

The Changing Regional Pattern in Ireland

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Draw a line down the Shannon, bend and extend it to the north east to include Longford and the Ulster counties, add Kerry and perhaps West Cork, and one obtains the traditional dividing line of Ireland. "The West", the counties to the west and north of the line, are poor, if one is thinking in social terms, or underdeveloped, if one is thinking in economic terms. By implication, the counties to the south and east of the line are relatively rich, and relatively developed. This division is part of the received wisdom of the country. Many economic and social analysts, including one of the authors of this note [1], have worked within its framework. The line, with or without slight modifications, is even embodied in legislation [2]. Work recently published by the other of the present authors [3], however, joins with commonsense observation to cast doubt on whether this division is still valid. It therefore seems an appropriate time to study the available evidence to see how far the traditional division of counties holds good, in what way the situation has changed in recent years, and, if there has been a change, what are its implications in terms of analytical approaches to regional problems and policy decisions on regional matters.

The Criteria

Working on county data, two basic approaches to the problem are possible. From both the social and economic viewpoints, average personal income in a county is an obvious criterion. The recent paper of M. Ross [3] contains estimates of such income for both 1960 and 1965. From a more purely economic point of view, the composition of the work-force can be regarded as a reasonable criterion of the degree of development of a county. In his analysis of the 1961 Census data on employment by industry [1], T. J. Baker put forward the following hypothesis. Economic activity in any small area of a country, such as the Irish county, can be divided into autonomous and induced sectors. The autonomous sector is that whose product, of either goods or services, is "exported" from that county to either the remainder of the country or the rest of the world. It also includes

that social sector whose provision of services to the county itself is determined by national rather than local standards, and whose financing is at least in part a national responsibility. The induced sector is that whose goods and services are consumed within the county itself, and whose level of activity is determined by the size and prosperity of the autonomous sector. The hypothesis continues to the effect that the autonomous sector can itself be divided into agricultural and non-agricultural activities, and that the higher the proportion of non-agricultural activities within the sector, the larger will tend to be the induced sector, and the more developed can be regarded the county. This reasoning cannot be applied to Dublin, as in a capital city the problems of classifying autonomous and induced sectors become insuperable.

If this hypothesis is accepted, it provides a standard for measuring the relative development of the different counties. The ranking of counties according to this development criterion will tend to be similar to, but not identical with, the ranking according to income. The advantage of using both the development approach and the income approach is that each will provide a cross check on the other, and that the strengths and weaknesses of each are largely compensatory. The development approach is based on Census data, which are as near absolute facts as one is likely to get in the field of economic statistics. On the other hand it rests on a little-tested hypothesis, and the concepts involved are unfamiliar. Conversely the income approach involves an easily understood and familiar concept, but is based on original data much less certain than Census figures. Thus if both approaches show similar results, there can be fair confidence that they do not unduly distort the actual facts.

Not only does it seem desirable to follow the two different approaches, but it also seems advantageous to use two different criteria within each approach. On the economic development view, we can use as criteria both the proportion of non-agricultural activities within the autonomous sector, and the share of the induced sector in total employment. Although the hypothesis suggests that there is a close relationship between the two shares, there are of course some divergences. These usually arise from historical or geographical factors, such as the situation of towns serving hinterlands which cross county boundaries, although they can also reflect imperfections in the classification of activities, and also such factors as employment induced by the spending of people outside the work-force. Because of these divergences it is as well to use both criteria, although more weight should probably be attached to the former.

With regard to income, the best social criterion is probably a simple personal income per head of population. However, there does seem to be some economic justification in also using personal income per head of the work-force. As there are considerable variations from county to county in the dependency ratio, there can be quite large differences in the ranking of counties according to the two criteria. It can be expected that the second criterion will bear a closer relationship to the employment pattern approach than will the straightforward income per head figures. Thus we can now examine recent changes in the relative development and

prosperity of counties according to four different but related criteria; non-agricultural proportion of autonomous employment; proportion of work-force in the induced sector; personal income per head of work-force; and personal income per head of total population. For the reason given earlier, Dublin is excluded from the analysis.

The Position in 1951

No county income estimates have been made for 1951 or any year close to it. Therefore our examination must be in terms of employment patterns. These are set out in Table 1.

TABLE 1: *County Employment Patterns in 1951*

<i>County</i>	<i>Non-Agricultural Share of Autonomous Sector</i>	<i>Induced Sector Share of Work-Force</i>
<i>Region 1</i>	<i>1</i>	<i>2</i>
	%	%
Leitrim	11.7	15.3
Roscommon	13.9	16.1
Mayo	12.0	16.7
Cavan	17.1	19.2
Longford	17.7	22.0
Galway	18.6	20.3
Clare	19.9	18.8
Kerry	19.7	23.1
Sligo	20.4	23.7
Donegal	21.5	22.6
Monaghan	23.2	22.3
<i>Region 2</i>		
Laois	27.3	24.1
Wexford	27.4	28.5
Offaly	27.3	24.6
Tipperary	27.4	27.3
Meath	27.5	25.3
Kilkenny	29.4	24.9
Westmeath	31.5	29.1
Carlow	32.4	28.9
Limerick	37.7	34.8
Kildare	43.9	28.3
Wicklow	42.1	38.6
Cork	41.4	35.0
Waterford	44.6	36.2
Louth	61.5	37.5

Note: The order of counties in this and succeeding tables is determined by the ranking in column 1 of table 2.

This shows that, in 1951, the traditional division reflected reality. There is no overlap between the two regions in either column, while on the more basic autonomous criterion there is a very clear discontinuity between Monaghan, the most developed of the "undeveloped counties", and Laois, the least developed county of the "developed region". This discontinuity is greater than any within the poor Region 1, although there are one or two larger breaks in the scale within Region 2. On the induced criterion there is no such clear discontinuity, Sligo having nearly as high a proportion as Laois or Offaly, but allowing for the factors discussed elsewhere which account for local variations in this figure, the fact that there is no overlap is significant in itself.

It seems probable that were income figures for 1951 available they would confirm this picture that the traditional dividing line was meaningful at this time.

The Position in 1960-61

County income estimates are available for 1960 [3], and employment patterns for 1961 [1]. It seems reasonable to treat two adjacent years as representing almost the same situation, and to incorporate them in the same table. Thus Table 2 sets out the position in 1960-61 in terms of all four of our criteria.

In columns 1 and 4 there is still no overlap, although the discontinuity observed for 1951 has disappeared in column 1, and there is likewise no significant discontinuity in column 4. In columns 2 and 3, however, overlaps have now appeared. Counties in Region 1 with higher figures than the lowest in Region 2, and in Region 2 lower than the highest in Region 1, are underlined in the table. It can be seen that the overlaps are not very great and involve few counties.

In summary, it appears fair to conclude that table 2 suggests that in 1960-61 it was still reasonable to use the traditional division, although the line was becoming somewhat blurred.

The Position in 1966

Table 3 shows the position in 1965-6 according to the four criteria. The employment patterns refer to 1966 and the income figures to 1965. As before, figures which are above or below the lowest or highest recorded in the other Region are underlined.

It can be seen that there is no overlap in column 2, which is perhaps surprising as there had been one in 1961. Equally however there is no significant discontinuity in this column between the two Regions. In fact there are no marked discontinuities in this scale within the Regions either. In the other three columns the overlap has become considerable.

In column 1, the employment pattern of the autonomous sector, Laois has slipped below Donegal, Monaghan and Kerry. Even if Laois is thus included in the poorer Region, there is no marked break in the scale between the Regions. Clare is

TABLE 2: *County Employment Patterns & Incomes in 1960-61*

<i>County</i>	<i>Non-Agricultural Share of Autonomous Sector</i>	<i>Induced Sector Share of Work-Force</i>	<i>Personal Income per head of Work-Force</i>	<i>Personal Income per head of Population</i>
	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>
<i>Region 1</i>	%	%	£	£
Leitrim	14.6	16.3	359	147
Roscommon	16.2	16.5	386	155
Mayo	16.3	18.6	385	146
Cavan	19.7	20.5	392	156
Longford	20.2	21.6	450	166
Galway	23.7	20.1	430	164
Clare	24.0	20.0	437	166
Kerry	24.9	24.5	488	170
Sligo	27.0	23.8	416	157
Donegal	27.3	24.1	420	150
Monaghan	27.4	22.5	404	160
<i>Region 2</i>				
Laois	28.6	24.9	460	173
Wexford	29.8	30.5	501	177
Offaly	31.3	23.9	464	177
Tipperary	31.4	27.2	526	190
Meath	31.9	26.3	498	184
Kilkenny	33.0	26.0	509	186
Westmeath	37.3	27.5	487	174
Carlow	37.8	30.5	534	187
Limerick	42.8	34.9	571	198
Kildare	48.3	28.5	575	205
Wicklow	48.8	37.3	532	191
Cork	49.3	34.4	549	204
Waterford	53.3	34.2	555	204
Louth	69.8	35.3	536	204

TABLE 3: *County Employment Patterns & Incomes in 1965-66*

<i>County</i>	<i>Non-Agricultural Share of Autonomous Sector</i>	<i>Induced Sector Share of Work-Force</i>	<i>Personal Income per head of Work-Force</i>	<i>Personal Income per head of Population</i>
	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>
	<i>%</i>	<i>%</i>	<i>£</i>	<i>£</i>
<i>Region 1</i>				
Leitrim	16.7	17.7	529	209
Roscommon	18.8	18.8	554	218
Mayo	19.8	20.6	571	215
Cavan	23.9	22.1	608	<u>236</u>
Longford	21.5	25.1	596	<u>217</u>
Galway	27.6	22.7	611	<u>230</u>
Clare	<u>33.3</u>	21.1	<u>649</u>	<u>246</u>
Kerry	30.0	25.9	<u>701</u>	<u>242</u>
Sligo	29.2	26.0	608	225
Donegal	<u>32.5</u>	25.6	590	215
Monaghan	<u>32.7</u>	23.9	596	<u>233</u>
<i>Region 2</i>				
Laois	<u>31.2</u>	27.6	<u>623</u>	<u>225</u>
Wexford	34.7	33.0	<u>697</u>	<u>245</u>
Offaly	33.9	26.9	<u>655</u>	<u>237</u>
Tipperary	36.7	28.9	767	274
Meath	38.5	30.7	<u>672</u>	249
Kilkenny	36.9	28.9	740	271
Westmeath	41.9	31.5	717	250
Carlow	42.3	32.3	744	256
Limerick	52.2	35.3	835	293
Kildare	54.8	31.9	768	281
Wicklow	53.0	40.1	743	270
Cork	54.7	35.4	821	301
Waterford	59.4	33.9	829	304
Louth	73.8	34.7	774	294

only fractionally below Offaly, and not far below Wexford. According to this column there are some large discontinuities within each Region, notably between Carlow and Limerick, and between Cork, Waterford and Louth in the richer Region, and, to a lesser extent, between Cavan and Galway in the poorer.

In column 3, income per working head, there is a more complex overlap between the Regions, with four counties in the richer Region falling below Kerry in the poorer, while Clare as well as Kerry is above Laois, the poorest of the Region 2 counties. There are no clear discontinuities in this scale within either Region.

Similarly with regard to income per head of population, as shown in Column 4, there is a complicated overlap with three counties in Region 2, and no less than 5 in Region 1 having values within the extreme case from the other Region. On this criterion there is some discontinuity within Region 2 between Carlow and Wicklow, ranking in 17th and 18th places respectively in order of poverty.

Thus in 1966 three of our four criteria show that the traditional division of counties into rich and poor regions is no longer satisfactory. On all three of these criteria Laois is among the eleven poorest or least developed counties, while on two of them Clare and Kerry leave the poorest eleven. Further, according to none of the criteria is there any clear break in the scale between the two regions. Before finally concluding that the division has lost its meaning it is worth considering income within the agricultural sector alone, in case Region 1 as a whole is still suffering from depressed agriculture. Table 9 of "Personal Incomes by County 1965"[3] shows that agricultural income per person engaged shows as great an overlap between the Regions as either of the other income criteria. Westmeath and Offaly replace Kerry and Clare among the eleven poorest counties on this basis, with Westmeath ranking as low as 9th and Kerry as high as 15th on the national scale.

Thus by almost every available yardstick the traditional division, which was valid in 1951 and still tenable in 1961, had become outmoded by 1966. It is worth considering briefly some of the major causes of this transformation.

Major Changes 1961-1966

We are now considering changes over time within counties, as distinct from the relative position between counties at a point of time, with regard to employment patterns. It is therefore easier to work in terms of absolute movements of the various employment sectors, rather than their share of total employment. For ease of comparison it seems best to present these absolute changes as percentages of the numbers employed in each sector in the base year. The first three columns of table 4 set out the changes between 1961 and 1966 in the major sectors of employment in each county on this basis. The remaining three columns show the changes between the two years in income per person engaged in the agricultural and non-agricultural sectors, and in overall personal income per head all in constant 1960 prices. Thus the final column directly describes the differences between the final columns of tables 2 and 3, while the earlier columns can be regarded as in some way explanatory of the differences in all the columns of these previous two tables.

TABLE 4: *Changes in Employment & Incomes per head, 1960-61 to 1965-66*

County	Changes in Employment as Percentage of Level in 1961			Changes in income per head at constant 1960 Prices, as Percentage of 1960 level		
	Agriculture etc.	Other Autonomous	Induced	Agriculture	Other	Total per Head of Population
	1	2	3	4	5	6
<i>Region 1</i>	%	%	%	%	%	%
Leitrim	-16.2	-1.4	-4.8	15.9	25.1	19.0
Roscommon	-12.1	5.4	5.9	16.2	13.2	17.6
Mayo	-13.5	9.8	2.8	19.4	19.7	22.3
Cavan	-13.5	11.0	0.4	39.7	16.0	26.0
Longford	-12.0	-5.1	8.3	-10.5	21.0	9.0
Galway	-10.1	10.2	10.6	8.0	16.6	17.4
Clare	-13.5	37.0	5.4	16.9	23.0	23.7
Kerry	-12.0	13.6	1.2	13.1	22.0	18.7
Sligo	-11.6	-1.6	2.3	12.6	24.4	19.4
Donegal	-12.0	13.4	3.1	14.2	10.3	19.1
Monaghan	-12.9	11.8	1.6	36.4	11.7	21.1
<i>Region 2</i>						
Laois	-11.5	-0.1	5.6	0.8	17.3	8.6
Wexford	-11.1	11.5	7.1	9.3	19.0	14.9
Offaly	-12.0	-0.9	7.5	0.9	21.9	11.7
Tipperary	-11.6	12.0	4.6	23.1	18.8	20.2
Meath	-11.9	17.4	21.1	11.0	15.4	12.8
Kilkenny	-10.9	5.7	9.3	19.4	22.8	21.5
Westmeath	-14.7	3.3	11.4	7.6	25.6	19.5
Carlow	-10.5	8.3	5.3	-2.1	23.8	14.4
Limerick	-13.5	26.2	5.4	30.3	20.0	23.2
Kildare	-11.8	14.3	18.4	1.1	15.3	14.3
Wicklow	-8.7	8.4	12.2	18.1	16.4	17.6
Cork	-10.8	10.9	4.5	33.6	21.6	23.1
Waterford	-10.9	14.2	1.0	23.8	28.6	24.2
Louth	-9.7	10.3	1.8	21.8	19.3	20.7
National Average excl. Dublin	-12.0	11.8	5.9	18.3	19.9	20.1

The different patterns of the various columns in Table 4 are quite interesting in themselves. In particular the consistency of the decline in agricultural employment shown in column 1 is most striking. Only four counties lie more than 2 per cent from the weighted average for the country excluding Dublin. The contrast with the changes in non-agricultural autonomous employment, which range from a fall of 5 per cent to a rise of 37 per cent, and induced employment, which range from a fall of nearly 5 per cent to a rise of over 21 per cent, is most striking. Similarly, with regard to incomes, it is interesting to note the much wider range of agricultural income per person engaged compared with either non-agricultural income or total income per head.

In studying table 4 for explanations of the decay of the traditional regional boundary, it seems wise to concentrate on the two columns with the widest ranges. Column 1 can be ignored because of its constancy, and column 3 because the changes seem to a large extent random. In fact a detailed study of changes in the induced sector will form a central part of forthcoming work to update the Regional Employment Pattern paper, and can be regarded as beyond the scope of the present note. The range of variation in column 5 seems too small to merit much attention.

Returning to the table, it can be seen that most of the major deviations from the mean in column 6 are associated with extreme values in columns 2 and 4. Thus Longford, with the largest fall in non-agricultural autonomous employment, and in constant price agricultural income per head, has a very low increase in total income per head of population. The same relationship is true of both Laois and Offaly. At the other end of the spectrum, Limerick has a high increase under both columns 2 and 4, and a well over average increase in total income per head. An extreme value in either of the "explanatory" columns, associated with a near average position in the other, can also have a large impact on column 6. Examples are Carlow and Kildare in a downwards direction, and Cavan, Clare and Cork in an upwards direction.

The explanations of many of the movements in columns 2 and 4 are fairly obvious. The low increases or actual falls in constant price agricultural income per head in many of the midland counties are accounted for by the decline of tillage, plus the abnormally poor harvest of 1965. The large rises in agricultural incomes over much of Munster reflect the growing relative prosperity of dairying in this period. The very large increase in autonomous non-agricultural employment in Clare shows the growth of the Shannon industrial zone, with this apparently having some spill-over into Limerick as well. Kildare and Meath seem to have benefited, in both autonomous and induced non-agricultural employment, from some spread of activity from Dublin to neighbouring areas.

Some of the other changes are less easy to account for, but the pattern of what has happened seems clear. There has been little or no growth in industry or other non-agricultural autonomous activities in the Midland counties, or in Sligo-Leitrim. At the same time, perhaps through causal association, but more likely through unfortunate coincidence, these are the very areas which showed the

poorest increase in agricultural incomes. On the other hand, most Munster counties, and Cavan-Monaghan had a reasonable growth in industry at the same time as a large increase in agricultural incomes.

As these movements, which affect both employment pattern and income criteria involve counties in both poorer and richer Regions, it is not surprising that they have led to some counties apparently shifting from one Region to another, as well as altering the ranking of counties within each Region.

Conclusions

The analysis has shown beyond much doubt that the traditional regional dividing line more or less down the Shannon had become outmoded by 1966. According to three of the four criteria used some of the counties to the north-west of this line were more developed and richer than some of the counties to the south east of it. This is true of the agricultural sector considered separately, as well as of the local economies as a whole.

The changed position since 1961 is very largely the result of different rates of growth in non-agricultural autonomous employment, mostly in manufacturing industry, and of a changing pattern in agricultural income, mostly depending on the crop and livestock mix of each county. These differential rates of development or enrichment cut right across the traditional regional division, with some counties in each Region doing much better, and some much worse, than the national average.

What are the implications of these findings for both analytical and policy purposes? It is easy to recommend the discontinuation of the phrase "West of the Shannon" as a short term for the less developed part of the country, when Clare is one of the most rapidly developing counties in the country, which has almost achieved the national average (excluding Dublin) level of income per head and share of industry, while Laois and Longford are developing and growing richer very slowly, and are clearly among the ten poorest counties.

It is more difficult to suggest a replacement for the traditional division. If an arbitrary number of counties is to be regarded as forming the poor region at any time, and it is felt that this number should remain at eleven, then clearly Clare and Laois should change places. On some criteria so too should Kerry and Offaly. However there seems little point in retaining such an arbitrary division at all. There is no longer any marked discontinuity in the scale of any of the criteria between two Regions, and given the pattern of development it is almost certain that such a classification would need revising every few years.

It seems much more practical to think now in terms of a continuous spectrum of counties, ranging from the very poor and little developed, such as Leitrim, Mayo and Longford, through the majority of counties a little on either side of the average, to the undoubtedly well developed and relatively rich counties such as Louth and Waterford. Dublin of course remains a special case. Within this spectrum there are no discontinuities common to all criteria which would justify a division

into Regions (in the stage of development sense rather than the strictly geographical), and the rankings of most counties are subject to continual change over time.

From the analytical point of view the adoption of such an approach would call for some ingenuity in handling regional development problems. From a policy point of view it would suggest that so far as poverty or lack of development in a county remain valid criteria in influencing the siting of new industries or other developments, they should be brought into the picture by means of some form of sliding scale or points system, rather than by the simple designation of certain areas as deserving of development because they fall into an "underdeveloped region".

REFERENCES

1. T. J. Baker, *Regional Employment Patterns in the Republic of Ireland*, Economic Research Institute Paper, No. 32, Dublin, 1966.
2. See, for example, The Pilot Area Development Programme; The County Development Teams; The Undeveloped Areas.
3. M. Ross, *Personal Incomes by County*. Economic and Social Research Institute Paper, No. 49 Dublin, 1969.