

# The Regional Dimension of Industrial Policy and Performance in the Republic of Ireland

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## Abstract

From its inception in the late 1940s, Irish industrial policy has attempted to disperse industrial plants across regions. Analysing a large sample of companies which established in Ireland in the early 1980s, we examine whether the survival rates of companies and jobs are lower in peripheral compared with core regions, and whether indigenous and foreign companies differ in this regard. We find that company and job survival rates in the foreign-owned sector are higher overall than in the indigenous sector, and that survival rates are generally higher for foreign companies at the periphery and for indigenous companies at the core.

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## 1. INTRODUCTION

From its inception in the late 1940s and early 1950s, there has been a very strong spatial dimension to the industrial development strategy adopted by the Republic of Ireland, henceforth referred to as Ireland. With the decline in jobs in the agricultural sector in the immediate post-war period, manufacturing industry was seen as the key sector which could generate employment possibilities in peripheral areas. Indeed, the earliest industrial grants were given only to those companies which established in the peripheral, so-called “disadvantaged”, areas. At that point, industrial strategy operated more as an instrument of regional policy rather than as an instrument of economic development policy generally.<sup>1</sup>

Over the forty-seven years since the passing of the first Industrial Development Act, the balance has gradually shifted, with the regional aspect of development becoming more an element in the national industrial strategy rather than the industrial strategy being merely an element of regional policy. In 1972 the Industrial Development Authority (IDA) produced a major policy document, *Regional Industrial Plans, 1973-77*, which indicated a commitment to a dispersed industrial development strategy, rather than to the alternative *growth pole* strategy, which had been advocated by some planners during the 1960s.<sup>2</sup> In the 1980s there was some diminution in the emphasis on the regional aspect of industrial development, as job creation rather than job location became the focus of policy in times of rising unemployment.

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<sup>1</sup> While this may seem surprising in the 1990s, it is unsurprising when one considers that agriculture was identified as the key sector in terms of economic growth potential in the country’s first major planning document, *Economic Development*, published in 1957.

<sup>2</sup> The regional issue was quite controversial in the 1960s, with widespread disagreement on the merits of concentrated versus dispersed industrial location.

However, since industrial policy is implemented at project level, i.e., discretionary grants are determined following the appraisal of individual projects, the spatial element has remained quite important as there is a strong national awareness of the specific location of these projects. Indeed in very recent times as Ireland's job performance in manufacturing has improved markedly, there has been renewed emphasis on the regional dimension to policy.<sup>3</sup>

Throughout the past forty years, industrial projects locating in disadvantaged areas, i.e., areas characterised by high agricultural dependency, unemployment and out-migration, have been eligible for higher state support than projects locating in less disadvantaged areas of the country. This state support came in the form of grants towards the cost of capital and labour. Through this selective grant intervention, applied to what were formally defined in the legislation as *designated areas* and *non-designated areas*, and through the activities of the industrial promotional agencies, industrial development strategy has successfully spread industrial plants across the country. Consequently, the problem of massive migration to a small number of large urban centres, driven by the concentration of industrial jobs in a single centre or small number of large urban centres, typically found in developing countries, has been more or less avoided in Ireland, though it could be seen as having occurred between rural Ireland and cities in the UK.<sup>4</sup> This type of migration is usually referred to as Harris-Todaro migration.<sup>5</sup>

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<sup>3</sup> This is particularly so in the case of foreign projects - governments come under severe criticism if large projects are seen to be too heavily concentrated in the larger cities and Dublin in particular.

<sup>4</sup> To the extent that such migration has occurred within Ireland, it has been due to concentration of service jobs and not industrial jobs in urban areas, primarily Dublin. For a discussion of external

In the context of Ireland's low level of economic development in the 1960s, such migration could have been potentially very large in scale, and much larger than in many developing countries, as the payment of social assistance to the unemployed reduces the cost of spending time in high-wage job search in urban areas. Thus not only has the decentralisation of industrial development been beneficial in terms of its impact on maintaining regional balance, it has also been beneficial in reducing the incentive/need for workers to move to urban areas to obtain industrial employment.

This paper examines the performance of industrial policy in the context of this commitment to a spatial distribution of industrial development. The particular question of interest is *whether the decision to include a spatial dimension in industrial policy, which may have been beneficial in minimising rural-urban migration and achieving regional balance, has involved a major cost in terms of the success of industrial projects, as measured by the survival rates of companies and jobs. In other words, is there a significant regional-policy cost in the sense that companies which locate at the periphery of the Irish economy perform significantly worse than those which locate at the core?*

A further but related question is *whether the patterns of company and job survivals experienced by foreign-owned and indigenous industry differ. Irish industrial policy, since the late 1950s, has always placed a strong emphasis*

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migration in a Harris-Todaro context, see papers presented at the Irish Economic Association Conference on Migration in June 1998.

<sup>5</sup> Harris and Todaro (1970) demonstrated that it was economically rational for people to leave jobs in rural areas in order to seek jobs in urban areas, even though they might spend some considerable length of time unemployed there, while engaging in job-search. What underlies this behaviour, which was previously considered to be economically irrational and caused simply by the attraction of "city lights", is that the *expected* income in urban areas, allowing for periods of employment at a high wage and unemployment at no wage, is actually higher than the low *certain* income in the rural areas.

on attracting foreign companies to locate in Ireland, with the economy being marketed to potential foreign investors as having a well-educated, English-speaking labour force, and, since 1973, being part of the larger European market. Ireland's peripherality to the European mainland is perceived as a disadvantage by foreign investors, and the provision of generous financial and fiscal incentives has traditionally been viewed as a compensation for this continental peripherality.<sup>6</sup>

For foreign companies which decide to locate in Ireland, an obvious question is whether or not they stay close to the core of the Irish economy. On the one hand one might expect the foreign companies to be less diversified, since they can potentially locate anywhere, and can presumably choose the more centralised locations to minimise the impact of peripherality. On the other hand greater diversification might occur as foreign companies are more independent of domestic input and output markets which are likely to be more geographically concentrated. One would expect the location of indigenous companies to be strongly influenced by the domicile of the indigenous entrepreneur, which, unless entrepreneurship is highly geographically concentrated, would be expected to lead to dispersal; as against this, concentration would be encouraged by links with domestic markets (which are more likely to be found at the core) and benefits from possible economies of agglomeration.<sup>7</sup> In the case of both foreign and indigenous companies, their degree of mobility is also affected by the availability of grants and by the

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<sup>6</sup> Within Europe, the extent of Ireland's peripherality has been reduced over the decades by improvements in international telecommunications and in transport facilities. See Krugman (1997).

<sup>7</sup> Drudy (1991) suggests that some of the industrial decentralisation is due to the *diseconomies* of agglomeration experienced by industrial companies located in the Dublin area.

nature of the economic activity involved, as some sectors are intrinsically more locationally footloose, inter- as well as intra-nationally, than others.<sup>8</sup>

Throughout the paper, firm numbers and employment are used to measure the spread of industry, both sectorally and regionally.<sup>9</sup> We use employment as our measure, both because of the emphasis in industrial policy throughout the period on generating industrial jobs and because the data available to us at company level come from the annual employment survey collected by Forfás, the industrial policy agency.<sup>10</sup>

In Section 2 of the paper we examine the regional distribution of industrial jobs in both 1981 and 1995, and show how it relates to the potential employable population in these regions, i.e., population in the age group 15-65 years. This provides an indication of the extent to which industry overall has become more or less regionally dispersed over that period. In order to focus on performance, we examine what happened to firms which located under similar economic conditions at the core and the periphery. To do this we consider in Section 3 the employment performance of a large sample of new (both foreign and indigenous) projects which established in the period 1980-1982, to determine (a) where these projects located regionally and (b) how they have performed since setting up. In Section 4 we examine the extent

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<sup>8</sup> For example, the sector which experienced highest growth in this economy and indeed in most economies during the 1980s was the electronics sector, which is highly mobile both inter- and intra-nationally. Ruane (1987) analyses the spatial aspects of development in a model with location-specific and footloose sectors.

<sup>9</sup> The ideal economic variable to do this would be *domestic value added*, for which employment is a reasonable but not a perfect proxy.

<sup>10</sup> Data on *domestic value added* has been collected since the mid 1980s and, in a further stage of this study, it is hoped to undertake some comparative analysis on those companies for which *domestic-value-added* data are available.

to which the pattern of company and job survival may be due to sectoral differences. Finally, Section 5 presents the main conclusions of our analysis.

## **2. REGIONAL SPREAD OF INDUSTRIAL JOBS**

At an increasingly intensive rate throughout the 1950s and the 1960s, the Irish economy prepared for the inevitable increase in free trade with the UK and with the countries of the then European Economic Community (EEC). The adjustment required was very large by international standards because up to the mid-1960s the Republic of Ireland had one of the highest rates of tariff protection of any economy in the world, and traditional industry was almost entirely focused on the domestic market. The use of financial and fiscal supports to influence the location of new companies which produced output for export markets rather than the domestic market was seen as a key instrument in maintaining regional balance.<sup>11</sup> The policy of focusing on exports (*export-led-growth*) continued throughout the 1970s as all tariff barriers with our EEC trading partners were removed, and only at the end of the 1970s did policy move to a trade-neutral position, with industrial support focused on assisting companies in tradable sectors, whether import-substituting or exporting.

By 1980 or thereabouts the economy had completed much of its adjustment to lower tariffs and full membership of the EEC. To rule out the impact of this major adjustment, we chose 1980-1995 as the period of analysis. This is not

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<sup>11</sup> Supports came in the form of capital grants initially for new projects and more recently in the form of training and employment grants, with the level of grant being related to the location of the project. During the 1960s and 1970s, supports in the form of re-equipment grants were also made available to

to say that this period is free of structural adjustment within the industrial sector, but rather that the major changes consequent on moving to a free-trade regime were completed by then.<sup>12</sup> In the first instance we look at the geographical distribution of industrial jobs relative to population across the eight development regions.<sup>13</sup>

For the purposes of defining the concepts of **core** and **periphery** in regional terms, we refer, throughout this paper, to the core regions as the East, Northeast and Southeast; the remaining regions comprise the periphery. This follows the classification of Drudy (1991), who refers to the Eastern Core and the Western Periphery in his analysis of changes in the regional distribution of overseas and indigenous companies in Ireland between 1973 and 1989. This concept of core/periphery is based on the dominance of Dublin in terms of economic activity and population. Clearly one could debate at some length the issue of what is **core** and what is **periphery**;<sup>14</sup> however, our approach here is to follow the Eastern/Western division for the regional analysis.<sup>15</sup>

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existing companies which increased competition in the domestic market due to free trade. Obviously in their case the issue of location *per se* did not arise.

<sup>12</sup> Indeed it coincided with the expansion of the EEC into the European Community (EC) and subsequently into the European Union (EU) with the realisation of the Single Market.

<sup>13</sup> The eight regions are: East (Dublin, Kildare, Meath and Wicklow) Midlands (Laois, Longford, Offaly, Roscommon and Westmeath), Midwest (Clare, Limerick and Tipperary N.R.), Northeast (Cavan, Louth and Monaghan), Northwest (Donegal, Sligo and Leitrim), South East (Carlow, Kilkenny, Tipperary SR, Waterford and Wexford) South West (Cork and Kerry) and West (Galway and Mayo).

<sup>14</sup> For example, one might argue that say, the Southwest, containing Cork city and the Midwest, containing Limerick city and the Shannon Airport Development zone, could be rationally included in the core

<sup>15</sup> An alternative definition of core-periphery, which we considered in our research, was that of the areas listed for policy purposes as *designated* and *non-designated*. This regional designation was used by Meyler and Strobl (1997). These areas cross regional and indeed county boundaries, and are defined in terms of being economically disadvantaged or advantaged for policy purposes. However, we do not report the results here as they mirror those of the Drudy formulation which we follow.



Columns 1 and 2 of Table 1 show the distribution of industrial jobs and working population in each of the eight development regions in 1981. What is striking is the relatively close similarity in the shares of total industrial employment and the total working-age population across regions at this time. If, as Harris and Todaro (*op.cit.*) suggest, the probability of obtaining employment depends on the number of jobs relative to the size of the labour force, there was a relatively small economic incentive for individuals in 1981 to migrate to the capital, Dublin, which dominates the East region, to obtain an **industrial** job.<sup>16</sup>

Columns 3 and 4 show the regional employment shares for 1995 and the corresponding working-age population shares for the latest census year, 1996, respectively. The most striking contrast between these columns and the earlier two is that the position of the Western periphery improved relative to the Eastern core over the 15 years. Whereas in 1981 the share of industrial employment accounted for by the Eastern core was higher than that region's share of total working population, the opposite was the case in the mid 1990's. This suggests that in 1981 the probability of obtaining an industrial job was higher in the Eastern core, but by the mid 1990's the probability of obtaining an industrial job was higher in the Western periphery. Comparing Columns 1 and 3, we note that between 1981 and 1996 the share of industrial jobs located in the Western periphery rose from 41.6 per cent to 45.6 per cent. This represented a considerable shift in relative positions and occurred

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<sup>16</sup> This measure is simple but somewhat crude, in that it ignores any differences in the participation rates of individuals across regions or in the local markets for specific skills, and is, of course, limited to industrial jobs.

at a time when industrial employment declined overall, from 241,109 in 1981 to 234,474 in 1995.<sup>17</sup>

The change in the spatial allocation of industry over the period 1981 to 1995 was accompanied by a change in the sectoral structure. The extent of industrial re-structuring which took place is indicated in Table 2, which shows the breakdown in employment by three main sectoral groups - Modern,<sup>18</sup> Traditional, and Natural Resource based.<sup>19</sup>

Over the period 1981-1995, and particularly after 1987, the share of the modern sector increased dramatically at the expense of the other two sectoral groups. This is reflected particularly in the rapid growth in employment in the metals and engineering sector, which is now the largest sector in the economy in employment terms.<sup>20</sup> Between 1981 and 1995 the proportion of industrial jobs accounted for by the modern sector rose from under 50 per cent to over 60 per cent, and this sector accounts for a higher proportion of jobs in the periphery than in the core. This supports the view that the modern sector is more locationally footloose than the traditional or natural resource sectors.<sup>21</sup> The decline in employment share in the natural resource sector reflected particularly the changes in techniques of production in the food sector, which

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<sup>17</sup> A similar result was found by Potter (1993) in an analysis of the position of companies in Devon and Cornwall.

<sup>18</sup> *Modern* includes Non-Metallic Minerals, Chemicals, Metals & Engineering, and Miscellaneous. It also includes a small number of companies in the internationally traded service sector which became eligible for industrial-type grants.

<sup>19</sup> *Traditional* includes Textiles, Clothing & Footwear, Paper & Printing, and Timber & Furniture while *Natural Resource based* contains primarily Food, Drink & Tobacco.

<sup>20</sup> See Ruane and Görg (1996).

<sup>21</sup> This pattern found in Ireland is far from unique. For example, Potter (1993) in a study of external investment in the Devon and Cornwall region found that the footloose sectors (e.g., mechanical engineering, electrical, electronic and instrument engineering) accounted for an increasing share of employment in the region, especially that associated with foreign investment. See Table 2, Page 196.

became increasingly capital-intensive over the period. Furthermore, there were major rationalisations of employment in the sector following mergers in that period as Irish companies attempted to reach the economies of scale and scope required to compete efficiently on international markets.<sup>22</sup> In the case of the traditional sectors, declining employment reflected both increasing competition in these sectors from imports and changes in production techniques in many of the companies which survived the 1980s.

A further indicator of the change which took place during this period was the increasing importance of foreign industry in terms of employment in the industrial sector. Table 3 shows that, over this period, the share rose from 39 to 47 percent, reflecting increased direct foreign investment.<sup>23</sup> In addition, foreign companies at the beginning and end of the period account for a larger and increasing share of employment in the Western periphery compared with the Eastern core, suggesting an increasingly dispersed spatial distribution. Indeed, by 1995 over half of the jobs in the Western periphery were accounted for by foreign companies.

The data presented in this section indicate that the Western periphery has gained relative to the Eastern core over the period 1981-1995 in that the share of jobs going to the Western periphery has risen while the share of the working population in the Western periphery has fallen. Thus the policy of industrial dispersal can be seen as having succeeded in redistributing jobs

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<sup>22</sup> Up until the 1980s the food sector had been the most significant sector in terms of industrial employment; because of the high level of domestic non-labour inputs, it remains a highly significant sector in terms of domestic value added.

<sup>23</sup> This compares with a share of approximately 17 per cent of manufacturing employment in the UK which is in foreign-owned companies - see Stone and Peck (1996) Figure 1. They also note that the region with the maximum share of manufacturing employment in foreign companies is Wales, where the proportion is close to 35 per cent.

between the core and the periphery. We now turn to consider whether or not there has been a cost, in terms of the success of projects, in locating them at the periphery rather than at the core.

### **3. COMPANY AND JOB SURVIVAL AT THE CORE AND PERIPHERY**

In order to ascertain differences and similarities between companies located at the core and the periphery, we considered a sample of projects which were established in a single time period. Ideally one would take companies which established in precisely the same year, but because of the limited absolute numbers involved, we have taken a three-year period. The three years chosen were 1980-82, in which large numbers of new companies established. This provided us with a good sample, and also with a period of up to thirteen years over which to consider their performance, as measured by the survival of the companies and the survival of the jobs which were generated.

The data set consists of all companies in the Forfás employment survey database.<sup>24</sup> There were 1686 companies which started production during the period 1980-82. Many of these were very small, in terms of the numbers employed, and the smallest companies, namely, those employing fewer than three people in any of the years 1984, 1985 or 1986, were excluded.<sup>25</sup> This reduced the number of companies in the analysis to 829, of which 685 were indigenous and 144 were foreign-owned. We take both a short-term and

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<sup>24</sup> This includes companies in the areas of the country covered by two regional organisations: Shannon Development and Udaras na Gaeltachta

<sup>25</sup> This exclusion, as one might expect, affected indigenous companies only.

long-term view of the sample of companies, looking at their performances from start-up to 1987 and from start-up to 1995. The year 1987 was chosen for the snapshot of short-term performance as this year represents a watershed in industrial employment in Ireland. Total employment in industry fell in the years up to 1987, and increased in the years which followed.<sup>26</sup> In 1987 the companies in the sample were at least five years in existence and by 1995 they were at least thirteen years old, and would thus have passed the initial period of high risk closure.<sup>27</sup>

Before looking at the performance of the companies which were established and the jobs which were generated, we look first at the distribution of these new companies, and jobs they generated, between the Eastern core and the Western periphery. In terms of company start-ups, we note in Table 4 that, in our sample, there were almost five times more indigenous companies than foreign companies established during the period, and of the 141 foreign companies, 60 per cent located in the peripheral regions, compared with 44 per cent of the 690 indigenous companies. This compares with the distribution of extant foreign and indigenous firms across the two regions in 1981 of 51 per cent and 44 per cent respectively. In other words, the proportion of foreign firms going to the periphery in the sample was greater than the proportion in the population of firms in 1981, while the proportion of indigenous firms going to the periphery was identical to that of the population. Looked at from the perspective of the regions, we note that in absolute terms more companies established in the core than at the periphery

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<sup>26</sup> This year was also the turning point in terms of Irish macro economic policy, as a period of rapid growth in the fiscal debt came to an end and a period of fiscal rectitude followed.

<sup>27</sup> The issue of high risk closures among Irish firms is discussed in some detail in O'Farrell (1986).

and that of the firms which established in the core, 16 per cent were foreign-owned compared with 21 per cent in the periphery.

We now look at the distribution of *jobs generated* in these new companies, where the number of *jobs generated* is defined as any increase in employment at individual company level from one year to the next, regardless of whether or not that employment level is maintained in subsequent years.<sup>28</sup> One immediately notes in Tables 5a and 5b that, while foreign-owned firms accounted for less than one fifth of total companies which established, they accounted for 48 per cent of the jobs which had been generated by 1987 and almost 52 per cent of those generated by 1995. This reflects the fact that foreign company size is much larger on average than indigenous company size.<sup>29</sup> This difference is highlighted by Drudy (1991), Ruane and McGibney (1991) and Ruane and Görg (1996), who note that average company size has been falling since the 1970s, reflecting the increasing numbers of small indigenous companies and the introduction of less labour-intensive techniques in all industrial companies.<sup>30</sup>

Approximately 70 percent of the jobs generated in foreign companies were located in the peripheral regions, compared with 37 percent of jobs in indigenous companies. This compares with 56 per cent and 44 per cent of extant jobs located in the Western periphery for foreign and indigenous firms respectively in 1981 (see Table 3). Thus in terms of the sample of companies

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<sup>28</sup> This means that we count any year-on-year increase in employment at individual company level as contributing positively to job creation.

<sup>29</sup> Potter (1993) finds a similar result for Devon and Cornwall, with foreign-owned units being more significantly represented in the category of companies with over 200 employees.

<sup>30</sup> In Table 4.5, Ruane and McGibney show that average foreign company size fell from 118.9 to 90.9 employees between 1973 and 1988, while the average for indigenous companies fell from 37.6 to 17.5 employees.

analysed and in terms of this measure of core and periphery, the contribution of foreign companies to ensuring that there is a regional balance in industrial employment is significantly greater in actual and proportional term than that of indigenous companies.<sup>31</sup> We will return to this issue again in our concluding section.

As discussed above, our measure of performance is the survival of the companies and the survival of the jobs which were generated in these companies.<sup>32</sup> Most of the companies in our sample survived to 1987 at least (92 and 96 per cent for indigenous and foreign companies respectively). Table 6 shows the distribution of survival rates across the Eastern core and the Western periphery to 1995, distinguishing foreign and indigenous companies. The overall survival rate of companies located in the Eastern core is higher than in the Western periphery. This result is driven by the performance of indigenous companies (which are much more numerous than foreign companies) which enjoy a higher survival rate in the Eastern core. The survival rate of foreign companies is much higher overall than that of the indigenous companies (72 per cent compared with 59 per cent), and, in contrast with indigenous companies, these companies experience higher survival rates in the Western periphery.<sup>33</sup>

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<sup>31</sup> This mirrors the results obtained by Drudy (1991).

<sup>32</sup> Implicitly we are assuming here that survival is a good measure of success, which seems reasonable if somewhat narrow.

<sup>33</sup> The results here are interesting in their comparison with those in Table 4.3 in O'Farrell (1986). O'Farrell finds higher survival rates overall than we do here (85 per cent) for new plants which opened between 1973 and 1981. However, his sample is different to ours in that it includes plants of very different ages, some of which would be just one year old. He finds that foreign companies have a higher closure rate (lower survival rate) than Irish plants, by a significant margin, which is in complete contrast to the results obtained here. He notes, however, that this result is primarily driven by the performance of new UK companies which established during that period. Drudy (1991) also finds results for the period 1981-9 which are generally consistent with those found here. His analysis is based on a comparison of

Turning to Tables 7a and b we look at the survival rates of jobs generated, where the survival rate is defined as the number of jobs existing in individual companies in 1987 and 1995 as a proportion of the total numbers of jobs created up to that date in individual companies. We note that the survival rates of the jobs generated are much lower than the survival rates of companies, reflecting the fact that many of the companies which have survived have cut back on employment. These cutbacks are in line with the down-sizing of manufacturing companies which has been prevalent over the last decade.

The main difference between patterns of survival across companies and jobs is that the overall survival rates of jobs at the periphery are somewhat higher than at the core reflecting the strong performance of the foreign companies in terms of jobs sustained at the periphery. Indigenous companies show higher job survival rates in the Eastern core than in the Western periphery, while the opposite is the case for foreign companies. The overall job survival rate to 1987 is 76 per cent (83 and 71 per cent for foreign and indigenous companies respectively). By 1995 the overall survival rate had fallen to 64 per cent for foreign owned companies and to 46 per cent for indigenous companies. In other words, of all of the jobs generated in our sample companies from their start up date to 1995, 64 per cent of those created in foreign companies and 46 per cent of those in indigenous companies were still in place in that year. It is noteworthy that two thirds of the jobs created in foreign companies in the Western periphery were still in place in 1995, contrasting sharply with the 43 per cent for indigenous companies

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overall gains and losses by region during the period, and thus is not directly comparable with the analysis undertaken here.



#### **4. SECTORAL IMPACT**

Our results in Section 3 suggest that the survival rates of employment in foreign companies are higher than for indigenous companies and that foreign companies enjoy a relatively better employment performance in the Western Periphery compared with the Eastern core. The obvious question to which this gives rise is whether this result is driven by differences in the sectoral composition of foreign industry compared with Irish-owned industry. In this section we look briefly at this issue, focusing on the employment performance to 1995 in our sample of firms.

Ignoring the issue of ownership in the first instance, we note overall that the survival rates for employment in the three sectors distinguished in Section 2 are: modern (61.1 per cent), traditional (39.3 per cent) and natural resources (37.6 per cent) - thus there is a strong difference in the survival rates of jobs in the three sectors. Furthermore, as modern sector employment dominates (81.7 per cent of total jobs created) its survival rate is likely to dominate the aggregate outcome.

Table 8 shows that the survival rate of jobs in foreign-owned firms in the modern sector is significantly higher than that of indigenous firms in the same sector. Comparisons of the other two sectors are somewhat limited by the small absolute numbers of jobs. Thus we can see that the dominance of the modern sector in the case of foreign-owned industry is clearly an important source of its having higher overall survival rates than for Irish firms. The question which now remains is how do foreign and indigenous companies compare across regions?

Table 9 shows that the survival rate of jobs in foreign firms in the modern sector is higher at the periphery than at the core (70.2 per cent compared with 57.4); thus the sectoral composition of foreign-owned industry does not explain its higher survival rates in the periphery. Small numbers mitigate against making comparisons in the other sectors. In the case of Irish owned-firms, job survival rates are higher in all three sectors in the Eastern core compared with the Western periphery. Thus in terms of the majority of foreign companies (which are in the modern sector) there is no cost, in terms of lower job survival rates, from locating in the West compared with the East, while in the case of indigenous firms the reverse appears to be the case.

## **5. CONCLUSIONS**

The analysis in this paper shows that the share of industrial employment in foreign-owned companies in Ireland increased between 1981 and 1995, particularly in peripheral areas. On the basis of an analysis of a large sample of projects which started production in the 1980-82 period, job creation per company was very much higher in the foreign companies than in the indigenous companies. Similarly, the survival rates both of the companies and of the jobs generated were higher for foreign-owned than for indigenous companies. Dis-aggregating these projects by region shows that the survival rate of both companies and jobs in foreign-owned companies was higher in the Western periphery than in the Eastern core.

Foreign companies, therefore, seem to perform better than indigenous companies in terms of survival, and they seem to perform particularly well in

the periphery.<sup>34</sup> The superior performance of foreign companies undoubtedly reflects their greater concentration in the modern sectors which generally experience better survival rates than the traditional or natural resource sectors.<sup>35</sup> It may also reflect the fact that these foreign companies are larger and therefore less constrained by the disadvantages associated with peripheral location, and that they are less linked into the domestic economy. While the survival rates calculated in this paper are lower than those found by O'Farrell (1986) for the period 1973-81, they are still high by international standards; Geroski (1991), for example, finds survival rates of about 50 percent for UK firms five years after their establishment, and reports slightly higher rates than this for Canada.

The evidence from this paper suggests that foreign companies seem to be able to survive as well, indeed better, at the periphery compared to the core, while for Irish firms the survival rate is slightly poorer at the periphery.<sup>36</sup> However, an evaluation of the policy of encouraging companies to locate at the periphery rather than in the core requires the further step of linking performance to the precise financial packages which have been given to each of these companies. Potter (1993) finds this effect to be highly significant in the case of the decisions of companies to locate in Devon and Cornwall; one would not expect the effect to be quite so marked in Ireland, since suitable projects are eligible for fiscal support independently of location and eligible

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<sup>34</sup> We recall here that the smaller Irish companies were excluded from the sample.

<sup>35</sup> Arguably activities in the modern sector are more footloose and hence can distribute themselves successfully more easily across regions. For a discussion of the greater balance in growth of modern compared with traditional sectors across Europe, see Brühlhart and Elliott (1998).

<sup>36</sup> These results are consistent with those obtained by Meyler and Strobl (1997).

for financial support, albeit at lower rates, even in the more developed areas of the economy.<sup>37</sup>

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<sup>37</sup> See Potter (1993), page 201.

## TABLES

**TABLE 1**

### REGIONAL DISTRIBUTION OF INDUSTRIAL EMPLOYMENT AND ECONOMICALLY ACTIVE POPULATION 1981-1995/6

REGION	% Share of Industrial Employment 1981	% Share of Working Population 1981	% Share of Industrial Employment 1995	% Share of Working Population 1996
Northwest	5.0	5.7	6.5	5.5
West	6.1	8.0	7.6	8.0
Midwest	11.33	8.8	12.8	8.7
Southwest	13.3	15.1	13.0	15.0
Midlands	5.9	7.3	5.7	6.7
Southeast	11.6	10.7	10.8	10.6
East	39.2	38.9	36.3	40.3
Northeast	7.6	5.5	7.3	5.2
Western Periphery	41.6	44.9	45.6	43.9
Eastern Core	58.4	55.1	54.4	56.1
Total	100.0	100.0	100.0	100.0

Source: Forfás Employment Survey  
CSO Census of Population, 1981, 1996.

**TABLE 2****DISTRIBUTION OF INDUSTRIAL EMPLOYMENT BY SECTOR AND REGION, 1981-1995**

SECTOR	% SHARE OF TOTAL INDUSTRIAL EMPLOYMENT 1981			% SHARE OF TOTAL INDUSTRIAL EMPLOYMENT 1995		
	Eastern Core	Western Periphery	All	Eastern Core	Western Periphery	All
	Modern	47.1	50.4	48.5	60.6	63.2
Traditional	26.8	25.0	26.1	19.2	17.6	18.5
Nat. Resource	26.1	24.6	25.4	20.2	19.2	19.8
Total	100.0	100.0	100.0	100.0	100.0	100.0

Source: Forfás Employment Survey

**TABLE 3****DISTRIBUTION OF INDUSTRIAL EMPLOYMENT BY NATIONALITY OF OWNERSHIP AND REGION, 1981-1995**

	% SHARE OF TOTAL INDUSTRIAL EMPLOYMENT IN 1981			% SHARE OF TOTAL INDUSTRIAL EMPLOYMENT IN 1995		
	Eastern Core	Western Periphery	All	Eastern Core	Western Periphery	All
	Indigenous	64.6	56.0	61.1	56.8	49.4
Foreign	35.4	44.0	38.9	43.2	50.6	46.6
Total	100.0	100.0	100.0	100.0	100.0	100.0

Source: Forfás Employment Survey

**TABLE 4****DISTRIBUTION OF SAMPLE COMPANIES ESTABLISHED IN  
1980-82 BY REGION**

REGION	INDIGENOUS		FOREIGN		ALL	
	Number	%	Number	%	Number	%
Western Periphery	299	43.7	84	58.3	383	46.2
Eastern Core	386	56.3	60	41.7	446	53.8
Total	685	100.0	144	100.0	829	100.0

**TABLE 5a****DISTRIBUTION OF JOBS GENERATED IN SAMPLE COMPANIES  
BY REGION TO 1987**

REGION	INDIGENOUS		FOREIGN		ALL	
	Number	%	Number	%	Number	%
Western Periphery	5,039	37.2	8,870	69.9	13,909	53.0
Eastern Core	8,499	62.8	3,827	30.1	12,326	47.0
Total	13,538	100.0	12,697	100.0	26,235	100.0

**TABLE 5b****DISTRIBUTION OF JOBS GENERATED IN SAMPLE COMPANIES BY REGION  
TO 1995**

REGION	INDIGENOUS		FOREIGN		ALL	
	Number	%	Number	%	Number	%
Western Periphery	7,188	37.0	14,886	72.1	22,074	55.1
Eastern Core	12,256	63.0	5,762	27.9	18,018	44.9
Total	19,444	100.0	20,648	100.0	40,092	100.0

**TABLE 6**

**SURVIVAL RATE OF SAMPLE COMPANIES TO 1995  
BY REGION**

<b>REGION</b>	<b>INDIGENOUS %</b>	<b>FOREIGN %</b>	<b>ALL %</b>
Western Periphery	54.2	77.4	59.3
Eastern Core	61.7	70.0	69.2
Total	58.5	71.5	60.8

**TABLE 7a**

**SURVIVAL RATES OF JOBS GENERATED IN SAMPLE COMPANIES  
BY REGION TO 1987**

<b>REGION</b>	<b>INDIGENOUS %</b>	<b>FOREIGN %</b>	<b>ALL %</b>
Western Periphery	66.6	88.0	80.2
Eastern Core	72.9	70.7	72.2
Total	70.6	82.7	76.4

**TABLE 7b**

**SURVIVAL RATES OF JOBS GENERATED IN SAMPLE  
COMPANIES BY REGION TO 1995**

<b>REGION</b>	<b>INDIGENOUS %</b>	<b>FOREIGN %</b>	<b>ALL %</b>
Western Periphery	42.8	67.2	59.2
Eastern Core	47.3	54.4	49.6
Total	45.7	63.6	54.9



**TABLE 8**

**JOB SURVIVAL RATES TO 1995 IN SAMPLE COMPANIES BY SECTOR AND NATIONALITY**

<b>SECTOR</b>	<b>ALL IRISH</b>			<b>ALL FOREIGN</b>		
	<b>Employment Number</b>	<b>in 1995 Share</b>	<b>Survival Rate</b>	<b>Employment Number</b>	<b>in 1995 Share</b>	<b>Survival Rate</b>
Modern	5,814	65.5	51.5	12,231	92.6	67.1
Traditional	1,286	14.4	40.4	227	1.7	33.9
Nat. Res.	1,782	20.1	36.3	745	5.6	41.3
Total	8,882	100	45.7	13,203	100	63.6

**TABLE 9**

**SECTORAL DISTRIBUTION AND SURVIVAL RATES OF JOBS GENERATED IN SAMPLE COMPANIES BY REGION TO 1995**

<b>REGION</b>	<b>EASTERN CORE</b>				<b>WESTERN PERIPHERY</b>			
	<b>Irish</b>		<b>Foreign</b>		<b>Irish</b>		<b>Foreign</b>	
	<b>Sectoral Shares</b>	<b>Survival Rate</b>	<b>Sectoral Shares</b>	<b>Survival Rate</b>	<b>Sectoral Shares</b>	<b>Survival Rate</b>	<b>Sectoral Shares</b>	<b>Survival Rate</b>
Modern	63.9	51.9	86.0	57.4	68.3	49.9	94.7	70.2
Traditional	17.0	37.4	10.5	40.4	25.9	35.0	4.1	42.0
Nat. Resources	19.1	44.6	3.3	42.7	5.7	25.3	1.2	28.5
Total	100.0	47.3	100.0	54.4	100.	42.8	100.0	67.2

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