

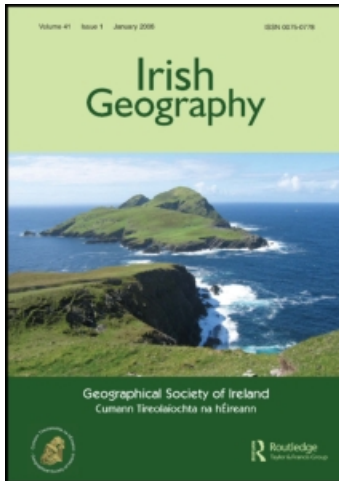
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Non-agricultural employment in northwestern Ireland: A peripheral region in the 1970s

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ABSTRACT

Considerable spatial variation characterised the pattern of return migration and subsequent house construction during the 1970s in the northwest, Ireland's poorest and most peripheral region. Underlying this pattern of growth and decline was a sectoral shift from agriculture to non-agricultural employment. The provision of such employment was greatly influenced by a regional policy which focussed primarily on promoting manufacturing industry and which resulted in a definite contrast between County Donegal and Sligo-Leitrim in the level of dispersal of grant-aided employment. Despite the emphasis on manufacturing an expanding public service ensured a considerable role for the service sector in creating employment, and while service employment was more closely linked with a variety of positive indicators it was somewhat less dispersed than manufacturing.

Key index words: Periphery, Migration, Services, Distribution

Introduction

The 1970s was a decade of significant change in the Irish rural periphery with some areas participating in the return migration which also characterised rural parts of many advanced countries, and other areas continuing to experience a net outflow of population. One of the more visible effects of these differential migration flows was the reduction of house numbers in areas of decline and considerable expansion in destination areas of returned migrants. One of the underlying forces which facilitated rural development during this period was a significant shift of the labour force from the seriously underemployed and low income agricultural sector to non-farm employment. European Community (EC) policy at the larger scale encouraged this sectoral shift, while at the national level regional policy attempted to distribute manufacturing employment with some degree of equity. While most attention was given to the promotion of manufacturing industry as being the best vehicle for employment creation, the role of services, which was greatly bolstered by the expanding public service, was impressive.

The objective of this paper is to examine the spatial dimension of these changes in the northwest region of Ireland during the 1970s. Availability of the population census Small Area Statistics on computer tape allows a detailed examination at the District Electoral Division (DED) level. In addition to tracing

the main sectoral changes in the labour force, spatial variation in the distribution of both manufacturing and service employment is also analysed. Having traced the patterns of change in the northwest during the 1970s some attention is given to the future prospects for such regions in the rural periphery.

Throughout much of the developed world the 1970s became a period of economic uncertainty especially after the first of the oil shocks in 1973. It was also a period of labour force restructuring as a consequence of sectoral economic change. Among the more important aspects of this restructuring was a decline in manufacturing, particularly in traditional industries and a rapid increase in the tertiary sector which then became the main area of employment growth.

While similar processes were operating in Ireland during the 1970s, there was a considerable time lag between Ireland and more developed countries. In the European context Ireland was the only EC state which had a net increase in manufacturing employment in the 1970s, reflecting in part the more recent development of Irish industry and the low industrial base from which growth was taking place. Furthermore peripheral rural Ireland, including the northwest region, was still emerging from a predominantly agricultural economy characterised by severe underdevelopment and a relict demography after more than a century of population decline. It was within this context that both sectoral shifts in employment and demographic growth occurred revealing some degree of participation in the turnaround experience by rural parts of more developed countries.

In this paper the term 'Northwest Region' refers to the two planning and industrial regions. 'The

Northwest' and 'Donegal', and the three counties involved, Leitrim, Sligo and Donegal constitute the poorest and most peripheral part of the Republic (Fig. 1). *Per capita* income in 1983 was only 77% of the national average, reflecting a high level of dependence on agriculture, whereas northwest incomes were only 43% of the national average (Brady, Shipman, Martin, 1986). With the exception of some parts of east Donegal, where commercial farming has developed to a modest extent, much of the land in the region is marginal, with sizeable areas comprising mountainous terrain (Fig. 1). Agriculturally all of the region is classified by the EC as a "more severely handicapped area" and it is thus eligible for the highest rates of aid from the Guidance Fund. Within Ireland the region has benefited from preferential treatment in industrial promotion for more than 30 years (Gillmor, 1985). Despite its low level of resources, however, the northwest is characterised by internal differentiation which to some extent is reflected by the fact that while County Donegal during the 1970s had one of the highest rates of return migration of any Irish county, County Leitrim continued to be the only Irish county experiencing natural decrease since the Famine.

Compared with the remainder of the region, County Donegal has been traditionally characterised by a more broadly based economy. Household incomes in many parts of the county, but particularly in the western parts, have long been subsidised through the strong migration links between Donegal and Scotland. Originally this migration was seasonally linked with potato harvesting but in more recent times employment has depended more on industry and construction. The recent visit of a County Donegal bishop to his "flock" in Glasgow, together with the introduction of a daily air service between northwest Donegal and Glasgow reflect these continuing links. County Donegal is also the main centre of the Irish fishing industry, with Killybegs being the most important fishing port and smaller ports such as Burtonport and Greencastle also being located on its coast. A long established tradition in the clothing and textile industry is also found in County Donegal based on the cottage manufacture of handknits and tweeds.

The recent period of economic development and employment change in the northwest region can only be understood in the context of government policy relating to the industrialisation of rural areas. The western rural periphery of which the northwest region forms part has been designated for preferential treatment since the 1950s. The main policy focus from the outset was employment creation, mainly through the promotion of manufacturing industry, with the primary objective of stemming out-migration to the east region and abroad. More recently the goal of "full employment" has been quietly replaced and there is a definite reorientation towards "wealth creation", a more acceptable concept to the business community (Conniffe and Kennedy, 1984). Whilst this

reorientation will put increasing pressure on regional policy it is true to say that whether for political gain or for reasons of equity, there has been a spatial dimension to Irish economic development in recent decades.

From the 1960s onwards concern had been voiced about the uneven spread of development within the country, with significant concentration of population, employment and decision-making in the Dublin metropolitan area. The Buchanan (1968) proposal for a moderate degree of concentration in a limited number of growth centres was rejected by the government and a policy of dispersed development was pursued. Development was envisaged as being dependent almost entirely on the promotion of manufacturing industry and the Industrial Development Authority was entrusted with this task for most of the country, while Udaras na Gaeltachta had responsibility for the Gaeltacht or Irish-speaking areas. It was only very recently that some attention has been given to promoting projects in the tertiary sector as having employment potential, but the rural periphery has benefited little from this broader approach to date.

Despite the obvious tendency towards concentration and centralisation which characterises most advanced capitalist countries, the development of Irish manufacturing industry has been remarkably dispersed (Gillmor, 1985). The western rural periphery including the northwest region has benefited both from the recency of industrial development and the political desire to bring jobs to rural communities. While successfully attracting foreign-owned branch plant operations to these rural areas by means of generous grants and tax incentives, the IDA has also promoted indigenous enterprises which are usually on a smaller scale. Recent assessment of the IDA's performance to date ('The Telesis Report'), has been severely critical both of the high dependence on foreign owned companies and on the scale of incentives being offered to them (NESC, 1982). Since the recent period has been characterised by a drought of internationally mobile capital, there has been a greater emphasis on the promotion of indigenous enterprises based on local resources.

The spatial pattern of change

In outlining the spatial pattern of change, reference will be made throughout the paper to the regional subdivisions illustrated in Fig. 2. These arbitrary subdivisions form the basis for summarising these patterns at the end of the paper. For more than a hundred years the northwest region experienced an outflow of its young population cohorts, partly to the urbanised east region, but predominantly to Britain and the USA. The 1970s saw a reversal of this flow in some parts of the region and while young people continued to leave the region significant numbers of

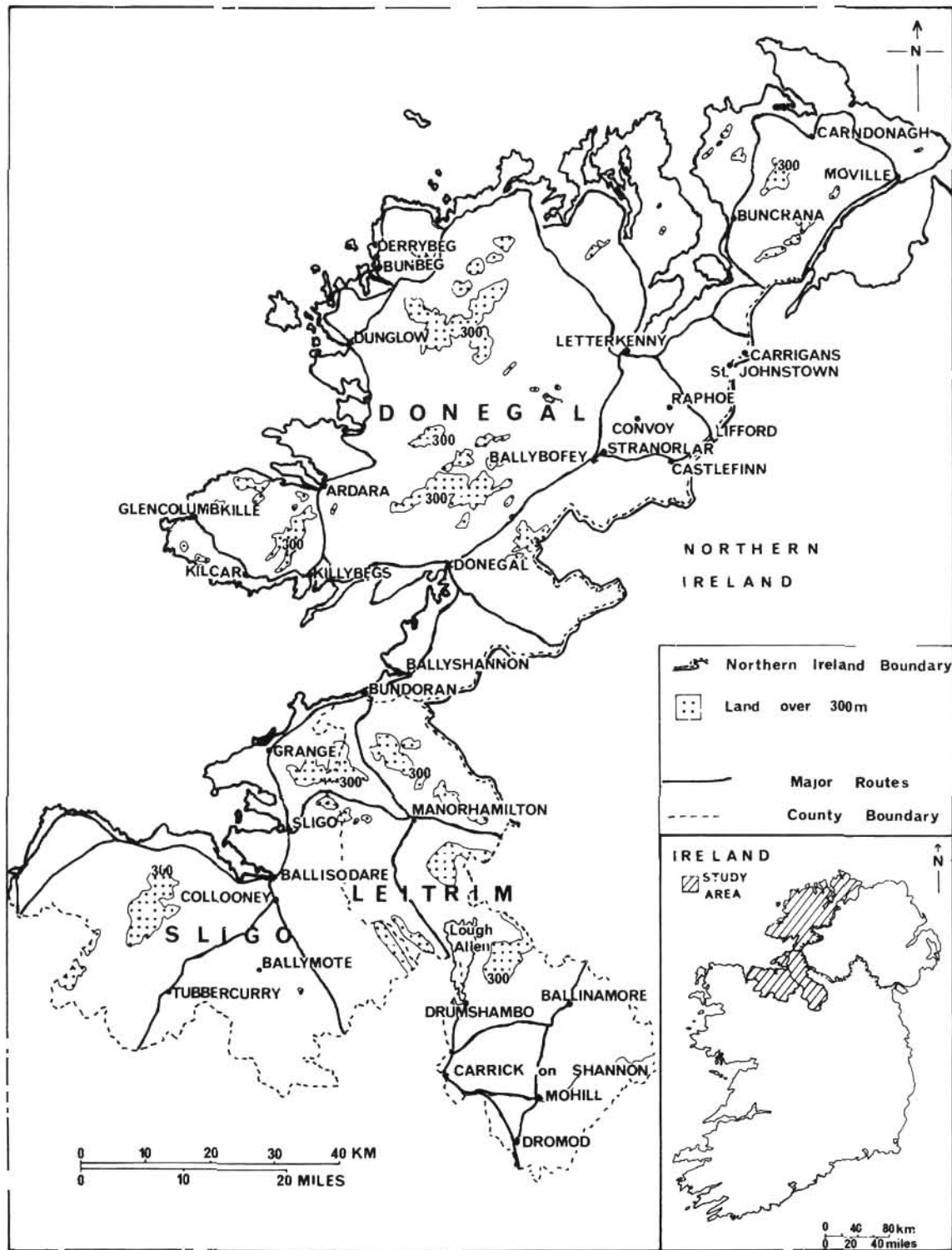


Fig. 1. Location map of the Northwest Region.

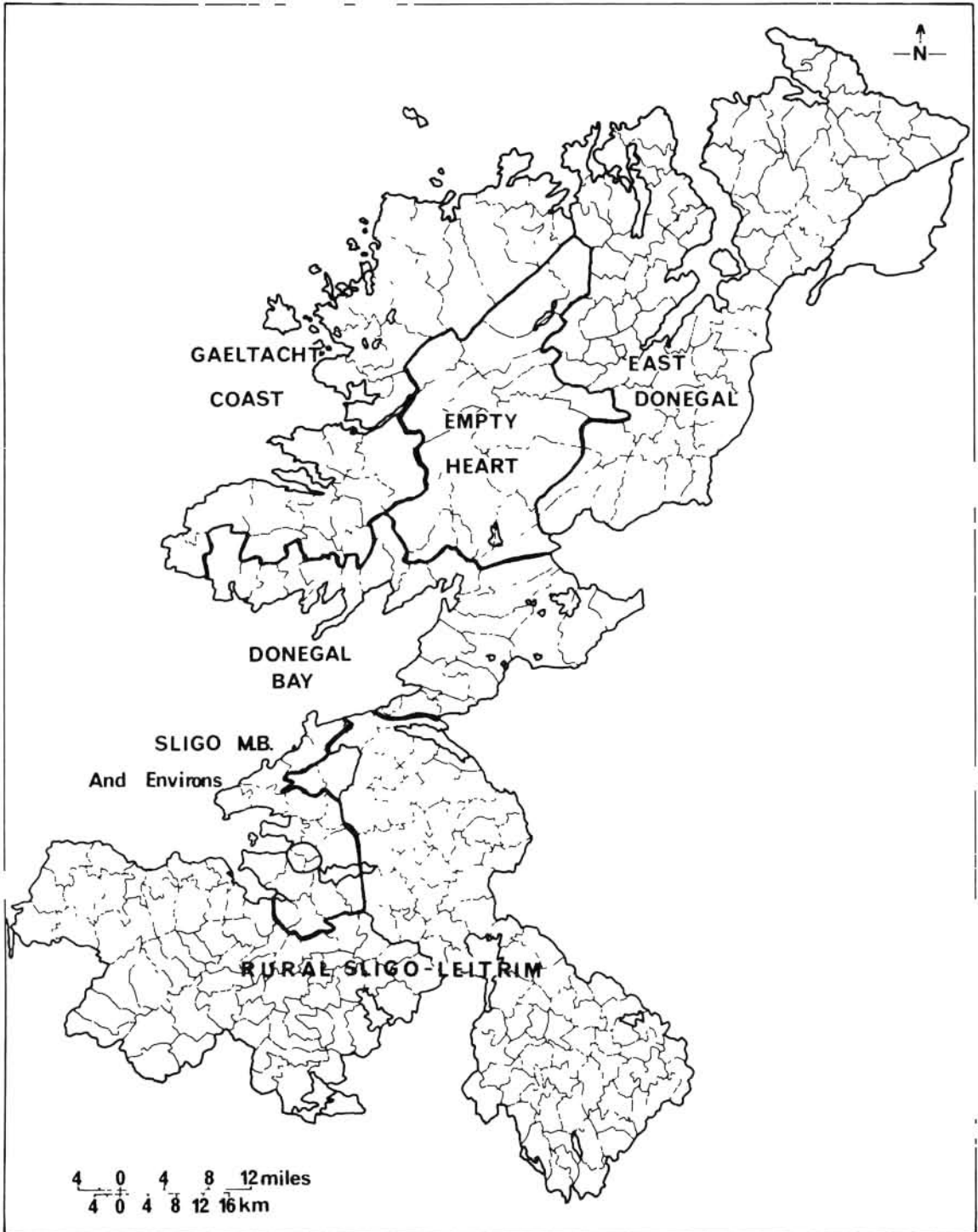


Fig. 2. Administrative sub divisions within the Northwest.

region, apart from modest in-flows to the towns of Sligo and Letterkenny (Fig. 3b). The establishment of Regional Technical Colleges in both towns during the 1970s and expanding employment accounts for this internal migration. The total outflow of this age cohort was 674 from County Leitrim, 796 from County Sligo and 1,527 from County Donegal. The spatial pattern shows that in addition to the more peripheral parts of the region continuing to lose population, some of the more vibrant areas also experienced out-migration of the younger cohorts. Many of the young children who were returned migrants to this region in the early 1970s are now finding it necessary in the late 1980s to seek employment abroad.

While population flows may fluctuate over short periods reflecting changing economic circumstances both in Ireland and abroad, a more permanent indication of the future prospects for rural communities is the differential pattern of growth and decline in house numbers (Fig. 4). The pattern of growth and decline in the number of houses corresponds with that of net in-migration, with Sligo town and hinterland accounting for 78.5% of additional housing in the Sligo-Leitrim area. The net gain for County Sligo was 1,863, while County Leitrim's house numbers declined by 30.

The pattern in County Donegal again presented a contrast with 199 of its 149 DEDs recording an increase of 5,071 houses. East Donegal had 62.7% of the growth with much of the increase occurring in the main urban centres. The northwest Gaeltacht had 18.9% of the increase and Donegal Bay had 17.2%. The main area of decline, therefore, was in the relatively empty heart of the county.

In addition to the expansion which occurred in urban centres like Sligo and Letterkenny, many parts of rural Ireland experienced a significant improvement in housing during the 1970s. This was facilitated greatly by state support particularly in the more deprived rural areas such as the Gaeltacht, where grants were of a higher order than elsewhere. Many returned migrants to the northwest brought with them both savings and skills acquired in the construction industry abroad, thus enabling them to build houses relatively cheaply. While holiday homes in coastal areas cause some distortion, it is interesting to note that despite the impressive level of house construction in County Donegal during the decade, that 9.2% of houses in 1981 had only one or two rooms.

Labour force change

While the pattern of in-migration and of house construction illustrates the variations in growth and decline throughout the region, it is necessary to examine labour force changes to appreciate the nature and extent of economic change during the decade. Figure 5 shows the sectoral composition of the labour

force in 1971 and 1981. The main aspect of change during the decade was the decline in agricultural employment. The percentage of males in agriculture, forestry and fishing declined at varying rates from very high levels in 1971: from 65.6 to 49.9 in County Leitrim; 51.4 to 36.3 in County Sligo and 51.2 to 34.5 in County Donegal. The move out of agriculture, however, has been partial in many cases through the emergence of part-time farming. The extent of the informal economy in the region is difficult to measure, but the potential sources of income are many including considerable government transfers through social welfare and subsidies to agriculture.

The decline in agricultural employment to levels which were still high by national standards (16.5% in 1981), occurred during a period when the thrust of EC structural policy in agriculture was to reduce the significant underemployment in that sector. An estimate of underemployment in Irish agriculture in 1977 based on the ratio of labour required to labour available yielded a value of 35 for the state and 67 for the northwest region (Conway and Higgins, 1978).

The EC structural policy in agriculture was conceived in a period of optimism regarding the provision of non-farm employment, but the recent massive increases in unemployment throughout Europe is forcing a radical rethink of this policy. The 1970s in the northwest region did witness an increase in non-farm employment but it was less dramatic than the decline in agriculture. Table 1 shows the contributions made by both manufacturing and services to non-agricultural employment growth. With the exception of County Leitrim, one of the most peripheral and least urbanised parts of the region, services have contributed almost double the number of jobs compared with manufacturing.

Within manufacturing some sectors experienced significant expansion such as metals and engineering in County Sligo where by the end of the decade the male workforce had more than doubled to a total of 718 and the female component increased tenfold to 720. County Donegal was characterised by an unusually high level of female participation in manufacturing (mainly textiles) from the beginning of the decade, but there was little expansion during the 1970s.

Although much less attention has been given to the role of service the contribution of this sector has been substantial particularly for females (Table 1). Table 2 shows female participation in the non-agricultural labour force for both 1971 and 1981 and whereas County Donegal began the decade with the highest rate, its position had slipped by the end of the 1970s. Much of the expansion in female employment in the 1970s coincided with growth in the public service. This was particularly the case in the health service where female workers almost trebled in County Sligo to 1,102 in 1981 and more than doubled in County Donegal to 1,294. Sligo town expanded during the decade both in tradeable and non-tradeable services.

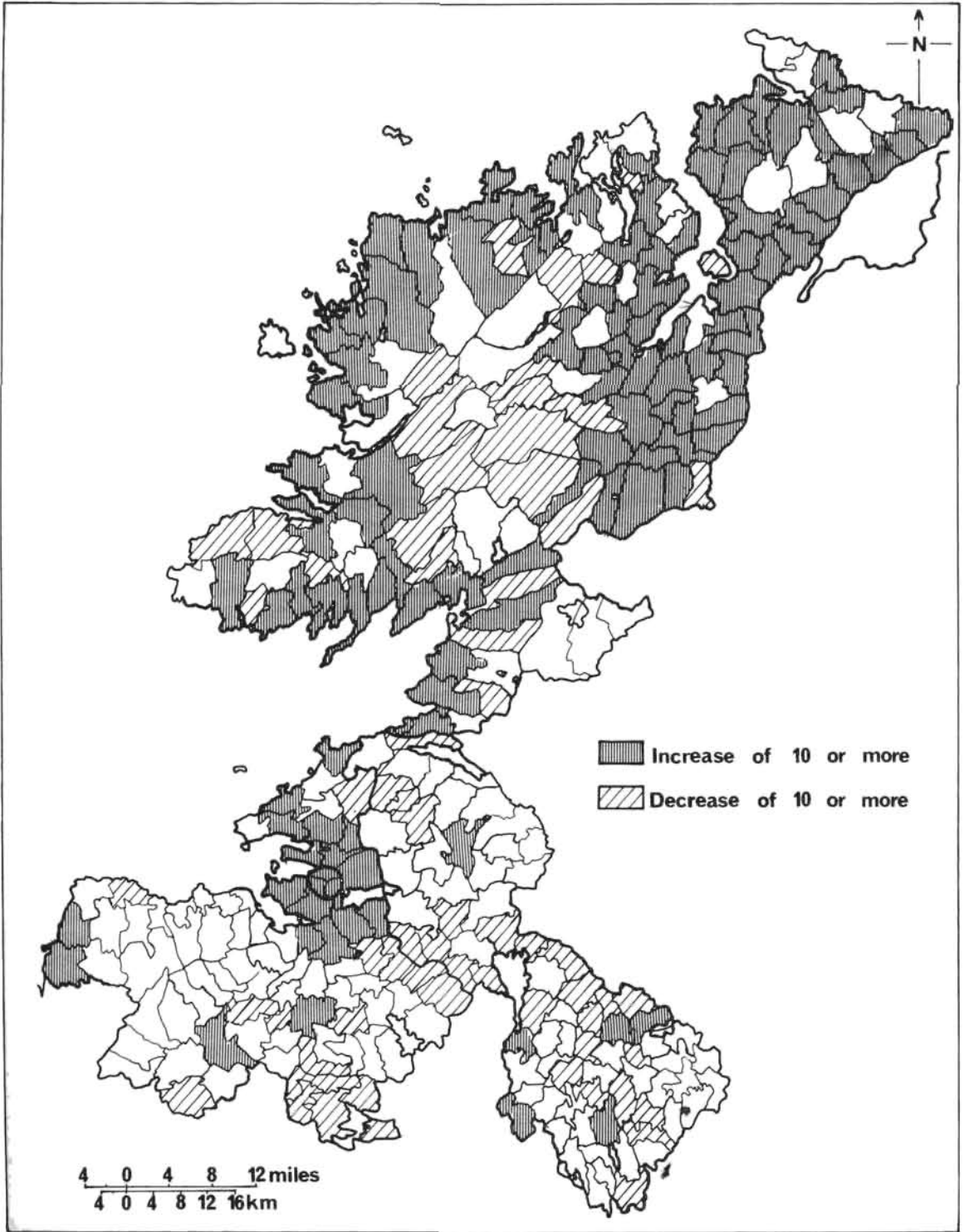


Fig. 4. Spatial changes in the number of houses 1971 to 1981.

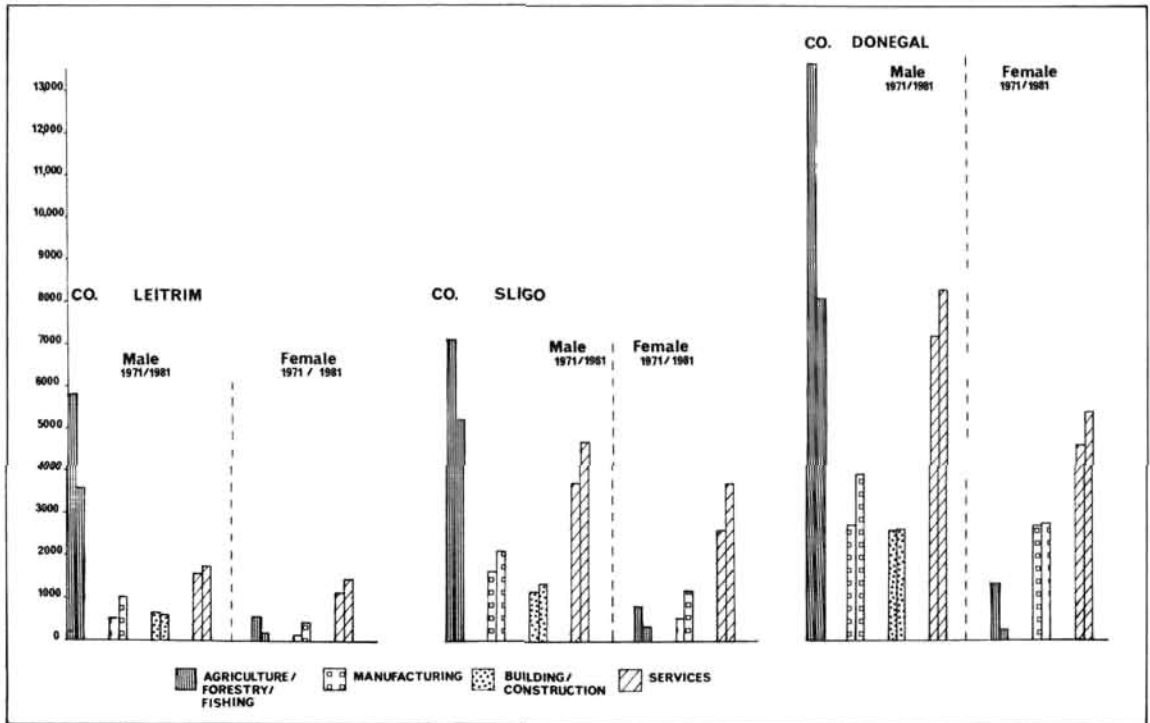


Fig. 5 Sectoral composition of employment, 1971 and 1981

TABLE 1
Manufacturing and Services in
Non-Agricultural Employment 1971-1981

Employment by Industries

	Males	Females	Total
<i>Co. Leitrim</i>			
Growth in non-agricultural employment 1971-1981	573	600	1173
Manufacturing as % of growth	81.1	46.7	64.4
Services as % of growth	18.9	53.2	35.5
<i>Co. Sligo</i>			
Growth in non-agricultural employment 1971-1981	1607	1831	3438
Manufacturing as % of growth	29.5	37.0	33.5
Services as % of growth	60.3	61.6	61.0
<i>Co. Donegal</i>			
Growth in non-agricultural employment 1971-1981	2296	1269	3565
Manufacturing as % of growth	52.8	3.4	35.2
Services as % of growth	47.2	94.0	64.0

TABLE 2

Female Participation in Non-Agricultural Employment 1971-1981

County	1971	1981
Leitrim	30.4	34.8
Sligo	32.0	37.5
Donegal	36.4	36.5

Source: Census of population 1971 and 1981.

strengthening its position as the main regional service centre. In the male component of the tertiary the security needs of the border zone boosted employment, with Guardai and army numbers more than doubling in County Donegal.

The role of grant-aided employment

Under the 1969 Industrial Development Act, the Industrial Development Authority (IDA) was given responsibility for fostering regional industrial development and in 1971 regional offices were established in the northwest in Letterkenny and Sligo (Gillmor, 1985). Development powers for Gaeltacht areas became the function of Udaras na Gaeltachta, a separate agency with specific responsibilities to promote development in the context of conserving the Irish language. The IDA regional industrial plans for the period 1971-1977 contained high target growth rates of 30-50% for less developed regions including the northwest compared with a national target of 17% indicating a strong commitment to the further expansion of manufacturing in the least industrialised parts of the state (Gillmor, 1985).

Table 3 shows that by 1980 County Donegal had 16 centres with 100 or more grant aided jobs, compared with only seven in Sligo-Leitrim (The data include both IDA and Udaras na Gaeltachta grant-aided jobs.)

TABLE 3

Percentage distribution of Grant aided jobs in the three Northwestern counties

Town/Group	1973	1980	1986	Town Group	1973	1980	1986
Ardara	2.9	1.6	2.7	Ballisodare	5.1	2.1	2.5
Ballybofey Cloghan	4.9	3.6	3.8	Ballymote	1.6	3.0	2.4
Ballyshannon	5.1	3.6	3.2	Collooney Ballygawley	16.8	5.3	6.3
Bunbeg Annagry Derrybeg	5.8	10.9	10.6	Grange	0.2	0.4	2.0
Buncrana	13.5	13.2	9.5	Sligo	58.5	74.6	73.0
Carndonagh	4.4	4.3	5.1	Tobercurry Achonry	17.3	17.5	11.0
Castlefenn	3.3	2.2	2.9				
St Johnston Carrigans	1.2	1.6	1.6	CO SLIGO TOTAL	2500	3755	2870
Convoy	4.7	2.8	1.6				
Donegal Fully Ballintra	8.0	7.1	9.2				
Glencolumbkille	1.1	1.1	1.5				
Kilcar	2.2	3.8	2.1	Ballinamore	25.0	40.8	28.7
Killybegs Bruckless Inver	5.4	6.0	7.8	Drumshanbo Keshcarrigan	9.4	6.4	6.7
Letterkenny Manorcunningham	10.6	17.0	19.8	Manorhamilton Ballingar	10.3	6.9	8.0
Lifford Ballindrait	5.9	3.6	2.9	Mohill Dromod	16.7	16.2	26.8
Moville Greencastle	3.0	2.2	2.3	Carrick on Shannon	30.2	25.6	26.6
CO DONEGAL TOTAL	5351	7103	7443	CO LEITRIM TOTAL	755	1420	1470

* Excluding Job Centres with less than 1.0% of county total

TABLE 4

Grant Aided Jobs by Company Size and Number of Employees, 1986

County	100 Workers		50-100 Workers		10-50 Workers		10 Workers	
	Donegal	Sligo-Leitrim	Donegal	Sligo Leitrim	Donegal	Sligo Leitrim	Donegal	Sligo Leitrim
No. of Plants	16	8	24	12	87	53	142	152
No. of Jobs	3397	1673	1708	887	1846	1247	494	533
Average no Workers per plant	212.3	209.1	71.1	73.9	21.1	23.5	3.5	3.5
% of all jobs	45.6	38.5	22.9	20.4	24.8	28.7	6.6	12.2

Source: Industrial Development Authority

In addition to the larger number of centres, County Donegal also had a wider dispersal of jobs between centres. In 1973 only Letterkenny had more than 10.0% of the county's grant-aided jobs. By 1980, however, Letterkenny's share had grown to 17.0% and two additional centres, Bunbeg in the northwest and Buncrana in the Inishowen peninsula each had more than 10.0% of the county total. Some evidence of spatial differentiation by sex was also evident with Killybegs fishing port being predominantly a centre for male employment, and Buncrana, a textile town having mainly female workers.

A large proportion of grant-aided employment in County Leitrim was concentrated in the southern half of the county, with Carrick-on-Shannon having 30.2 per cent in 1973 and Ballinamore with more than half of the grant-aided jobs in the county was the largest centre (40.8%) but its proportion had fallen again by 1986.

Concentration of grant-aided employment was particularly pronounced in County Sligo with Sligo town having 58.5% of the total in 1973, 74.4% in 1980 and 73.0% in 1986. Concentration of female jobs was even greater, reaching 86.0% in 1986. The only other important centres in 1973 were Tobercurry and

Collooney with each having about 17.0% of the total. By 1980, however, their position had been greatly eroded and in 1986 Collooney had only 6.3% and Tobercurry only 11.0% of the total.

The contrasting levels of dispersal of grant-aided employment between County Donegal and Sligo-Leitrim correspond to the distribution of urban centres on the one hand and they also relate to the hierarchical distribution of plant size throughout the region (Table 4). In all there were only 24 plants with more than 100 workers in the region and while similarities in the average number of workers per plant were evident in both parts of the region, County Donegal had a slightly higher proportion of jobs in larger factories. While the policy of grant-aiding employment has concentrated predominantly on manufacturing activities, it should be noted that this category includes a wide variety of business types such as provincial newspapers and small bakeries.

The role of services

As in all advanced countries during the 1970s the main source of employment growth in Ireland was the tertiary sector, accounting for 77.8% of all new jobs

created outside agriculture. Within the country, however, service occupations are highly centralised with 70% of all office jobs being located in Dublin city, and the rural periphery, therefore, has benefited to a lesser extent from this sector. Nevertheless with the exception of County Leitrim, services contributed about 60.0% to non-agricultural employment growth in counties Sligo and Donegal during the 1970s (Table 1). At the end of the decade occupations in this sector accounted for 56.1% of non-farm jobs in County Leitrim, 63.3% in County Sligo and 54.1% in County Donegal. Female participation was at its highest in this sector being 46.0% in County Leitrim in 1981, 44.9% in County Sligo and 42.2% in County Donegal.

Despite the significance of services employment, however, it has received little research or policy attention (Conniffe and Kennedy, 1984; Gillmor, 1985). *The main thrust of employment promotion has been in manufacturing industry, which has been viewed traditionally as the wealth-creating sector or the 'real economy'.* Indeed in terms of output, manufacturing industry was the most important sector in the northwest in 1983, accounting for 56.0% of the total in County Donegal and 50.0% in Sligo-Leitrim (Brady, Shipman, Martin, 1986). Services on the other hand, accounted for only 30% of output in both parts of the region. In terms of wages and salaries, however, 48% of County Donegal's total in 1983 (IR£175.4m.) was generated in services, compared with 31% in manufacturing, while in Sligo-Leitrim 54% of the total (IR£136.5m) was generated in services and only 27% in manufacturing (Brady, Shipman, Martin, 1986).

Growth in service employment in the northwest during the 1970s was derived mainly from an expanding public service. This expansion made a remarkable contribution towards mitigating a rise in unemployment during this decade, given that Ireland had a vastly greater natural increase in its labour force than other EC countries and also given its large agricultural sector and its increase in labour force participation by married women (Conniffe and Kennedy, 1984). It has become abundantly clear since that time, however, that the state is no longer able to sustain the foreign borrowing on which this expansion was largely based. Partly because of the state's indebtedness, many tend to overlook the contribution of the public service both directly and indirectly towards promoting development in peripheral regions and much of its activity is regarded as parasitic.

Residential distribution of the workforce 1971–1981

The main sectoral shift in the northwestern labour force during the 1970s was towards non-farm employment and since only between 35% and 37% of this non-farm labour force was female at the end of the decade, attention was focussed on the male component. The analysis is based on the census

category 'gainfully employed' which includes unemployed persons for both 1971 and 1981 and first time job seekers in 1981. The male component was subdivided into two groups: Production/Labouring on the one hand, corresponding to workers in manufacturing and construction, and Services on the other. Numerical increases in Production/Labouring were quite modest during the decade being 545 (31.2%) in County Leitrim, 860 (24.7%) in County Sligo and 2,176 (24.6%) in County Donegal. The spatial pattern (Fig. 6a) reflects the relative dispersion of manufacturing industry and the associated commuting distances of its workforce. The concentration of growth in County Sligo is reflected by the fact that 66.5% of the increase was centred around Sligo town.

Throughout County Donegal, 122 of its 149 District Electoral Divisions (DEDs) had a total increase of 2,353, while only 23 DEDs recorded a decline of 177. East Donegal accounted for 53% of the increase, Donegal Bay 11.7% and the Gaeltacht coast 21.8%. Both the fishing industry in Killybegs and the industrial estate near Bunbeg contributed to the growth outside the eastern part of the county.

While growth in Production/Labouring was reflected in a well dispersed residential pattern of the workforce, service occupations were more concentrated (Fig. 6b.) This was particularly true of County Sligo, where 63 DEDs recorded an increase of 1,079, 76.0% of which was in the vicinity of Sligo town. In County Donegal only 31 DEDs had a decrease of 221 in service occupations, while 112 DEDs recorded an increase of 1,704. The pattern was particularly concentrated in the eastern part with 55.5% of the increase, while Donegal Bay had 13.2% and the Gaeltacht west 12.0%. Outside the two main urban centres of Sligo and Letterkenny, therefore, the rural areas, particularly in Sligo-Leitrim benefited much less from service employment growth compared with Production/Labouring. The differences in residential patterns of these two sections of the non-labour force probably reflects the greater participation by the farm based population in manufacturing and construction employment.

Table 5 shows correlations between the two main groupings of non-farm workers with 22 census variables relating to housing, demographic, occupational and educational characteristics of the region at the DED level. In the case of eight variables information was available only for 1981. The pattern is similar for both groupings with positive aspects of housing, demography, occupation and education being positively correlated with the proportion of males in both non-farm employment groups. Within the general pattern, however, correlations are consistently higher with males in service occupations, reflecting the higher economic status of this grouping and its tendency to be concentrated in urban centres. While housing amenity correlations have weakened

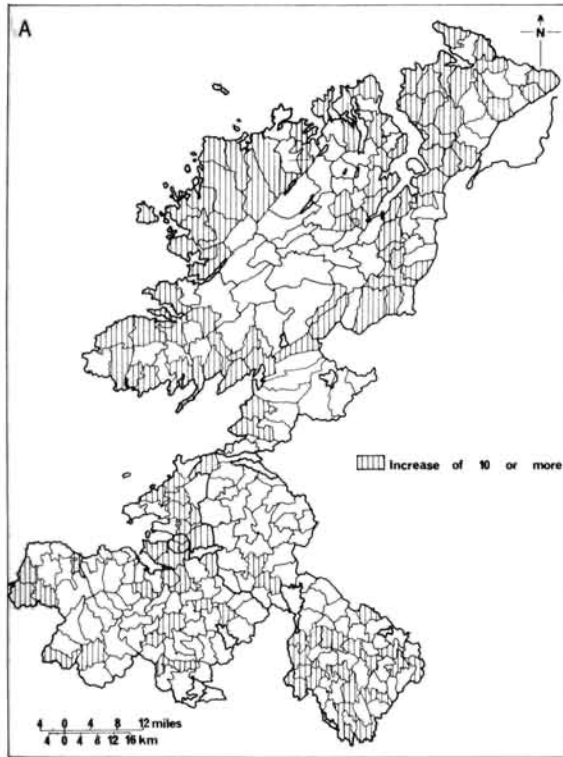


Fig. 6A. Increase in male employment in Production and Labouring, 1971-1981

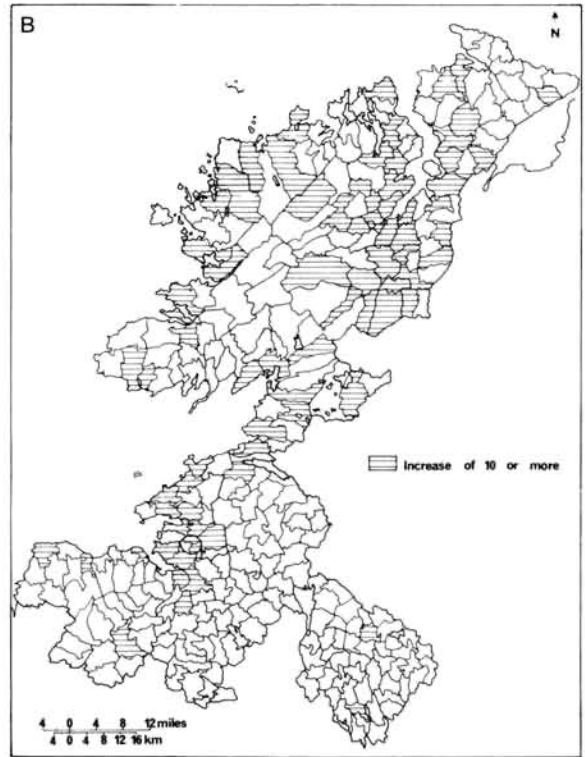


Fig. 6B. Increase in male employment in Services, 1971-1981

TABLE 5

Variables significantly related to percentage of Male Non-Agricultural Workers in Production Labouring and Services, 1971 and 1981 (309 DEDs)

	% Male Prod/Lab		% Male Services	
	1971	1981	1971	1981
% of houses with flush toilet	.52	.33	.85	.72
% of houses with no piped water	-.48	.26	.57	.74
% of houses (1981) built since 1971		.31		.42
% of houses (1981) built since 1918		-.26		.51
% of males 0-14	.36	.26	.47	.43
% of females 0-14	.22	.21	.21	.30
% of males 15-44	.27	.28	.31	.64
% of females 15-44	.35	.26	.55	.64
% of males 65 yrs +	-.34	-.23	-.40	-.53
% of females 65 yrs. +	-.35	-.18*	-.39	-.45
No. of females per male 15-44 yrs.	.30	.11	.53	.53
% of males 45-64 yrs. (single)	-.32	-.25	-.45	-.51
Families as % of all households		.30		.37
% Families with at least one child <15 yrs.		.32		.56
Persons per household		.32		.37
Farmhouseholds as % of all households	.54	.55	.84	.75
% of gainfully occupied males in Non-agricultural employment	.80	.64	.87	.73
% of gainfully occupied males — unemployed	.46	.53		.14
% of persons 65+ yrs. — retired	.33	.27	.39	.25
% of persons 60 yrs. + terminated education (primary)		-.12*		-.42
% of 30-44 yr. olds terminated education (primary)				-.47
% of 45-59 yr olds terminated education (primary)				-.57

p < .001 * .001 < p < .01

Note: Data for some variables available only for 1981

during the decade, indicating a convergence of housing quality between urban and rural areas, the demographic and occupational correlations have strengthened and the divergence in the strength of correlations between the two groupings has been either *maintained or increased*.

It is particularly noticeable that unemployment was positively correlated ($p < 0.01$) only with Production/Labouring and this correlation increased by the end of the decade. It was not positively correlated, on the other hand, with males in service occupations in 1971, and in 1981 the correlation was weak. The educational variables which were available only for 1981 show a strong negative correlation between low levels of education and service occupations only. There was a weak negative correlation between persons over 60 years who had terminated their education at primary level and males in Production/Labouring. This pattern emphasises the lower levels of education associated with the workforce in manufacturing and construction and consequently the greater susceptibility to unemployment. Together with the spatial variations in these two components of the non-farm labour force, these correlations illustrate the more disadvantaged nature of employment in manufacturing and construction. An alternative view, however, might suggest that, since industrial employment has become more widely dispersed in the rural periphery, it is consequently more associated with areas still exhibiting *negative social and economic characteristics*.

Sub-regional change 1971–1981

Table 6 indicates little change in County Donegal's subregions in relation to population and housing shares during the 1970s, whereas concentration in County Sligo's main urban centre increased. Regarding employment and unemployment, the interesting feature in Table 7 is not changes which occurred in the spatial structure of the region during the 1970s, which were minor, but the differences between subregions in

their shares of different occupational categories. Within County Donegal the 'Empty Heart' with only 4.3% of the population in 1981, had fewer non-agricultural workers and unemployed and more retired persons. The Donegal Bay area had a slightly higher share of males in Services in 1981 and a significantly lower level of unemployment in relation to its 17% of the total population. The Gaeltacht coast with its industrial estate developed by Udaras na Gaeltachta had a higher share of males in Production/Labouring, a lower share in Services and fewer females in its non-farm labour force. It had a significantly higher share of retired persons, reflecting the pattern of return movement of persons who in many cases qualify for both British and Irish pensions. Its high level of unemployment indicates the instability of industrial employment on which this subregion is particularly dependent. East Donegal, with 58% of the county population in 1981, had a slightly smaller share of males in Production/Labouring, a higher share of Services and of non-farm female workers and a lower share both of retired persons and the unemployed. Within Sligo-Leitrim the main urban centre had grown in population, increasing its share of all occupational

TABLE 6

Changes in Subregional Shares of Population and Housing 1971–1981

Co. Donegal	Population		Housing Units	
	1971	% 1981	1971	% 1981
Empty heart	5.09	4.33	5.75	4.33
Donegal Bay	15.60	16.99	17.40	17.41
Gaeltacht coast	20.85	20.35	22.52	22.07
East Donegal	56.94	58.47	54.46	55.95
TOTAL	98.48	100.14	100.13	100.15
<i>Sligo-Leitrim</i>				
Sligo Metropolitan Borough and environs as % of Co. Sligo	46.7	53.9	41.09	49.4
As % of Sligo-Leitrim	29.8	36.0	25.2	31.8

Source: Census of Population 1971 and 1981.

TABLE 7

Changes in subregional shares of employment categories 1971–1981

Co. Donegal	<i>Non-agricultural male workers</i> <i>Producers/Labourers Services</i>				<i>Non-agricultural female workers</i>			<i>Retired</i>		<i>Unemployed</i>		
	1971	% 1981	1971	% 1981	1971	% 1981	1971	% 1981	1971	% 1981	1971	% 1981
Empty heart	3.8	3.8	2.9	3.1	3.3	3.6	6.7	5.6	3.4	2.8		
Donegal Bay	17.6	16.7	20.5	18.8	18.5	17.0	17.0	17.1	10.4	11.8		
Gaeltacht coast	25.3	25.0	16.0	16.2	15.1	18.2	23.5	26.5	30.4	27.7		
East Donegal	53.2	54.3	60.5	61.8	63.0	61.1	52.7	50.7	55.7	57.7		
<i>Sligo-Leitrim</i>												
Sligo M.B. and environs as % of Co. Sligo	56.4	58.8	70.7	72.9	64.9	67.8	45.0	47.8	46.1	54.5		
as % of Sligo-Leitrim	37.7	38.6	50.4	53.6	45.7	48.8	28.0	29.1	29.2	36.7		

Source: Census of Population 1971 and 1981

types. Within the northwest region, therefore, the subregional structure reflects the tendency for service occupations to be centralised and for manufacturing employment to be more widely dispersed.

Prospects for the future

Having traced the spatial aspects of non-agricultural employment during the 1970s it is clear that the profound structural changes which have been affecting advanced economies in recent times have also reached the rural periphery. In looking towards the future, however, while many agree that the rapidity of technological and economic change presents new challenges and opportunities for rewriting the traditional relationship between core and periphery, few are agreed on the likely outcomes. One area of disagreement involves the differing views on the future employment contribution of manufacturing and services. The recent regional strategy for the northwest (Brady, Shipman, Martin, 1986) was pessimistic about the employment potential of traded services in this region because of its low economic base and suggests that employment expansion will depend more on further industrialisation. At the national level, however, Conniffe and Kennedy (1984) have pointed out that the service sector offers the only major prospect for net job creation in Ireland, and Bannon (1986) suggests that a regional policy for services holds the key to self-sustaining regional growth.

A recent analysis of producer services in Britain lists a number of reasons for the continuing preoccupation with manufacturing despite the impressive job creation experience in the tertiary sector (Neill Marshall, 1987). Among these are a crude export base view of economic growth and an assumption that services are led by or are dependent on manufacturing. Others have argued the view of the post-industrial society (Bell, 1974) and point towards trends such as counter-urbanisation and return migration as spelling a new future for the rural periphery (Johanson and Fuguitt, 1984). The depressing physical environment of the old industrial city with its various social and economic problems is also proving to be quite repellent to new industries (Hall, 1984). Yet in countries such as France and Switzerland where tertiarisation is at a more advanced stage of development authors such as Lipietz (1980) and Racine and Cunha (1986) have been quite pessimistic about the effects on peripheral regions. They suggest that peripheral areas will not emerge from their dependent state because the main consequence of tertiarisation has been a "transfer of content" with less qualified employment and structurally weak branches of industry being diffused towards the periphery. Since the core has retained the major component of decision-making jobs its dominant position remains unchallenged.

The most recent period in Ireland of deep recession,

high unemployment and severe cut-backs in public service employment would tend to suggest a rather gloomy future for the Irish periphery. The apparent shift towards a growth-centre strategy in industrial policy is also a worrying development. The small scale of Ireland, however, together with its rapidly improving telecommunications and air transport even in remote locations does present a basis for a more radical approach to the regionalisation of service activities. It is likely that the lead will have to be given in the public service through greater decentralisation.

Conclusion

The experience during the 1970s of the northwest region, the poorest and most peripheral part of the Republic, was one of considerable spatial variation. This was reflected particularly in the in-migration of young adults (30-44) with their children and the resultant pattern of housing expansion in some parts of the region. Underlying the demographic changes in the region was the significant shift in the labour force from agriculture to non-agricultural employment reflecting the modernisation of the regional economy. While manufacturing received the greatest attention in regional policy, the service sector, mainly through a rapidly increasing public service, was the main contributor towards employment growth.

The regional policy of dispersing manufacturing employment which was carried out in the northwest region by both the Industrial Development Authority and Udaras na Gaeltachta contributed significantly towards increasing industrialisation. Yet the spatial pattern of grant-aided jobs showed a clear contrast between Co. Donegal where dispersal reflected well the larger number of medium sized towns and Sligo-Leitrim where there was an over-concentration of jobs in the main urban centre.

Spatial variations in the pattern of manufacturing jobs were closely followed by the residential pattern of workers in all non-farm occupations with service occupations sharing a greater tendency to be urban based than workers in production and labouring. In addition to this spatial contrast, service occupations were more highly correlated with a range of positive social and demographic indicators while production and labouring workers were more likely to be less well educated and more susceptible to unemployment. At the subregional level while Sligo-Leitrim emerged with an increased level of concentration of non-farm employment in its main urban centre, leaving much of the rural remainder with a low level of development, there has been a much greater degree of dispersal of non-farm employment throughout Co. Donegal.

Uncertainty and disagreement characterise the various perspectives on the future prospects of the rural periphery. Some stress the need to continue the emphasis on manufacturing industry but recent shifts

in industrial policy do not contain hopeful signs for remote locations. Others see most of the future employment growth as being dependent on the development of a regional policy for service activities, although its heterogeneous nature gives rise to a wide diversity of views regarding the potential of this sector. The negative experience of other countries in tertiarisation should not result in a deterministic perspective on the future of the Irish periphery. Rather lessons can be learned and policies developed to give both a temporal and spatial advantage to more remote locations in this rapidly changing era.

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