

**NATIONAL ECONOMIC
AND SOCIAL COUNCIL**

**Personal Incomes
By Region in 1977**

**NATIONAL ECONOMIC AND SOCIAL COUNCIL
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 7. The Council shall regulate its own procedure.

NATIONAL ECONOMIC AND SOCIAL COUNCIL

Personal Incomes by Region in 1977

Miceal Ross

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PREFACE

A major aim of regional policy is the narrowing of differences in per capita incomes between regions. It is necessary therefore that the scale of these income differences and changes in their pattern over time should be known. The Council has already published in July 1977 estimates of personal income by county for the year 1973.¹ The Council at its meeting of 25 May 1978 decided to commission Dr Miceal Ross of the Economic and Social Research Institute to undertake a similar exercise for the year 1977. The availability of data at the time of writing was such that the estimation of county incomes was not possible. This present report contains estimates of personal income by region for 1977.²

¹NESC Report No. 30.

²At its meeting of 17 January 1980, the Council decided to submit this report to Government.

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PERSONAL INCOMES BY REGION IN 1977

Miceal Ross*

CHAPTER 1

INTRODUCTION

1.1 The role of regional income estimates

One of the major purposes ascribed to regional policy is that of promoting a convergence between the levels of economic welfare enjoyed by people living in different locations within the State. The elimination of regional disparities requires that the level of these inequalities be documented both as a statement of the current position and as an indicator of progress over time. This report seeks to provide such documentation.

The use of economic criteria as indicators of welfare has been commonplace in national accounts for the last three decades. National statistics can approach this task by following three routes whereby income is aggregated from details of production activities, of consumption activities or of incomes derived from economic pursuits and from transfers. Each of these three totals should agree at the national level. Their separate calculation serves not only as cross checks and also provides important additional information. For example, the production approach is a measure of economic strength whereas the income approach is a guide to aggregate purchasing power. These distinctions are important at the national level but become even more so at the regional level where the possibilities of inter-regional transfers can alter the scoring of individual regions under different criteria.

In the estimation of regional incomes the quality of data has led to a preference for the income approach over the production approach

*Miceal Ross is a Research Officer with the ESRI. The views expressed in this paper are the personal views of the author.

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though the latter was also estimated for 1960 and 1965. To date no success has been experienced with attempts to travel the consumption route, due mainly to the difficulties experienced with tourist and commuter shopping.

Within the income category a variety of measures are published at the national level. In regional estimates the preference again has been for personal incomes. These are incomes accruing to persons either from economic activity or from transfers. One difficulty with this concept is that at the national level the income of private non-profit-making institutions are included among the income of persons. The National Economic and Social Council (NESC) Report No. 30 (Personal Incomes by County in 1973), shows that subtracting out these incomes to get "household income" results in a small diminution in the per capita income levels, which in most cases was less than 1.5% in 1973. Another refinement, also discussed in NESC Report No. 30, requires that direct taxes on income be deducted to arrive at estimates of "disposable income". Detailed estimates of the regional incidence of direct taxation are not yet available though work in this area is proceeding at the Economic and Social Research Institute (ESRI). Preliminary estimates for 1973 indicated that in the richest county, Dublin, these taxes exceeded 10% of per capita incomes whereas in the poorest county, Leitrim, they fell just short of 5%. Accordingly the deduction of such taxes would tend to narrow the range in per capita incomes. In 1973 Dublin incomes were 55% higher than those in Leitrim following both these deductions, i.e., taxes and income of private non-profit institutions whereas the gross difference had been over 67%.

As was stated earlier the use of economic criteria as indicators of welfare is well established. Nonetheless, the method has acknowledged limitations both at national and international levels. Essentially this technique only records market transactions and omits both economic activities which do not enter the economic calculus as well as intangible aspects of welfare which impinge on personal wellbeing. Examples of non-market activities would be the work of unpaid voluntary people (house work is an obvious case) and do-it-yourself pursuits (e.g., vegetable gardening). *A priori* less developed and therefore poorer regions would be expected to have higher levels of non-market activities though high labour costs have started a trend

towards self sufficiency in richer regions where marginal tax rates are high. Examples of intangibles that affect wellbeing are complicated by inter-personal differences in tastes. An uncrowded environment may represent an escape from urban pressures for which one user would be prepared to pay whereas to another it signifies monotony away from where the action is. A regional catalogue of pluses and minuses would not be a consensus listing.

A final word of caution on inter-regional comparison: the actual levels of incomes given per capita are averages and give no idea of inequalities in levels within the region nor do they provide a totally clear index of purchasing power. While some goods and services might be cheaper in sparser populated areas others could be much dearer. The limited information published on the prices of Consumer goods suggests that many consumers pay a high price for their distance from access to highly competitive supermarkets. Until some work is done in this area it will be impossible to correct for differences in local prices and spending patterns. A fuller discussion of these reservations is provided in NESC Report No. 30 pages 28-34.

1.2 Previous studies for the period 1960 to 1973

As mentioned earlier the purpose of regional studies is not merely to record the current situation but also to provide a measure of progress over time. The present study is the fifth in the series which began in 1960. Other years for which figures are available are 1965, 1969 and 1973. The last year was the subject matter of an earlier study by NESC. In all these earlier studies the data were provided on a county basis. Indeed the attempt to aggregate these figures into estimates of regional incomes was partially hampered by the lack of separate incomes estimates for the North and South Riding of Tipperary needed in arriving at the totals for the South-East and Mid-West Regions. In this present study the 1973 incomes of Tipperary were disaggregated by Riding and the result was only infinitesimally different from that obtained by Blackwell and Stephens for the introduction to Report No. 30. The finding indicates that their work on 1960, 1965 and 1969 is likely to be acceptable. It is used in a later section for comparisons over the eighteen years.

1.3 The switch to regional incomes

If previous work was based on county estimates the development of regional incomes in the present study needs an explanation.

The estimation of county incomes depends to a crucial extent on detailed county employment data. The 1973 NESC "County Incomes" report availed of the 1971 Census of Population employment data suitably updated as the basis of the estimates. The only comprehensive sub-national employment data collected since 1971 are those in the Labour Force Surveys. The Central Statistics Office (CSO), however, do not release county breakdowns of these surveys as the degree of accuracy attached to county classification of the national survey would not be great.

It would be possible to proceed with the estimation of county incomes from farming, forestry and fishing on the basis of the wealth of material published for these industries and this has been done in the present study. A similar exercise could have been undertaken for manufacturing industries, on the basis of employment surveys undertaken annually since 1973 by the Industrial Development Authority (IDA) though even here, while the quality of the information is high in terms of employment, it is clearly inadequate for indicating changes in income. Apart from these industries no further information is available on an up-to-date basis. Together agriculture and manufacturing account for just over 40% of total employment and about one third of total personal income. In neither case is their contribution to the total sufficiently large to justify proceeding with county incomes on the basis of such limited material. In the absence of firm detailed county employment data for the remaining 60% of the labour force it would be very hazardous to try to develop county detail and the end result would not necessarily warrant a tolerable degree of confidence as to its accuracy.

It might be felt that this departure from the calculation of county estimate would justify postponing the entire exercise. Such a course was not adopted for two reasons. First, there is no indication that suitable data will become available in the next year or two. Second, and more significant, the Government has indicated that it is currently carrying out a review of regional policy. For this reformulation of policy up-to-date indicators of the current position on regional incomes form an essential background element which cannot be easily dispensed

with. In fact in the elaboration of the estimates the opportunity was taken to make the material more up-to-date than in previous studies. Thus the current figures are available one year earlier than equivalent figures have been in the past.

1.4 Plan of the paper

In the next chapter the change in methodology occasioned by data availability are discussed together with the reasons for the revised estimates of 1973. Chapter 3 presents the overall summary of results and some analyses derived from these. These analyses concern the trends over time in the aggregates as well as some discussion of the underlying factors which have helped to determine the 1977 outcome.

Chapter 4 gives the detailed tables which are followed in Chapter 5 by an appraisal of some of the constituent elements in these incomes—such as income from farming, manufacturing, etc.

CHAPTER 2

METHODOLOGICAL COMPARISONS WITH PREVIOUS REGIONAL INCOME ESTIMATES

2.1 The basic methodology in past studies

The basic methodology underlying these income estimates has been specified in detail in *Methodology of Personal Income Estimation by County* by Miceal Ross (ESRI, Report No. 63). In this section a brief overview of the approach is provided.

The basic source of information is the national estimate of personal income published in the annual *National Income and Expenditure*. This provides the control totals to which the county totals must agree. It specifies several sub-totals of which the major group comprises those incomes arising from employment. Here the basic material on numbers employed has been the county breakdown of numbers at work in the various industrial categories provided in the "Industries" volume of the relevant census of population. Incomes are attributed to these numbers by reference to the Census of Industrial Production, the Census of Distribution and any other material available. This procedure does not apply to agriculture and fishing where the method calculates gross output by county and deducts from this various input costs and expenses to arrive at a net figure.

These sources account for about 70% of incomes. The balance is made up of unearned income whether this arises from investments as interest, dividends and rent or from transfers. The latter contains two components, the major one being transfers from public authorities. The minor element consists of emigrants remittances. The allocation of the large number of public transfers is normally undertaken with the aid of

the public authorities concerned. Rents are allocated on the basis of housing statistics while the remaining items have been allocated on the basis of the results of special surveys, e.g., postal and bank remittances for emigrants or shareholdings for dividends.

2.2 Modifications of the methodology in the 1977 study

This study differs from previous work in a number of ways. These can be listed as (i) the timing of the calculations, (ii) the use of the Labour Force Survey and (iii) the postal dispute. All of these have implications for the accuracy of the results and will be examined in turn below.

(i) *The Timing of the Calculations*

The calculation of the 1973 county incomes was undertaken in 1976 whereas the 1977 estimates were begun at the beginning of 1979. The time interval between the close of 1977 and the estimates was, therefore, one year less.

As a consequence the estimates had to be begun before there were firm first estimates for some items in the national income accounts. This short time-lag means that the most up-to-date estimates of regional income possible are made available but it also means that the estimates had to forgo the benefit of any revisions that are normally made to the first estimates. These are usually more substantial following the processing of a Census of Population.

(ii) *The Use of the Labour Force Survey*

The second difference lies in the nature of the material on which the estimates have been made. Previously the interval between the estimates and the publication of a Census of Population has been short enough to base the study primarily on Census material. In the present study the last Census giving economic data was taken in 1971 and therefore preceded the world recession and accession to the European Economic Community. Since 1971 the available evidence suggests that there have been many departures from the previous trends so that the snapshot of Ireland in April 1971 is no longer valid in all its aspects. It is regrettable that a time of great change should have coincided with a decision to abandon the tradition of five yearly Censuses.

As a consequence greater use had to be made of a new source of economic data—the Labour Force Surveys. These were based on samples and conducted in conjunction with an EEC wide survey which laid down the procedures for those parts of the study for which internationally comparable figures were required. One departure from traditional practice was to base the survey on the usual residence of those surveyed rather than to allocate them to the area in which they happened to be surveyed. The full Census of Population uses this latter *de facto* allocation method. The “usually residence” allocation would transfer people who happened to be away from home back to their home. Thus it would exclude foreign visitors and include those temporarily out of the country. It would rearrange the particulars of those visiting friends etc. in another part of the State.

A second difficulty with the Labour Force Survey lies in the under estimation of population based on the sample as implied by the 1979 Census results.

When the 1979 results became available the use of the unadjusted Labour Force Survey data was called into question. The entire set of Regional incomes for 1977 had to be recalculated to correct for the new information. No official adjustment figures were available but a standard procedure adopted here suggests that the employment figures could be adjusted regionally in the same proportions as the adjustment required in the estimates of total population. The total population for 1977 was determined in this case by interpolation between 1971 and 1979 and came within 800 of the official figure subsequently published. Employment was adjusted on this basis.

In all, three sets of regional income were prepared, (i) those based on the 1977 Labour Force Survey prior to the publication of the preliminary results of the 1979 Census, (ii) figures which used the income totals but obtained per capita estimates from the new interpolated estimates of regional population, and (iii) new estimates of both total income and population updated in the light of the 1979 Census. It is possible that in the future the new view of total employment in 1977 may lead to a substantial

change in the national estimates of income and require yet another recalculation. The first two sets of per capita incomes are not published here but are available from the author. Compared with these the estimates show a fairly considerable difference in the relative performance of individual regions in terms of per capita income. The recalculations have tended to improve the performance of the North-East, North-West and Donegal and West regions and reduce the advantages of the East and Mid-West Regions. As a consequence these current estimates show a greater degree of convergence than the earlier estimates.

Leaving aside such issues the use of the 1977 Labour Force Survey poses other problems. The Survey was based on a sample so that the finer the subdivision of the regional population required the greater the sampling error. Total population estimates would tend to be estimated more accurately than estimates of the employed population. The latter would be more accurately estimated than the population at work in manufacturing, and so on. As a consequence the CSO has decided that the release of detailed estimates on a geographic or industrial basis would be misleading. No data are accordingly available on a county basis. In the case of Donegal which is both a region and a county, the data are amalgamated with those of the neighbouring North-West region. The only exception to this occurs in the case of Dublin where the overall size of the population warrants separate estimates. This has effectively ruled out the possibility of estimating incomes below the regional level. In making these estimates, county income estimates were calculated for agriculture but for no other industry. It would be possible to make county estimates also for manufacturing based on IDA data but, as we shall see below, use of this source of information poses its own problems.

A second consequence of the sampling error limitation is that detailed industrial breakdowns are not available even on a regional basis. Furthermore, the CSO were not prepared to provide estimates where the total was less than 1,000. The wisdom of withholding detailed information can be seen when the material available is itself studied in detail. As we shall see the

industrial data for the Mid-West region in a number of cases is difficult to interpret. As the figures stand, some industries have employment increases out of line with the general pattern of change nationally. The problem is that these changes may be real or may be within the limits of the sampling error and the question arises whether the changes are statistically significant or not. While a difference may lie within the limits of the sampling error this does not mean that it will prove insignificant when it comes to basing income estimates on the change.

The absence of detailed industrial data has meant that the estimation of regional income could not follow the definitions used in the estimation of National Income and Expenditure. In calculating National Income, for example, industrial activities by public authorities are allocated to "Industry" rather than "Public Administration and Defence". In the Census again, employees of Bord Iascaigh Mhara (BIM) are included under "fishing" but in National Income their incomes are included under "Other Domestic" income etc. In making the regional estimates the National Income components were rearranged so that they would correspond to the industrial classification of the Labour Force Survey and the estimates were then made based exclusively on changes in numbers at work. Changes in relative earnings have not been published since 1973. Factory closures may have hit poorly paid employment whereas factory starts may have resulted in above average rates of pay for new jobs in the regions. In the absence of data the impact of these changes on average regional rates of earnings cannot be ascertained accurately.

(iii) *The Postal Dispute*

The present study was carried out during the postal dispute with its attendant difficulties. A large part of the calculations normally depends on the co-operation of a great number of public servants. There are several hundred items listed as Government transfers, for example.

2.3 **Revision of previous regional estimates**

Report No. 30 of NESC contained estimates of county incomes for 1973. In Part I of the report the secretariat made estimates of regional

income dividing the income in the two Ridings of Tipperary on a heuristic basis. In the current study this procedure was regularised by making separate estimates of income in the two Ridings of Tipperary for 1969 and 1973. In making these estimates and in calculating the regional incomes, the opportunity was taken to correct a number of minor errors and misprints which appeared in Report No. 30. For that reason the estimates for 1973 would have differed slightly from those previously published.

However, a more major significant revision also appeared to be called for. The 1973 estimates of manufacturing employment were based largely on the 1972 county breakdown of the Census of Industrial Production. In January 1973 the IDA pioneered its own survey of industrial employment which has now reached a very high level of coverage and accuracy. The official figures of changes in regional employment between 1971 and 1977 can only be reconciled with IDA figures if part of the changes are assumed to have occurred between 1971 and 1973. This was especially the case in regions such as the Midlands and Mid-West. In the case of the Midlands, net job losses were attributed to the earlier period reducing the 1973 estimates while the opposite assumptions were made for the Mid-West. These changes resulted in lower income levels in the Midlands than previously which combined with the revised estimates of population put the per capita income levels of the region below those of the West for the first time. The latter region had benefited from an upward revision of its industrial employment.

CHAPTER 3

AN OVERVIEW OF THE RESULTS

3.1 The changing order of prosperity

The basic result of the present calculations is that the tendency towards greater income equality apparent in the 1973 Report has continued in a very heartening way. Incomes have risen everywhere and the statistical measures of dispersion show a significant narrowing of the gap.

Table 3.1: Deviations from the national average in regional per capita incomes 1960-1977

| Region | 1977 | 1973 | 1969 | 1965 | 1960 |
|--------------------|-------|-------|-------|-------|-------|
| East | +15.4 | +17.2 | +23.6 | +23.8 | +24.2 |
| South-West | + 0.2 | - 1.1 | - 2.8 | - 2.0 | - 1.2 |
| South-East | - 4.7 | - 5.5 | - 9.3 | - 8.5 | - 6.5 |
| Mid-West | - 5.2 | - 4.1 | - 6.7 | - 5.4 | - 5.8 |
| North-East | - 9.0 | - 8.7 | - 9.5 | -11.3 | -12.3 |
| West | -13.9 | -18.6 | -24.2 | -22.4 | -21.8 |
| Midlands | -21.3 | -19.7 | -22.3 | -21.5 | -17.1 |
| North-West/Donegal | -23.4 | -23.6 | -24.6 | -26.3 | -24.4 |

Table 3.1 summarises the changes since 1960 in terms of deviations from the national average. The table displays a variety of patterns. First there is the steady decline in the pre-eminence of the East Region—partly reflecting its superior demographic experience. In

three regions—South-West, South-East and West—the tendency was for widening disparities up to 1969 followed by a more rapid convergence since then. The progress of the West region was particularly striking, especially since 1973. Over the entire period it gained eight percentage points on the average. In this development the West Region overtook the Midlands. This latter region now occupies the position of the West in 1960 and its decline is one of the major problems of regional policy. Announcements by the IDA of new developments in the Midlands can be looked to, to change the position over time. In the current study employment generated by these new firms were not yet far enough advanced to affect the outcome for incomes. The remaining regions have changed little relative to the average since 1960. The Mid-West benefited by the early development of Shannon in the 'sixties but the 1977 position was not much better than that held in 1960. By 1977 it had yielded its place to the South-East region which did relatively badly in the 'sixties but made amends since then. The North-West and Donegal regions suffered a set back in 1965 compared with 1960 and have made some slow progress since then but not sufficient to alter greatly their basic position as defined in 1960.

In NESC Report No. 30 the closing of the disparity gaps was captured in some statistical measures which displayed general convergence among personal incomes by county over time. These measures were again calculated for the regions and indicate that advances have been made since 1965.

Table 3.2: Dispersion of income among regions (coefficient of variation)

| | Simple | Weighted |
|------|--------|----------|
| 1960 | .152 | .179 |
| 1965 | .171 | .185 |
| 1969 | .166 | .186 |
| 1973 | .133 | .145 |
| 1977 | .126 | .134 |

Note: The simple and weighted measures calculate the coefficient of variation without and with reference to differences in regional populations.

Perfect equality would produce a zero statistic. The figures show convergence continuing though less rapidly since 1973 compared with

1969-73. It is well to recall that the 1969 estimates were deemed to be less reliable than those in the mid- and early 'sixties. They have not been recalculated on the basis of new information which subsequently became available. However, recalculation would not be expected to alter the general picture given the strength of the convergence since 1969. The subject of change over time is discussed again in Chapter 4 where emphasis is on changes since 1973.

3.2 Incomes in farming

It is true that incomes in farming would be expected *a priori* to exert a benign influence on regional disparities. The fact that they did not appear to do so is due to the fortuitous selection of 1973 as the previous year for the calculation of regional incomes. In that year farmer incomes were high—due more to an international boom in the cattle trade—than to EEC membership. Had 1974 been selected instead progress would have been dramatic between 1974 and 1977 in the farming sector. 1974 will be remembered as the year when cattle prices fell and overstocking led to a winter feed crisis being widely debated.

1973 was the year of accession and therefore could be expected to serve as a baseline against which to reckon the benefits of EEC membership. It has been suggested, however, some of these benefits may have been anticipated in the year immediately preceding entry. This possibility coupled with the buoyant cattle market therefore make the choice of 1973 as a baseline one which understates the benefits of membership in subsequent years. In fact 1973 was in ways a freak year for the cattle industry (see Chapter 4). The benefit of EEC membership has been to consolidate permanently what was exceptional in 1973. Had agricultural incomes been based on an average of a number of years, the real gains would be more obvious. As the calculations stand most of the progress is attributed to the four years before 1973 rather than the four subsequent years. Had 1974 been selected as a base year less growth would have been attributed to the first period and a substantial increase subsequently recorded.

Examination of the changes in real farm income since 1973 reveal that the consolidation of the 1973 position was not evenly distributed over the regions. In some dairying areas, especially in the South-West

region, a considerable advance was made on the 1973 achievements. In others, especially in the West, a drop in total farm income in real terms was recorded between 1973 and 1977. The fall of 5% in that region came as no surprise to forecasters in An Foras Talúntais (AFT) who had already reported a severe rundown in inventories in these areas. Other areas of the North-West and Midlands also showed little change over the first four years of EEC membership. It would be well to contrast this with some calculation of what the situation would have been if Ireland was not a member of the EEC in 1977. On the other hand, disappointment with the outcome of the calculations may well be justified on the basis of the inability of these regions to respond more actively to the favourable marketing opportunities offered by membership, particularly as this lack of productive growth may harm these regions' share in the tougher negotiations of future Common Agricultural Policies.

Expectations associated with agricultural performance in the context of overall regional equalisation need to recall that even in the least industrialised and urbanised regions the contribution of agriculture, forestry, and fishing to total income has declined to between a quarter and a fifth of the total. In the North-West and Donegal regions the contribution of government transfers to total income rivals that of agriculture in size and the situation is similar in the West Region.

3.3 Changes in employee remuneration

In considering changes between 1973 and 1977 in other sectors readers will be aware that 1973 was the last year of the prolonged boom of the 'sixties. NESC Report No. 30 had already documented the shifting fortunes of industrial employment between the regions (see page 41). The decline in some of the earlier industrialised areas, such as counties Dublin and Louth, can be attributed to a variety of factors which began with the impact of the freer trading conditions ushered in by the Anglo-Irish Free Trade Agreement. World recession and rising oil prices intensified this impact with consequent closures and redundancies in manufacturing. The results show that in spite of these very difficult conditions remuneration of employees in manufacturing and mining rose by more than 13% in real terms over the four years 1973 to 1977. This growth rate was exceeded* in the hard hit North-

*This calculation is based on the adjusted Labour Force Survey for 1977.

East region so that in that region post 1973 employee incomes did not continue to decline. In the East region the growth of total remuneration in this sector was low so that here there was no significant recovery. However, the region was more than compensated by the growth of employee remuneration outside farming and factory employment. Jobs in sectors relating to professional services, finance, public administration, commerce, etc., received half of the total income obtained in the region and had a very substantial rise in real terms (over 20%) since 1973. The success of the Dublin area in offsetting job losses in manufacturing by such employment has been studied by Ross and Walsh in a recent publication.** This latter study drew attention to the need to realise more fully the emphasis that national policy was putting on job creation outside agriculture and manufacturing and to become more aware of the formidable dimensions of the task in a regional context. Government policy now seeks to promote more of these jobs at decentralised locations and at the same time recognises the needs for industrial employment among a significant section of Dublin's population.

3.4 Population change

Growth in per capita incomes also had to be assessed in relation to movement in regional populations. In the 'sixties some regions improved the growth of incomes per capita by dividing total income among fewer residents. In this study population estimates for 1969 were revised by reference to the final figures in the 1971 Census of Population while those for 1973 benefited from the insights provided by the preliminary results of the 1979 Census of Population.

As a consequence it now appears that population growth between 1969 and 1973 was more substantial in the less prosperous regions than hitherto estimated—for example, in the West, North-West and Donegal. These regions stepped up their rate of population growth after 1973 very markedly, so that they do not diverge so sharply from demographic experience in other regions (apart from the East region). It is a reasonable hypothesis that many policy makers concerned with regional balance would prefer a slower growth of per capita incomes associated with regional repopulation to a situation where higher

**M. Ross and B. Walsh, *Regional Policy and the Full Employment Target*, Policy Series No. 1, June 1979, ESRI.

incomes were enjoyed by the survivors of a regional exodus. The rapid growth of population in the East region has been outstanding even in an international context. As yet much of this expansion would have the effect of raising dependency ratios. Part of the narrowing of inter-regional differences in per capita incomes can be explained by the spreading of the income growth of the East region over a population growing more rapidly than that of any other region. Leaving population aside the East region had an above average rate of growth in total income. This region absorbed 240 out of £535 millions (at 1977 prices) of real income growth or 45% of the total. This was a proportionally larger share than its share of the total population. This fact must be remembered when examining the narrowing of inter-regional per capita incomes. By the latter criterion the East region would not appear to be well favoured. In terms of total income the persistence of its ability to obtain more than its population share continued between 1973 and 1977. Since 1960 the East region has accounted for half of the State's natural increase in population every year. This sharply rising population will in turn enhance its political and moral power to obtain special treatment in the future.

CHAPTER 4

THE ESTIMATES OF PERSONAL INCOME FOR 1973 AND 1977

4.1 Introduction

Tables 4.1 and 4.2 present the calculations for 1977 and the revised regional estimates for 1973. As such they form the basic tables of this study. In making the 1973 regional estimates, figures were prepared for the two Ridings of Tipperary and as these have not been previously published, the components are given in Appendix A.

4.2 The structure of personal income within regions

Tables 4.3 and 4.4 in turn give the structural breakdown of the 1977 and 1973 regional incomes.

In 1977 income from agriculture had reduced its contribution to total national income to become level with total remuneration in manufacturing and mining. It is important to recognise that while the latter comprises the actual payments made to employees, income from agriculture is a different concept. Part of it is employee income of farm and forestry workers but the bulk of it comprises the balance left to farmers and fishermen after the major expenses have been paid. It differs from income of the self employed in other occupations in that not all the business deductions are made. Since it includes inventory changes, it may not also reflect the cash income available to farmers.

In discussions of development strategies, the main emphasis tends to be placed on the performance of manufacturing and farming. This tendency may be justified in that context on the grounds that these industries provide the base on which other employment and income depends. In the national income context it is worth observing that as a source of personal income each of them separately accounts for not a

TABLE 4.1

Distribution of personal income by source 1977 (£000s)

| | Remuneration of Employees | | | Income of Self-Employed | | Interest Dividends Rent | Transfers | | Total |
|--------------------|---------------------------|----------------------|-----------|-------------------------|---------|-------------------------|------------|---------|-----------|
| | Agriculture & Forestry | Manufacture & Mining | Other | Agriculture & Fishing | Other | | Government | Foreign | |
| | | | | | | | | | |
| East | 14,180 | 374,098 | 1,097,650 | 74,805 | 122,013 | 253,417 | 233,569 | 25,876 | 2,195,608 |
| South-West | 9,250 | 128,687 | 264,877 | 178,871 | 40,467 | 50,838 | 104,936 | 17,958 | 795,885 |
| Mid-West | 6,070 | 64,310 | 152,896 | 100,630 | 20,871 | 27,427 | 56,011 | 9,976 | 438,192 |
| South-East | 14,031 | 93,199 | 155,911 | 141,529 | 25,712 | 33,429 | 64,455 | 8,569 | 536,835 |
| North-East | 2,502 | 55,789 | 77,629 | 58,835 | 14,112 | 15,435 | 37,443 | 5,621 | 267,365 |
| West | 2,255 | 42,721 | 129,929 | 80,541 | 16,831 | 18,692 | 69,862 | 13,859 | 374,691 |
| Midlands | 5,466 | 36,491 | 102,142 | 76,453 | 13,773 | 16,398 | 48,681 | 7,423 | 306,828 |
| North-West/Donegal | 2,501 | 26,523 | 78,893 | 49,131 | 12,220 | 13,364 | 49,982 | 8,818 | 241,432 |
| State | 56,256 | 821,819 | 2,059,927 | 760,796 | 266,000 | 429,000 | 664,939 | 98,100 | 5,156,837 |

TABLE 4.2

Distribution of personal income by source 1973 (£000s)

| | Remuneration of Employees | | | Income of Self-Employed | | | Interest Dividends Rent | Transfers | | |
|--------------------|---------------------------|----------------------|---------|-------------------------|---------|------------|-------------------------|-----------|-------|--|
| | Agriculture & Forestry | Manufacture & Mining | Other | Agriculture & Fishing | Other | Government | | Other | Total | |
| | | | | | | | | | | |
| East | 8,807 | 193,718 | 481,585 | 36,557 | 60,491 | 95,695 | 13,714 | 1,031,671 | | |
| South-West | 5,467 | 56,438 | 129,485 | 80,566 | 22,345 | 42,909 | 10,172 | 375,202 | | |
| Mid-West | 3,694 | 31,430 | 71,062 | 50,226 | 10,984 | 22,863 | 5,808 | 211,091 | | |
| South-East | 8,303 | 36,727 | 78,078 | 66,709 | 14,180 | 26,293 | 4,745 | 253,287 | | |
| North-East | 1,443 | 25,879 | 39,231 | 27,339 | 7,970 | 15,247 | 3,287 | 128,803 | | |
| West | 1,247 | 13,527 | 55,308 | 44,697 | 8,862 | 28,582 | 8,213 | 170,701 | | |
| Midlands | 3,358 | 14,441 | 51,784 | 40,486 | 7,737 | 19,847 | 4,335 | 151,082 | | |
| North-West/Donegal | 1,316 | 10,873 | 38,478 | 25,693 | 7,031 | 20,336 | 5,026 | 115,888 | | |
| State | 33,635 | 383,034 | 945,012 | 372,272 | 139,600 | 271,772 | 55,300 | 2,437,726 | | |

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TABLE 4.3

Structure of personal income within each region in 1977 (percentages)

| | Agriculture Forestry Fishing | Non-Agricultural Remuneration | | | Interest Dividends Rent | Transfers | |
|--------------------|------------------------------|-------------------------------|-------|-----------------|-------------------------|------------|---------|
| | | Manufacture & Mining | Other | Self-Employment | | Government | Foreign |
| | | | | | | | |
| East | 4.1 | 17.0 | 50.0 | 5.6 | 11.5 | 10.6 | 1.2 |
| South-West | 23.6 | 16.2 | 33.3 | 5.1 | 6.4 | 13.2 | 2.3 |
| Mid-West | 24.3 | 14.7 | 34.9 | 4.8 | 6.3 | 12.8 | 2.3 |
| South-East | 29.0 | 17.4 | 29.0 | 4.8 | 6.2 | 12.0 | 1.6 |
| North-East | 22.9 | 20.9 | 29.0 | 5.3 | 5.8 | 14.0 | 2.1 |
| West | 22.1 | 11.4 | 34.7 | 4.5 | 5.0 | 18.6 | 3.7 |
| Midlands | 26.7 | 11.9 | 33.3 | 4.5 | 5.3 | 15.9 | 2.4 |
| North-West/Donegal | 21.4 | 11.0 | 32.7 | 5.1 | 5.5 | 20.7 | 3.7 |
| State | 15.9 | 15.9 | 39.9 | 5.2 | 8.3 | 12.9 | 1.9 |

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TABLE 4.4

Structure of personal income within each region in 1973 (percentages)

| | Agriculture Forestry Fishing | Non-Agricultural Remuneration | | | Interest Dividends Rent | Transfers | |
|--------------------|------------------------------------|-------------------------------|-------|---------------------|-------------------------------|------------|---------|
| | | Manufacture & Mining | Other | Self- Employment | | Government | Foreign |
| East | 4.6 | 18.8 | 46.7 | 5.9 | 13.7 | 9.3 | 1.3 |
| South-West | 23.0 | 15.0 | 34.5 | 6.0 | 7.4 | 11.4 | 2.7 |
| Mid-West | 25.5 | 14.9 | 33.7 | 5.2 | 7.1 | 10.8 | 2.8 |
| South-East | 29.6 | 14.5 | 30.8 | 5.6 | 7.2 | 10.4 | 1.9 |
| North-East | 22.3 | 20.1 | 30.5 | 6.2 | 6.5 | 11.8 | 2.6 |
| West | 26.9 | 7.9 | 32.4 | 5.2 | 6.0 | 16.7 | 4.8 |
| Midlands | 29.0 | 9.6 | 34.3 | 5.1 | 6.0 | 13.1 | 2.9 |
| North-West/Donegal | 23.3 | 9.4 | 33.2 | 6.1 | 6.2 | 17.6 | 4.3 |
| State | 16.7 | 15.7 | 38.8 | 5.7 | 9.7 | 11.1 | 2.3 |

great deal more than the amount of income distributed in government transfers. The combined incomes of agriculture and manufacture fall considerably short of the share accounted for by employee remuneration in other sectors viz., 32% versus 40%. The importance of these other sectors in regional policy was one of the main points in a recent study by Ross and Walsh.* An examination of Table 4.3 shows that in some less prosperous regions income from this source is greater than or equal to the combined share of farming and factory employment. In the East region half of total income derives from this source whereas just over a fifth can be attributed to the combined share of agriculture and manufacturing. In only a few regions does the share contributed by remuneration of other employees fall short of a third of total income. Given its importance this source of income and employment merits more attention from policy-makers than it has historically received. Specialised agencies, such as the IDA, Gaeltarra Éireann and SFADCo, promote domestic industry. No major agency, for example, is directly concerned with employment in distribution.

Another striking aspect of these tables is the role played by transfers in certain areas. In the West, North-West and Donegal they rival the share contributed by agriculture and account for twice as much income as manufacturing and mining. In other regions they are considerably more than half the size of remuneration in manufacturing and mining. Nationally at 13% these transfers are equal to more than 80% of industrial and mining payrolls and are increasing their share of total income more rapidly. The role of transfers in regional policy also warrants more study than it has obtained heretofore.

4.3 Changes in real income

Table 4.5 sets out the changes in total regional income in real terms between 1973 and 1977. The largest national changes occurred in transfers from the public authorities. The general agreement in the size of the regional increases in this category will, of course, partly reflect the method of calculation (see Section 5.6).

In all regions, apart from the East, real increases were larger in the manufacturing sector than in the sector comprising farming, fishing and forestry. In several regions the size of the increase in manufacturing payrolls was very high especially in the less prosperous regions. To

*Op. cit.

TABLE 4.5

Changes in real income 1973-7 (percentages)

| | Agriculture Forestry Fishing | Remuneration of Employees | | Self- employment | Interest Dividends Rent | Transfers | | Total |
|--------------------|------------------------------------|------------------------------|-------|---------------------|-------------------------------|------------|---------|-------|
| | | Manufacture & Mining | Other | | | Government | Foreign | |
| | | | | | | | | |
| East | +3.5 | +1.9 | +20.2 | +6.4 | -5.3 | +28.7 | -0.5 | +12.3 |
| South-West | +15.3 | +20.3 | +7.9 | -4.5 | -3.6 | +29.0 | -6.9 | +11.9 |
| Mid-West | +4.6 | +7.9 | +13.5 | +0.2 | -3.7 | +29.2 | -9.4 | +9.5 |
| South-East | +9.4 | +33.8 | +5.3 | -4.4 | -3.4 | +29.3 | -4.8 | +11.8 |
| North-East | +12.4 | +13.7 | +4.4 | -6.6 | -3.2 | +29.5 | -9.8 | +9.5 |
| West | -4.9 | +66.6 | +4.0 | -6.1 | -4.9 | +29.4 | -9.7 | +7.1 |
| Midlands | -1.4 | +33.3 | +4.0 | -6.1 | -4.9 | +29.4 | -9.7 | +7.1 |
| North-West/Donegal | +0.8 | +28.7 | +8.1 | -8.3 | -1.2 | +29.6 | -7.5 | +9.9 |
| State | +5.1 | +13.2 | +15.0 | +0.5 | -4.6 | +29.1 | -6.4 | +11.6 |

some extent high percentages are a consequence of the small size of the industrial sector in these regions in 1973. The size of the increase, however, indicates that real progress was made in the programme of industrialisation. This can be gleaned from their increased contribution to total income shown in the previous table.

The low or negative growth of agricultural incomes in the less prosperous regions may come as a surprise in view of the continued public debate on farmer prosperity. In the regions in question the Common Agricultural Policy of the European Community has had less impact than in more prosperous regions where dairy farming is pursued with greater intensity. Some typical products of the West are not covered by the Common Agricultural Policy such as sheep, potatoes and oats. While these circumstances may account for some of the relatively slow growth or decline, more immediate causes are likely to be the rundown of inventories in these areas, as reported by An Foras Talúntais and the fact that the interval being considered relates incomes in 1973 with those in 1977. In 1973 farmer incomes were high in general from causes not all linked to EEC accession but rather to favourable international markets for cattle. EEC membership, however, enabled the high point of 1973 to be consolidated. Current debate over the Common Agricultural Policy would suggest that in the future farmers will not experience a similar growth in these favourable conditions. Productivity would have to increase greatly if farm incomes are not to decline relative to other sources and therefore cannot be looked to, to make a special contribution to narrowing the per capita income gap between more industrialised and less industrialised regions in the future. The experience of the last decade reveals the maximum potential of agriculture in this regard under unusually favourable circumstances.

Real income growth in the remuneration of employees outside both agriculture and manufacture was one of the fastest growing components of total income with much of the increases in the East, Mid-West and West. This category includes professional workers and public service employees and comprises 47% of all jobs. If the East region is excluded real income growth in this sector amounts to 9.5%. If a policy of decentralisation had limited income growth to this 9.5% level in the East region £98 million would have been available to promote regional income convergence elsewhere. Real income growth

in the East region would be reduced from 12.9 to 7.9% and income growth in the rest of the State increased to 14.3% from 10.6% if the income diverted from the East region was used to ensure equal growth rates in the remuneration of "other employees" in all other regions.

The consequences would vary by region depending on whether or not the region in question had experienced a substantial growth in the remuneration of "other employees" between 1973 and 1977. For example, the West region would not have benefited from such an arrangement, given the high level of the increase in public employment in that region. The overall change between 1973 and 1977 can be summarised as follows on the basis of per capita incomes:

TABLE 4.6

Overall change by region between 1973 and 1977 on the basis of per capita incomes

| | Change due to hypothetical redistribution of gains in other employee remuneration £ | Change in per capita income from all sources | | Level of per capita income in 1977 | |
|------------------------|--|--|-------------------|------------------------------------|-------------------|
| | | Actual £ | Hypothesised £ | Actual £ | Hypothesised £ |
| East | -81 | +59 | - 22 | 1,821 | 1,740 |
| South-West | +62 | +94 | +156 | 1,581 | 1,643 |
| South-East | +63 | +83 | +146 | 1,504 | 1,567 |
| Mid-West | +33 | +54 | + 87 | 1,496 | 1,529 |
| North-East | +65 | +65 | +130 | 1,436 | 1,501 |
| West | -12 | +134 | +122 | 1,358 | 1,346 |
| Midlands | +66 | +35 | +101 | 1,242 | 1,308 |
| North-West/ Donegal | +46 | +60 | +106 | 1,208 | 1,254 |
| State | 0 | +75 | + 75 | 1 578 | 1,578 |

On the basis of per capita incomes there would have been a fall in real income in the East Region caused by the rapid growth of population. On the basis of total real income, however, a substantial rise would have occurred, as we have seen. The redistribution would

have reduced regional disparities considerably, as the figures show, so that the weighted coefficient of variation would have fallen dramatically to 0.105 (compared with .134 actually recorded). Such a narrowing would have been of greater magnitude than the improvement between 1969 and 1973 and illustrates clearly the potential of "other employee remuneration" as an instrument of regional policy. The case given here permitted employee remuneration in the East Region to rise by the actual increase experienced by all other regions combined between 1973 and 1977. If this latter increase was justified a reversal of the positions of the East and other regions would have been equally justified. In 1977 the East region contained almost 37% of the national population but obtained over 53% of the total national payroll in "other employment". The proposal contained in this hypothetical illustration would reduce the region's share of the national total to below 49%. This would still leave it considerably above what its share of population would have led one to expect.

The illustration above also shows the impact on the regions benefiting from the change. The increases would have been very significant even when set against the total increase in per capita incomes from all sources as actually realised. This calculation points to the importance of employment redistribution in this sector as a means of equating regional incomes. Since the sector's share of total income is about one third in most regions the section appears to offer, *a priori*, greater opportunities than the traditional policies aimed at manufacturing and farming.

4.4 Population change

The nineteen-seventies have been a period of major changes in Irish demographic behaviour with the most striking phenomenon being that of immigration. It is unfortunate that in these times of flux the 1976 Census of Population was abandoned and that the 1979 Census contains no economic data.

In place of this traditional source of information we have the biennial Labour Force Surveys taken in 1975 and 1977 and again in 1979. This form of sample survey is a novel feature of contemporary Irish statistics and is still in the process of development. There has been official recognition of some teething problems in the first survey which led to underestimation of populations in the North-West and Donegal in

1975. The 1977 Survey results also appear to have been underestimated due to some difficulties with grossing-up factors.

Table 4.7 summarises the main sources of published material on population in the decade 1969 to 1979 together with some interpolation between these official estimates. Some comments on these figures are in order. The 1969 figures are based on an interpolation of the population between the 1966 and 1971 full Censuses of Population. In a previous estimate of 1969 income, preliminary figures had been used and these needed updating in the light of the final figures. As a consequence of these changes, the per capita incomes published for 1969 needed updating and this has been done in this publication. No updating of employment based on interpolation has been attempted for 1969 though this is now feasible. Total incomes per region, therefore, remain unchanged.

1971 gives the de facto population in each region as enumerated in the full Census of that year. The only other similar figure in the table is for 1979 but in the latter case only preliminary figures are published so far. Between these two Censuses interpolated figures are presented for 1973, 1975 and 1977. For each of these years alternative estimates are also given. The 1973 figure is a reproduction of the estimates published in NESC Report No. 30 which now appear to be on the low side. The alternatives for 1975 and 1977 are based on the Labour Force Surveys of those years and again appear to be underestimates. The 1979 preliminary figures give the natural increase by region in the interval between the Censuses together with the estimates of regional net immigration implied by these figures. The uncertainty about the figures for intervening years make the calculation of the timing of immigration flows extremely hazardous as will be clear if, for example, the increases each two years in the South-West region are related to the region's natural increase or even considered in isolation.

As mentioned in the introduction the interpolated figures for 1977 were the ones actually used in this study. The discrepancies between these and the Labour Force Survey estimates have been used to "correct" the employment data actually published for 1977. The rationale for this procedure is based on the hypothesis that the grossing up bias will be the same for both sets of data.

TABLE 4.7
Some estimates of population in the 'seventies (000's)

| Date Population surveyed | 1971 De facto | 1973 De facto | 1973 De facto | 1973 De facto | 1975 Usually resident | 1975 De facto | 1977 Usually resident | 1977 De facto | 1979 De facto |
|---------------------------------|---------------------------------|-------------------------------|---------------------------|---------------------------|--------------------------------|---------------------------|--------------------------------|---------------------------|---------------------------------|
| Method source of calculation | Census of Population 1971 | Estimate (NESC, No. 30) | Interpolated by Author | Interpolated by Author | Labour Force Survey 1975 | Interpolated by Author | Labour Force Survey 1977 | Interpolated by Author | Census of Population 1979 |
| East | 1,062.1 | 1,106.3 | 1,110.1 | 1,134.4 | 1,158.0 | 1,178.1 | 1,206.0 | 1,254.0 | |
| South-West | 465.7 | 475.9 | 478.2 | 492.8 | 490.8 | 495.2 | 503.4 | 516.0 | |
| Mid-West | 269.8 | 275.4 | 277.5 | 283.4 | 285.2 | 294.0 | 292.9 | 300.6 | |
| South-East | 328.6 | 335.5 | 338.1 | 345.9 | 347.5 | 353.9 | 357.0 | 366.5 | |
| North-East | 174.0 | 177.5 | 178.0 | 175.9 | 182.1 | 180.9 | 186.2 | 190.2 | |
| West | 258.7 | 259.4 | 264.4 | 256.4 | 270.1 | 262.5 | 275.8 | 281.5 | |
| Midlands | 232.4 | 233.6 | 237.3 | 233.3 | 242.2 | 236.3 | 247.0 | 251.9 | |
| North-West/ Donegal | 187.0 | 187.4 | 191.2 | 180.4 | 195.5 | 188.1 | 199.8 | 204.0 | |
| State | 2,978.2 | 3,051.0 | 3,074.9 | 3,102.5 | 3,171.6 | 3,189.0 | 3,268.2* | 3,364.9 | |

*After these calculations were made the C.S.O. published in December 1979 a revised figure of 3,269,000 for total population of the State.

4.5 Per capita incomes

The population estimates based on interpolations, as given in table 4.7 enable us to calculate per capita incomes by region for 1969, 1973 and 1977. These differ somewhat from previously published estimates to the extent that the regional population estimates have been changed. The figures are given in Table 4.8. This table also provides the 1969 and 1973 per capita incomes at constant 1977 prices.

Table 4.9 summarises the changes in real per capita incomes and associates these changes with changes in regional populations. Between 1973 and 1977 all regions were growing at at least 1 % per annum (simple average). This quickening in population growth can be compared with the slower growth in all regions in the previous four years. As mentioned in the introduction the substantial growth in per capita income has been associated with a further narrowing of regional differentials. This is a very creditable performance since populations were also growing at the same time.

4.6 A note on the interpretation

NESC Report No. 30 pointed to a number of issues that arise when making interregional comparisons. In part these related to the differing degrees of commercialisation of activities in different regions. The report also noted that the 1969 estimates were less firmly based than those of 1965 and 1973. These, and other reservations also hold in the current study and the interested reader is referred to that report for further details.

TABLE 4.8
Per capita incomes by region 1969, 1973 and 1977 (£)

| | Current Prices | | | Constant 1977 Prices | | |
|--------------------|----------------|------|-------|----------------------|-------|-------|
| | 1977 | 1973 | 1973* | 1977 | 1973 | 1969 |
| East | 1,821 | 929 | 932 | 1,821 | 1,762 | 1,432 |
| South-West | 1,581 | 785 | 786 | 1,581 | 1,487 | 1,126 |
| South-East | 1,504 | 749 | 753 | 1,504 | 1,420 | 1,051 |
| Mid-West | 1,496 | 761 | 763 | 1,496 | 1,442 | 1,081 |
| North-East | 1,436 | 723 | 725 | 1,436 | 1,372 | 1,049 |
| West | 1,358 | 646 | 655 | 1,358 | 1,224 | 879 |
| Midlands | 1,242 | 637 | 661 | 1,242 | 1,207 | 900 |
| North-West/Donegal | 1,209 | 606 | 619 | 1,209 | 1,149 | 853 |
| State | 1,578 | 793 | 799 | 1,578 | 1,503 | 1,159 |

*Figures in this column relate to the estimates published in NESC Report No. 30. In the current study these have been revised and appear in the previous column. The revision relates both to the total regional income and to the estimates of regional population. The 1969 estimates have also been revised marginally mainly to correct for population change, see text

TABLE 4.9

Increases in per capita income 1969-1977 and underlying population increases

| | Increases in Real Income (£) | | | | Increases In Real Income % | | | Estimated Increases in Population | | | | |
|--------------------|------------------------------|---------|---------|---------|----------------------------|---------|---------|-----------------------------------|---------|---------|---------|---------|
| | 1973-77 | | 1969-73 | | 1973-77 | | 1969-73 | | 1973-77 | | 1969-73 | |
| | 1973-77 | 1969-73 | 1973-77 | 1969-73 | 1973-77 | 1969-73 | 1973-77 | 1969-73 | 1973-77 | 1969-73 | 1973-77 | 1969-73 |
| East | +59 | +330 | +388 | +388 | 3 | 23 | 27 | 27 | 9 | 7 | 17 | 17 |
| South-West | +94 | +362 | +455 | +455 | 6 | 32 | 41 | 41 | 5 | 4 | 9 | 9 |
| Mid-West | +54 | +361 | +415 | +415 | 4 | 33 | 38 | 38 | 6 | 4 | 9 | 9 |
| South-East | +83 | +371 | +455 | +455 | 6 | 35 | 43 | 43 | 6 | 4 | 10 | 10 |
| North-East | +65 | +321 | +386 | +386 | 5 | 31 | 37 | 37 | 5 | 4 | 8 | 8 |
| West | +134 | +345 | +480 | +480 | 11 | 39 | 55 | 55 | 4 | 1 | 6 | 6 |
| Midlands | +35 | +308 | +343 | +343 | 3 | 34 | 38 | 38 | 4 | 2 | 6 | 6 |
| North-West/Donegal | +60 | +296 | +356 | +356 | 5 | 35 | 42 | 42 | 4 | 2 | 6 | 6 |
| State | +75 | +344 | +419 | +419 | 5 | 30 | 36 | 36 | 6 | 5 | 11 | 11 |

CHAPTER 5

THE CONSTITUENT ELEMENTS OF PERSONAL INCOME

5.1 Agriculture

This chapter delves below the aggregates to determine how movements in the various constituent elements of regional income have affected the total. The figures for agriculture were less influenced by the dearth of data than were the income of other sectors. The calculations were not without their problems, the major one being the absence of a regional breakdown of changes in tillage after 1975 when the estimates were being made. This was regrettable since national changes in tillage patterns were considerable and may not have occurred evenly throughout the State on the basis of the patterns of earlier years.

Agricultural income contains three elements, wages, rent and profits. These are derived jointly by summing gross output from livestock (Table 5.1) and from crops and turf (Table 5.2) and by deducting from their combined total the cost of seed, feed and fertilisers and other expenses (Table 5.3). Income from forestry and fishing is given in Table 5.4 alongside the components of income arising in agriculture. Family Farm Income* is combined with profits from fishing in Table 4.1 whereas wages of farm workers are joined to those of forestry workers in the same table. It should be noted that all income from fishing is described as "profits" which in national accounts parlance means income from self-employment.

Since there is considerable interest in the county aspects of agricultural income and adequate data are available at county level, the agricultural accounts are given by county in Appendix B. (In making

*More accurately "Income from self-employment and other trading income in agriculture". This is slightly different from "family farm income", see also Table 5.4.

TABLE 5.1

Livestock output including inventory change 1977 (£000's)

| | Cattle | Milk | Pigs | Poultry | Sheep | Horses | Total* |
|--------------------|---------|---------|---------|---------|--------|--------|-----------|
| East | 51,899 | 24,585 | 7,824 | 6,448 | 5,597 | 3,899 | 100,324 |
| South-West | 89,069 | 141,479 | 27,601 | 5,455 | 3,379 | 1,653 | 268,732 |
| South-East | 87,220 | 79,237 | 25,283 | 6,111 | 6,426 | 2,517 | 206,972 |
| Mid-West | 68,925 | 77,742 | 6,777 | 6,736 | 1,277 | 1,501 | 163,028 |
| North-East | 36,241 | 37,814 | 18,012 | 14,647 | 859 | 298 | 108,015 |
| West | 62,508 | 18,167 | 5,294 | 3,674 | 10,276 | 1,035 | 101,045 |
| Midlands | 76,021 | 23,191 | 10,894 | 4,247 | 4,249 | 973 | 119,651 |
| North-West/Donegal | 35,482 | 15,165 | 7,118 | 2,637 | 3,490 | 231 | 64,161 |
| State | 507,366 | 417,381 | 108,802 | 49,956 | 35,553 | 12,107 | 1,131,929 |

*includes other i.e., feathers and honey, see Appendix A for details by county.

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TABLE 5.2

Output of crops and turf 1977 (£000's)

| | Cereals | Sugar Beet | Potatoes | Horticulture | Other | Total | Turf |
|--------------------|---------|------------|----------|--------------|--------|---------|--------|
| East | 28,612 | 2,398 | 6,302 | 15,653 | 797 | 53,763 | 167 |
| South-West | 24,482 | 8,382 | 3,634 | 4,886 | 1,884 | 43,267 | 1,682 |
| South-East | 37,909 | 13,488 | 2,713 | 5,360 | 1,293 | 60,763 | 29 |
| Mid-West | 3,683 | 1,009 | 1,800 | 1,856 | 1,287 | 9,635 | 1,128 |
| North-East | 5,970 | 30 | 2,272 | 2,782 | 1,527 | 12,581 | 96 |
| West | 3,127 | 1,016 | 3,390 | 1,202 | 2,030 | 10,765 | 4,064 |
| Midlands | 11,540 | 3,173 | 2,083 | 1,587 | 1,360 | 19,744 | 2,083 |
| North-West/Donegal | 4,308 | 4 | 4,798 | 812 | 1,459 | 11,381 | 2,054 |
| State | 119,631 | 29,500 | 26,992 | 34,139 | 11,637 | 221,899 | 11,303 |

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TABLE 5.3

Gross output and income arising in agriculture in 1977
(£000's)

| | Gross Output | Farm Materials | | | Other Expenses | Net Output | Subsidies | | Income Arising |
|--------------------|--------------|----------------|------------|--------|----------------|------------|-----------|--------|----------------|
| | | Feed | Fertiliser | Seed | | | Land Acts | Other | |
| East | 154,254 | 20,453 | 15,000 | 3,860 | 30,072 | 84,868 | 157 | 623 | 85,648 |
| South-West | 313,681 | 52,971 | 23,934 | 3,107 | 53,780 | 179,890 | 141 | 3,071 | 183,102 |
| South-East | 267,764 | 44,983 | 21,559 | 4,363 | 47,230 | 149,630 | 157 | 654 | 150,440 |
| Mid-West | 173,791 | 27,315 | 9,491 | 692 | 33,190 | 103,103 | 130 | 2,350 | 105,583 |
| North-East | 120,692 | 31,825 | 6,105 | 903 | 22,348 | 59,511 | 71 | 810 | 60,392 |
| West | 115,874 | 15,043 | 8,083 | 773 | 18,625 | 73,349 | 118 | 6,170 | 79,637 |
| Midlands | 141,478 | 21,301 | 10,569 | 1,418 | 29,207 | 78,984 | 158 | 2,017 | 81,159 |
| North-West/Donegal | 77,597 | 11,911 | 5,594 | 817 | 17,547 | 41,727 | 68 | 4,955 | 46,750 |
| State | 1,365,131 | 225,802 | 100,335 | 15,932 | 252,000 | 771,062 | 1,000 | 20,650 | 792,712 |

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TABLE 5.4

Income from farming, forestry and fishing 1977
(£000's)

| | Components of Income Arising | | | Wages in Forestry | "Profits" in Fishing |
|--------------------|------------------------------|--------|---------------------|-------------------|----------------------|
| | Land Annuities | Wages | Family* Farm Income | | |
| East | 354 | 12,948 | 72,347 | 1,233 | 2,458 |
| South-West | 318 | 7,680 | 175,103 | 1,569 | 3,768 |
| South-East | 352 | 11,952 | 138,136 | 2,079 | 3,392 |
| Mid-West | 293 | 5,201 | 100,090 | 869 | 541 |
| North-East | 161 | 2,285 | 57,947 | 217 | 888 |
| West | 264 | 1,047 | 78,326 | 1,208 | 2,216 |
| Midlands | 355 | 4,589 | 76,215 | 877 | 239 |
| North-West/Donegal | 153 | 1,298 | 45,299 | 1,203 | 3,832 |
| State | 2,250 | 47,000 | 743,462 | 9,256 | 17,334 |

*See footnote paragraph 5.1.

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comparisons with 1973 it is well to note a few misprints in the 1973 figures. In Table 5.8 "total" should read "total crops" i.e., excluding turf. In Table 5.7 sheep output should read Louth, 431, Waterford, 449 and Leitrim 249.6. Other crops output for Cavan in Table 5.8 should read 296.)

Any commentary on the regional figures for agriculture needs to consider the overall changes in the volume and unit value of farm products between 1973 and 1977 first. After this the differing regional patterns of production can be studied as they respond to these stimuli. In general the overall changes in the contribution of different enterprises can be set out as follows at the national level.

TABLE 5.5

Composition of gross output 1973 and 1977

| | 1973 | 1977 |
|--------------|------|------|
| | % | % |
| Cattle | 41.6 | 37.2 |
| Milk | 24.0 | 30.6 |
| Pigs | 10.0 | 8.0 |
| Cereals | 6.3 | 8.8 |
| Poultry | 4.9 | 3.7 |
| Sheep | 4.7 | 2.6 |
| Horticulture | 2.2 | 2.5 |
| Potatoes | 2.2 | 2.5 |
| Sugar Beet | 1.8 | 2.2 |
| Turf | 0.9 | 0.8 |
| Other Crops | 0.8 | 0.8 |
| Horses | 0.8 | 0.9 |

The major change has been the increasing importance of milk production. Other sectors with increasing shares did not have such large shares of the total. These were Barley (from 4.4% to 7.0%), Horticulture and Sugar Beet. The largest decline was in the share contributed by cattle. However, on a percentage basis the fall in sheep and oats was four times greater so that their small initial shares of the total virtually halved. The decline in the shares of pigs and poultry occupied an intermediate position.

Changes in the relative shares of the individual farm enterprises can occur through a shift in production or through a shift in relative prices or both. At the national level these shifts can be summarised as follows:

TABLE 5.6

Changes in the volume and unit prices of the individual farm enterprises

| | Change in Quantity | Change in Unit Price (real)* | Change in Real* value of output |
|----------------------------------|--------------------|------------------------------|---------------------------------|
| | % | % | % |
| Cattle | + 8 | - 5 | + 3 |
| Milk | +22 | +22 | +49 |
| Barley | +65 | +10 | +82 |
| Wheat | +31 | -13 | +15 |
| Sugar Beet | 0 | +41 | +42 |
| Pigs | - 7 | - 1 | - 8 |
| Sheep and wool | -22 | -19 | -37 |
| Poultry | + 2 | -10 | - 8 |
| Eggs | + 8 | -25 | -19 |
| Horses | -29 | +82 | +30 |
| Potatoes | - 7 | +12 | + 5 |
| Oats | -26 | + 8 | -20 |
| Fruit | n.a. | n.a. | +49 |
| Other Crops | n.a. | n.a. | +27 |
| Livestock and livestock products | + 9 | + 2 | +11 |
| Crops and turf | +27 | - 4 | +22 |
| Gross output | +12 | + 1 | +13 |

*i.e., Nominal change deflated by the rise in the consumer price index.

From these two sets of figures it becomes apparent how the change in quantities and relative prices have been compounded to produce the shifting contribution of different commodities to total agricultural income. It is immediately apparent that, contrary to *a priori* expectations, there has been no universal rise in unit prices of farm prices which was greater than the general rise in the cost of living. Cattle are the major source of income and had a 5% price fall in real terms over the four years. This was cancelled by an 8% increase in the volume of output to leave a small net increase in the real value of total output. Creamery milk was a different matter: a substantial rise in the unit price in real terms led to very considerable expansion of output. This enhanced milk's total contribution to output relative to cattle. For barley the rise in the real value of output was largely due to increased

volume. Sugar beet, on the other hand, experienced the reverse phenomenon; no volume increase in spite of the stimulation of a considerable price rise. Output figures for crops, however, must be treated with caution since the weather introduces an unpredictable element into the expectations of yields. Output can increase even if acreages are down. For some crops also, the areas sown are subject to quota limitations.

On the negative side of the balance sheet, falling relative prices have reduced in their wake the volume of lamb and wool production. Similar factors have operated for poultry and for eggs. On the other hand, the continued decline in the output of oats was not arrested by a rise in its relative price. This would seem to illustrate the general appeal of barley as the most productive crop per acre.

5.2 The regional impact of relative prices

The structure of individual regions differ considerably from the state norm. This fact can be ascertained from Table 5.7. The East region relies less on cattle, milk and pigs but has a major concentration of cereals, potatoes and horticulture. The South-West and Mid-West obtained 45% of their total income from milk in 1977—a share 50% higher than milk's contribution nationally. The South-West also favoured pigs, barley and sugar beet whereas the Mid-West favoured cattle. The South-East derived more income from cereals, pigs and sugar beet whereas the North-East has a high contribution from pigs and poultry. Both had average levels of milk contributions. The remaining regions, West, Midlands, North-West and Donegal were heavily dependent on cattle with milk's contribution in these areas less than two-thirds of its national level. All three regions, but especially the West, had above average reliance on sheep.

The 1977 structure of income was the outcome of the changes since 1973. In this evolution the four regions which favoured milk (SW, SE, MW, NE) had above average swings away from cattle. The Midland and West regions continued to rely heavily on cattle. Indeed in the West region the reduction in output from sheep was reflected in an increase in the share of income coming from cattle. This region was the only one to record such a rise. In general it can be shown that regions tended to retain the interest in their own speciality during the period of change, e.g., cattle in the Midlands, sheep in the West, pigs in the

TABLE 5.7
Percentage composition of gross output in agriculture 1977 in individual regions

| | Cattle | Milk | Pigs | Poultry | Sheep | Horses | Cereals | Sugar Beet | Pota- toes | Horti- culture | Other crops | Turf |
|--------------------|--------|------|------|---------|-------|--------|---------|------------|---------------|-------------------|----------------|------|
| East | 33.6 | 15.9 | 5.1 | 4.2 | 3.6 | 2.6 | 18.5 | 1.6 | 4.1 | 10.1 | 0.5 | 0.1 |
| South-West | 28.4 | 45.1 | 8.8 | 1.7 | 1.1 | 0.6 | 7.8 | 2.7 | 1.2 | 1.6 | 0.6 | 0.5 |
| South-East | 32.6 | 29.6 | 9.4 | 2.3 | 2.4 | 1.0 | 14.2 | 5.0 | 1.0 | 2.0 | 0.5 | — |
| Mid-West | 39.7 | 44.7 | 3.9 | 3.9 | 0.7 | 0.9 | 2.1 | 0.6 | 1.0 | 1.1 | 0.7 | 0.6 |
| North-East | 30.0 | 31.3 | 14.9 | 12.1 | 0.7 | 0.4 | 4.9 | — | 1.9 | 2.3 | 1.3 | 0.1 |
| West | 53.9 | 15.7 | 4.6 | 3.2 | 8.9 | 1.0 | 2.7 | 0.9 | 2.9 | 1.0 | 1.8 | 3.5 |
| Midlands | 53.7 | 16.4 | 7.7 | 3.0 | 3.0 | 0.7 | 8.2 | 2.2 | 1.5 | 1.1 | 1.0 | 1.5 |
| North-West-Donegal | 45.7 | 19.5 | 9.2 | 3.4 | 4.5 | 0.3 | 5.6 | — | 6.2 | 1.0 | 1.9 | 2.6 |
| State | 37.2 | 30.6 | 8.0 | 3.7 | 2.6 | 0.9 | 8.8 | 2.2 | 2.0 | 2.5 | 0.9 | 0.8 |

North-East, cereals in the East and South-East, all increased faster or declined slower than their share did in other less specialised regions. The exception to this observation was the more rapid rise in the share due to milk in the West, North-West and North-East but this phenomenon was due to the small contribution of milk to general farm income in these regions in 1973. For example, the share contributed by milk in the South-West between 1973 and 1977 rose from 36.3% to 45.1%—a rise of 8.8 percentage points or 24%. In the West milk's share rose from 11.1% to 15.7%: a rise of 4.6 percentage points but of 41% from the 1973 base.

This rather brief analysis of agricultural trends help us to appreciate how real incomes in farming in the West and Midlands could have been less in 1977 than in 1973 when Ireland acceded to the EEC. It also throws light on another aspect of the first column of Table 4.5 such as the striking increases in the South-West.

In summary it appears that in spite of the widespread publicity about farming prosperity since accession to the EEC unit price of many farm products did not keep up with inflation. The main benefit was due to the higher output of milk in response to high prices. In recent times the prospect for a bonanza for farmers in the future is discounted by most experts. In a situation of continuing inflation farmers' relative incomes are likely to lag ever further behind unless the slow rise in prices is compensated for by increased output. Apart from milk the required level of such productivity increases has not been forthcoming in the past. Should this tendency also extend into the future the poor performance that will then characterise farming will tend to negative the advance made in the more rural regions towards a more even distribution of income geographically.

Before leaving this section on agriculture it must be stated that in the absence of regional tillage figures later than 1975, it was necessary to assume that the 1975 patterns held in 1977 even though the interval saw considerable changes in tillage. If the 1977 pattern for each crop has deviated from the 1975 standard the estimates of regional income from crops will be biased.

5.3 Employee remuneration in industry

As explained in the introduction, data are not available from either a recent Census of Population or from an up-to-date Census of Industrial

Production to undertake an estimation of employee remuneration using the previous methodology. In this situation great reliance was placed on the 1977 Labour Force Survey. This alternative had its own limitations.

1. The survey was based on a sample so that a fine breakdown by industry and county was ruled out. Instead the work had to proceed with aggregated data for a few industrial sectors and on a regional basis. Because of this aggregated base it was not possible to convert Census employment records into the categories used in National Accounts. For example, employment with Bord Iascaigh Mhara is treated in the National Accounts as employment in a semi-state body in the "Other Domestic" sector. In the Census of Population such employment is recorded under "fishing". Since Census material could not be reclassified into National Accounts categories the national accounts categories for both 1973 and 1977 were redrawn to correspond with the available Census material. The details published here refer, therefore, to Census groupings.
2. It now appears likely that even this level of aggregation is subject to two difficulties: (a) the problem, common to all samples, of the sample error, i.e., when is a change really a change and when is it due to the characteristics of the population sampled? It was assumed that the estimates were correct and the potential deviations around these central estimates ignored except in the discussion of the Mid-West region below. (b) The second problem relates to the need to "correct" the estimates in the 1977 Labour Force Survey in the light of the recent 1979 Census of Population. Official revisions are not yet available. In this study employment figures were adjusted by the same factors used to adjust the total population. This procedure was carried out after the regional incomes had been estimated on the published employment estimates of the 1977 Labour Force Survey. The revised method led to a considerable change in regional incomes since the 1979 Census did not show a uniform discrepancy over all regions. Instead, the Mid West region appears to have been overestimated where as the North, North-East, West and North-West were

considerably underestimated. The total impact of the revision was to improve incomes in the less prosperous regions (apart from the Midlands) and to reduce incomes in the East region. Thus the revision improved the measures of convergence estimated for the 1973 to 1977 interval. The revision also shows that the results are fairly sensitive to what appear *a priori* to be relatively minor changes in the figures. In the absence of any basis for better data this sensitivity has to be lived with.

- The absence of detail from the Census of Industrial Production means that no account could be taken of changes in the relative levels of remuneration in counties or regions since 1972 (the last available figures). New enterprises could well have raised average levels of remuneration in some of the lower paid areas. Redundancies may have also raised the average remuneration in the more prosperous areas. No details are available on this aspect of regional income so the relativities established in 1973 are assumed to have continued. All change is, therefore, heavily dependent on employment change.

Since the numbers of self-employed are not known in regional detail this study also assumed that changes in total employment in any sector could be applied to both employees and self-employed since the Census does not distinguish them separately. This assumption will not affect the totals but merely their distribution by employment status categories. Too much should not be made of this difficulty since the breakdown of self-employment income itself at the national level cannot specify how much of the total to attribute to individual sectors. In other words, self-employment income from the retail trade is not distinguishable from that earned by self-employed doctors, etc.

In the light of these considerations Table 5.8 was compiled and forms the core of this section of the estimates. As Table 4.3 shows, employee remuneration and income of the self-employed accounts for 61% of total income nationally. Given this large share of the total it is unfortunate that a greater degree of confidence in the accuracy of the estimates is not obtainable. Better data can only be expected after the processing of the 1981 full Census of Population.

TABLE 5.8

Estimate of regional employment 1977, (000s)

| | Manu- facture and Mining | Other Produc- tion Activities* | Building and Con- struction | Com- merce | Transport | Insurance Banking Finance | Public Adminis- tration and Defence | Pro- fessional | Other | Total |
|---------------------|-----------------------------------|---|--------------------------------------|---------------|-----------|---------------------------------|---|-------------------|-------|-------|
| East | 99.2 | 7.0 | 35.3 | 65.9 | 35.9 | 20.1 | 37.5 | 64.3 | 30.9 | 396.2 |
| South-West | 34.9 | 1.9 | 14.4 | 23.7 | 7.6 | 3.1 | 6.1 | 19.8 | 7.4 | 118.9 |
| South-East | 23.5 | 1.2 | 8.8 | 16.6 | 5.5 | 1.7 | 2.9 | 12.2 | 5.0 | 77.6 |
| Mid-West | 21.2 | 0.9** | 7.0 | 13.7 | 6.4 | 1.9 | 3.2 | 11.5 | 4.1 | 69.8 |
| North-East | 15.6 | 0.5** | 4.5 | 8.9 | 2.3 | 0.7** | 2.2 | 5.8 | 3.1 | 43.4 |
| West | 13.2 | 0.6** | 7.1 | 9.8 | 2.8 | 0.6** | 5.6 | 10.6 | 3.5 | 53.8 |
| Midlands | 13.0 | 1.3 | 5.5 | 10.1 | 3.0 | 1.0 | 3.1 | 7.9 | 2.5 | 47.7 |
| North-West/Donnegal | 11.1 | 0.7** | 4.7 | 7.1 | 2.9 | 0.6** | 2.0 | 6.6 | 2.4 | 38.1 |
| State | 231.7 | 14.1 | 87.4 | 155.9 | 66.5 | 29.8 | 62.6 | 138.7 | 58.9 | 845.5 |

*The sum of these two columns corresponds to the Labour Force Survey total (after revision). The second column comprises electricity, gas and water and it is assumed that the 1971 employment still obtains rather than the reduction of 13.5% implied by the national total for these industries in the Labour Force Survey.

**The CSO does not provide estimates of less than 1,000. The figures quoted in the table were broken down from aggregate figures by the Author.

Source: Author's estimate based on 1977 Labour Force Survey modified in the light of the 1979 Census of Population.

5.4 Employment in the manufacturing and mining sectors

In the case of manufacturing, an alternative source of information is available in the IDA annual surveys of manufacturing employment. The first of these was undertaken in January 1973 and after a brief period of teething troubles these surveys have quickly established themselves as a reliable source of information on regional employment changes in manufacture.* The basis of the IDA survey is not identical with that employed by the CSO. However, the discrepancies between the two reported to be not great and certainly are not a problem when the main focus is on changes over time in manufacturing employment.

A comparison between the IDA Survey and the revised figures based on the Labour Force Survey showed substantial agreement in most regions. The difficulties arise when any attempt is made to interpret the changes since 1971. The figures available are the Census of 1971 itself, a county breakdown of employment in the Census of Industrial Production for 1972 (which excludes self-employed and small firms), the January enumerations of the IDA since 1973 and the 1977 Labour Force Survey (as published). The 1975 Labour Force Survey was examined but left out of the reckoning as a less suitable source of employment material. In this welter of data which related to different base material and was obtained using a variety of methodologies, some decision had to be made as to what weight to give to conflicting trends, where these occurred. Using the Census of Population and the Labour Force Survey produced quite a different picture of changes than that provided from an inspection of the IDA sources. Part of the difficulty could be due to the fact that the CSO material related to the beginning and end of the 1971 to 1977 interval whereas the IDA data only began in 1973. Some of the changes could have occurred in the 1971 to 1973 interval or else reflect the experimental nature of the IDA results in the first year. A great deal of time was spent examining different scenarios for 1973 and 1977 to construct ones which did the minimum violence to all conflicting evidence. Finally, a set of data were selected as the most plausible. The evidence is summarised in Table 5.9.

*There are apparently still problems with County Dublin.

TABLE 5.9

Estimates of employment in manufacturing etc., in 1973 and 1977 compared to census data for 1971

| | Estimates used in this study | | Alternatives Table 15 NESC Report No. 30 | | 1971 Census of Population |
|------------------------|------------------------------|-------|--|-------|---------------------------------|
| | 1977 | 1973 | 1977 | 1973 | |
| East | 96.5 | 107.0 | 99.2 | 106.4 | 106.9 |
| South-West | 36.0 | 33.8 | 34.9 | 33.0 | 33.0 |
| South-East | 25.8 | 21.8 | 23.5 | 21.8 | 21.4 |
| Mid-West | 18.0 | 18.8 | 21.2 | 17.9 | 17.0 |
| North-East | 17.0 | 16.9 | 15.6 | 16.8 | 16.6 |
| West | 13.7 | 9.3 | 13.2 | 8.7 | 8.6 |
| Midlands | 12.2 | 10.3 | 13.0 | 12.6 | 11.9 |
| North-West/ Donegal | 10.5 | 9.2 | 11.1 | 9.1 | 8.7 |
| Total | 229.6 | 227.1 | 231.7 | 226.3 | 224.1 |

Source: As in Table 5.8.

Column 3 has been taken from Table 5.8. The Labour Force Survey 1977 gave the national total for employment in electricity, gas and water as 12.2 thousand. This represented a decline from the 1971 level in the Census of Population of 14.1 thousand. A similar decline was given for mining, quarrying and turf. It has not been possible to confirm that such declines occurred.* In this study the reduced estimate for electricity, gas and water was assumed to be within the sampling error. This assumption permitted the national total and regional pattern of 1971 to be retained. Subtracting these 1971 employment figures from the revised Labour Force Survey's regional figures for 1977 gives the totals presented in column 3 of Table 5.9. Column 1 gives the results of the IDA survey for January 1, 1978. The Mid-West region is considerably lower in the IDA figure even if the

*For example, in "Irish Minerals Policy", NESC forthcoming Convery did not find a decline for mining.

Ferenka closure is allowed for and assumed to have occurred after the Labour Force Survey was taken. The East region is also lower. This was the case also for the Midlands and North-West/Donegal. Other regions were higher, especially the South-East and North-East. In the latter case the effects of the closures and redundancies of the early 'seventies seems to have worked themselves out. There was no firm criterion by which to prefer the IDA estimates except that a detailed analysis of changes seemed to indicate their general plausibility.

The choice of the IDA 1977 figures meant that the 1973 figures used in NESC Report No. 30 were not always satisfactory in the light of employment changes reported by the IDA each year since 1973. Column 4 gives the estimates on which the incomes in the NESC report were based. It was deemed advisable to modify these estimates by reducing employment in the Midlands substantially and increasing it mainly in the South-West, Mid-West and West. In this way the estimates of change between 1973 and 1977 correspond more closely with expectations based on the IDA surveys. It will be noted that for the Mid-West, employment is reckoned to have fallen by 800 rather than risen by three times that amount between 1973 and 1977. In general the Labour Force Survey gives the impression of overestimating change in the Mid-West region. These fresh estimates of employment necessitated a recalculation of employee remuneration in manufacturing which are given in Table 4.2.

5.5 Employment in sectors other than manufacturing and mining
In making these estimates for 1977 the regional pattern of employment in electricity, gas and water was assumed to retain its 1971 distribution. Accordingly the 1977 estimates for these industries display no interregional shifts. This was not the case with other sectors. Table 5.10 summarises the employment changes calculated between 1971 and 1977. (The 1973 incomes had been based, in the absence of evidence to the contrary, on the 1971 pattern reported in the Census of Population).

In the final column the percentages given record the changes in employment in all activities outside agriculture which are assumed to have occurred and which form the basis of the income calculations in this study. They show in general a more even pattern of change than that presented in the previous column. The difference between the two

TABLE 5.10
Employment change (%) between 1971 and 1977 in the main industrial sectors

| | Building and Construction | Commerce | Transport | Public Administration | Professions | Finance Insurance etc. | Other | Total Non Agricultural including Production | |
|--------------------|---------------------------|----------|-----------|-----------------------|-------------|------------------------|-------|---|--------------------------|
| | | | | | | | | From Table 5.8 | With IDA Production Data |
| East | +4 | +4 | +13 | +39 | +36 | +34 | -5 | +9 | +8 |
| South-West | +5 | +4 | -6 | +1 | +28 | +4 | -26 | +4 | +5 |
| South-East | +1 | +7 | +18 | -10 | +13 | +19 | -30 | +4 | +5 |
| Mid-West | -8 | +15 | +33 | -8 | +33 | +24 | -20 | +14 | +9 |
| North-East | +3 | +6 | -7 | +20 | +2 | +0 | +4 | -0 | +3 |
| West | +21 | +5 | -5 | +140 | +18 | -32 | -17 | +23 | +24 |
| Midlands | -3 | +5 | +3 | +1 | +13 | +26 | -25 | +4 | +2 |
| North-West/Donegal | +4 | -5 | +16 | +2 | +27 | -1 | -28 | +9 | +8 |
| State | +3 | +5 | +11 | +28 | +2 | +24 | -14 | +8 | +8 |

columns is due to the penultimate column being based on the revised estimates of employment from the 1977 Labour Force Survey. The final column, however, has substituted the IDA estimates of manufacturing employment for the corresponding figures derived from the modified Labour Force Survey.

The position of the Mid-West in the Labour Force Survey is *a priori* a cause of some concern. The changes shown here for commerce and transport are greatly in excess of the national trend and there is no obvious explanation for this deviation from the national norm. The figures for manufacturing are not given in Table 5.10 but the rise is again high—24%—between 1971 and 1977. This is to be compared with a 3% rise for the State as a whole. The Mid-West region appears unique in the population calculations presented here, being the only region in which the 1977 Labour Force Survey estimates exceed the interpolated figures for the 1971 and 1979 Censuses. This would lead to the suspicion that the regional sample contains an upward bias. However, other sectors in Table 5.10 show declines in employment against a general increase, as in the case of public administration, or else above average rate of fall as in the case of "other" employment. This latter category, incidentally, refers to personal services such as catering, entertainment, hairdressing, clubs as well as private domestic service. It also includes the category "industry not stated".

In interpreting Table 5.10 it is useful to relate it to Table 5.8 where it became apparent that for many of the less developed regions the employment numbers involved are not very large. The 24% rise in the West region assumed in this study represents just over 10,000 additional jobs. The 140% increase in public administration and defence started from a base of 2,300 in 1971. The general upswing in the West can be traced to industrial promotion and public office relocations which have in turn stimulated building and construction but apparently not banking, finance and insurance. Given the sampling errors involved it is important not to be dogmatic about changes involving some hundreds of jobs.

The East region features strongly in the growth of employment in public administration, professions, finance, insurance and banking. The amounts of the total national employment increase in these categories which occurred in this region were 77%, 58% and 88% respectively. The region's share of total national population was less than 37% in

1977. This tendency for concentration and its policy implications has been discussed elsewhere—in Ross and Walsh (1979).

It should be noted that employment changes relates to employees, self employed and other employment so that these sectoral changes are also reflected in the 'profits from self employment' estimates.

5.6 Public expenditure transfers

As has been noted above the present estimates do not include a detailed allocation of the 1977 government transfers. Instead, the pattern of regional distribution of transfers was examined for those years for which county incomes were calculated, i.e., 1960, 1965, 1969 and 1973. On the basis of this examination, and the regional population trends since 1973 it was decided to allocate 1977 government transfers on the basis of the 1973 regional pattern. As can be seen below this procedure is likely to be an accurate representation of the actual 1977 distribution.*

Between 1960 and 1973 the regional distribution of government expenditure shifted in favour of the East region. The shares for the respective years are 30.2% in 1960, 31.6% in 1965, 33.0% in 1969 and 35.2% in 1973. Donegal, when treated as a separate region showed no change, 4.6% in both 1960 and 1973. The only variation in Donegal's share was in 1965 when it rose to 4.7%. All the remaining regions experienced declines, between 1960 and 1973, in their shares of total government transfers. The declines, however, were generally small. For example, the North-East region's shares for the four years, starting in 1960 were 6.0%, 5.8%, 5.5% and 5.6%, the West's shares were 10.8%, 10.8%, 10.8% and 10.5% respectively and the Midland's shares were 8.3%, 8.1%, 7.8% and 7.3%.

Continuation of the 1960-73 trend would imply further slight changes in the 1977 distribution over the 1973 pattern. In particular it would imply a share of 36.5% to 37% in the East region as opposed to the 1973 share of 35.2%. It was decided, however, to continue with the 1973 pattern because of the population developments since 1973. While population concentration in the East region increased between

*A detailed item by item check on the regional allocation of government transfers would delay the estimates by many months and as noted above would not seriously affect the accuracy of the present estimates. The ESRI is currently undertaking a research project on the regional distribution of government transfers.

1973 and 1977 the rate of increases was less than the 1966/73 period. The share of the State's population in the East, in 1966 was 34.3%, an increase of 1.8 percentage points over 7 years. Between 1973 and 1977 the East's share of total population rose to 36.9%, i.e. an increase of 0.8 percentage points in four years. It is reasonable to expect that this factor would slow down the rate of increase in the East's share of government transfers over the 1973/1977 period.

The two main sectors in government transfers are education and social welfare. Between 1969 and 1973 the East's share of social welfare transfers increased from 30.1% to 32.3%. In view of the uneven regional impact of the recession on employment levels the East's share of unemployment transfers is likely to have increased. On the other hand, the East's share of education transfers has declined from 44.8% in 1969 to 44.0% in 1973. In view of these opposing features it was decided to continue with the 1973 pattern.

This choice is strengthened by the fact that the regional income estimates are relatively insensitive to any realistic range of estimates of change in the regional pattern of transfers. The 1977 incomes were also estimated on the basis of continuation of the 1960-1973 trends in regional shares of transfer. Little or no changes occur in the estimates through using this alternative regional distribution in place of the 1973 pattern. The rankings of regions remain unchanged on the alternative distribution and the richest/poorest range changes from 151 (with 100 equal poorest region's income per head) to 152. Changes in the individual regions per capita incomes range from "no change" to 0.6 of a percentage point with the majority of changes being less than half a percentage point.

5.7 Dividends, interest and rents

In the case of income from dividends, interest and rents the 1973 pattern was assumed to hold for each category separately. This source of income is important. However, it would require a major research project to study how these sources of income have changed regionally over time.

APPENDIX A

DIVISION OF INCOME BETWEEN THE RIDINGS OF TIPPERARY IN 1973

TABLE A1

Income structure in broad categories

| | Total | North | South | Total | North | South |
|-------------------------------------|---------|--------|--------|-------|-------|-------|
| | £000 | | | % | | |
| Domestic Remuneration of Employees: | | | | | | |
| —Agriculture and Forestry | 3,018 | 1,121 | 1,897 | 3.2 | 2.6 | 3.6 |
| —Manufacturing and Mining* | 12,936 | 7,162 | 5,775 | 13.6 | 16.8 | 11.1 |
| —Other | 27,108 | 11,723 | 15,385 | 28.6 | 27.4 | 29.5 |
| Income of self employed: | | | | | | |
| —Agriculture and Fisheries | 27,551 | 11,739 | 15,812 | 29.0 | 27.5 | 30.3 |
| —Others | 5,140 | 2,240 | 2,900 | 5.4 | 5.2 | 5.6 |
| Interest Dividends Rent | 6,685 | 2,984 | 3,701 | 7.0 | 7.0 | 7.1 |
| Current Transfers: | | | | | | |
| —Public Authorities | 10,482 | 4,489 | 5,994 | 11.0 | 10.5 | 11.5 |
| —Abroad | 2,014 | 1,294 | 720 | 2.1 | 3.0 | 1.4 |
| Total | 94,935 | 42,751 | 52,184 | 100.0 | 100.0 | 100.0 |
| Population (Interpolated) | 126,090 | 55,365 | 70,725 | | | |
| Per capita Income | 753 | 772 | 738 | | | |

N.B. These figures are based on the revised estimates which differ in some categories from those published in NESC Report No. 30. The per capita incomes are based on new population estimates.

*As published in NESC Report No. 30 manufacturing industry would have been (in thousands) Tipperary £12,654 of which North £6,852 and South £5,803. It is difficult to allocate the revised estimates for the Mid-west and South-east regions within their respective regions with any great degree of accuracy.

TABLE A2

Agricultural output and income in Tipperary in 1973

| | Total | North | South |
|--|---------------|---------------|---------------|
| Livestock Output: | | | |
| Cattle | 21,234 | 9,505 | 11,730 |
| Milk | 13,533 | 5,722 | 7,811 |
| Horses | 456 | 148 | 308 |
| Sheep | 1,271 | 629 | 642 |
| Pigs | 5,763 | 1,567 | 4,196 |
| Poultry | 668 | 299 | 369 |
| Total (including honey) | 42,933 | 17,872 | 25,061 |
| Output of Crops and Turf: | | | |
| Cereals | 2,547 | 1,121 | 1,426 |
| Sugar Beet | 585 | 265 | 320 |
| Potatoes | 487 | 238 | 249 |
| Horticulture | 365 | 167 | 199 |
| Other | 247 | 105 | 142 |
| Total Crops | 4,230 | 1,895 | 2,336 |
| Turf | 65 | 56 | 9 |
| Gross Output | 47,229 | 19,823 | 27,406 |
| Purchase of Certain Farm Materials: | | | |
| Feed | -6,565 | -2,481 | -4,084 |
| Fertilisers and Lime | -3,183 | -1,354 | -1,829 |
| Seed | - 366 | - 166 | - 200 |
| Total | -10,114 | -4,001 | -6,113 |
| Expenses of Agriculture | -7,327 | -3,223 | -4,104 |
| Net Output less Expenses | 29,789 | 12,599 | 17,190 |
| Subsidies under Land Acts | 81 | 34 | 47 |
| Subsidies not related to sales | 463 | 208 | 255 |
| Income Arising | 30,333 | 12,841 | 17,492 |
| Land Annuities | 242 | 102 | 140 |
| Wages | 2,601 | 1,023 | 1,578 |
| Family Farm Income | 27,490 | 11,715 | 15,774 |
| Wages in Forestry | 417 | 98 | 319 |
| Profits in Fishing | 61 | 23 | 38 |

APPENDIX B

AGRICULTURAL OUTPUT AND INPUT BY COUNTY, 1977

TABLE B1

Livestock output including inventory changes 1977 (£000s)

| County and Region | Cattle | Milk | Pigs | Sheep | Poultry | Horses | Other | Total |
|-------------------|--------|---------|--------|--------|---------|--------|-------|---------|
| Dublin | 4,397 | 2,467 | 1,612 | 390 | 637 | 532 | 30 | 10,064 |
| Kildare | 13,624 | 8,058 | 1,753 | 1,013 | 1,084 | 1,849 | 18 | 27,399 |
| Meath | 24,293 | 9,239 | 1,918 | 1,502 | 3,172 | 1,203 | 15 | 41,342 |
| Wicklow | 9,585 | 4,821 | 2,541 | 2,692 | 1,556 | 315 | 8 | 21,518 |
| EAST | 51,899 | 24,585 | 7,824 | 5,597 | 6,448 | 3,899 | 70 | 100,324 |
| Cork | 65,752 | 101,940 | 23,977 | 1,682 | 4,356 | 1,267 | 69 | 199,043 |
| Kerry | 23,317 | 39,539 | 3,624 | 1,696 | 1,099 | 386 | 27 | 69,689 |
| SOUTH-WEST | 89,069 | 141,479 | 27,601 | 3,379 | 5,455 | 1,653 | 96 | 268,732 |
| Carlow | 7,776 | 2,084 | 1,247 | 1,543 | 1,157 | 165 | 3 | 13,974 |
| Kilkenny | 20,676 | 20,873 | 3,965 | 1,053 | 868 | 380 | 31 | 47,847 |
| Wexford | 19,738 | 14,931 | 7,906 | 2,496 | 1,326 | 654 | 90 | 47,141 |
| Waterford | 16,213 | 16,355 | 4,965 | 598 | 2,221 | 477 | 36 | 40,866 |
| Tipperary South | 22,816 | 24,994 | 7,200 | 736 | 539 | 841 | 18 | 57,144 |
| SOUTH-EAST | 87,220 | 79,237 | 25,283 | 6,426 | 6,111 | 2,517 | 177 | 206,972 |
| Tipperary North | 18,645 | 16,768 | 2,353 | 699 | 481 | 367 | 16 | 39,330 |
| Clare | 22,609 | 14,574 | 1,000 | 447 | 758 | 494 | 37 | 39,920 |
| Limerick | 27,670 | 46,400 | 3,424 | 131 | 5,497 | 639 | 18 | 83,779 |
| MID-WEST | 68,925 | 77,742 | 6,777 | 1,277 | 6,736 | 1,501 | 71 | 163,028 |
| Cavan | 16,943 | 20,322 | 13,812 | 368 | 2,003 | 77 | 5 | 53,530 |
| Louth | 7,113 | 2,771 | 647 | 409 | 407 | 128 | 34 | 11,509 |
| Monaghan | 12,185 | 14,721 | 3,553 | 82 | 12,238 | 94 | 104 | 42,976 |
| NORTH-EAST | 36,241 | 37,814 | 18,012 | 859 | 14,647 | 298 | 143 | 108,015 |
| Galway | 34,565 | 9,592 | 2,682 | 7,554 | 2,000 | 657 | 61 | 57,111 |
| Mayo | 27,943 | 8,575 | 2,612 | 2,722 | 1,674 | 378 | 29 | 43,934 |
| WEST | 62,508 | 18,167 | 5,294 | 10,276 | 3,674 | 1,035 | 90 | 101,045 |
| Laois | 15,026 | 6,467 | 3,612 | 436 | 646 | 229 | 20 | 26,435 |
| Longford | 9,392 | 3,533 | 1,482 | 241 | 665 | 98 | 6 | 15,417 |
| Offaly | 15,926 | 4,553 | 2,082 | 621 | 1,640 | 269 | 19 | 25,109 |

TABLE B1 (Contd.)

| County and Region | Cattle | Milk | Pigs | Sheep | Poultry | Horses | Other | Total |
|-------------------|---------|---------|---------|--------|---------|--------|-------|-----------|
| Roscommon | 20,193 | 5,158 | 2,082 | 2,206 | 699 | 112 | 24 | 30,475 |
| Westmeath | 15,483 | 3,481 | 1,635 | 745 | 597 | 265 | 7 | 22,214 |
| MIDLANDS | 76,021 | 23,191 | 10,894 | 4,249 | 4,247 | 973 | 77 | 119,651 |
| Donegal | 15,269 | 4,950 | 4,859 | 2,271 | 1,496 | 95 | 22 | 28,961 |
| DONEGAL | 15,269 | 4,950 | 4,859 | 2,271 | 1,496 | 95 | 22 | 28,961 |
| Leitrim | 8,131 | 2,963 | 1,506 | 428 | 531 | 42 | 4 | 13,605 |
| Sligo | 12,082 | 7,253 | 753 | 791 | 610 | 95 | 13 | 21,595 |
| NORTH-WEST | 20,213 | 10,216 | 2,259 | 1,219 | 1,141 | 136 | 17 | 35,200 |
| Total | 507,366 | 417,381 | 108,802 | 35,553 | 49,956 | 12,107 | 764 | 1,131,929 |

TABLE B2
Output of crops and turf, 1977 (£000s)

| County and Region | Cereals | Sugar Beet | Potatoes | Horticulture | Other | Total Crops | Turf |
|-------------------|---------|------------|----------|--------------|-------|-------------|-------|
| Dublin | 5,176 | 105 | 2,948 | 10,739 | 148 | 19,116 | 2 |
| Kildare | 8,302 | 1,545 | 259 | 2,333 | 164 | 12,603 | 111 |
| Meath | 18,800 | 314 | 2,742 | 1,921 | 333 | 14,111 | 38 |
| Wicklow | 6,334 | 434 | 354 | 660 | 152 | 7,934 | 17 |
| EAST | 28,612 | 2,398 | 6,302 | 15,653 | 797 | 53,763 | 167 |
| Cork | 22,860 | 8,038 | 2,438 | 4,170 | 1,173 | 38,724 | 313 |
| Kerry | 1,622 | 344 | 1,151 | 715 | 710 | 4,543 | 1,368 |
| SOUTH-WEST | 24,482 | 8,382 | 3,634 | 4,886 | 1,884 | 43,267 | 1,682 |
| Carlow | 5,132 | 2,888 | 319 | 423 | 123 | 8,884 | 1 |
| Kilkenny | 8,790 | 2,138 | 626 | 1,010 | 292 | 12,856 | 4 |
| Wexford | 14,965 | 6,281 | 828 | 2,373 | 363 | 24,809 | 1 |
| Waterford | 4,516 | 1,002 | 479 | 853 | 198 | 7,048 | 6 |
| Tipperary South | 4,506 | 1,179 | 461 | 701 | 317 | 7,165 | 18 |
| SOUTH-EAST | 37,909 | 13,488 | 2,713 | 5,360 | 1,293 | 60,763 | 29 |
| Tipperary North | 2,933 | 981 | 483 | 674 | 289 | 5,359 | 109 |
| Clare | 225 | 14 | 676 | 584 | 525 | 2,025 | 845 |
| Limerick | 525 | 14 | 640 | 598 | 473 | 2,251 | 174 |
| MID-WEST | 3,683 | 1,009 | 1,800 | 1,856 | 1,287 | 9,635 | 1,128 |
| Cavan | 242 | — | 637 | 141 | 643 | 1,662 | 66 |
| Louth | 5,179 | 28 | 941 | 1,393 | 262 | 7,802 | 2 |
| Monaghan | 549 | 2 | 694 | 1,249 | 622 | 3,116 | 28 |
| NORTH-EAST | 5,970 | 30 | 2,272 | 2,782 | 1,527 | 12,581 | 96 |

TABLE B2 (contd.)

| County and Region | Cereals | Sugar Beet | Potatoes | Horticulture | Other | Total Crops | Turf |
|-------------------|---------|------------|----------|--------------|--------|-------------|--------|
| | | | | | | | |
| Galway | 2,546 | — | 1,894 | 902 | 1,099 | 7,418 | 1,942 |
| Mayo | 581 | — | 1,496 | 301 | 930 | 3,347 | 2,123 |
| WEST | 3,127 | — | 3,390 | 1,202 | 2,030 | 10,765 | 4,064 |
| Laois | 5,388 | 2,240 | 314 | 385 | 231 | 8,558 | 84 |
| Longford | 219 | — | 256 | 100 | 195 | 770 | 206 |
| Offaly | 3,549 | 873 | 525 | 273 | 232 | 5,452 | 556 |
| Roscommon | 571 | 42 | 681 | 488 | 484 | 2,265 | 1,016 |
| Westmeath | 1,814 | 18 | 307 | 342 | 217 | 2,699 | 221 |
| MIDLANDS | 11,540 | 3,173 | 2,083 | 1,587 | 1,360 | 19,744 | 2,083 |
| Donegal | 4,172 | — | 3,995 | 415 | 760 | 9,342 | 1,200 |
| DONEGAL | 4,172 | — | 3,995 | 415 | 760 | 9,342 | 1,200 |
| Leitrim | 8 | — | 319 | 130 | 387 | 843 | 284 |
| Sligo | 128 | 4 | 485 | 268 | 312 | 1,196 | 571 |
| NORTH-WEST | 135 | 4 | 803 | 397 | 699 | 2,039 | 854 |
| Total | 119,631 | 29,500 | 26,992 | 34,139 | 11,637 | 221,899 | 11,303 |

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TABLE B3

Gross and net output in agriculture, 1977 (£000s)

| County and Region | Gross Output | Farm Materials | | | | Other Expenses | Net Output less Expenses |
|-------------------|--------------|----------------|----------------------|-------|--------|----------------|--------------------------|
| | | Feed | Fertilisers and Lime | Seed | | | |
| | | | | | | | |
| Dublin | 29,182 | 2,496 | 3,118 | 1,372 | 4,935 | 17,260 | |
| Kildare | 40,112 | 5,563 | 3,691 | 905 | 7,488 | 22,465 | |
| Meath | 55,491 | 7,696 | 5,362 | 1,013 | 11,662 | 29,758 | |
| Wicklow | 29,469 | 4,698 | 2,829 | 570 | 5,988 | 15,384 | |
| EAST | 154,254 | 20,453 | 15,000 | 3,860 | 30,072 | 84,868 | |
| Cork | 238,080 | 41,900 | 19,498 | 2,780 | 41,465 | 132,438 | |
| Kerry | 75,601 | 11,071 | 4,436 | 326 | 12,316 | 47,452 | |
| SOUTH-WEST | 313,681 | 52,971 | 23,934 | 3,107 | 53,780 | 179,890 | |
| Carlow | 22,859 | 3,704 | 2,430 | 638 | 5,021 | 11,067 | |
| Kilkenny | 60,706 | 8,749 | 4,474 | 923 | 9,663 | 36,897 | |
| Wexford | 71,951 | 12,215 | 6,847 | 1,781 | 14,585 | 36,523 | |
| Waterford | 47,919 | 9,115 | 3,561 | 506 | 7,428 | 27,310 | |
| Tipperary South | 64,327 | 11,199 | 4,247 | 514 | 10,533 | 37,833 | |
| SOUTH-EAST | 267,764 | 44,983 | 21,559 | 4,363 | 47,230 | 149,630 | |
| Tipperary North | 44,798 | 6,262 | 3,121 | 385 | 8,363 | 26,667 | |
| Clare | 42,790 | 5,307 | 2,707 | 145 | 8,445 | 26,186 | |
| Limerick | 86,204 | 15,746 | 3,663 | 162 | 16,382 | 50,249 | |
| MID-WEST | 173,791 | 27,315 | 9,491 | 692 | 33,190 | 103,103 | |

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TABLE B3 (contd.)

| County and Region | Gross Output | Farm Materials | | | Other Expenses | Net Output less Expenses |
|-------------------|--------------|----------------|----------------------|--------|----------------|--------------------------|
| | | Feed | Fertilisers and Lime | Seed | | |
| Cavan | 55,258 | 14,777 | 2,089 | 119 | 9,328 | 28,944 |
| Louth | 19,313 | 1,776 | 2,201 | 560 | 4,985 | 9,791 |
| Monaghan | 46,121 | 15,272 | 1,815 | 224 | 8,035 | 20,776 |
| NORTH-EAST | 120,692 | 31,825 | 6,105 | 903 | 22,348 | 59,511 |
| Galway | 66,470 | 8,310 | 4,972 | 533 | 11,245 | 41,411 |
| Mayo | 49,404 | 6,733 | 3,111 | 240 | 7,381 | 31,939 |
| WEST | 115,874 | 15,043 | 8,083 | 773 | 18,625 | 73,349 |
| Laois | 35,077 | 5,775 | 3,079 | 614 | 7,680 | 17,928 |
| Longford | 16,394 | 2,783 | 1,021 | 55 | 3,393 | 9,142 |
| Offaly | 31,118 | 4,974 | 2,471 | 391 | 6,427 | 16,855 |
| Roscommon | 33,256 | 4,388 | 2,114 | 163 | 6,127 | 20,963 |
| Westmeath | 25,134 | 3,380 | 1,883 | 194 | 5,580 | 14,096 |
| MIDLANDS | 141,478 | 21,301 | 10,569 | 1,418 | 29,207 | 78,984 |
| Donegal | 39,504 | 6,374 | 3,539 | 671 | 9,645 | 19,275 |
| DONEGAL | 39,504 | 6,374 | 3,539 | 671 | 9,645 | 19,275 |
| Leitrim | 14,731 | 2,498 | 857 | 61 | 3,756 | 7,559 |
| Sligo | 23,362 | 3,039 | 1,198 | 86 | 4,146 | 14,893 |
| NORTH-WEST | 38,093 | 5,537 | 2,055 | 146 | 7,902 | 22,453 |
| Total | 1,365,131 | 225,802 | 100,335 | 15,932 | 252,000 | 771,062 |

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TABLE B.4.
Income arising and family farm income 1977 (£000's)

| County and Region | Subsidy under Land Acts | Other Subsidies | Income Arising | Land Annuities | Wages | Family Farm Income |
|-------------------|-------------------------|-----------------|----------------|----------------|--------|--------------------|
| Dublin | 23 | 16 | 17,299 | 52 | 3,438 | 13,810 |
| Kildare | 40 | 59 | 22,565 | 91 | 3,571 | 18,903 |
| Meath | 72 | 50 | 29,880 | 161 | 4,120 | 25,599 |
| Wicklow | 22 | 498 | 15,904 | 50 | 1,818 | 14,036 |
| EAST | 157 | 623 | 85,648 | 354 | 12,948 | 72,347 |
| Cork | 104 | 1,259 | 133,800 | 234 | 6,461 | 127,105 |
| Kerry | 38 | 1,812 | 49,301 | 85 | 1,219 | 47,998 |
| SOUTH-WEST | 141 | 3,071 | 183,102 | 318 | 7,680 | 175,103 |
| Carlow | 18 | 135 | 11,220 | 41 | 1,225 | 9,954 |
| Kilkenny | 36 | 104 | 37,038 | 82 | 2,371 | 34,585 |
| Wexford | 36 | 223 | 36,782 | 82 | 3,495 | 33,205 |
| Waterford | 26 | 114 | 27,450 | 59 | 2,112 | 25,279 |
| Tipperary South | 39 | 78 | 37,950 | 88 | 2,749 | 35,113 |
| SOUTH-EAST | 157 | 654 | 150,440 | 352 | 11,952 | 138,136 |
| Tipperary North | 34 | 110 | 26,811 | 77 | 1,526 | 25,208 |
| Clare | 38 | 2,001 | 28,225 | 85 | 921 | 27,218 |
| Limerick | 58 | 240 | 50,547 | 131 | 2,753 | 47,663 |
| MID-WEST | 130 | 2,350 | 105,583 | 293 | 5,201 | 100,090 |
| Cavan | 27 | 475 | 29,445 | 60 | 511 | 28,874 |
| Louth | 21 | 85 | 9,897 | 46 | 1,292 | 8,559 |
| Monaghan | 24 | 250 | 21,050 | 55 | 482 | 20,514 |
| NORTH-EAST | 71 | 810 | 60,392 | 161 | 2,285 | 57,947 |

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TABLE B4 (contd.)

| County and Region | Subsidy under Land Acts | Other Subsidies | Income Arising | Land Annuities | Wages | Family Farm Income |
|-------------------|-------------------------|-----------------|----------------|----------------|--------|--------------------|
| Galway | 67 | 2,410 | 43,888 | 152 | 671 | 43,066 |
| Mayo | 50 | 3,760 | 35,748 | 113 | 376 | 35,260 |
| WEST | 118 | 6,170 | 79,637 | 264 | 1,047 | 78,326 |
| Laois | 30 | 88 | 18,046 | 67 | 1,481 | 16,497 |
| Longford | 15 | 411 | 9,569 | 35 | 353 | 9,180 |
| Offaly | 31 | 74 | 16,960 | 70 | 1,050 | 15,840 |
| Roscommon | 42 | 1,365 | 22,370 | 95 | 302 | 21,974 |
| Westmeath | 40 | 79 | 14,215 | 89 | 1,402 | 12,724 |
| MIDLANDS | 158 | 2,017 | 81,159 | 355 | 4,589 | 76,215 |
| Donegal | 29 | 2,476 | 21,779 | 64 | 895 | 20,820 |
| DONEGAL | 29 | 2,476 | 21,779 | 64 | 895 | 20,820 |
| Leitrim | 14 | 1,231 | 8,805 | 32 | 152 | 8,620 |
| Sligo | 25 | 1,248 | 16,166 | 56 | 252 | 15,858 |
| NORTH WEST | 39 | 2,479 | 24,970 | 89 | 404 | 24,478 |
| Total | 1,000 | 20,650 | 792,712 | 2,250 | 47,000 | 743,462 |

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| <i>Title</i> | <i>Date</i> |
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| 2. Comments on Capital Taxation Proposals | July 1974 |
| 3. The Economy in 1974 and Outlook for 1975 | Nov. 1974 |
| 4. Regional Policy in Ireland: A Review | Jan. 1975 |
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| 9. Report on Inflation | June 1975 |
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