	44.52
Pre-family households as a percentage of all households	22.91	10.57
Empty nest households as a percentage of all households	14.08	13.87
Percentage of Labour force "at work"	81.74	83.51
Percentage of the labour force "unemployed"	18.26	16.49
Percentage of those aged 15+ year engaged in "home duties"	11.35	17.41
Persons under 25 unemployed as a percent of under 25 labour force	22.39	21.60
Adults not at work as a ratio of those "at work"	103.17	108.72
Ever married females "at work" as a percentage of all females "at work"	28.81	45.57
Age dependency <15 and over 65 as a ratio of the labour force	38.21	48.28
Percentage population - Higher professional or managerial, employing others	9.99	7.34
Percentage population -Lower professional or managerial, without employees	22.78	23.30
Percentage population -Semi-skilled manual	8.90	11.37
Percentage population - Unskilled manual	5.79	6.53
Mode of transport "bus"	16.33	18.38
Mode of transport bus Mode of transport "train or DART"	2.81	3.42
Mode of transport train of BART	27.53	36.92
Percentage of population whose education ceased at 15 or under	14.21	18.58
Percentage of population whose education ceased at 15 or under	20.98	13.38

CLUSTER 3	Cluster	City
Percentage of population whose highest level of education – lower secondary	12.00	17.66
Percentage of population whose highest level of education - leaving cert	19.18	22.53
Percentage of population whose highest level of education - third level sub degree	12.36	10.04
Percentage of population whose highest level of education - degree level	23.21	14.72
Percentage of housing rented from LA 1991	20.27	15.83
Percentage of housing stock as rented accommodation 1991	33.02	10.54
Percentage of housing owner occupied with loan 1991	21.19	41.64
Percentage of housing owner occupied 1991	24.40	25.39
Percentage of housing built post 1981 (1991).	12.23	15.42
Percentage of population - no formal education, or primary level only	20.06	24.59

CLUSTER 4	Cluster	City
Children under 4 years as a percentage of the total population	5.42	6.40
Children 5 to 19 years as a percentage of the total population	26.19	29.04
People 19-40 years as a percentage of the total population	35.93	39.69
People 40-65 years as a percentage of the total population	23.25	19.68
Married people as a percentage of the total population	40.26	34.69
Separated people as a percentage of the total population	2.54	3.31
People in flats or bedsits as a percentage of the total number of	7.47	15.95
households		
Persons per household	2.97	2.98
One person households as a percentage of the total number of households	21.55	23.23
One couple households as a percentage of the total number of households	16.09	13.73
Couple with children as a percentage of the total number of households	38.19	36.14
One parent households as a percentage of the total number of households	8.43	10.70
Couples with 2 or less children as a percentage of couples with children	65.72	63.95
Couples with 5 or more children as a percentage of couples with children	3.45	5.28
Families with youngest child four years or younger as a percentage of families	16.47	20.07
Families with youngest child 15 years or older as a percentage of families	35.09	30.78
Families with children at school as a percentage of all families with children	41.75	44.52
Pre-family households as a percentage of all households	7.76	10.57
Empty nest households as a percentage of all households	18.05	13.87
Percentage of Labour force "at work"	91.70	83.51
Percentage of the labour force "unemployed"	8.30	16.49
Percentage of those aged 15+ year engaged in "home duties"	18.28	17.41
Persons under 25 unemployed as a percent of under 25 labour force	14.04	21.60
Adults not at work as a ratio of those "at work"	99.13	108.72
Ever married females "at work" as a percentage of all females "at work"	50.18	45.57
Age dependency <15 and over 65 as a ratio of the labour force	48.85	48.28
Percentage population - Higher professional or managerial, proprietors employing others	12.77	7.34
Percentage population -Lower professional or managerial,	34.80	23.30
proprietors without employees	3 1.00	23.30
Percentage population -Semi-skilled manual	6.59	11.37
Percentage population -Unskilled manual	2.76	6.53
Mode of transport "bus"	14.02	18.38
Mode of transport "train or DART"	6.00	3.42
Mode of transport "car"	50.20	36.92
Percentage of population whose education ceased at 15 or under	9.71	18.58
Percentage of population whose education ceased at 21 or over	20.17	13.38

CLUSTER 4	Cluster	City
Percentage of population whose highest level of education – lower	13.52	17.66
secondary level		
Percentage of population whose highest level of education -	27.67	22.53
leaving cert		
Percentage of population whose highest level of education - third	13.06	10.04
level sub degree		
Percentage of population whose highest level of education -	22.70	14.72
degree level		
Percentage of housing rented from LA 1991	3.18	15.83
Percentage of housing stock as rented accommodation 1991	7.83	10.54
Percentage of housing owner occupied with loan 1991	49.19	41.64
Percentage of housing owner occupied 1991	36.90	25.39
Percentage of housing built post 1981 (1991).	12.20	15.42
Percentage of population - no formal education, or primary level	14.07	24.59
only.		

CLUSTER 5	Cluster	City
Children under 4 years as a percentage of the total population	10.69	6.40
Children 5 to 19 years as a percentage of the total population	46.96	29.04
People 19-40 years as a percentage of the total population	36.73	39.69
People 40-65 years as a percentage of the total population	12.75	19.68
Married people as a percentage of the total population	27.23	34.69
Separated people as a percentage of the total population	4.90	3.31
People in flats or bedsits as a percentage of the total number of	12.75	15.95
households		
Persons per household	3.80	2.98
one person households as a percentage of the total number of households	11.92	23.23
one couple households as a percentage of the total number of households	7.13	13.73
couple with children as a percentage of the total number of households	45.48	36.14
one parent households as a percentage of the total number of households	23.48	10.70
Couples with 2 or less children as a percentage of couples with children	48.66	63.95
Couples with 5 or more children as a percentage of couples with children	12.69	5.28
Families with youngest child four years or younger as a percentage of families	33.12	20.07
Families with youngest child 15 years or older as a percentage of families	19.56	44.52
Families with children at school as a percentage of all families with children	61.14	44.52
Pre-family households as a percentage of all households	4.68	10.57
Empty nest households as a percentage of all households	5.21	13.87
Percentage of Labour force "at work"	62.25	83.51
Percentage of the labour force "unemployed"	37.75	16.49
Percentage of those aged 15+ year engaged in "home duties"	22.82	17.41
Persons under 25 unemployed as a percent of under 25 labour force	43.69	21.60
Adults not at work as a ratio of those "at work"	175.33	108.72
Ever married females "at work" as a percentage of all females "at work"	48.25	45.57
Age dependency <15 and over 65 as a ratio of the labour force	65.95	48.28
Percentage population - Higher professional or managerial, proprietors employing others	1.28	7.34
Percentage population -Lower professional or managerial, proprietors without employees	8.09	23.30
Percentage population -Semi-skilled manual	17.62	11.37
Percentage population -Unskilled manual	13.76	6.53
Mode of transport "bus"	25.49	18.38
Mode of transport "train or DART"	.67	3.42
Mode of transport "car"	17.06	36.92
Percentage of population whose education ceased at 15 or under	29.20	18.58
Percentage of population whose education ceased at 21 or over	3.01	13.38

CLUSTER 5	Cluster	City
Percentage of population whose highest level of education - lower	29.41	17.66
secondary		
Percentage of population whose highest level of education -	14.21	22.53
leaving cert		
Percentage of population whose highest level of education - third	3.80	10.04
level sub degree		
Percentage of population whose highest level of education -	2.84	14.72
degree level		
Percentage of housing rented from LA 1991	66.87	15.83
Percentage of housing stock as rented accommodation 1991	1.95	10.54
Percentage of housing owner occupied with loan 1991	18.34	41.64
Percentage of housing owner occupied 1991	6.41	25.39
Percentage of housing built post 1981 (1991).	38.61	15.42
Percentage of population - no formal education, or primary level	37.81	24.59
only.		

Sources

Area Development Management Ltd

Brady, J. 2001 Dept of Geography UCD, An Analysis of the Social Areas in the Greater Dublin Area

Central Statistics Office, 1996 volume 1 Population Classified by Area

Central Statistics Office, 1996 volume 2 Ages and Marital Status

Central Statistics Office, 1996 volume 3 Household Composition and Family Units

Central Statistics Office, 1996 volume 4 Usual Residence and Migration, Birthplaces

Central Statistics Office, 1996 volume 5 Principle Economic Status and Industries

Central Statistics Office, 1996 volume 7 Occupations

Central Statistics Office, 1996 volume 8 Education, Scientific and Technological Qualifications

Central Statistics Office, 1996, Principle Socio-economic Results.

Central Statistics Office, annual, Regional Accounts

Central Statistics Office, 2000, Household Incomes Regions and Counties 1991-1998

Central Statistics Office, 2000, Census of Industrial Production 1998

Central Statistics Office, 2001 Quarterly Survey

Central Statistics Office, 2000 Vital Statistics

Department of Education & Science, Statistical *Report 1998 - 1999*

Department of the Environment and Local Government Spatial Planning Unit,

2000, The Role of Dublin in Europe A report prepared by Goodbody Economic Consultants and the Dept of Urban & Regional Planning UCD

Dept of Health

Dept of Social, Family & Community Affairs

Dublin City Enterprise Board

Dublin Corporation

Dublin Transportation Office, A Platform for Change – An Outline of the transportation Strategy for the Greater Dublin Area 2000 to 2016

Dún Laoghaire Rathdown County Council

Enterprise Ireland, 2000, Driving Growth in Regional Enterprise, Dublin & Mid East Region Company Listing August 1999

Fingal County Council

Forfás, 2000, Enterprise 2010.

IDA Ireland, County Dublin Companies Feb 2001

Morgenroth, E., 2001, Analysis of the Economic, Employment and Social Profile of the Greater Dublin Region, ESRI, Dublin.

South Dublin County Council