

NESC REPORT NO. 30

PERSONAL INCOMES BY COUNTY IN 1973

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**NATIONAL ECONOMIC
AND SOCIAL COUNCIL**

*PERSONAL INCOMES BY COUNTY
IN 1973*

No. 30

NATIONAL ECONOMIC AND SOCIAL COUNCIL
CONSTITUTION AND TERMS OF REFERENCE

1. The main task of the National Economic and Social Council shall be to provide a forum for discussion of the principles relating to the efficient development of the national economy and the achievement of social justice, and to advise the Government, through the Minister for Finance, on their application. The Council shall have regard, *inter alia*, to:
 - (i) the realisation of the highest possible levels of employment at adequate reward,
 - (ii) the attainment of the highest sustainable rate of economic growth,
 - (iii) the fair and equitable distribution of the income and wealth of the nation,
 - (iv) reasonable price stability and long-term equilibrium in the balance of payments,
 - (v) the balanced development of all regions in the country, and
 - (vi) the social implications of economic growth, including the need to protect the environment.
2. The Council may consider such matters either on its own initiative or at the request of the Government.
3. Members of the Government shall be entitled to attend the Council's meetings. The Council may at any time present its views to the Government on matters within its terms of reference. Any reports which the Council may produce shall be submitted to the Government and, together with any comments which the Government may then make thereon, shall be laid before each House of the Oireachtas and published.
4. The membership of the Council shall comprise a Chairman appointed by the Government in consultation with the interests represented on the Council
 - Ten persons nominated by agricultural organisations,
 - Ten persons nominated by the Confederation of Irish Industry and the Irish Employers' Confederation,
 - Ten persons nominated by the Irish Congress of Trade Unions,
 - Ten other persons appointed by the Government, and
 - Six persons representing Government Departments comprising one representative each from the Departments of Finance, Agriculture and Fisheries, Industry and Commerce, Labour and Local Government and one person representing the Departments of Health and Social Welfare.Any other Government Department shall have the right of audience at Council meetings if warranted by the Council's agenda, subject to the right of the Chairman to regulate the numbers attending.
5. The term of office of members shall be for three years renewable. Casual vacancies shall be filled by the Government or by the nominating body as appropriate. Members filling casual vacancies may hold office until the expiry of the other members' current term of office and their membership shall then be renewable on the same basis as that of other members.
6. The Council shall have its own Secretariat, subject to the approval of the Minister for Finance in regard to numbers, remuneration and conditions of service.
7. The Council shall regulate its own procedure.

NATIONAL ECONOMIC AND SOCIAL COUNCIL

PERSONAL INCOMES BY COUNTY IN 1973

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IN 1973"

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PERSONAL INCOMES BY COUNTY IN 1973

By

Miceal Ross and Roderick Jones with the assistance of Eoin O'Malley
(The Economic and Social Research Institute, Dublin)

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PART I

THE COUNCIL'S COMMENTS ON "PERSONAL INCOMES BY COUNTY IN 1973"

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I Introduction¹

1. In its report *Regional Policy in Ireland: A Review*², the Council stated that it would examine a number of areas, including the changes that have occurred in county incomes. Accordingly, the Council at its meeting on 28 July 1975 commissioned Dr. Mícheál Ross and Mr Roderick Jones with the assistance of Mr Eoin O'Malley of The Economic and Social Research Institute to estimate personal income by county in 1973 (the latest year for which firm statistics were available). Their study is published in full in Part II of this report. Data on county incomes in 1969, 1965 and 1960 are contained in reports of The Economic and Social Research Institute.³

2. These studies show a steady growth in real income per head to 1973. The recession of 1974-75 will have had a different impact as between counties. For example, all the indications are that, in the manufacturing sector, the East and North-East regions have been more affected by the downturn in activity than have other regions. Furthermore, much of the increase in agricultural incomes in 1973 is attributable to high cattle prices; cattle prices fell sharply in 1974 but recovered in 1975.⁴ *The income data for*

¹ Following discussions in the Regional Policy Committee and in the Council at its meeting on 18 November 1976, the successive drafts of the Council's comments on 'Personal Income by County in 1973' were prepared by John Blackwell and Brian Stephens in the Council's secretariat.

² NESC, Report No. 4, January 1975.

³ Mícheál Ross, *Further Data on County Incomes in the Sixties*, Dublin: ESRI, 1972; Mícheál Ross, *Personal Incomes by County 1965*, Dublin: ESRI, 1969; E. A. Attwood and R. C. Geary, *Irish County Incomes in 1960*, Dublin: The Economic Research Institute, 1963.

⁴ In the manufacturing sector there is indirect evidence, based on changes in employment, that the impact of the recession varied between different counties. In the period 1973-75, there was a relatively lower gross increase in jobs in the East, North East and Mid-West regions, and the result was a net decline in manufacturing employment in these regions (*IDA News*, April 1976; see also Section 2.4 of the authors' study). In 1974, total farm incomes at current prices decreased by 12 per cent — from £366 million to £322 million. In 1975, farm incomes at current prices increased by about 15 per cent to £438 million (*Irish Statistical Bulletin* June 1976, page 102). In 1974, some sectors of farming were much more heavily hit than others — in particular producers of small store cattle.

1973 cannot therefore be taken as giving an accurate picture of the relationship between the incomes in different counties at the present time.

3. Chart A shows the aggregate real output in the economy by sector since 1960. This indicates the relative levels of economic activity in 1960, 1965, 1969 and 1973—the years for which county income data are available. In 1973 there was a relatively high level of activity, and that year represents a peak in the most recent economic cycle.⁵

II Guide to Part II

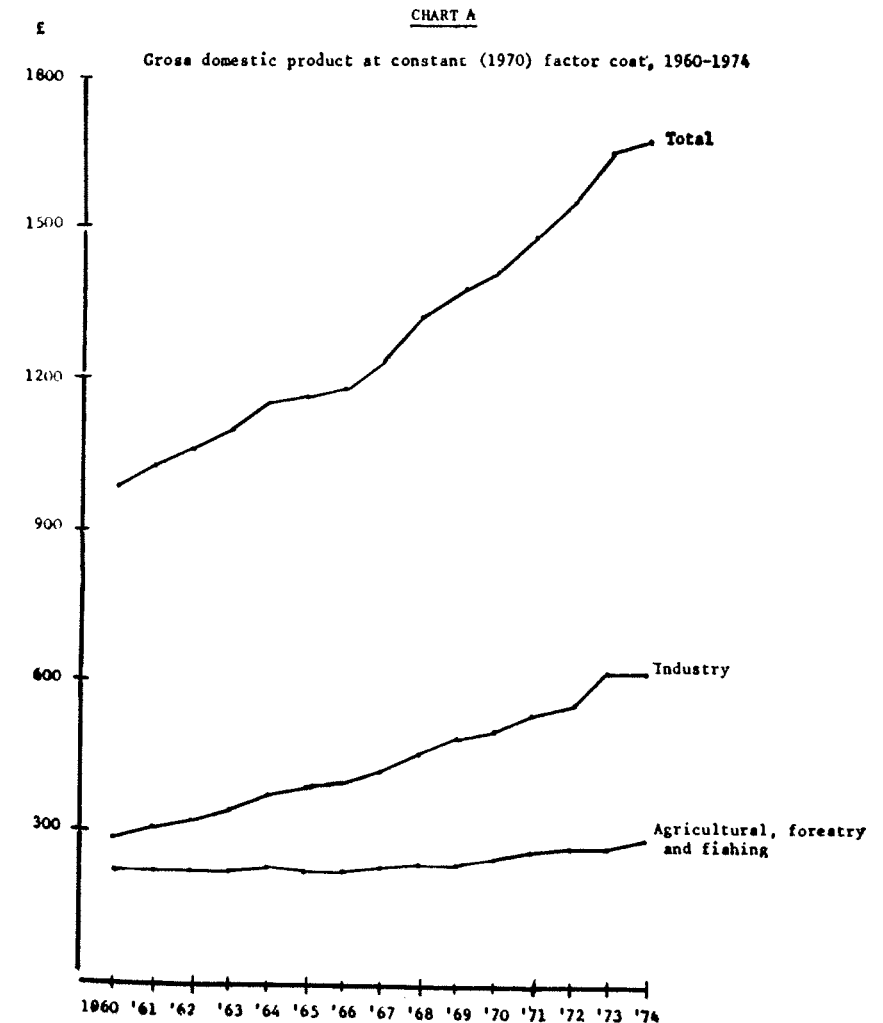
4. The study in Part II cannot be summarised easily. This section is therefore limited to a guide to the contents of Part II.

5. Chapter 1 discusses the nature of county income estimates. The *personal income* of a county gives an approximate measure of the purchasing power of those residing in it. It includes payments received from outside the county for services which are provided by residents of that county but which are used elsewhere—for example, rent on property located outside the county or earnings of residents who commute to work in a different county. It also includes transfers from the Central Government—for example, social welfare payments. The income of private non-profit-making institutions (such as religious secondary schools) is deducted from personal income in order to isolate the income of households.⁶ As the authors of the study point out (Chapter 1, Section 1.4), household income is an imperfect measure of welfare, since it consists of income before direct taxes and before payment of employers' contributions to social insurance.

6. The measure of personal income used in the study needs further qualification because there are differences between counties in the extent to which certain services are provided and

⁵ Estimates of the national accounts in 1975 show a decline of 2% in real terms in Gross Domestic Product at market prices. See J. Durkan and F. Kirwan, *Quarterly Economic Commentary*, The Economic and Social Research Institute, January 1976.

⁶ However, all the derivative Tables are based on personal income inclusive of these institutions.



Source: National Income and Expenditure 1974, Tables A4, B4

priced through the market. For example, those services which are provided by an individual for his own consumption do not enter the accounts. This should not make much difference in any calculation for a particular county over time, but it could affect inter-county comparisons.

7. Chapter 2 summarises the trends in incomes since 1960, shows the rankings of counties by per capita income, and mentions some of the underlying forces behind the shifts of income which have occurred.

8. Chapter 3 contains the estimates of personal income by county for 1973, together with revised data for personal incomes in 1969. The estimates are given in some detail, including a break-down of income by source. There is a discussion of the trends in the share of income accounted for by incomes in agriculture, industry, and other sectors.

9. Based on the population data in Table 8, there are estimates of per capita income of the counties in 1973, in Table 9. In order to compare incomes in 1973 with those of other years, the estimates of income per capita are deflated by the rise in the Consumer Price Index in order to express them at 1969 prices. These estimates are in Table 9 together with revised estimates for 1969 and estimates for 1960 and 1965, all at 1969 prices. Section 3.4 contains some general explanations of the underlying trends in per capita income between 1969 and 1973.

10. The data on adjusted incomes, where the transfers to private non-profit-making institutions are deducted from personal income, are given in Section 3.5.

11. Section 3.6 and Chapter 4 analyse the changes in real income by source since 1960 – income from agriculture, from industry, from other non-agricultural sources and from transfers. This includes comments on the detailed figures on agricultural output and income which are set out in Tables 14 to 17. Data on the remuneration of employees in industry and on remuneration in other sectors are discussed in Sections 4.2 and 4.3. This is

followed by a comparison between data on employee income from the Household Budget Survey 1973, and on income from Revenue Commissioners' data (see section of Part II on Household Budget Inquiry, and Table 20). Finally, the authors examine transfers and other income.

III. Conclusions

12. To date there have been four sets of county income studies, which span the period from 1960 to 1973. The Council feels it is useful to attempt to get a picture of changes in personal income through time, and to make a preliminary comment on why these changes have occurred. Since it is also important to look at the trend in incomes by region, the county income data are aggregated in order to arrive at regional data. This section concludes with a reference to issues which require further study.

13. The estimates show that personal incomes per capita increased significantly in all counties, in real terms, between 1969 and 1973. The growth rate over 1969-73 was significantly higher than that recorded for 1965-69 or for 1960-65.

14. For the State as a whole, the increase in real income per person derived from agriculture increased by 36 per cent between 1960 and 1969, and it subsequently increased by 66 per cent between 1969 and 1973. Due to the relatively high agricultural prices in 1973, the growth rate in income per worker in agriculture between 1960 and 1973 was significantly higher than that for non-agricultural employees (with the exception of Leitrim). The six poorest counties in terms of income per capita in 1973 (Leitrim, Donegal, Mayo, Longford, Laois, Roscommon), again with the exception of Leitrim, all had a significant increase in real income from agriculture in the period 1969-73. There is therefore a persuasive case that the rise in agricultural incomes resulted in a lessening in relative disparities in incomes per head between counties up to 1973. But this is not clear-cut: for example, both Waterford and Wicklow have relatively high incomes per capita and also had a considerable growth in real income from agriculture

between 1969 and 1973. Furthermore, agricultural incomes since 1973 have fluctuated widely (see paragraph 2).

15. There is great variability among counties with regard to the proportion of income obtained from current transfers – e.g. 9% in Dublin, 8% in Kildare, 19% in Donegal and 20% in Leitrim.

16. Table A shows the income per capita in 1973 by county, and also expresses this as an index, in order to show the position of each county relative to the State as a whole. A similar index is given for 1960. The highest income per capita in 1973 was in Dublin, namely, £977, and the lowest was in Leitrim with £584.

17. Table B gives the ranking of counties by income per capita in 1973 and in 1960, together with the change in real income per capita between 1960 and 1973. If the rankings in 1973 are compared with those in 1960, one feature is the extent to which the ranking of most counties remains relatively unchanged. The only cases where the ranking changed by more than two places are: Laois (from 15th to 22nd), Offaly (from 12th to 18th), Clare (from 17th to 14th), Waterford (from 5th to 2nd) and Monaghan (from 19th to 12th).

18. The *spread of income* between counties is now examined. Table 10 shows that, over 1969-73, the *absolute* increase in income per head in Dublin was less than that in most other counties – indeed, only four counties had a lower absolute increase than did Dublin in this period. The *proportionate* increase in income per head in Dublin in 1969-73 was lower than in any other county. This is in contrast to the experience of the preceding period 1965-69, when the absolute increase in income per head in Dublin was markedly greater than in any other county. However, the authors' warning must be borne in mind: *'More confidence can . . . be placed in changes between 1965 and 1973 than between either year and 1969'* (Section 1.5).

19. These paragraphs examine whether the relative disparities in real income have narrowed over time. To some extent, the trend over 1960-1973 has been that counties with the highest levels of

real income had percentage increases in income which were lower than other counties. This is shown in Chart B although three clear exceptions to this are Leitrim, Laois and Offaly. Each of these three counties has a relatively low level of income and has had a relatively low proportionate increase in income over 1960-73.⁷

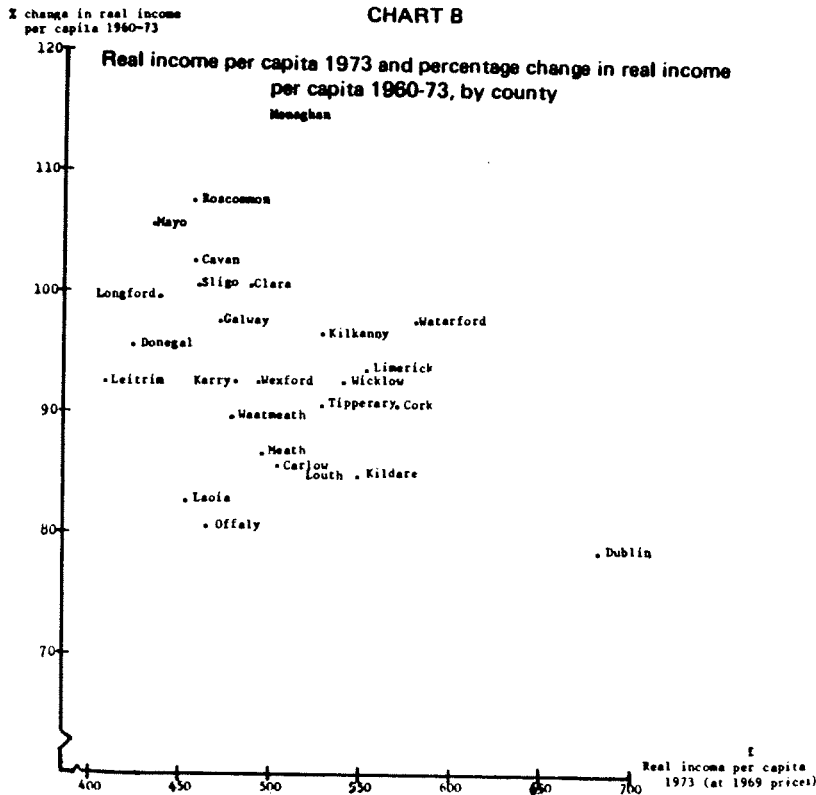
20. The relative spread of real incomes is measured by the coefficient of variation (CV, a measure of relative dispersion) in Table C.⁸ The remarkable feature of this Table is the sudden drop in the coefficient between 1969 and 1973. Thus, the tentative conclusion is that there has thus been a tendency for the relative spread of incomes among counties to become narrower between 1969 and 1973. It must be emphasised that the above is a measure of the spread of *average* income of counties, but this could fall while, at the same time, intra-county incomes might diverge.

21. *Income by region* is now considered. The counties included in each of the nine regions are given in Annex I. Table D shows the personal income per capita in the regions in 1960, 1965, 1969 and 1973.

22. One noteworthy feature is that the ranking of income per capita by region has not changed – this is evident from Table E and Chart C. The highest per capita income remains in the East region, and the two lowest in the Donegal and the North West regions. One striking feature of this Chart is that, for all regions,

⁷ If the period 1969-73 is taken then the percentage increase in income in these three counties is not low – indeed, it ranges from 41% in Leitrim to 37% in Laois. But the qualification noted in paragraph 18 applies to this sub-period.

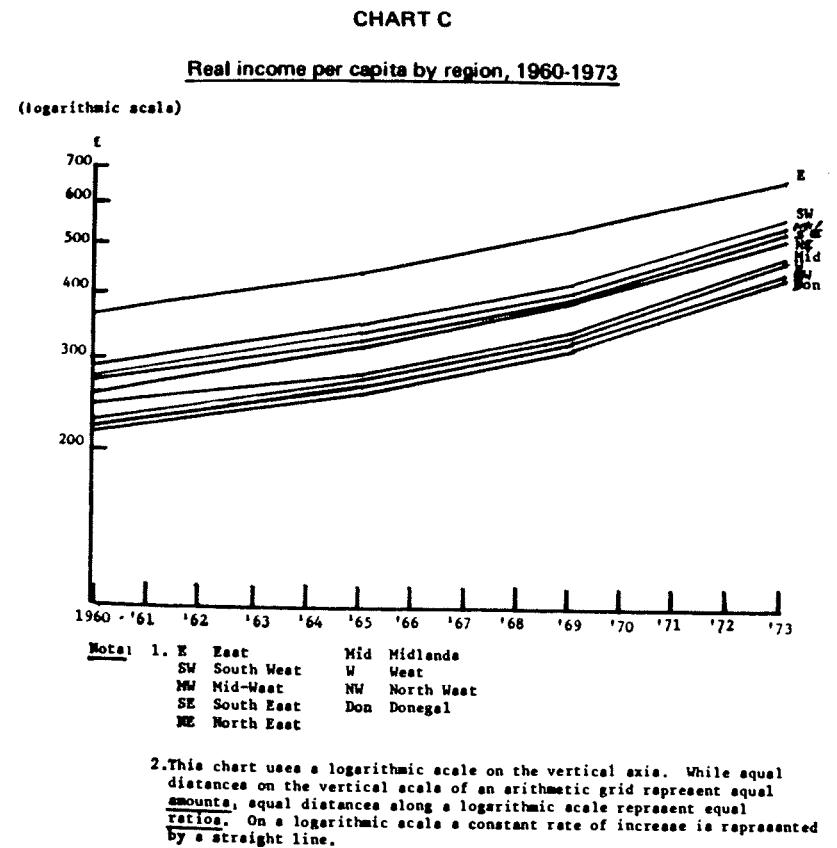
⁸ There are various methods of assessing income differences between regions. There is an exhaustive analysis of alternative methods in: C.P.A. Bartels and P. Nijkamp, 'An empirical welfare approach to regional income distribution: alternative specifications and estimates of income inequality measures', *Socio-Economic Planning Sciences*, Vol. 10 (1976), pp. 117-128. There is a discussion of the weighted coefficient of variation and of allied measures, in: J. G. Williamson 'Regional inequality and the process of national development: a description of the patterns', *Economic Development and Cultural Change*, Vol. 13 (1965), pp. 3-45; reprinted in: L. Needleman (ed.), *Regional Analysis: Selected Readings*, London: Penguin, 1968. For an application to Irish data, see John P. Martin, 'Regional Growth and Income Patterns, 1960-65', *Economic and Social Review*, Vol. 2, pp. 349-366.



Note: Each point on this diagram shows not only the level of income per capita in 1973 (which is measured along the horizontal axis), but also the percentage change in real income (which is measured along the vertical axis). For example, the real income per capita of Longford in 1973 was £440, and the percentage increase in real income per capita in this county over 1960-73 was 99%.

Source: Table 8, Table 9.

there was about the same rate of increase in real personal income per head between 1960 and 1965 as there was between 1965 and 1969. In all regions except the East, this rate of growth increased noticeably between 1969 and 1973. In the East region the growth rate between 1969 and 1973 was only fractionally above that in 1965-69. Therefore, between 1969 and 1973 there was a reduction in the *relative* disparities in real income per head between the East region and the other regions. Table F shows the



1. E East
SW South West
MW Mid-West
SE South East
NE North East
Mid Midlands
W West
NW North West
Don Donegal

2. This chart uses a logarithmic scale on the vertical axis. While equal distances on the vertical scale of an arithmetic grid represent equal amounts, equal distances along a logarithmic scale represent equal ratios. On a logarithmic scale a constant rate of increase is represented by a straight line.

change in real income per capita over the period 1960-73. Once again it is possible to examine whether the areas with the highest income had the lowest proportionate increase in income. To some extent, this has happened.

23. However, there was a number of qualifications to be made to the above income data. While per capita income is an approximate measure of the *average* level of economic well-being it would need to be supplemented by other indices: for example, unemployment rates, proportion of employment in low-paid occupations and distribution of earnings. Furthermore, income per capita measures the *average* income, and says nothing about the distribution of

income between households. There can also be differences in income between different areas *within* a county. (However, figures must be given on a county basis, because that is the basis of collection).

24. *Further work.* It is evident that the rise in agricultural prices in 1973 had quite an impact on income, and seems to have resulted in a lower dispersion of incomes. There are many influences which account for the observed changes in income by county. There is need for a detailed study of why these changes have taken place in the thirteen years up to 1973.⁹ Work is needed on the regional effects of national policies such as those relating to health and education. This includes an examination of the net effects which national policies (for example, taxation and transfer payments) have on the regions. For example, it would be illuminating to have a comparison of the benefits received per capita with the taxes paid per capita.¹⁰

Annex: Definition of Planning Regions

Region	Area
East	Dublin, Kildare, Meath and Wicklow
South East	Carlow, Kilkenny, Tipperary SR, Wexford and Waterford
South West	Cork and Kerry
Mid-West	Clare, Limerick and Tipperary NR
West	Galway and Mayo
North West	Leitrim and Sligo
Donegal	Donegal
Midlands	Laois, Longford, Offaly, Roscommon and Westmeath
North East	Cavan, Louth and Monaghan

⁹ Table G shows the variability in net output per person in transportable goods industries by county, and Table H gives these data by region.

¹⁰ Some preliminary work has been done by Dr. Miceal Ross of The Economic and Social Research Institute on the distribution by county of transfer payments (both current and capital payments) together with the distribution of subsidies and of grants to enterprise. This work shows a great variability in the distribution of transfer payments, and that the counties which receive the highest transfer payments are not always the counties with the lowest income per head.

Table A: Income per capita by County: 1973, 1960

County	Per capita income in 1973 at current prices		Per capita income in 1960
	Level	Index, with State = 100	Index, with State = 100
	£		
Leinster			
Carlow	721	90	94
Dublin	976	122	131
Kildare	786	98	102
Kilkenny	758	95	92
Laois	651	81	86
Longford	627	78	75
Louth	782	98	102
Meath	711	89	91
Offaly	668	84	89
Westmeath	687	86	87
Wexford	706	88	88
Wicklow	773	97	96
Munster			
Clare	700	88	84
Cork	817	102	103
Kerry	687	86	86
Limerick	792	99	98
Tipperary	757	95	95
Waterford	831	104	101
Connacht			
Galway	676	85	82
Leitrim	584	73	73
Mayo	625	78	73
Roscommon	655	82	76
Sligo	660	83	79
Ulster			
Cavan	657	82	78
Donegal	607	76	75
Monaghan	707	88	79
All areas	799	100	100

Source: Table 9.

**Table B: Ranking of counties by income per capita 1973, 1960;
increase in real income per capita by county, 1960-73**

County	Ranking of counties by income per capita		Increase in real income per capita, 1960-73 (at 1969 constant prices)	
	1973	1960	Absolute Change	Percentage Change
			£	%
Leinster				
Carlow	10	9	232	85
Dublin	1	1	299	78
Kildare	5	3	251	84
Kilkenny	8	10	260	96
Laois	22	15	205	82
Longford	23	23	219	99
Louth	6	4	250	84
Meath	11	11	230	86
Offaly	18	12	208	80
Westmeath	16	14	227	89
Wexford	13	13	237	92
Wicklow	7	7	260	92
Munster				
Clare	14	17	245	100
Cork	3	2	272	90
Kerry	15	15	231	92
Limerick	4	6	268	93
Tipperary	9	8	251	90
Waterford	2	5	287	97
Connacht				
Galway	17	18	233	97
Leitrim	26	26	197	92
Mayo	24	25	224	105
Roscommon	21	22	237	107
Sligo	19	19	231	100
Ulster				
Cavan	20	21	232	102
Donegal	25	24	207	95
Monaghan	12	19	264	114
All areas			267	91

Source: Tables 3, 9.

Table C: Measures of dispersion of income among counties

Year	Standard deviation	Coefficient of variation	Weighted coefficient of variation
1960	37.9	0.145	0.203
1965	49.3	0.159	0.217
1969	57.7	0.156	0.219
1973	59.2	0.118	0.160

Note: The *standard deviation* measures the absolute dispersion or variability of a distribution. The greater the dispersion, then the greater will be the deviations of values from their mean and the greater will be the standard deviation. The *coefficient of variation* (CV) enables a comparison to be drawn between the dispersion of two series which have different means, e.g. between that of incomes in 1960 and in 1969. The CV equals the standard deviation divided by the mean.

The *weighted coefficient of variation* measures the dispersion of county incomes per head relative to the average for the State, with each deviation per county being weighted by proportion of the population of the State in that county. The population data used are contained in Mical Ross, *Further Data . . .*, *op.cit.*, Table 7, and in Table 8 of Part II.

Table D: Population, and income per capita (at 1969 constant prices) by region

Region	1960		1965		1969		1973	
	Population ('000)	Income Per Capita (£)	Population ('000)	Income Per Capita (£)	Population ('000)	Income Per Capita (£)	Population ('000)	Income Per Capita (£)
East	905.1	364	976.8	437	1,034.5	529	1,106.3	653
South West	448.7	288	451.7	346	460.4	416	475.9	551
South East	321.8	274	319.5	323	324.7	388	335.7	529
North East	172.9	257	169.5	313	172.2	399	177.5	508
Mid-West	262.3	276	264.3	334	267.9	339	275.2	535
Donegal	115.1	219	109.3	257	108.2	312	109.3	426
Midlands	240.9	243	239.2	277	233.2	333	233.6	463
West	275.5	228	265.3	274	259.9	326	259.4	459
North West	88.1	225	82.6	264	79.7	322	78.1	444
All Areas	2,830.3	293	2,878.2	353	2,940.7	429	3,051.0	560

Note: In order to derive figures for incomes of the regions, it is necessary to allocate the income of Tipperary between North and South Riding. For each year, 45% of the income of this county is allocated to North Riding, 55% to South Riding. For each year 1961, 1966 and 1971 in North Riding the proportion of persons gainfully occupied, and the proportion of persons at work, was 45%. The proportion of the total population in North Riding was 43% in 1961, and 44% in 1966 and in 1971.

Table E: Ranking of regions by income per capita (1969 constant prices)

Rank	Region	1960	1965	1969	1973
		Income Per Capita (£)	Income Per Capita (£)	Income Per Capita (£)	Income Per Capita (£)
1	East	364	437	529	653
2	South West	288	346	416	551
3	Mid-West	276	334	399	535
4	South East	274	323	} = 338	529
5	North East	257	313		508
6	Midlands	243	277	333	463
7	West	229	274	326	459
8	North West	225	264	322	444
9	Donegal	219	257	312	426

Note: Ranking remained unchanged throughout this period.

Table F: Change in real income by region 1960-73 (at 1969 constant prices) compared with rank

Planning Region	Rank in income per capita, both in 1960 and in 1973	Change in real income per capita, 1960-73	
		Absolute change (£)	Percentage change (%)
East	1	289	79
South West	2	263	91
Mid-West	3	259	94
South East	4	255	93
North East	5	251	98
Midlands	6	220	91
West	7	230	100
North West	8	219	97
Donegal	9	207	95

Source: Table E.

Table G: Net output per person in transportable goods industries, by county 1972

County	Net output £'000
Leinster	
Carlow	3.35
Dublin	2.80
Kildare	2.67
Kilkenny	4.25
Laois	2.43
Longford	1.49
Louth	3.12
Meath	2.63
Offaly	1.88
Westmeath	1.77
Wexford	2.34
Wicklow	2.59
Munster	
Clare	3.62
Cork	2.84
Kerry	2.23
Limerick	2.54
Tipperary	3.28
Waterford	2.81
Connacht	
Galway	3.39
Leitrim	1.97
Mayo	1.75
Roscommon	2.51
Sligo	2.21
Ulster	
Cavan	2.85
Donegal	1.75
Monaghan	2.14
All areas	2.78

Source: Table 19.

Table H: Net output per person in transportable goods industries by region 1968

Region	£
East	1,684
South West	1,663
South East	1,639
North East	1,812
Mid-West	2,035
Midlands	1,293
West	2,163
North West	1,214
All areas	1,706

Source: 'Analysis of the Census of Industrial Production 1968', Supplement to *Irish Statistical Bulletin*, March 1973.

Note: In these statistics, Donegal is part of 'North West'.

PART II

PERSONAL INCOMES BY COUNTY IN 1973

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CHAPTER 1

NATURE OF COUNTY INCOME ESTIMATES

1.1 Introduction

The purpose of the paper was to estimate personal incomes for 1973 on a county basis. This particular year was chosen as being the most recent year for which firm figures of national income were available at the outset of the project. Since considerable interest attaches to changes in county income over time the estimates were made generally comparable with earlier estimates for the years 1960 and 1965. As will be clear from the text some minor reservations apply to the use of the 1969 figures for comparative purposes.

1.2 Plan of the Paper

Chapter 1 discusses various measures of income that could be applied to a county. It shows how the gap between counties could be shown to be narrower if, instead of using personal income as a criterion, this measure was adjusted for direct income taxation, transfers to private non-profit-making institutions and also, if farmers' consumption of their own produce was valued at retail rather than farm-gate prices.

The chapter also discusses some of the pitfalls associated with welfare comparisons between counties and over time. The chapter concludes with a brief examination of the accuracy of the estimates and suggestions for a new approach to income estimation by county in the absence of a Census of Population.

Chapter 2 anticipates the detailed examination of the position in 1973 by presenting the principal trends between 1960 and 1973. It offers some reasons for the differing experiences of individual counties and provides some data on changes since 1973.

Chapter 3 presents the results for 1973 and new estimates for 1969. It analyses the changing structure of income within counties and the sources of these changes. Estimates of population for 1973 enabled per capita incomes to be derived, both for personal

income and for "household" income, and these are discussed briefly.

Chapter 4 disaggregates total personal income to its constituent elements in an attempt to delve deeper into structural changes. The chapter also develops the analysis of the accuracy of the individual estimates alluded to in general in Chapter 1. The actual methodology used is described in the Appendix and only discussed in the text where it sheds some light on the outcome of the calculations.

1.3 The three basic measures of income

At national level estimates of income can be, and normally are, derived in three separate exercises which are later reconciled. The production approach sums up the payments to the factors of production—profits, rents, interest payments, wages and salaries and is derived from businesses in the broad sense of the word. The consumption approach totals up spending and savings by households and is derived mainly from surveys of consumption, while the income approach concentrates on the incomes of households. Ideally, the three answers should be the same but inevitably there are minor discrepancies in practice.

These possibilities also exist at sub-national level, though unlike the nation as a whole, economic transactions across borders are not normally recorded. One favourite with regional analysts is GDP (Gross Domestic Product) which can be regarded as a measure of an area's output to support its income. It follows the production approach and has the advantage that existing surveys of agriculture, industry and distribution are based on the location of employment. Unfortunately, the numbers at work in other activities within counties have never been published though this information was collected in the last Census. Nonetheless, in previous studies data were deemed to be adequate enough to permit estimates to be made for 1960 and 1965, but not for 1969.

A second approach to income estimates follows the consumption route. This avenue was explored by Attwood and Geary for 1960 but without success. The difficulty lay mainly in controlling for differences in the market hinterland depending on the item being bought. It proved too difficult to disentangle purchases by

those living outside the county (and non nationals in the case of Dublin) from those of locals.

The third approach, via personal income, differs from the production approach in that it bases its calculations on the place of residence of the recipient rather than the place of work. It has the advantage that the Census of Population also classifies industrial employment by residence so that, subject to the reservations set out in the appendix, the Census can be used as a means of checking that all the population in a county has been accounted for.

Personal income can be regarded as an approximation to the purchasing power of an area. It includes payments from outside the county for factor services used elsewhere but belonging to residents (property and labour payments) and also transfers from the Central government, be they for interest on National loans, Social Welfare payments or grants to schools, etc. As such, personal income is a better measure than GDP if the emphasis is on a county's welfare.

1.4 Measures of economic welfare

Personal income is not a totally satisfactory measure of economic welfare since it includes both the income of households and private non-profit-making institutions. The latter include such bodies as secondary schools run by religious communities, National Theatre, the Red Cross and the ESRI. In the present study the household element of personal income has been isolated by deducting transfers to these latter bodies and the resulting net income (see Table 11) can be regarded as a better measure of welfare than the total figures. Since these private non-profit-making institutions tend to be more concentrated in Dublin the consequence of these deductions has been to reduce the range in per capita incomes somewhat, though not as much as would be expected *a priori*. To facilitate comparison over time Table 11 provides for the first time the net figures for 1960, 1965 and 1969.

Even household income is not an entirely appropriate measure of economic welfare. What would be better would be disposable household income which measures the money available for spending after taxes have been deducted. At the time of writing no satisfactory measure of the taxes paid by county is available.

From what research has been done some rather tentative figures are available which may indicate broad orders of magnitude. Income and sur-tax generally amounted to about £57 per capita in 1973. Dublin, however, had a level of £98 per head. If Dublin was left out of the calculations the rest of the State paid about £40 per head with relatively small provincial variations about this level—Munster £46.5, Leinster excluding Dublin £40, Connacht £35, Ulster £26. If Dublin was included the Leinster average rose to £73, since in these calculations Dublin is reckoned to pay almost exactly half the total tax collected in the State. The variation within provinces was greater than that between provinces. Industrialised counties naturally paid more since incomes were higher and there were fewer exempted farmers. Louth and Waterford led the field at £63 and £59 respectively. Such figures, as are available, suggest that the lowest contributions were not from the west or north but the midlands where Laois was only reckoned to pay £9 a head and Longford £10 compared to Mayo at £18 per capita. However, the figures are not entirely satisfactory and this may merely reflect a sampling error.

Employees' contributions to social insurance is regarded as another form of taxation. In absolute terms these were reckoned to have a range from just under £13 per capita in Dublin, Kildare and Louth to £4 to £5 in Laois and Mayo.

In any assessment of inter-county welfare, then, disposable household income is to be preferred. Unfortunately, firm figures on it are also unobtainable at present. Some tentative figures for the provinces are given in Table 1 to illustrate the way in which adjustments for private non-profit-making institutions and income tax tend to reduce the range of variation. The figures include estimates for Dublin and Leitrim which were the two counties at the extremes of the income range in 1973.

As we move from personal income to disposable income the absolute range between Dublin and Leitrim declines from £392 to £304. In percentage points this is a contraction in the range of from 49% to 41%. In other words Leitrim's income as a percentage of that of Dublin rises from 60% to 64%.

It is important that any measure of economic welfare, such as disposable income, should mean the same for levels of consumption

TABLE 1: Various measures of per capita income ranges in 1973

Type of income	Dublin	Leitrim	State	Munster	Connacht	Ulster	Leinster excluding Dublin	State
Absolute level in per capita income (£)								
Personal	976	584	799	780	650	642	725	726
Household	952	578	784	767	636	635	717	715
Disposable	854	550	727	720	601	609	677	675
Deviation from average (£)								
Personal	+177	-215	—	-19	-149	-157	-74	-73
Household	+168	-206	—	-17	-148	-149	-67	-69
Disposable	+127	-177	—	-7	-126	-118	-50	-52
Deviation from average (%)								
Personal	+22	-27	—	-2	-19	-20	-9	-9
Household	+22	-26	—	-2	-19	-19	-9	-9
Disposable	+17	-24	—	-1	-17	-16	-7	-7

tion in all counties. This is not the case where farmers' consumption of their own produce is valued at farm-gate prices while urban consumption of identical products is valued at retail prices. To cater for this discrepancy the Central Statistics Office publishes a ready reckoner by which farmers' consumption can be converted from farm-gate prices to retail prices. It was reckoned that such a recalculation would increase the value of home-grown produce consumed on the farm in 1973 from £28.9 to £59.0 millions nationally.

A similar exercise can be undertaken at the county level, and since the significance of home grown produce as a contributor to income varies from county to county, a change in the valuation procedure will affect counties differently. Attwood and Geary noted that in 1960 the adjustment would add £15 per capita to incomes in Mayo—an increase of 10%—as against £1 per capita in Dublin an increase of only 0.4%.

Even though the methodology used for 1973 did not permit a similar calculation to be made it was deemed of sufficient interest to warrant establishing broad levels of magnitude using other material. The required alterations are set out in the first

column of Table A. 1 (in the Appendix) and appear plausible. If these alterations were made to disposable income in Table 1 the change would take a negligible influence on the level of per capita income in Dublin—a not unexpected result, whereas Connacht incomes in general would rise by £28 per capita. In terms of disposable income the gap between Connacht and the nation as a whole is thereby reduced to £108, or 15% of the average. The gap narrowed to £60 a head when Dublin was left out of the national calculations.

However, a thorough-going analysis of interregional differences in welfare would require making more extensive recalculations than merely those relating to farm consumption. This is necessary because regions differ in the degree of commercialisation of their economic life. In poorer regions certain services may be provided in a non-market framework which in a wealthier region would be provided mainly through market transactions. In the richer region, where ample employment opportunities occur, comparative advantage may induce a fully employed worker to specialise and buy services which an underemployed worker in a poorer region would provide for himself in his slack period. In accordance with national accounting conventions, only market transactions are included in income, so that the higher degree of commercialisation in the richer county may produce a recorded difference in income *vis-à-vis* a poorer, less commercialised, county which is greater than the actual level of goods and services in the two counties would warrant. On the other hand, in the richer county high labour costs and high marginal taxation rates could exert a countervailing effect. For example, a specialist may decide to limit his money income and to spend his surplus time in producing do-it-yourself goods and services which will not be included in the national income any more than in the tax returns. Since these aspects of national life change only gradually it is rarely necessary to give explicit recognition to differences of this nature when calculating income at the national level. When making inter-regional (or international) comparisons of welfare, failure to take non-market aspects into consideration could impair seriously the value of the conclusions.

It would appear likely that many services that are provided by the individual for himself or by people who do not charge for

their services are likely to be more rural than urban in their location, though not exclusively. The farmer who fixes his own machinery, his wife who cooks for the workmen, the teacher who builds his own house, the Christian Brother who paints the school during the holidays and the confessor who consoles the scrupulous may have more commercialised counterparts in urban areas employed in garages, restaurants, building firms and psychiatric clinics. The recorded difference in income may reflect no difference in welfare.

In the discussion of farm consumption it was suggested that retail prices could be used to replace farm-gate prices. But what retail prices should be used? Regional differences in market structure will influence the regional levels of prices as will the local strength of supply and demand. If prices differ, a given level of income may imply a different standard of living in different areas. In this study national deflators were used to convert incomes to the 1969 equivalents. These may not be appropriate if consumption patterns and prices differ regionally. Apart from some work on grocery prices by the National Prices Commission for towns with more than 10,000 inhabitants, little is known about the geographic distribution of price variations. *A priori* there is no evidence that the balance lies to the advantage of the poorer areas. For example—retail distribution in poor sparsely-populated areas may incur high costs due to low volume compared to those of the giant supermarkets in Dublin.* On the other hand, services in the poorer areas may be cheaper. Here again the Census of Population data on rents in Galway show them to be higher than might be expected although in this case the data do not refer to a homogeneous good.

Inter-county comparisons need to be supplemented with other social indicators, such as the distribution of incomes and levels of living; for example, on health, education, transport, recreational facilities, congestion, pollution, etc. Is it relevant, for example, that the 1966 *Report on Vital Statistics* gives the age standardised death rate for Leinster as 12.47, which is 17% higher than Connacht's 10.65? Again, incomes need to be related to population

* A survey of 11 towns in 1974 by the National Prices Commission showed that Waterford and Drogheda were the cheapest for 181 common grocery items and Galway and Sligo the dearest (the position of smaller towns as well as for other items is not known).

levels, dependency ratios, employment, consumption and savings. An area vibrant with large families may appear worse off per capita than a decaying area in which there are many unmarried workers.

In a sense, personal income can be regarded as summing up the past achievements of an area. To complete the analysis it is necessary to study the present in terms of output levels and efficiency in factor employment, and the future in terms of the region's potential to hold and attract growth industries.

1.5 Comparisons with previous estimates

The 1960 and 1965 estimates were closely linked with the Population Census of 1961 and 1966 while that for 1969 clearly had no Census to act as a basis. The 1973 estimates are related to the 1971 Census and as such have more in common with the earlier estimates than with those for 1969. *More confidence can therefore be placed in changes between 1965 and 1973 than between either year and 1969.*

The 1969 figures published here differ from those previously published. The earlier estimates were based on provisional national totals, which were subsequently revised upwards by almost £28 million. The appendix provides information on the methods of revision in the different sectors and of other changes made. Time did not permit a complete revision to be undertaken though additional material is now available. Such a revision would mainly affect wages in sectors other than agriculture.

In the methodological section in the appendix some of the problems associated with the 1973 estimates are discussed. A few of the major points are repeated here. The 1973 estimates followed the Census of Population more closely than did previous estimates. The distribution of employee remuneration arising in the retail trade, in defence, and in public administration has been influenced accordingly, and estimates of inter-county commuting prepared for the first time. Again, in the gap between coverage of the Census of Population and the Census of Industrial Production lies the tangled problem of commuters, workers in small firms and self employment in industry. The method of handling this has been improved. In agriculture, ongoing research by An Foras Talúntais has helped devise a new methodology for the allocation

of costs in fertiliser and purchased feed utilisation. Wherever possible an estimate is provided of what per capita income would have been if these changes had not been made, (see Table A1).

On the negative side some information previously available is no longer collected. In agriculture the sale of feeding barley oats and potatoes off farms has not been collected since the early 'sixties* and the pattern appears to have changed markedly since then. The Department of Social Welfare is no longer able to give a county breakdown of certain payments, such as children's allowances and old age pensions. Certain departments were unable to provide any information. This was particularly serious in the case of the Department of Education, given the numbers involved in teaching and administration. The 1965 income estimates for interest, dividends and emigrants' remittances were derived from special surveys; these results have been used for all other years so that the county proportions have been assumed constant. Given the margins of error of the original surveys, fresh surveys might not provide reliable estimates even of trends, should it be feasible to repeat the exercise.

1.6 The accuracy of the estimates

While it is not easy to find data with which to check the outcome of the estimates, wherever a test has been possible the results have been encouraging. The CSO kindly made available some county income results of the 1973 Household Budget Survey (HBS), but emphasised the dangers of using the data because of the small sub-samples of households surveyed in individual counties (national sample was 7,748 households) and the understatement of income by respondents traditionally experienced in all direct household enquiries of this type. Despite the limitations it was, nevertheless, very consoling to find that the distribution of employee income by county was practically identical in all counties even though the aggregates included differed considerably at national level. Income from self-employment in agriculture was less easy to compare since there were major differences in the methods of treating certain important items between the HBS farm accounts and the official national esti-

*Due to the unsatisfactory nature of the returns.

mates of agricultural output, expenses and income. The general outcome of the comparison was favourable but the results suggested that the old method of allocating feed costs was the preferred to the new approach developed by an Foras Talúntais. This is discussed in more detail in the section on agriculture.

A partial check on income from self-employment was possible since the Revenue Commissioners made available their records of "income from a trade, profession or vocation". Unfortunately the tax districts for the most part do not coincide with county boundaries and there are other difficulties. The first assessment of total income, excluding building and construction, for 1973/4 was £115.5 million compared with the CSO official estimate for 1973 of £118 million approximately. Although the time periods are not the same these figures imply that very little of the income of the self-employed falls outside the tax net. This seems unlikely when the low incomes associated with some huckster shops, cobblers, dressmakers, etc. are called to mind. It must mean that final assessments (which are not available) would be lower. Even in the case of first assessments it was not possible to make a complete check since tax districts* only coincided with counties in six cases. However, as will be seen in the appropriate section, the differences between the estimates presented here and the tax returns are not great. An attempt was made to get corroborating evidence on income from self-employment in the Household Budget Survey. However, the number of self-employed included was small and the figures appeared unreliable on a county basis even though they supported the current estimates in the majority of counties.

1.7 New sources of data for future work

All in all, the attempts to validate the estimates seem to indicate that a high degree of reliability can be attached to the 1973 figures and that they are a more accurate measure of the absolute levels than previous estimates. Some difficulties with the estimation have been noted and these seem likely to be exacerbated with the passage of time. This will be especially true in the

* The district in which tax is paid need not coincide with the residence of the self-employed taxpayer.

absence of a Census of Population. A new methodology is therefore called for.

It has been hoped that the Household Budget Survey could replace this exercise at least on a regional level every five years. The CSO, however, is examining whether the costs of surveying household income in detail (particularly for farm households) and the attendant effect which this has had on response, justify the coverage of income in future surveys, particularly since the usefulness of the results is considerably curtailed because of understatement by respondents.

The Revenue Commissioners have been helpful in providing details of income of self employed including separate estimates of incomes from rent and investment. If in addition to Schedule D taxation, details of PAYE were also available, and if these could be made available on some geographic basis that corresponds to counties or regions it would be possible to provide a reliable up-to-date index of regional prosperity.

This would need to be supplemented by information on agriculture and transfer payments and here it is suggested that the National Farm Survey of An Foras Talúntais could be developed to meet this need.

All income estimates to date have been undertaken by The Economic and Social Research Institute alone or in collaboration with An Foras Talúntais. This has the advantage that reasonable estimates could be published without conferring on them the imprimatur of official statistics. However, it has the limitation that the research workers are not part of the public service and therefore find it less easy to obtain access to confidential files. This problem would be avoided by a public servant undertaking the work or by seconding the research worker to the public service. This might also help in eliciting material from Government departments. The response rate in the current enquiry has been less satisfactory than heretofore. As stated previously, major Departments have not replied or have been unwilling to undertake the exercise.

CHAPTER 2

A SUMMARY OF THE RESULTS

2.1 Changes in income per capita, 1969-1973

Personal incomes in all counties experienced a real and very substantial growth between 1969 and 1973. This has meant that, on average the *absolute* increase in per capita income in the period 1969-73 was equal to that arising in the previous nine years.

One heartening feature of the period is the way the relatively poorer counties have benefited. Table 2 shows that the greatest absolute increases in real per capita income in the 'sixties were associated with the industrialised areas of Leinster and Munster. Since 1969 the range has become narrower with the slowest increases recorded for Dublin and Louth. If these two counties are omitted, increases in real per capita income were greater in the four years since 1969 than in the nine years up to that date.

TABLE 2: Changes in real per capita incomes in certain areas 1960-1973

Area*	1960	1969	1973	1960-9	1969-73
Ten Designated Counties	229	329	458	+100	+129
Three Midland Counties	255	342	469	+87	+128
Dublin and Louth	378	556	673	+178	+118
Three Munster city-counties	297	429	570	+133	+140
The remaining eight	272	380	519	+108	+139
State	293	429	560	+136	+131

*for explanation see text.

In Table 2, Clare has been omitted from the designated areas because its development prior to 1969 was atypical. Its performance since 1969 does not show up strikingly as much of its workforce is not resident in the county. For the ten remaining counties progress since 1969 has been striking whatever way it

is measured and greater in absolute terms than that recorded for Dublin and Louth.

Within the designated areas progress in particular counties was noteworthy; the increases in real per capita income being in excess of £140 in Galway, Roscommon and Monaghan. While Donegal and Mayo had increases of less than £120 a head, developments since 1973 hold out the promise of very rapid advances in incomes in these counties since then. Less can be said of the future of Leitrim and Longford which also had increases below £120.

The three Midland counties referred to in Table 2 are Laois, Offaly and Westmeath which were in the doldrums during the 'sixties. These occupy a grey area between the designated areas and the prosperous areas of the south and east so that per capita incomes have been gradually approaching the average level of the designated areas. In these counties the rise in real per capita incomes since 1969 has been encouraging. However, their ranking has been declining *vis-a-vis* the more active counties in the designated areas.

The eight unspecified counties include Dublin's three neighbours, a group of counties stretching from Wexford to Tipperary, generally associated with prosperous agriculture, and Clare, omitted from the designated areas for the reasons given above.

2.2 Agriculture

Much of the improvement since 1969 can be attributed to the enhanced performance of agriculture which reported a real increase of 44% since 1969 compared to only 3% over the 'sixties. High cattle prices in 1973 were one of the factors that brought about this result. These do not appear to have been associated directly with EEC membership since they fell dramatically in 1974, only to recover again in 1975. Thus, to some extent, the results may have been influenced by the point on the cycle when county incomes were measured.

2.3 Structure of income

As a consequence of the improved performance of agriculture the rapid change in structure of income, which was noted as a feature of previous studies, was arrested as far as the major constituents of income were concerned and, in fact, was reversed in

that the share of income arising from agriculture increased marginally. The lower incomes associated with farming in 1974 caused agriculture's share to fall by four percentage points in that year. It is not clear yet whether the recovery in 1975 enabled this industry to regain its position. Inflation has continued apace and may have pushed up incomes in protected employment faster than incomes in market-oriented industries with a consequent redistribution of incomes within the State.

If the figures on income structure are analysed on the basis of numbers employed rather than in gross terms we find that increases in real incomes per worker were approximately as follows:

	1960-9	1969-73
Agriculture	36%	66%
Industrial wage-earners	42%	29%
Other wage-earners	45%	29%
Self employment	28%	27%

The rises in agriculture and self-employment were associated with a contracting work force. The improvement in agriculture has been very substantial and has naturally benefited counties where farming is efficient and also a major contributor to county income. This is not true of Dublin and Louth.

2.4 Employment in transportable goods industries

It was not possible to study the geographical distribution of changes in employment in transportable goods industries between 1969 and 1972 since the special analysis provided by the Central Statistics Office for 1969 did not cover the same industries. Instead reliance had to put on changes between 1963 and 1972 for which numbers employed and earnings per head were available for each county for those firms covered by the Census of Industrial Production.

In terms of job numbers there has been a welcome shift away from Dublin and towards the designated areas. Against a national rise of 20%, numbers employed in Dublin increased by only 8%, compared to 55% in the designated areas.* The contrast is less

* It will, of course, be remembered that a high rate of increase may be due in part to a low initial base.

stark if the above average growth of employment in the counties surrounding Dublin are included (Wicklow, Kildare, Meath & Louth) but still it is only 13% so that this area's share of total industrial employment (measured in the CIP) declined. The share of the designated areas rose but within these areas the distribution was uneven. Leitrim and Mayo did particularly badly while Clare, Kerry, Galway and Monaghan grew rapidly.

In the other areas of the state Waterford made substantial gains and also Laois. In marked contrast Carlow, Kilkenny and Offaly all suffered net job losses.

Some estimates prepared by the Industrial Development Authority reckon that almost 6,600 net jobs were lost between 1973 and 1975. This was split up regionally as follows (in thousands) so that the shift in favour of the poorer areas has continued (and also in favour of the prosperous South East) in spite of the recession. This trend can be expected to continue as major projects, such as Asahi and Courtaulds, came into production in Mayo and Donegal respectively.

<i>Declines</i>		<i>Gains</i>	
East	- 8.8	West	+ 2.1
Northeast	- 1.6	Midlands	+ 1.0
Mid West	- 0.9	South East	+ 1.0
South West	- 0.1	North West	+ 0.7
		& Donegal	

2.5 Earnings in transportable goods industries

Job creation is not the whole story. Between 1963 and 1972 the real earnings in transportable goods industries increased by 48% per employee, or by £438. The highest increase occurred in Galway—£542. Increases were also over £500 in Wicklow and Waterford and over £460 in Dublin, Clare, Limerick and Kildare. Several counties, however, had increases of less than £320 a head. This was true of Ulster, Connacht excluding Galway and Roscommon, and several Midland counties in Leinster. The increase in Longford was particularly low even though the rate of increase in jobs in this county had been the highest in the State—over 140%. Since wage rates in all new industries are agreed with the trade unions and must therefore meet their standards, the low

increases in counties with high growth rates in employment must be related to such matters as the duration of the employment—the number of hours during which the standard wage was applied. It could also be related to the male/female ratio, the skill mix and the value added in small-scale industries.

The new figures for industrial earnings indicate that the assumptions about industrial remuneration made in preparing the original 1969 county income estimates were inaccurate in several cases, and therefore reinforce the argument for analysing changes between 1965 and 1973 rather than between either year and 1969. In presenting the ranking of counties for 1969 an alternative ranking is presented based on *a priori* expectations of how a fresh calculation using more up-to-date data might change the ordering (see Table 3).

2.6 Population

The estimates of population made for both 1969 and 1973 show a continuation of the demographic turn-around already noted for the 'sixties. Fewer counties lost population—Connacht excluding Galway, Cavan and Longford; even these losses were at a much lower rate than previously. The growth of population in other counties was increasing with the rate in Wicklow approaching 9% over the four year period. Thus changes in per capita incomes owe less to population declines than heretofore.

2.7 Ranking of counties by income per capita

One way to summarise overall change is to rank counties for each of the four years. As will be clear from Table 3 such a ranking does not reveal the considerable improvements discussed in this study and the foreshortening of the range of income disparity. Where there are large gaps between the incomes of neighbouring counties on the ranking scale it is easy to appreciate that major changes could occur without altering the ranking relationship. For example, Dublin is still at the top of the list and Leitrim at the bottom. Nevertheless, between 1969 and 1973 the same absolute increases in real per capita incomes occurred in both counties even though during the 'sixties there was £100 extra in Dublin's favour compared with the absolute increase in Leitrim.

TABLE 3: Ranking of counties by income per capita, 1960-1973

	1973	1969	1965	1960
Dublin	1	1	1	1
Waterford	2	4 (2)	3	5
Cork	3	3	2	2
Limerick	4	6 (4)	5	6
Kildare	5	5	6	3
Louth	6	2	4	4
Wicklow	7	9 (7)	7	7
Kilkenny	8	10 (8)	9	10
Tipperary	9	7 (9)	8	8
Carlow	10	8 (10)	10	9
Meath	11	16 (11)	11	11
Monaghan	12	15 (14)	18	19
Wexford	13	12 (13)	14	13
Clare	14	11 (2)	13	17
Kerry	15	13 (15)	15	15
Westmeath	16	14 (16)	12	14
Galway	17	21 (18)	20	18
Offaly	18	17	16	12
Sligo	19	18 (19)	19	19
Cavan	20	19 (20)	17	21
Roscommon	21	24 (22)	22	22
Laois	22	20 (21)	21	15
Longford	23	22 (23)	23	23
Mayo	24	23 (24)	25	25
Donegal	25	25	24	24
Leitrim	26	26	26	26

Note: As explained in the text, figures for 1969 were based on less full data than for other years. It would be possible to interpolate data from the more complete material available for 1965 and 1973. If this was done a new ranking might result for 1969. The figures in parentheses in the above table give the *a priori* expectations of the new ranking. These indicate considerable stability in rating and trends.

To facilitate examination, the counties are presented in six groups according to their position in Table 3.* The highest per

* Before we turn to examine them in detail it might be noted that the increase may possibly be underestimated in the counties of Carlow, Kilkenny, Tipperary and Waterford and also in Galway. It may be overestimated in Limerick and some Midland counties: Longford, Laois, Offaly, Westmeath. The growth in Meath may be overestimated slightly at the expense of Louth. In addition it is obvious that had different assumptions been made, incomes in certain counties would have to be changed. For the convenience of the reader these plausible adjustments discussed in the text are gathered together in Table A1. However it is believed that estimates given here are on balance better than these alternatives.

capita income was enjoyed in Dublin in all years. Perhaps due to its industrial structure, or its growing young population, its pre-eminence over its nearest rival has steadily diminished; in percentage terms from being ahead of it by 28% in 1960 to a margin of 17% in 1973. If the incomes of private non-profit-making institutions were omitted the margin would fall to 15% in 1973.

A second group of six counties comprise the city counties of Munster and three counties in the Dublin hinterland. The table shows how the Munster counties, led by Waterford, have forged ahead of the Dublin group. The latter may have suffered from the slowing up of income growth in Dublin. Of these three Louth has fallen back and its decline is one of the noteworthy aspects of the current report. However, as will be seen Monaghan has been growing rapidly so that the North-east continues to be one of the strong points of the State.

The next groups are three counties in the South-East, Kilkenny, Tipperary and Carlow which have changed sequence with each other over the years. Allied with the fast growth of Waterford and the presumably high incomes of east Cork, they point to the most rapidly growing region in general prosperity (and this estimate of growth may be understated somewhat) which has continued to grow through the recession at least up to 1975.

After these come a group headed by the last of Dublin's neighbours, Meath, which appears to have remained in the same position in ranking over the years. The most striking member of the group is Monaghan which moved up continuously from 19th place to 12th to form a zone of growing prosperity with Louth. The other county with rising fortunes was Clare but its rapid rise in the ranks in the early 'sixties has not been sustained and the county has regressed somewhat towards its 1960 position. Wexford and Kerry have in general, maintained their positions, but Westmeath seems to be following the downward trend associated with its neighbours, Laois and Offaly.

The next group contains the more prosperous counties of the west and north. It also contains Laois and Offaly which were replaced from the previous group by Clare and Monaghan. The steady decline of Laois and Offaly has not received the attention it merits. Offaly fell from 12th to 18th place and Laois from 15th to 22nd.

The final group of four counties are those of Longford, Leitrim, Mayo and Donegal, at the end of the country furthest away from the growing south-east. It is disappointing that in the case of Longford the increase in industrial employment was not associated with per capita earnings sufficient to improve the county's rating. Mayo and Donegal have been selected for major industrial developments in recent years and it is to be hoped that this will put them in a stronger income position in the future. No such break-through is as yet reported for Leitrim.

CHAPTER 3

THE ESTIMATES OF PERSONAL INCOME, 1960-1973

3.1 Introduction

This chapter presents the tables of overall income and leaves to chapter 4 the discussion of the components of that income.

Table 4 presents the estimates for personal income by county for 1973. It will be noted that the total differs slightly from that published in *National Income and Expenditure 1974* due to slightly different treatment of some payments abroad. Table 5 is a partial revision of the estimates for 1969 published previously (see *Further Data on County Incomes in the Sixties**) as set out in the Appendix. Time did not permit using fresh data to recalculate all sectoral estimates and the estimates should be regarded as improved but still not as thoroughly prepared as comparable data published for 1960 and 1965 in *Further Data* and the 1973 figures presented here.

Table 6 derives the structure of personal income within each county in 1973 from Table 4, while Table 7 does the same for 1969 using the revised estimates in Table 5. The analysis of structures in 1960 and 1965 which appear in *Personal Incomes by County, 1965†* needed minor revisions due to the revised data for these years published later in *Further Data*. The changes were generally not great. To facilitate reference, Table 7 gives the structures for the State including and excluding Dublin in 1960 and 1965 below the county analysis for 1969.

3.2 The structure of personal income within counties

The initial impression is that the changing structure of counties, which was proceeding rapidly during the sixties, has been generally halted and that this is due mainly to the change in the fortunes of agriculture. Between 1960 and 1969 outside Dublin

* M. Ross, *Further Data on County Incomes in the Sixties*, Paper No. 64 ESRI May 1972 (referred to subsequently as *Further Data*).

† M. Ross, *Personal Incomes by County, 1965*, ESRI Paper No. 49, November 1969.

TABLE 4: Distribution of Personal Incomes by source, 1973 (£000's)

County	Domestic Remuneration of Employees			Income of self-employed		Interest, Dividends and Rents	Current Transfers from Public Authorities	Emigrants' Remittances and Pensions (a)	Total
	Agriculture and Forestry	Industry	Other Sectors	Agriculture and Fisheries	Others				
Carlow	921	5,689	5,970	5,391	1,704	2,154	2,760	584	25,174
Dublin	2,403	236,929	350,442	7,558	50,920	124,064	80,837	12,232	865,384
Kildare	2,101	15,819	17,702	8,915	3,094	5,880	4,992	832	59,335
Kilkenny	1,453	9,140	10,264	15,670	2,565	3,176	4,384	808	47,459
Leois	1,129	6,029	7,117	8,539	1,574	1,621	3,352	447	29,871
Longford	298	3,055	4,392	4,381	924	974	2,886	847	17,754
Louth	813	22,026	15,615	5,370	4,302	4,728	6,960	1,289	61,103
Meath	2,547	13,192	11,340	13,181	2,892	4,047	4,931	751	52,881
Offaly	810	9,911	7,520	8,091	1,655	2,063	4,074	798	34,922
Westmeath	849	6,393	12,620	7,134	2,270	2,302	4,688	969	37,226
Wexford	2,570	10,986	14,860	17,188	3,720	4,741	6,973	1,350	62,389
Wicklow	1,756	15,109	13,303	7,007	3,585	7,113	4,935	1,168	53,975
LEINSTER excluding Dublin	17,648	354,342	471,142	108,426	79,205	62,863	131,772	22,077	1,347,474
Claire	15,245	117,413	120,700	100,868	28,285	38,799	50,935	9,845	482,090
Cork	705	10,292	12,857	15,789	2,717	3,297	6,482	1,489	53,628
Kerry	4,604	72,037	81,952	56,719	17,710	24,018	31,066	7,825	295,931
Limerick	863	12,566	17,916	23,789	4,635	3,804	11,842	2,727	78,142
Tipperary	1,867	26,081	33,102	22,684	6,026	8,744	11,893	3,190	113,588
Waterford	3,018	18,504	21,203	27,557	5,140	6,685	10,482	2,099	94,688
MUNSTER	1,463	19,038	17,667	12,645	3,291	4,478	6,183	1,484	66,250
Galway	12,520	158,518	184,697	159,184	39,520	51,026	77,948	18,814	702,226
LEINSTER excluding Dublin	804	15,823	28,114	26,344	5,651	6,223	16,044	3,233	102,236
Leitrim	179	2,322	4,038	4,240	768	750	3,274	619	16,190
Mayo	443	8,679	15,316	18,324	3,211	4,042	12,538	5,089	67,642
Roscommon	273	4,898	7,442	12,351	1,315	2,132	4,847	1,415	34,674
Sligo	250	5,952	9,831	7,441	2,217	1,906	4,528	1,144	33,268
CONNACHT	1,949	37,674	64,740	68,699	13,161	15,053	41,231	11,501	254,009
Cavan	326	5,980	7,215	11,688	1,897	1,722	4,446	1,272	34,546
Donegal	887	11,259	15,807	14,001	4,046	4,478	12,534	3,353	66,368
Monaghan	305	6,405	7,666	10,274	1,771	1,957	3,841	884	33,102
ULSTER (part)	1,517	23,644	30,690	35,964	7,714	8,157	20,821	5,509	134,016
TOTAL	33,635	574,177	751,269	372,273	139,600	237,100	271,772	57,900	2,437,726
Total excluding Dublin	31,232	337,248	400,827	364,715	88,680	113,036	190,935	45,668	1,572,341

TABLE 5: Distribution of Personal Incomes by source, 1969 (£000's)

County	All Agriculture	Employee Remuneration		Self-Employed	Interest, Dividends and Rents	Transfers	Emigrants' Remittances and Pensions	Total
		Industry	Other non-agricultural					
Carlow	3,134	3,042	3,135	810	1,277	1,347	338	13,083
Dublin	7,031	135,955	187,802	27,673	71,129	33,203	6,441	469,234
Kildare	5,621	8,343	7,650	1,721	3,271	2,226	444	29,277
Kilkenny	7,580	4,786	4,952	1,389	1,856	2,142	459	23,164
Laois	4,636	3,271	3,268	910	966	1,558	249	14,858
Longford	2,402	1,558	2,104	646	589	1,432	519	9,249
Louth	3,542	12,959	8,102	1,946	2,763	2,863	696	32,872
Meath	7,684	5,067	4,849	1,449	2,261	2,278	408	23,996
Offaly	3,994	5,219	3,834	1,093	1,274	1,818	450	17,681
Westmeath	3,281	3,722	6,324	1,301	1,309	2,271	577	18,785
Wexford	9,544	4,678	7,534	1,987	2,725	3,271	793	30,532
Wicklow	4,069	5,759	6,125	1,923	3,837	2,271	660	24,559
LEINSTER	62,516	194,360	245,679	42,850	93,258	56,595	12,033	707,290
Cork	7,290	6,783	6,621	1,709	1,742	2,883	888	27,917
Kerry	29,812	38,631	42,249	8,596	13,562	14,105	4,554	151,510
Limerick	12,395	6,657	9,057	2,534	2,288	5,471	1,660	40,062
Tipperary	12,264	12,080	17,056	3,494	5,054	5,450	1,227	57,314
Waterford	6,261	9,237	11,617	3,157	3,893	4,936	1,877	48,483
MUNSTER	82,438	8,872	9,184	2,000	2,615	2,820	838	32,591
Galway	12,513	82,261	95,785	21,490	29,153	35,705	11,044	357,877
Leitrim	2,673	7,101	13,445	3,698	3,434	6,962	1,969	49,124
Mayo	5,090	884	1,974	487	442	1,643	380	8,483
Roscommon	5,747	4,874	7,869	2,221	2,320	6,050	3,164	35,588
Sligo	1,762	1,762	4,070	929	1,273	2,346	870	16,996
CONNACHT	4,134	3,066	4,917	1,177	1,121	2,095	689	17,138
Cavan	34,156	17,627	32,274	8,512	8,590	19,097	7,072	127,328
Donegal	6,211	2,663	3,992	1,093	1,013	2,020	774	17,766
Monaghan	7,085	6,198	7,947	2,220	2,642	5,603	2,053	33,748
ULSTER (part)	5,194	2,891	3,723	934	1,144	1,753	524	16,162
ULSTER (part)	18,490	11,752	15,662	4,248	4,799	9,376	3,351	67,677
TOTAL	197,600	306,000	389,400	77,100	135,800	120,772	33,500	1,260,172

TABLE 6: Structure of Personal Income within each county 1973 (Percentages)

County	Agriculture	Non-Agricultural Remuneration		Self Employment	Current Transfers	Other Income
		Industry	Other			
Carlow	25.1	22.6	23.7	6.8	11.0	10.9
Dublin	1.2	27.4	40.5	5.9	9.3	15.7
Kildare	18.6	26.7	29.8	5.2	8.4	11.3
Kilkenny	36.1	19.3	21.6	5.4	9.2	8.4
Laois	32.4	20.4	23.8	5.3	11.2	6.9
Longford	26.4	17.2	24.7	5.2	16.3	10.3
Louth	10.1	36.0	25.6	7.0	11.4	9.8
Meath	29.7	24.9	21.4	5.5	9.3	9.1
Offaly	25.5	28.4	21.5	4.7	11.7	8.2
Westmeath	21.4	17.2	33.9	6.1	12.6	8.8
Wexford	31.7	17.6	23.8	6.0	11.2	9.8
Wicklow	16.2	28.0	24.6	6.6	9.1	15.3
LEINSTER	9.4	26.3	35.0	5.9	9.8	13.7
.. excl. Dublin	24.1	24.3	25.0	5.9	10.6	10.1
Clare	30.8	19.2	24.0	5.1	12.1	8.9
Cork	20.7	24.3	27.7	6.0	10.5	10.8
Kerry	31.5	16.1	22.9	5.9	15.2	8.4
Limerick	21.6	23.0	29.1	5.3	10.5	10.5
Tipperary	32.3	19.5	22.4	5.4	11.1	9.3
Waterford	21.3	28.7	26.7	5.0	9.3	9.0
MUNSTER	24.5	22.6	26.3	5.6	11.1	9.9
Galway	26.6	15.4	27.5	5.5	15.7	9.2
Leitrim	27.3	14.3	24.9	4.7	20.2	8.5
Mayo	27.7	12.8	22.6	4.7	18.5	13.5
Roscommon	36.4	14.1	21.5	3.8	14.0	10.2
Sligo	23.1	17.9	29.6	6.7	13.6	9.2
CONNACHT	27.8	14.8	25.5	5.2	16.2	10.5
Cavan	34.8	17.3	20.9	5.5	12.9	8.7
Donegal	22.4	17.0	23.8	6.1	18.9	11.8
Monaghan	32.0	19.3	23.2	5.4	11.6	8.6
ULSTER (part)	28.0	17.6	22.9	5.8	15.5	10.2
TOTAL	16.7	23.6	30.8	5.7	11.1	12.1
.. excl. Dublin	25.2	21.4	25.5	5.6	12.1	10.1

the share of agriculture had fallen from 34% to 24% of total income. In the next four years the trend reversed and the share of agriculture rose marginally to 25%. The trend is similar but somewhat less marked if Dublin is included—a decline from 23 to 16%, followed by an upturn to 17%. It would be tempting to attribute this to Ireland's entry into the Common Market. It seems more likely to have been due to the higher prices of cattle internationally in 1973. The provisional figures for 1974 indicate that agriculture's share fell to 13% in that year though it appears

TABLE 7: Structure of Personal Income within each county 1969 (Percentage Attributable to each origin)

County	Agriculture Total	Non-Agricultural Remuneration		Self Employ- ment	Current Transfers	Other Income
		Industry	Other			
Carlow	24.0	23.3	24.0	6.2	10.3	12.3
Dublin	1.5	29.0	40.0	5.9	7.1	16.6
Kildare	19.2	28.5	26.1	5.9	7.6	12.7
Kilkenny	32.7	20.7	21.4	6.0	9.2	10.0
Leois	31.2	22.0	22.0	6.1	10.5	8.2
Longford	26.0	16.8	22.7	7.0	15.5	12.0
Louth	10.8	29.4	24.6	5.9	8.7	10.5
Meath	32.0	21.1	20.6	6.0	9.5	11.1
Offaly	22.6	29.5	21.7	6.2	10.3	9.8
Westmeath	17.5	19.8	33.7	6.9	12.1	10.1
Wexford	31.3	15.3	24.7	6.5	10.7	11.5
Wicklow	16.6	23.4	24.9	7.8	8.9	18.3
LEINSTER	8.8	27.5	34.7	6.1	8.0	14.9
.. excl. Dublin	23.3	24.5	24.3	6.4	9.8	11.6
Clare	26.1	24.3	23.7	6.1	10.3	9.4
Cork	19.7	25.5	27.9	5.7	9.3	12.0
Kerry	30.9	16.6	22.6	6.3	13.7	9.9
Limerick	21.4	21.1	29.8	6.1	9.6	12.1
Tipperary	29.7	19.1	24.0	6.5	10.2	10.5
Waterford	19.2	27.2	28.2	6.1	8.7	10.6
MUNSTER	23.0	23.0	26.8	6.0	10.0	11.2
Galway	25.5	14.5	27.4	7.5	14.2	11.0
Laltrim	31.5	10.4	23.3	5.7	19.4	9.7
Mayo	25.5	13.7	22.1	6.2	17.0	15.4
Roscommon	33.8	10.4	23.9	5.5	13.8	12.6
Sligo	24.1	17.5	28.7	6.9	12.2	10.6
CONNACHT	26.8	13.8	25.3	6.7	15.0	12.3
Cavan	35.0	15.0	22.5	6.2	11.4	10.1
Donegal	21.0	18.4	23.5	6.6	16.6	13.9
Monaghan	32.1	17.9	23.0	5.8	10.8	10.3
ULSTER (part)	27.3	17.4	23.1	6.3	13.9	12.1
TOTAL	15.7	24.3	30.9	6.1	9.6	13.4
.. excl. Dublin	24.1	21.5	25.5	6.2	11.1	11.6

to have recovered somewhat in 1975. This volatility of agriculture makes for difficulties in assessing real change over time based on isolated years in the agricultural price seesaw.

Not all counties shared in the general upturn between 1969 and 1973. Specifically Dublin and its neighbours (including Louth) did not. In the north, Sligo and Cavan also declined while Monaghan remained stationary. Several explanations can be offered for these deviations. Between 1969 and 1973 the fastest

price increase by far occurred in the cattle industry. Relatively speaking income from cattle did not loom as large in the counties which deviated from the national position. This was not true in three counties, however: Meath, Cavan and Sligo. In Meath the proportion going to agriculture may have been influenced by the more accurate estimates of commuter incomes outside agriculture, and this adjustment may also have influenced the results for Kildare and Wicklow. Cavan resembled Dublin, Louth, and Monaghan in being a county which had an extremely high growth rate in agriculture in the sixties so that some regression to trend might have been expected. Cattle are important to Sligo, contributing 55% to gross output in 1973. Between 1969 and 1973 the county increased its cattle stocks at about 80% of the national rate of increase and so did not benefit to the full from the great price rise. Apart from this, in the same period the decline in pigs there proceeded much faster than nationally, which was also true of tillage. The cow herd and the sheep flock in Sligo grow faster than nationally but even so their combined contribution fell from 29% to 25% of gross output. Over the whole period 1960-73, cattle numbers in Sligo grew at about two-thirds of the rate for the State and cow numbers only slightly faster. In the latter case the most rapid growth occurred after 1969. It would be interesting to recalculate the figures for 1974—a year in which cattle prices fell about 13% and creamery milk prices rose 18%.

Outside Dublin, the shares of income accounted for by the remuneration of employees in industry and in other non-agricultural sectors rose continuously over the sixties but stabilised between 1969 and 1973. The growth in the share accounted for by industrial wages was almost twice as rapid as for 'other remuneration' up to 1969 but declined marginally after that; the share going to 'other remuneration' remained constant. In 1973 agriculture and 'other remuneration' each accounted for just over a quarter of total income and industry about five sixths of this amount. This is a far cry from 1960 when the share of industry was half that of agriculture and when 'other remuneration' contributed about two-thirds of the agricultural level.

In Dublin, industrial remuneration rose from 27% to 29% between 1960 and 1965 and fell from 29% back to 27% between 1969 and 1973. The Census of Industrial Production for 1963

and 1972 reports that in Dublin, jobs in the industries covered increased at about 40% of the national rate of growth though the level of earnings per worker grew faster than nationally. The share of 'other remuneration' fluctuated between 40% and 41% over the whole period. Because this latter source of income is so important in Dublin and industry less so, the inclusion of Dublin shows a decline in the share of industry for the country as a whole between 1969 and 1973 and even a marginal decline in the share of 'other remuneration'. In 1973 the proportions between agriculture, industrial remuneration and 'other remuneration' were 17%, 24%, and 31% for the country as a whole. In the following years they can be estimated provisionally as 13%, 25% and 32% so that the upward trend in the share for non-agricultural wages and salaries, interrupted by the high prices of cattle in 1973, was resumed in 1974.

The shares accounted for by 'self-employment outside agriculture' has declined steadily since 1960 while the share arising in transfers has risen equally steadily. These apply whether Dublin is included or left out of the analysis. The decline in 'other income,' (interest, dividends rent, foreign pensions and emigrants' remittances), which was reversed in 1969, continued afterwards. The share of these non-wage and non-agricultural incomes has increased slightly as a total from 28.1% in 1960 to 28.9% in 1973 but the composition has changed. In 1960 it was 7%, 7%, 14% respectively for income from self-employment, transfers and 'other income'. By 1973 it had become 6%, 11%, 12%.

3.3 Population in 1973

An attempt was made to estimate population by county for 1973. This was done by assigning births and deaths which occurred since the 1971 Census to the relevant counties and then assuming that internal migration rates continued to have the same magnitude as in the last intercensal period. The results obtained are given in Table 8. This shows a threefold rise in the rate of growth in the Republic outside County Dublin compared with 1965-1969. In Dublin itself the growth rate was slower in the latter period compared to the beginning of the sixties but since 1969 the rate of growth has again increased. At the end of the sixties, Wicklow was the fastest growing county. It maintained its

position in the early 1970's though Kildare was a close second. Louth also grew faster than Dublin. These rates of growth may reflect the overspill from Dublin and increases in commuting. In Leinster, Longford alone continued to have a decline in population but only about a quarter as fast as in the late sixties. Growth rates in Munster were twice as fast as in the late sixties. All counties in the province including Kerry gained in population. In Connacht, the decline was only a third of its level in the late sixties. Galway had the first positive growth rate for a long time and Sligo was almost in balance. The rates of decline in Leitrim, Mayo and Roscommon remained high though less than in the previous four years. In Ulster overall the population grew. Donegal was now gaining population and Monaghan increasing its gains. The decline in Cavan was greatly reduced and more than offset by the growth in the other counties.

These figures are based on the assumptions given earlier. Should the migration patterns have changed, as they have nationally, different estimates would be appropriate. However, there is no way at present to check this.

3.4 Per capita income, 1960-1973

Dividing the population estimates in Table 8 into personal income estimates in Table 4 gives the per capita incomes of counties in 1973. The average was almost £800 in current terms and ranged from £584 in Leitrim to £976 in Dublin. If these two counties are omitted, the range was from £607 in Donegal to £831 in Waterford. The average for the Republic excluding Dublin was £726.

To compare 1973 with previous years, the county estimates were deflated by the rise in the Consumer Price Index to express them in terms of 1969. These constant price estimates are given in Table 9. This table also includes the revised per capita estimates for 1969 and the estimates for 1960 and 1965 in 1969 prices as published previously. The Table indicates the very considerable progress that has been made in the growth of real per capita income in the last period. One way to illustrate this is to refer to the position of Leitrim, the poorest county. In 1973, real per capita income in the county was about as high as that in Limerick

TABLE 8: Estimates of Population and of Population Change by County

County	Estimate 1969	Estimate 1973	% Change		
			1969-73	1965-9	1960-5
Carlow	33.9	34.9	2.9	1.0	0.4
Dublin	830.5	886.6	6.8	6.0	9.4
Kildare	69.7	75.5	8.3	5.5	2.3
Kilkenny	61.3	62.6	2.1	1.1	- 2.2
Laois	45.1	45.9	1.8	0.9	- 1.6
Longford	28.5	28.3	- 0.7	- 2.5	- 5.7
Louth	73.0	78.1	7.0	5.5	2.3
Meath	70.1	74.4	6.1	4.7	2.5
Offaly	51.8	52.3	1.0	0.2	0.2
Westmeath	53.3	54.2	1.7	0.8	- 0.3
Wexford	85.0	88.4	4.0	1.9	- 0.6
Wicklow	64.2	69.8	8.7	6.8	2.6
LEINSTER	1,466.5	1,551.2	5.8	4.6	5.2
Excl. Dublin	636.0	664.6	4.5	2.8	0.3
Clare	74.4	76.6	3.0	1.1	- 0.8
Cork	347.5	362.2	4.2	2.7	2.1
Kerry	112.9	113.7	0.7	- 0.4	- 3.4
Limerick	139.3	143.5	3.0	1.9	2.0
Tipperary	123.1	125.1	1.6	0.1	- 1.4
Waterford	75.6	79.7	5.4	3.8	- 1.4
MUNSTER	872.8	900.7	3.2	1.7	0.5
Galway	148.3	151.2	2.0	- 0.2	- 1.4
Leitrim	29.1	27.7	- 4.8	- 6.1	- 8.8
Mayo	111.6	108.2	- 3.0	- 4.4	- 6.5
Roscommon	54.5	52.9	- 2.9	- 3.9	- 5.4
Sligo	50.6	50.4	- 0.4	- 2.0	- 4.5
CONNACHT	394.0	390.5	- 0.9	- 2.6	- 4.5
Cavan	63.1	52.6	- 0.9	- 2.3	- 5.2
Donegal	108.2	109.3	1.0	- 1.1	- 5.0
Monaghan	46.1	46.8	1.5	0.3	- 4.0
ULSTER (part)	207.4	208.6	0.6	- 1.1	- 4.8
TOTAL	2,940.7	3,051.0	3.8	2.3	1.5
Excl. Dublin	2,110.2	2,164.4	2.6	0.9	- 1.1

Note: The figures for 1969 were based on linear interpolation between the Census of 1966 and 1971. The official estimate for the State was slightly lower at 2.926 millions.

in 1969—a time when Limerick was sixth highest in the State. Between 1969 and 1973 the real income of Limerick itself had almost caught up with that of Dublin four years previously. In contrast, between 1965 and 1969, Limerick did not succeed in

TABLE 9: Per Capita Income 1973 in Current Prices and Constant (1969) prices compared with other years.

County	1973 Current Prices	1969 Prices			
		1973	1969	1965	1960
Carlow	721	506	386	313	274
Dublin	976	684	565	465	385
Kildare	786	551	420	341	300
Kilkenny	758	531	378	321	271
Laois	651	456	333	269	251
Longford	627	440	325	259	221
Louth	782	548	450	361	298
Meath	711	498	342	302	268
Offaly	668	468	341	287	260
Westmeath	687	481	352	300	254
Wexford	706	495	359	295	258
Wicklow	773	542	382	331	282
LEINSTER	869	609	482	397	332
Excl. Dublin	725	508	374	311	269
Clare	700	491	375	300	246
Cork	817	573	436	364	301
Kerry	687	482	355	291	251
Limerick	792	555	411	351	287
Tipperary	757	530	394	330	279
Waterford	831	583	431	363	296
MUNSTER	780	546	410	342	283
Galway	676	474	331	272	241
Leitrim	584	410	291	248	213
Mayo	625	438	319	256	214
Roscommon	655	459	312	260	222
Sligo	660	463	339	273	232
CONNACHT	650	456	323	266	227
Cavan	657	460	334	281	228
Donegal	607	426	312	257	219
Monaghan	707	496	351	279	232
ULSTER (part)	642	450	326	268	224
TOTAL	799	560	429	363	293
excl. Dublin	726	509	375	311	262

coming anywhere near the level Dublin had had in 1965. Income growth in the early sixties in Leitrim only brought that county above the position of Clare in 1960 when Clare was sixteenth. By the late sixties, Leitrim had caught up with Kerry's 1965 level of income when Kerry was fourteenth.

TABLE 10: Absolute and Percentage Change in Real Per Capita Income 1960-73

County	From To	Absolute change, 1969 prices					Percentage Change				
		1969 1973	1965 1969	1960 1965	1965 1973	1960 1973	1969 1973	1965 1969	1960 1965	1965 1973	1960 1973
Carlow		120	73	39	193	232	31	23	14	62	85
Dublin		119	100	80	219	299	21	22	21	47	78
Kildare		131	79	41	209	251	31	23	14	62	84
Kilkenny		153	57	50	210	260	41	17	18	66	96
Laois		123	64	18	187	205	37	24	7	70	82
Longford		115	66	38	180	219	35	25	17	70	99
Louth		98	89	63	179	250	22	25	21	52	84
Meath		156	40	34	196	230	46	13	13	65	86
Offaly		127	54	27	181	208	37	19	10	63	80
Westmeath		129	52	46	181	227	37	17	18	60	90
Wexford		136	64	37	199	237	38	22	14	68	92
Wicklow		160	51	49	219	260	42	15	17	64	92
LEINSTER		127	85	64	212	277	26	21	20	53	83
excl. Dublin		134	64	42	197	239	36	20	16	63	89
Clare		116	75	54	191	245	31	25	22	64	99
Cork		137	72	63	209	272	31	20	21	57	90
Kerry		127	64	40	191	231	36	22	16	66	92
Limerick		144	60	64	204	268	35	17	22	58	93
Tipperary		136	64	51	200	251	35	19	18	61	90
Waterford		152	68	67	220	287	35	19	23	61	97
MUNSTER		136	68	59	204	263	33	20	21	60	93
Galway		143	59	31	202	233	43	22	13	74	97
Leitrim		119	43	35	162	197	41	17	16	65	92
Mayo		119	63	42	182	224	37	25	20	71	105
Roscommon		147	52	38	199	237	47	20	17	77	107
Sligo		124	66	41	190	231	36	24	18	69	99
CONNACHT		133	57	39	190	229	41	21	17	71	101
Cavan		126	53	53	179	232	38	19	23	64	102
Donegal		114	55	38	169	207	36	21	17	66	94
Monaghan		145	72	47	215	264	41	26	20	78	114
ULSTER (part)		124	58	44	182	226	38	26	20	68	101
TOTAL		131	76	60	207	267	31	22	20	59	91
excl. Dublin		134	64	49	198	247	36	21	19	64	94

This is illustrated more clearly in Table 10 which gives the absolute increases in real income for the period as a whole and for the individual periods separately. Percentage increases are also given. The Table shows clearly that half of the absolute increase in real income occurred after 1969. In the latter period, the absolute increases in Leitrim and Dublin were the same though in the

sixties there had been a difference of over £100 in Dublin's favour in the absolute increase in real per capita incomes. The range in absolute increases seems to have shortened generally.

The percentage growth in Dublin is rather low. Many possible explanations can be offered for this. In part it reflects the fact that the same absolute change gives a small percentage increase where the absolute level is already high. Again it was noted above that the level of income in many counties was very strongly influenced by the performance of agriculture and particularly of cattle. Had a different year been selected in which cattle did less well the story could have been different. Dublin's agriculture is not heavily dependent on cattle. Another factor could have been that the high level of absolute increase in Dublin between 1965 and 1969 was compensated for by a somewhat lesser increase in the post-1969 period. Yet again, the 1973 levels in Dublin should be related to the high growth rates in Wicklow and Meath which may be due to a better assessment of the commuting over-spill from Dublin itself. Finally the figures relate to per capita income increases. Between 1960 and 1973 the population in the county of Dublin is reckoned to have grown by 23.75% compared with a growth rate of a tenth this magnitude elsewhere in the State, i.e. 2.39%. A high growth rate would seem to imply *a priori* a rise in the young dependency ratio. In some western counties the rise in per capita income came about partially as a result of a fall in population. A rising population with a slower growth in per capita income would probably be preferred by most people to a faster rise in income in a county of employed spinsters. To the extent that there has been a diversion of industrial employment away from Dublin, the benefits are most apparent in Cork, Waterford, Limerick and Galway.

The lowest absolute increase since 1969 occurred in Louth where the population grew by 15.4% since 1960. Incomes in this county seem to have been influenced by all the factors mentioned in connection with Dublin.

A more detailed explanation of the many changes which occurred in the fortunes of counties must be deferred until the various sectors are discussed below. As mentioned earlier, Table A1 provides some adjustments to per capita income levels. These

TABLE 11: Per Capita Income at 1969 prices excluding Transfers to private non-profit-making institutions.

County	1973	1969	1965	1960
Carlow	500	381	309	272
Dublin	667	554	459	381
Kildare	542	414	338	298
Kilkenny	526	373	319	270
Laois	450	326	267	250
Longford	433	319	256	220
Louth	543	445	358	297
Meath	493	338	300	267
Offaly	462	338	265	259
Westmeath	474	342	297	251
Wexford	490	356	294	257
Wicklow	537	379	329	281
LEINSTER	597	474	393	329
excl. Dublin	503	370	309	268
Clare	485	371	298	244
Cork	562	428	361	298
Kerry	475	350	288	249
Limerick	546	405	347	285
Tipperary	522	387	327	277
Waterford	575	426	360	293
MUNSTER	538	403	339	281
Galway	457	321	271	238
Leitrim	405	288	246	212
Mayo	432	314	253	213
Roscommon	454	308	259	221
Sligo	456	335	271	231
CONNACHT	446	317	262	225
Cavan	456	332	280	227
Donegal	421	309	255	218
Monaghan	490	346	276	231
ULSTER (part)	445	323	266	223
TOTAL	550	421	349	291
excl. Dublin	501	369	308	260

adjustments depend on different assumptions about the methods used; e.g. it might not be deemed appropriate to apply a correction factor for commuters in public administration to the 1973 figures alone. If this factor was eliminated, incomes, for example, in Galway would rise by £1 a head and those in Roscommon fall by £2. In this way the absolute change in both counties would be about the same for the post-1969 period. Table A1 is presented as an indicator of the scope which exists for different assumptions.

3.5 Household income

Another adjustment alluded to in Chapter 1 relates to deducting from personal income, transfers to private non-profit making institutions. Most of these transfers relate to payments to University, secondary and other schools, but they also include payments to the IPA, ESRI, The National Theatre, Voluntary Youth Bodies, the Red Cross, Muintir na Tire, etc. Table 11 provides the net income per head in real (1969) terms. In general it will be observed that impact of the reduction falls heavier on the University counties, reducing estimates of real incomes in 1973, £16, £17 and £11 respectively in Dublin, Galway and Cork. In contrast, income in Leitrim was only reduced by £5. The deletion of these transfers, therefore, had the effect of shortening the differential between counties. Real income in Dublin rose by £286 since 1960 compared to £193 in Leitrim. The effect would have been greater if Dublin was less densely populated and had fewer people over whom to spread the fall. Thus the decline in Galway reflects in part the smaller population base. It will also be observed that the real increase in Leitrim since 1969 at £117 per head exceeded Dublin's £113 when this correction was made, whereas previously they had been identical.

3.6 Changes in real income by source

Table 12 gives some details of changes in the real income arising in some of the principal aggregates in anticipation of the more detailed study in the next chapter. It is similar in intent to Tables 5 and 6 of *Further Data* which covers the two periods of the sixties in the current terms.* These provide a useful supplement to Table 12.

* In some instances there may be differences due to the revised 1969 figures presented in this report. In the case of employee remuneration it might have been preferable to have presented the changes as between 1960 and 1965 and between 1965 and 1973 as the 1969 figures do not include all possible revisions. However where a county shows a high rate of growth before 1969 due to overestimation of the 1969 figure this will be compensated for by a lesser growth subsequently. In making comparisons it is important to recall that growth rates in two periods should be multiplied not added. For example, agriculture in Carlow and Westmeath grew at a real rate of 45% between 1960 and 1973; adding their two rates would suggest a growth of 44% in Carlow and 56% in Westmeath. This is perhaps a rather extreme example of the danger involved, given that most counties move in the same general way.

TABLE 12: Real change in income from specified sources before and after 1969.

County	Agriculture		Remuneration of Employees				Transfers	
	1960 -1969	1969 -1973	Industry		Other non-agricultural		1960 -1969	1969 -1973
Carlow	3	41	63	31	72	33	102	44
Dublin	35	-1	81	22	66	31	134	71
Kildare	6	37	110	33	47	62	98	57
Kilkenny	8	58	68	34	63	45	88	43
Laois	-5	46	64	31	59	53	89	51
Longford	-8	37	97	37	52	46	95	41
Louth	19	22	94	19	55	35	115	70
Meath	-	43	93	82	66	61	96	52
Offaly	-9	56	47	33	61	37	97	57
Westmeath	-15	71	91	20	51	40	108	45
Wexford	13	45	76	65	62	38	91	49
Wicklow	5	51	82	84	58	52	101	58
LEINSTER excl. Dublin	5	41	81	28	64	34	118	63
Clare	-6	59	219	6	87	36	88	58
Cork	15	44	74	31	65	36	107	54
Kerry	-4	39	104	32	66	39	103	52
Limerick	5	40	88	51	68	36	96	52
Tipperary	4	49	66	40	77	28	100	49
Waterford	10	58	94	50	68	35	92	54
MUNSTER	6	46	86	35	69	35	101	53
Galway	-9	52	62	56	65	47	114	62
Leitrim	-15	16	36	84	48	43	95	40
Mayo	-7	45	82	25	61	36	101	45
Roscommon	-6	54	56	95	68	28	86	45
Sligo	-8	30	69	39	77	40	82	51
CONNACHT	-8	45	66	50	65	41	101	51
Cavan	14	36	81	57	55	27	72	54
Donegal	-11	47	76	27	48	39	112	57
Monaghan	30	43	109	55	44	44	78	54
ULSTER (part)	6	42	84	40	49	31	95	56
TOTAL excl. Dublin	3	44	82	32	64	35	108	58
	2	46	82	39	63	39	99	53

Table 12 shows that real income arising in agriculture in the sixties grew at a rate of 2% if Dublin is excluded and at 3% otherwise. In contrast, real remuneration in industry grew by 82% and in other non-agricultural occupations by 64%. These figures

refer to aggregate income, and while the size of work force hardly changed at all between 1961 and 1971 its composition altered substantially as Table 13 shows:

TABLE 13: Total at work as reported in the Census of Population

	1961	1966	1971
Agriculture, Forestry, Fishing	378,732	333,527	273,079
Manufacturing, Mining, Construction, Self-employed Employees	19,117 139,718	18,025 275,708	21,245 301,504
Commerce Transport, Public Adm. etc. Self-employed Employees	62,811 349,622	59,750 374,853	58,835 396,804
Others including unknown	2,539	4,124	3,372
TOTAL	1,052,539	1,065,987	1,054,839

These Census years do not coincide with the years for which county incomes have been calculated, so that more reliance has to be placed on the estimates contained in the *Trend of Employment and Unemployment*. The latter estimates suggest that employment in agriculture fell by 24% between 1960 and 1969 and by 13% subsequently. Unfortunately the figures do not distinguish by employment status when they report increases for industry of 26% and 3% respectively in the two time periods. Other sectors grew slower in the initial period, i.e. 10% but at 3% subsequently. Overall there was a total fall of two thousand at work between 1960 and 1973, a rise of 1% in the first period cancelled out by a fall of the same size in the next period.

Making some assumptions about the self-employed in industry based on the Census it would appear that the number of employees in industry rose by 28% up to 1969 and by 2% subsequently. In the same period 'other employees' increased by 13% and 4% respectively. The numbers of self-employed fell by 3% during the sixties and it is assumed that they had stabilised in the second period.

When these movements within the stationary labour force are applied to the data in Table 12 the picture becomes less stark. Per worker the increase in real income in agriculture in the first period becomes 36% (not 3%); In industry 42% (not 82%) and in other sectors 45% (not 64%). The rise in real income of the self-employed, however, only improved from 24% to 28% after adjustment for employment increases. After 1969, real incomes in agriculture rose by 66% per person at work, in industry and other sectors by 29%. On the basis of the assumptions made, self-employed people would have experienced a 27% rise in real income in the same period. The very high prices for cattle in 1973 meant that for the period as a whole incomes per worker in agriculture grew 50% faster than those of non-agricultural employees generally and twice as fast as the self-employed. However, the collapse in 1974 may have pulled back agricultural incomes to the general level, if not under it.

Transfer payments, too, may be corrected for population change. In the sixties this resulted in evening-out the discrepancy between the State including Dublin and the State excluding Dublin. In each there was a 100% increase. Between 1969 and 1973 expressing transfer payments on a per capita basis did not eliminate the discrepancy but reduced it to 52% including Dublin and 49% excluding it.

CHAPTER 4

THE CONSTITUENT ELEMENTS OF PERSONAL INCOME

4.1 Agriculture

This chapter explores in greater detail how changes in individual elements in personal income have affected the total. The first element to be examined is income derived from agriculture, forestry and fishing. In agriculture personal income consists of agricultural wages for employees and family farm income for the self-employed and their relatives who assist them. Family Farm Income is derived by calculating gross output derived from livestock—(Table 14) and from crops (Table 15) and deducting from their total the cost of seed, feed and fertilisers (Table 16) and other expenses (Table 17). Income from forestry and fishing is also given in Table 17.

It will not be possible in the space available to do more than comment briefly on some of the highlights of these tables. It was noted briefly in earlier chapters that the value of agricultural output is heavily influenced by many highly erratic factors, such as the weather and export price levels. This can have the effect of moving certain counties temporarily out of the overall trend position. A clear example of this would appear to be the reported absolute decline in Carlow's family farm income between 1960 and 1965. When the period chosen was 1960 to 1969 the growth in real income arising in Carlow farming was normal. In general the broad picture presented by the increases in family farm incomes are reasonably consistent with *a priori* expectations, whatever may have been the position of individual counties in particular years.

Between 1960 and 1973 the fortunes of farm enterprises differed, as is brought out in Table 18. Cattle were the biggest source of output and had a very high unit price rise when this was calculated from the official output tables. Most of the price rise occurred since 1969. In volume terms the increase in cattle since 1960 was not in the highest category and is comparable with that for pigs. The absolute increase in the volume of cattle output in

TABLE 14: Livestock output including inventory change 1973 (£000's)

County	Cattle	Milk*	Horses	Sheep	Pigs	Poultry	Total†
Carlow	3652	827	58	1283	1010	931	7761
Dublin	2121	1200	247	396	955	754	5687
Kildare	6490	3330	562	980	989	698	13056
Kilkenny	10425	7040	157	901	2392	532	21459
Laois	7511	2118	107	471	2233	324	12768
Longford	4460	1240	45	217	811	293	7060
Louth	3626	1296	21	31	762	453	6604
Meath	12154	4228	427	1855	1098	1423	21191
Offaly	7460	1532	82	636	1160	638	11510
Westmeath	7580	1192	107	719	790	395	10784
Wexford	10280	5098	204	2057	4099	1297	23074
Wicklow	5024	2292	112	1936	1394	533	11294
LEINSTER	80783	31393	2128	11883	17693	8270	152254
Clare	12851	5873	273	430	619	572	20619
Cork	34971	36394	535	1309	13922	3464	90616
Kerry	14240	14592	252	1062	2495	806	33453
Limerick	14903	16869	297	118	2307	3713	38209
Tipperary	21234	13533	456	1271	5763	668	42933
Waterford	8289	6520	141	440	1945	564	17922
MUNSTER	106488	93781	1953	4639	27052	9789	243754
Galway	17152	3584	366	5990	2195	1395	30687
Leitrim	4276	744	32	2496	1019	330	6650
Mayo	13193	2925	195	2164	2030	1185	21693
Roscommon	9548	2116	73	1931	871	509	15052
Sligo	5977	2203	49	532	950	320	10031
CONNACHT	50146	11573	715	10866	7064	3739	84112
Cavan	8811	6177	36	255	4395	1330	21005
Donegal	7634	2297	41	1465	2779	984	15200
Monaghan	6242	4677	33	90	3385	6230	20659
ULSTER (part)	22688	13151	110	1809	10559	8543	56864
TOTAL	260104	149898	4906	29198	62367	30339	536984

*including subsidy on skim milk returned to farmers.
†including honey.

the four years since 1969 was greater than that of the previous nine years. Since 1960 creamery milk and barley had the highest volume increases of major commodities. They also experienced substantial price increases. Sheep and pigs outputs have tended to fluctuate with almost no change in volume since 1969 or even since 1960.

TABLE 15: Output of crops and turf 1973 (£000's)

County	Cereals	Sugar Beet	Potatoes	Horti-culture	Turf	Other	Total
Carlow	1643	1226	160	73	—	50	3152
Dublin	1550	8	1433	4928	1	54	7972
Kildare	2668	671	133	844	57	70	4386
Kilkenny	3036	710	317	373	2	119	4555
Laois	1952	909	163	167	43	94	3285
Longford	60	4	134	21	106	79	299
Louth	1921	15	461	744	1	128	3268
Meath	2682	13	1343	1151	19	138	5327
Offaly	1374	334	266	112	287	94	2180
Westmeath	587	19	159	68	114	88	921
Wexford	5099	2387	418	816	—	162	8881
Wicklow	1814	190	179	404	9	62	2648
LEINSTER	24384	6486	5166	9701	640	1138	46875
Clare	80	6	352	203	436	215	857
Cork	7160	3199	1259	1380	162	480	13478
Kerry	574	135	592	355	706	289	1945
Limerick	128	3	333	135	90	193	792
Tipperary	2547	585	487	365	65	247	4230
Waterford	1569	273	241	415	3	81	2579
MUNSTER	12058	4200	3265	2852	1461	1505	23880
Galway	846	272	970	291	1001	447	2827
Leitrim	5	—	167	6	146	173	350
Mayo	158	15	770	64	1095	376	1384
Roscommon	183	18	353	148	524	196	898
Sligo	45	4	250	68	294	126	493
CONNACHT	1237	309	2511	577	3061	1318	5952
Cavan	68	—	328	18	34	396	711
Donegal	1363	—	1960	166	619	380	3870
Monaghan	217	—	350	482	15	381	1429
ULSTER (part)	1648	—	2639	666	667	1057	6010
TOTAL	39327	10995	13580	13796	5830	5019	82717

Against this overall background the incomes of the various counties can be assessed. In general, the dairy, pigs and barley growing areas did well so that family farm income grew fastest in East Munster and South Leinster in a block of counties stretching from Cork, Limerick and Tipperary across to Wicklow and Wexford. A second group were the three counties of the Northern East Region centred on Monaghan, a county which in addition did well out of its concentration on poultry.

TABLE 16: Purchases of Certain Farm Materials 1973 (£000's)

County	Feed	Fertilisers and Lime	Seed	Total
Carlow	1647	1107	253	3008
Dublin	1628	742	198	2568
Kildare	2021	1521	350	3892
Kilkenny	3130	1976	428	5533
Laois	2279	1406	264	3949
Longford	1280	419	22	1721
Louth	1104	854	216	2174
Meath	4229	2112	344	6684
Offaly	1674	1165	205	3045
Westmeath	1045	818	94	1957
Wexford	4116	3028	786	7929
Wicklow	2602	1220	276	4098
LEINSTER	26754	16368	3435	46558
Clare	1690	1104	42	2835
Cork	19570	8413	1167	29150
Kerry	6278	1857	133	8268
Limerick	7088	1482	49	8619
Tipperary	6565	3183	366	10114
Waterford	2983	1534	283	4800
MUNSTER	44173	17573	2041	63786
Galway	2490	2190	231	4911
Leitrim	1503	337	17	1857
Mayo	2907	1292	118	4317
Roscommon	1115	866	56	2038
Sligo	1556	482	27	2065
CONNACHT	9571	5167	449	15188
Cavan	5877	828	45	6751
Donegal	2516	1387	18	3921
Monaghan	7937	688	71	8695
ULSTER (part)	16331	2903	134	19367
Total	96829	42011	6059	144899

To look briefly at individual tables: The estimates for livestock output given in Table 14 correspond fairly closely with a *priori* expectation. Only a few counties call for comment. Dublin is considerably down. This reflects a real change in the numbers of livestock being kept in the county. Cork and Monaghan showed rather large increases while Leitrim and Sligo did not grow as fast as would be expected.

TABLE 17: Summary of Incomes derived from farming, forestry and fishing 1973 (£000's)

County	Gross value of output*	Value of certain farm materials	Expenses of agriculture	Net output* less expenses	Subsidy under Land Acts	Subsidies not related to sales
Carlow	10913	3008	1917	5988	20	295
Dublin	13660	2568	2011	9081	25	66
Kildare	17499	3892	2863	10744	44	283
Kilkenny	26016	5533	3731	16752	40	267
Laois	16097	3949	2895	9253	33	286
Longford	7472	1721	1317	4434	17	235
Louth	9873	2174	1916	5783	23	144
Meath	26538	6684	4508	15346	79	341
Offaly	13977	3045	2448	8484	34	343
Westmeath	11819	1957	2265	7597	43	319
Wexford	31955	7929	5410	18617	40	516
Wicklow	13950	4098	2309	7544	24	552
LEINSTER	199769	46558	33589	119622	423	3647
Clare	21912	2835	3327	15749	42	523
Cork	104256	29150	15614	59492	114	746
Kerry	36104	8268	4714	23122	41	698
Limerick	39091	8619	6302	24170	64	268
Tipperary	47229	10114	7327	29789	81	463
Waterford	20504	4800	2910	12794	29	197
MUNSTER	269095	63786	40194	165115	371	2896
Galway	34515	4911	4435	25169	74	1237
Leitrim	7147	1857	1394	3895	16	460
Mayo	24172	4317	2908	16947	55	1356
Roscommon	16474	2038	2383	12094	46	612
Sligo	10818	2065	1579	7174	28	382
CONNACHT	93125	15188	12703	65234	219	4046
Cavan	21749	6751	3421	11578	29	315
Donegal	19689	3921	3622	12146	31	971
Monaghan	22103	8695	2981	10427	27	169
ULSTER (part)	63541	19367	10023	34151	87	1456
TOTAL	625531	144899	96509	384123	1100	12045

*Including inventory change and subsidies on skim milk returned to farmers.

The output of crops given in Table 15 likewise calls for little comment, apart from noting that some of the differences might have disappeared if we had better methods of estimating the proportions of feeding barley and potatoes actually sold off the

TABLE 17:-- Continued

County	Income arising	Of which			Wages in forestry	Profits in fishing
		Land Annuities	Wages	Family Farm Income		
Carlow	6304	60	875	5388	46	4
Dublin	9172	76	2333	6777	70	781
Kildare	11071	133	2045	8915	56	—
Kilkenny	17059	120	1321	15602	132	68
Laois	9572	98	947	8539	181	—
Longford	4687	51	249	4381	48	—
Louth	5949	68	788	5095	25	275
Meath	15765	236	2515	13080	33	101
Offaly	8861	102	717	8051	93	41
Westmeath	7959	130	780	7053	68	82
Wexford	19173	120	2319	16733	252	455
Wicklow	8120	73	1199	6851	557	156
LEINSTER	123692	1269	16087	106464	1561	1962
Clare	16314	125	529	15666	177	123
Cork	60353	343	4084	55893	520	826
Kerry	23861	124	691	23022	173	767
Limerick	24502	192	1734	22557	133	127
Tipperary	30333	242	2601	27496	417	61
Waterford	13020	87	1186	11743	276	902
MUNSTER	168382	1112	10824	156377	1696	2807
Galway	26480	222	470	25779	334	565
Leitrim	4371	48	86	4231	93	9
Mayo	18358	166	254	17917	189	407
Roscommon	12707	139	207	12351	66	—
Sligo	7548	82	163	7326	87	114
CONNACHT	69500	657	1180	67605	769	1095
Cavan	11923	88	269	11567	56	122
Donegal	13149	94	558	12502	329	1499
Monaghan	10623	80	260	10274	44	—
ULSTER (part)	35694	262	1088	34343	430	1621
TOTAL	397268	3300	29179	364789	4456	7484

farms. For example, the fall in crop output in Louth was due to a switch from wheat to barley. If, however, a greater proportion of the Louth barley crop was sold than is the case nationally, Louth would not have such a decline in crop output. The rise in output in Meath is largely due to increased sales of potatoes for crisps and for processing by the Sugar Company, though the county also

TABLE 18: Change in Volume and Value of some farm commodities 1960-1973

	Share of gross output 1973	% Change 1960-73		% Change 1969-73	
		Quantity	Price	Quantity	Price
Cattle	41.6	65	179	25	100
Creamery Milk	19.1	112	144	14	80
Sheep	4.7*	5	147	2	74
Pigs	9.8	67	99	1	58
Hens	1.9	283	36	46	36
Hen Eggs	1.9	- 20	49	- 5	67
Wheat	1.6	- 57	115	- 48	72
Barley	4.4	128	108	7	77
Oats	0.2	- 39	91	- 12	81
Potatoes	2.2	- 25	198	- 14	59
Sugar Beet	1.8	39	31	44	- 4

*Includes Wool.

increased its output of other crops. Output in Wexford and Mayo was somewhat reduced while the reverse held for Wicklow and Waterford.

The new methods used to allocate the costs of farm materials given in Table 16 brought about some changes. For example, the counties in Connacht had less costs attributed than would have been expected, while the reverse was true of several counties in Munster. Since a new method was used to allocate cost, Table A1 indicates how the level of per capita income would have to be altered if the old methods of allocating feed and fertiliser costs had been adopted.

The Household Budget Survey was examined to see if it would prove possible to develop a distributor for family farm income from it. The examination showed a close overall correspondence with the current estimates and such deviations as occurred helped to still misgivings about counties which had seemed to be doing particularly well (Waterford-Kilkenny) or particularly poorly (Connacht and Donegal). The Central Statistics Office is understandably reluctant to have their survey used for purposes for which it was not designed. The authors are grateful to be able to undertake this check which seems to provide general corrobora-

tory evidence on the accuracy of the methodology adopted in these county estimates in spite of the numerous assumptions that have to be made. As a result of this experience it would be useful if farm accounts collected by An Foras Talúntais could be developed to provide estimates of county incomes arising in agriculture.

4.2 Employee remuneration in industry

Due to the helpfulness of the Central Statistics Office, details of county remuneration in industries included in the Census of Industrial Production were made available for 1972. The last such figures published related to 1963. The data are given in Table 19. Since these data are novel, some preliminary analysis is presented in Table 20. This shows that only 19% of the growth in employment occurred in Dublin. Two observations, however, are in order. First, Dublin with 26% of the population of the Republic had 46% of the employment in 1963. The slow growth in the next decade still left Dublin with 42% of the employment for 29% of the population. Second, considerable increases occurred in the counties within the Dublin commuter area. If the increases in Wicklow, Kildare, Meath and Louth are added to those in Dublin, then 38% of the increase occurred in an area which contained 39% of the population in 1973. This area accounted for 54% of total industrial employment.

One-third of the increase in employment occurred in the designated areas* which had 27% of the population. However, this growth was unevenly spread throughout the area. Longford and Munster (which includes Shannon) did particularly well as did the north-east region. Connacht did particularly poorly and where growth occurred, it appears to be associated with the growth points of Galway and Sligo.

In general Munster did well, whether in the designated areas or not. The worst area appears to have been the uneven zone between the Dublin region, the designated areas and the growth centres of Munster. This was mainly comprised of midland counties in Leinster ranging from Westmeath, Offaly, Laois, Kilkenny to Carlow. Net new jobs in this area were only 252. This share of the

* Strictly speaking this should include west-Cork and parts of other counties for which separate details were not available.

TABLE 19: Transportable Goods Industries as reported in the Census of Industrial Production* 1963 and 1972

County	1972			1963	
	Net output £000	Persons engaged Sept.	Salaries and wages† £000	Persons engaged	Salaries and wages† £000
Carlow	7,073	2,110	3,127	2,539	1,605
Dublin	237,219	84,847	121,294	78,392	43,531
Kildare	13,190	4,944	6,499	3,919	1,953
Kilkenny	12,227	2,876	3,611	2,967	1,622
Laois	4,128	1,696	1,819	1,082	492
Longford	1,397	937‡	767	389	156
Louth	35,997	11,537	15,047	9,161	4,768
Meath	8,043	3,059	3,538	2,101	885
Offaly	4,725	2,515	2,442	2,627	1,178
Westmeath	2,627	1,488	1,502	1,218	553
Wexford	7,850	3,354	4,319	2,532	1,254
Wicklow	11,301	4,370	5,632	2,349	1,040
LEINSTER	345,777	123,733	169,597	109,276	59,038
Clare	21,890	6,041	7,555	3,030	1,393
Cork	76,781	26,999	36,905	23,403	12,519
Kerry	9,866	4,425	5,152	2,328	1,131
Limerick	17,048	6,723	8,816	5,443	2,702
Tipperary	22,860	6,969	9,165	5,817	3,051
Waterford	20,973	7,476	10,349	4,637	2,384
MUNSTER	169,418	58,433	77,942	44,658	23,180
Galway	14,674	4,323	5,699	3,181	1,439
Leitrim	839	425	401	355	134
Mayo	4,278	2,440	2,392	2,316	964
Roscommon	2,537	1,012	1,243	720	347
Sligo	5,617	2,538	2,766	1,633	748
CONNACHT	27,945	10,738	12,501	8,205	3,632
Cavan	7,295	2,560	2,987	1,517	715
Donegal	7,687	4,387	4,049	3,539	1,366
Monaghan	5,890	2,752	2,895	6,556	682
ULSTER (part)	20,872	9,699	9,931	6,612	2,763
TOTAL	564,010	202,603	269,973	168,751	88,612

* Excluding turf production and the manufacture of railroad equipment.

† Includes remuneration of outside piece workers.

‡ Includes employment in 3 new factories whose wages bill does not cover a full year.

increase in employment was only 0.75% in an area whose population was 8% of the State total. The same phenomenon was observed in the neighbouring county of Tipperary in Munster where

TABLE 20: Changes in employment and real wages in Transportable goods industries 1963-1972

County	Change in jobs		Per capita wages 1972 prices (£)		Changes in real wages		Index of wages	
	Number	%	1972	1963	Amount (£)	%	1972	1963
Carlow	- 429	- 17	1,482	1,084	398	37	111	112
Dublin	+ 6,455	8	1,430	952	478	50	107	104
Kildare	+ 1,025	26	1,315	855	460	54	99	98
Kilkenny	- 91	- 3	1,256	938	318	34	94	104
Laois	+ 614	57	1,073	780	293	38	80	81
Longford	+ 548	141	819	689	130	19	61	74
Louth	+ 2,376	26	1,304	893	411	46	98	96
Meath	+ 958	46	1,157	723	434	60	87 (86)	80
Offaly	- 112	- 4	971	769	202	26	73	85
Westmeath	+ 270	22	1,009	778	231	30	76 (75)	88
Wexford	+ 822	32	1,288	850	438	52	97 (96)	94
Wicklow	+ 2,021	86	1,289	759	530	70	97	84
LEINSTER excl. Dublin	+ 14,457	13	1,371	927	444	48	103	100
Clare	+ 3,011	99	1,251	788	463	59	94	96
Cork	+ 3,596	15	1,367	917	450	49	103	100
Kerry	+ 2,097	90	1,164	833	331	40	87	90
Limerick	+ 1,280	24	1,311	851	460	54	98 (99)	94
Tipperary	+ 952	16	1,315	900	415	46	99	100
Waterford	+ 2,839	61	1,384	882	502	57	104	98
MUNSTER	+ 13,775	31	1,334	890	444	50	100	96
Galway	+ 1,142	36	1,318	776	542	70	99 (98)	86
Leitrim	+ 70	20	944	648	296	46	71	72
Mayo	+ 124	5	980	714	266	37	74	79
Roscommon	+ 292	41	1,228	826	402	49	92	90
Sligo	+ 905	55	1,090	786	304	39	82	81
CONNACHT	+ 2,533	31	1,164	759	405	53	87	84
Cavan	+ 1,043	69	1,167	808	359	44	88	90
Donegal	+ 848	24	923	662	261	39	69 (65)	73
Monaghan	+ 1,196	77	1,052	752	300	40	79	83
ULSTER (part)	+ 3,087	47	1,024	717	307	43	77 (75)	80
TOTAL	+ 33,852	20	1,333	901	438	48	100	100

Source: based on Table 13.

Figures in parentheses net of earnings by outside piece workers.

growth was also slow. Within the Leinster group, Laois did reasonably well, while Carlow, Kilkenny and Offaly registered net losses in jobs. When measured on a percentage basis the shift away from

Leinster and Dublin to Munster, Connacht and particularly Ulster is a welcome trend. However, the base year numbers were in most cases small and the share held by Dublin already relatively large.

Creation of jobs is not the whole story. Table 20 provides details of average wages and salaries in 1972 prices by county for both years.* It is gratifying to observe that real wages have risen generally by £432 per head or 48%. Two of the three biggest per capita increases occurred in Galway (£542) and Waterford (£502) and may be associated with the industrial estates programme. The third county was Wicklow at £530. Dublin rose by £481 per head and as a result increased its lead over the State as a whole from 6% to 8%. Wicklow's rise has already been noted but Kildare and Meath also had above average increase in absolute terms. The rise in Louth was below the national average.

It was already noted that midland counties had fared badly from job creation. Table 20 shows they also did badly in terms of absolute increases in earnings. Due to the high wages paid in Carlow this group of five counties had an average wage of £896 in real terms in 1963. This was just below the national average. In 1972 the average had risen by only £277, or less than two-thirds of the national increase, so that average wages in these counties fell from 99% to 88% of the national average, or to the equivalent of the Connacht level. Tipperary did not share in this deterioration to any marked extent. It might be noted in passing that since 1970 these counties appear to have done badly in general, judging from the evidence of numbers on the Live Register. The West, on the other hand, has fared better.

Employment creation in the designated areas as a whole was relatively satisfactory. (An increase of 55% compared to a national increase of 20%). However, the absolute increase in per capita real earnings was only £371 per head, or five-sixths of the national absolute increase. This raised the average from £757 to £1,128. Compared to average national earnings the level of earnings in these counties increased marginally from 84% to 85% because their original level of average earnings was also five-sixths the national average. In other words, the rate of growth in the total wage bill was equivalent to the national rate of 48%.

* The figures contain remuneration of outside piece workers but not their numbers. The inclusion of these payments does not materially affect the analysis.

Within the designated areas the industrial estates in Galway and Clare (Shannon) were areas of high growth in remuneration per head. If these counties are omitted from the calculations the increase was £309; from £746 to £1,055, so that compared with the national average, average earnings in this area fell from 83% to 79%. Individual counties fared worse. Longford's wages only rose by £130 though the number of jobs created was relatively high.

To some extent this change in average earnings in Longford is understated, since for three new firms starting production in the county during the year the wage bill only applies to part of the year while the numbers employed relate to the September level. Adjusting the data for this would increase average earnings per employee to £869 in 1972, or 65% of the national average. The increase in real earnings would be £190, or 43% of the average increase.

The general lack of data on regional earnings has meant that discussions of industrialisation policies have focused mainly on job numbers. The figures discussed above indicate that average earnings are important also. It is difficult to assess the significance of these figures which could be due to the availability of overtime in some counties and not in others, different male/female ratios and different skill mixes. The high emigration rates of women from many poorer regions will not be stemmed unless job opportunities are provided for women directly. IDA policy in recent times has sought to achieve a better balance between male and female industrial employment; success in this laudable endeavour may be reflected in lower average earnings. Again, sparsely populated counties may be more suited to small scale local industries where value added and therefore earnings could be less than average. If high wage industries were located indiscriminately in such areas they might introduce all the undesirable effects of a dual economy: attract workers from existing firms, increase general wage levels and put existing firms out of business. Furthermore if policy is to swing away from capital-intensive to labour-intensive industries it could result in lower average earnings for a greater number of employees. Clearly the whole study needs sympathetic investigation with a view to achieving high levels of incomes and employment with minimum side effects on the local economy.

In contrast to the designated areas the city-counties of Munster had above average increases in average remuneration—£459 per head. In 1963 they were paying average national levels. By 1972 they were 2% above the national average. Thus both in terms of number of jobs and levels of remuneration the Munster cities did particularly well relative to the rest of the State.

In making estimates of employment by county in future, the research worker will have the benefit of a special annual survey by the Industrial Development Authority which, with minor adjustments, is directly comparable with CIP data. Unfortunately it does not include information of wages and salaries, nor does it include Dublin.

While industrial earnings were reasonably satisfactorily estimated no comparable data were available for the building and construction industry. The only complete data on numbers employed by county are contained in the Census of Population and these figures are strongly influenced by the points in the building cycle at which the various censuses are taken. Since building and construction is so dependent on trade cycles any examination of county changes will reflect different local conditions. To take some random examples, the national numbers show a rise of 24% between 1961 and 1966, or 42% between 1961 and 1971. Louth grew at the national rate in the first period but somewhat faster in the second period. Dublin grew faster in the first period by almost 900 jobs but grew very slowly in the second period to wind up a thousand jobs down overall—or two thousand jobs down had the rate of growth in the second period been up to the national average. Longford grew extremely slowly notwithstanding its considerable growth in industrial employment.

4.3 Remuneration in other sectors

Table 21 gives the details of employee remuneration by major sectors.

Commerce includes distribution, transport and communications (mainly the Post Office). An initial investigation could establish no clear patterns of change. Dublin, for example, increased its share substantially between 1960 and 1965 but this declined again to slightly below the 1960 level by 1973. In Munster the reverse pattern occurred—a drop and a gradual climb back.

TABLE 21: Wages, Salaries and Pensions 1973 (£000's)

County	Industry	Commerce	Public administration	Other domestic	Total wages & salaries
Carlow	5,689	1,711	957	3,302	11,659
Dublin	236,929	134,049	60,080	147,313	587,370
Kildare	15,819	3,909	7,383	6,410	33,521
Kilkenny	9,140	2,690	1,826	5,748	19,404
Laois	6,092	1,919	1,417	3,780	13,203
Longford	3,055	1,075	1,027	2,290	7,446
Louth	22,026	5,990	2,014	7,610	37,641
Meath	13,192	3,121	2,133	6,085	24,532
Offaly	9,911	2,235	1,526	3,759	17,431
Westmeath	6,393	2,933	3,729	5,958	19,013
Wexford	10,986	5,139	2,149	7,572	25,846
Wicklow	15,109	4,394	1,947	6,961	28,412
LEINSTER	354,342	169,165	95,189	206,788	825,484
Clare	10,292	3,533	2,782	6,542	23,148
Cork	72,037	30,050	13,659	38,243	153,989
Kerry	12,566	4,830	2,952	10,134	30,482
Limerick	26,081	13,194	4,870	15,038	59,183
Tipperary	18,504	5,688	4,334	11,181	39,707
Waterford	19,038	6,571	2,069	9,028	36,705
MUNSTER	158,518	63,865	30,666	90,166	343,214
Galway	15,823	6,793	4,355	16,966	43,938
Leitrim	2,322	970	812	2,255	6,359
Mayo	8,679	4,119	2,493	8,704	23,994
Roscommon	4,898	1,830	1,477	4,135	12,339
Sligo	5,952	3,370	1,452	5,009	15,783
CONNACHT	37,674	17,082	10,590	37,068	102,414
Cavan	5,980	1,688	1,609	3,918	13,195
Donegal	11,259	4,028	3,618	8,163	27,069
Monaghan	6,405	1,741	1,490	4,435	14,070
ULSTER (part)	23,644	7,458	6,717	16,516	54,334
TOTAL	574,177	257,570	143,162	350,537	1,325,446

As explained in the Appendix an attempt was made to relate the Census of Distribution information on numbers at work in the retail trade to the Census of Population figures by county of residence. A pattern of commuting was developed for the first time. Earnings of commuters are deducted from their county of work and added to the county of residence. The magnitude of the adjustments are given in Table A1.

Employment in Public Administration grew by 34% between 1960 and 1973 which made it one of the fastest growing sectors. This sector includes the Civil Service proper, Local Authorities, the Army and the Gardai. It excludes teachers, postmen and some others. *A priori* one would expect the growth to be concentrated in Dublin. However, this did not happen though Dublin's share grew marginally. One curious feature of the sixties was the invasion of the service by women. In 1961 there were 4.2 men per woman; by 1971 the ratio was 3.2 to one. Between 1961 and 1966 the increase was made up of 1,000 men and 1,600 women. At the outset Dublin accounted for 42% of the men and 64% of the women. A decade later the capital accounted for 43% of the men and 60% of the women. Although one would expect Dublin earnings to be above average in that men stationed in Dublin would be more senior and earn higher salaries, this tendency was counteracted by the high proportion of women there whose average age (and earnings) was low due to the rule of retirement of women on marriage. As a result Dublin did not report total earnings much in excess of that warranted by its numbers.

In previous studies of county incomes the remuneration by county contained in the Civil Service returns was taken as final. It now appears that adjustments for commuters are essential. Table A1 gives the effect on per capita incomes of omitting commuters. The Civil Service returns reported considerable redeployment of staff, the most striking case being that of the Department of Transport and Power that formerly returned 232 persons as employed in Limerick but had no one in that county in 1973. Had Limerick maintained its 1960 levels, income in the county would have been higher by £1.2 millions. Another difficulty in comparing trends is that the basis on which the Army provided its information has changed and some apparent differences merely reflect this fact.

Finally we come to employment in the Other Domestic sector—education, health, professions and services. The lack of any return from the Department of Education meant that reliance had to be placed on the Census of Population and this could give rise to some difficulties in making comparison with estimates for previous years.

Although some professions displayed an increasing tendency to shift to Dublin* there were also growing numbers of females participating in these industries. This tended to dilute the effect so that an analysis of the four years showed no continuous trends in the majority of counties and no tendency for Dublin to grow at the expense of other areas.

4.4 Comparison of estimates of employee remuneration with those of Household Budget Survey

An index of total employee income was developed from the Household Budget Survey and applied to the estimated numbers of employees resident in each county. As was mentioned earlier the results showed a striking similarity with those in the current estimates. The Leinster totals were identical, those of Munster differed by a fraction of 1%. The Connacht total in the HBS was 2½% below the figures in this report while the Ulster estimate was 4.4% above.

Within provinces there were greater differences. Dublin was under-estimated† by over 1% which was about £9 per capita. Such an increase would have made Dublin's growth since 1969 almost the same as in the State generally. Louth was under-estimated by 3% or £16 per capita which would again put its growth into the average category. In contrast, Meath was over-estimated by 7% or £24 per capita. Deducting this over-estimate would also make Meath's growth average. On the other hand the HBS data would increase Carlow's per capita income by £53 to change it from being below average to being the fastest growing county since 1969.

Not all changes would have reversed the picture shown on Table 9. Laois, Longford, Westmeath and Wexford in Leinster were over-estimated. The adjustment for Longford could have wiped out almost all growth in the county since 1969. Figures for individual counties are not to be taken as reliable. However, the comparison holds out little hope that the low performance in midland counties was under-estimated. On the other hand the

* For example 2,023 males were engaged in law nationally in 1966 and 1971. By 1971 there had been a shift of 96 in favour of Dublin. See also dentistry.

† In the text it is assumed that the HBS is correct to facilitate the presentation. It does not imply that this is the true position.

striking increases in Kilkenny and Waterford are, if anything, under-estimates of the real change.

Cork and Galway would also show increases of £9 to £10 further above the average than those in Table 9. Clare would have had an average growth and Donegal £5 per head better off. On the other hand the poor performance of Sligo would have been even worse had the HBS figures been used. The fall would have eliminated two-thirds of the growth shown in Table 9 to make it a very poor performer indeed, especially when this is coupled with its poor performance in agriculture as hinted by the HBS.

In Munster the HBS showed the figures for Limerick and Tipperary combined as closer to the estimates in this report than when taken separately. This is to be expected, given the nature of the Survey. However, in the case of both agriculture and non-agricultural employee remuneration, the HBS suggests that Tipperary did very considerably better than the report shows and Limerick very considerably worse. If only a quarter of the discrepancy was justified, this would put Limerick's growth below average and suggest that the major growth area in the State was a group of counties in the South East: Carlow, Kilkenny, Waterford, Tipperary and East Cork; and perhaps Galway in the West.

4.5 Income from self-employment

The above argument needs some modification. There are no published figures which distinguish, by county and industry, employees from self-employed and employers. Part of the problem may be due to assuming too many or too few employees in individual counties. The Household Budget Survey has nothing to offer on income from self-employment as the numbers involved were extremely small. However, in the case of Dublin, the comparison between this study and the HBS showed that the combined estimate for employees and self-employed differed by £97,000 in £639 millions!

A check on some other county totals is available from a return compiled specially for this report by the Revenue Commissioners.* This gave a county breakdown of gross income assessed to have arisen from a trade, profession or vocation (apart from that in the

* There are some difficulties with the Revenue Commissioners' data in that the county of collection may not agree with the county of residence.

construction industry). The total of £115.5 millions for 1973/4 left 2% of income (as measured by the National Accounts) falling outside the purview of the Revenue Commissioners.† This seems very little, having regard to the low incomes associated with some small shops, dressmakers, cobblers, etc.

In six cases the Revenue Commissioners' districts coincide with county boundaries so that a comparison was possible; see Table 22.

TABLE 22: Comparison of estimates of income from self-employment with data from the Revenue Commissioners

	Revenue return £'000	Adjusted to national total £'000	Current estimate excluding construction £'000	Difference per capita £
Wexford	3,118	3,190	3,257	+1
Cork	12,993	13,289	14,672	+4
Kerry	4,650	4,757	4,056	-6
Galway	5,927	6,062	4,851	-8
Mayo	3,182	3,254	2,852	-4
Donegal	3,430	3,508	3,577	+1

These figures can be taken in conjunction with the estimates for employee remuneration and the comparison with the Household Budget Survey. In that case the over-estimates of Cork and Donegal above are offset to some extent by under-estimates for wages and salaries. In the case of Kerry and Mayo the HBS and current study estimates of wages agreed so that the above figures suggest that the figures in this report may be under-estimated for these two counties. On the other hand incomes in Mayo agriculture may be overestimated if we believe the HBS. The net outcome is not clear-cut. However, the case for regarding Galway's income as generally under-estimated seems stronger.

4.6 Transfers

Table 23 shows clearly that the growth of transfers in real terms was very high—108% before 1969 and 58% afterwards. The rate of growth was highest in Dublin and Louth and below average

† It was even less if the assessed income related to the previous year.

TABLE 23: Transfer Payments 1973 by main category distinguishing payments to private persons (£000's)

County	Education	Social Welfare	Other central government	Total	Total excluding transfers to private non-profit-making institutions
Carlow	371	2,370	48	2,760	2,492
Dublin	19,911	57,349	2,499	80,837	59,565
Kildare	1,107	3,903	60	4,992	4,053
Kilkenny	643	3,766	56	4,384	3,930
Laois	513	2,882	31	3,352	2,980
Longford	426	2,400	75	2,886	2,597
Louth	755	6,191	48	6,960	6,354
Meath	846	4,100	34	4,931	4,336
Offaly	598	3,477	52	4,074	3,648
Westmeath	783	3,809	68	4,688	4,081
Wexford	815	6,169	48	6,973	6,433
Wicklow	653	4,306	26	4,935	4,458
LEINSTER	27,420	100,723	3,043	131,772	104,926
Clare	832	5,490	161	6,482	5,900
Cork	6,613	24,261	349	31,066	25,417
Kerry	1,652	9,916	323	11,842	10,713
Limerick	2,149	9,675	101	11,893	10,161
Tipperary	1,840	8,576	169	10,482	9,043
Waterford	1,099	5,049	52	6,183	5,286
MUNSTER	14,185	62,967	1,155	77,948	66,522
Galway	4,194	11,697	182	16,044	12,461
Leitrim	317	2,883	83	3,274	3,103
Mayo	1,402	10,986	128	12,538	11,564
Roscommon	580	4,200	59	4,847	4,464
Sligo	676	3,756	80	4,528	4,013
CONNACHT	7,168	33,521	531	41,231	35,605
Cavan	554	3,853	48	4,446	4,083
Donegal	1,318	11,350	125	12,534	11,772
Monaghan	544	3,222	45	3,841	3,454
ULSTER (part)	2,516	18,426	218	20,821	19,309
TOTAL	51,189	215,637	4,947	271,772	226,362

in counties such as Laois, Longford, Leitrim, Sligo, Cavan and Monaghan. In part this reflects (as mentioned earlier and as is shown in Table 23) the impact of educational transfers and the association of social welfare payments with general population

movements, e.g. more children's allowances in areas of growing population.

If social welfare payments are studied on their own the picture is the same. Four counties appear as increasing their share *vis-a-vis* the remainder: Dublin, Louth, Kerry and Donegal. The last two did not exhibit population increases. The attempt at analysis was complicated by the different shares of counties and the different speeds at which individual welfare payments increase. Kerry and Donegal appear to have benefited from the rapid rise in unemployment assistance since 1960. Nationally it grew almost 18-fold. This contrasts with rises of 5-fold for children's allowances and unemployment benefit.

4.7 Other income

Rents were recalculated on the basis of the 1971 housing statistics. However, it was not possible to estimate any changes for income derived from interest payments and dividends. Figures were made available by the Revenue Commissioners but only for the self-employed outside agriculture. There is at present no easy source of identifying the level of these incomes obtained by farmers.

APPENDIX

TABLE A1: Adjustments in per capita income as calculated, for changes in methodology (£)

County	Farm Produce at retail prices	Old methodology for costing		Assumption of no commuters in	
		Purchased feed	Fertilisers	Retail	Public administration
Carlow	10	—	+ 3	+ 2	+ 1
Dublin	—	—	—	+ 1	+ 1
Kildare	6	—	+ 1	- 3	- 3
Kilkenny	11	- 12	+ 2	—	+ 1
Laos	11 (19)	- 8	+ 3	- 1	- 2
Longford	18	—	—	—	- 1
Louth	5	—	+ 1	+ 3	- 1
Meath	6	+ 12	+ 2	- 5	- 6
Offaly	28 (19)	- 10	+ 1	- 1	- 1
Westmeath	17	- 14	—	+ 1	—
Wexford	10	- 9	+ 3	+ 1	—
Wicklow	5	+ 6	- 1	- 5	—
LEINSTER	4	- 1	+ 1	—	- 0
excl. Dublin	10	- 3	+ 1	—	- 2
Clare	22	- 10	- 10	—	+ 4
Cork	8	+ 7	+ 3	—	+ 0
Kerry	16	+ 9	- 3	—	- 2
Limerick	10	+ 5	- 2	—	- 2
Tipperary	10	- 5	+ 1	—	- 1
Waterford	6	- 1	- 1	—	+ 1
MUNSTER	11	+ 3	—	—	- 0
Galway	24	- 11	- 1	—	+ 1
Leitrim	12 (25)	+ 13	—	—	- 0
Mayo	35	- 6	- 2	—	- 0
Roscommon	17	- 14	- 5	—	- 2
Sligo	33 (25)	- 1	—	—	+ 1
CONNACHT	28	- 7	+ 1	—	+ 0
Cavan	23	+ 15	- 3	—	+ 2
Donegal	23	—	—	—	- 0
Monaghan	11	+ 18	- 2	—	- 2
ULSTER (part)	18	+ 8	- 1	—	- 0
TOTAL	10	—	—	—	—
excl. Dublin	14	—	—	—	—

Figures in parenthesis provided since sample was small in the counties concerned.

APPENDIX: SOME NOTES ON METHODOLOGY

The Revision of the 1969 estimates

In this report the published figures for 1969 have been amended by applying simple adjustments to the fourteen major categories of personal income in that year. In addition the availability of more up-to-date information on housing permitted a recalculation of rents.

A major revision related to the estimates for the Army for which data was available for 1968 on a command basis. This suggested that income had been over-estimated in Connacht and Donegal and under-estimated in the remainder of Ulster and in Leinster. If this adjustment was not made the 1973 figures would show distorted growth rates in these areas.

The 1973 methodology

The Census of Population has been used to ensure that all persons resident in a county are catered for in the calculations. However, this use of the Census brings with it some difficulties which have been discussed in *Methodology of Personal Income Estimation by County*.^{*} Since these difficulties became much more apparent in the current study it is instructive to recapitulate the discussion.

The Census of Population applies to one night in the early part of the year and is based on self-reporting. It relates to the actual place where the respondent was in residence on that night. As it always takes place at the same time of the year it cannot allow for the seasonality of certain types of employment, such as the hotel trade. Direct enquiries into industries with a marked

^{*} M. Ross, *Methodology of Personal Income Estimation by County*, ESRI Paper No. 63. July 1971.

seasonal pattern of employment will lead to discrepancies with the Census of Population if these enquiries take place at a different time of year. It would appear from data collected for this study that some people move from job to job seasonally and are recorded twice in special surveys of particular industries taken at different times. If these numbers are deducted from the Census of Population, which records everyone once and at the same time, the balance to be accounted for will be smaller than it should be, and may lead to under-estimates in certain of the poorer counties where this phenomenon seems more likely to occur. It will be observed in this connection that numbers employed in the Census of Industrial Production relate normally to September, or else to an annual average.

An allied problem relates to people with two occupations, such as outside piece workers and people in part-time employment. Returns from certain government departments provide numbers employed part-time by county on such matters as arterial drainage. Similarly CIE reports the number of part-time bus drivers. Presumably such people have a second occupation. In certain cases it is clear that this assumption should be made but in other cases the fact is hidden in the data supplied by the agency.

The problem of part-time workers is seen most clearly in industries covered by the Census of Distribution, such as the retail trade and hotels and catering. Part-time employment in agriculture and other industries is not recorded. There are, of course, the other instances of professional people and merchants who are also farmers, etc. It seems likely that dual occupations and part-time employment are to be found particularly in poorer counties. If this is so, the figures for these areas may understate the true position.

Much of the material on which the current report is based was supplied by employers, directly or indirectly. In the case of the Census of Industrial Production, the place of work was recorded. In the case of the public sector and industries such as banking, the place of residence was requested but it would appear from the returns that the place of work was given in several cases. If these returns were inconsistent with one another, it would create difficulties when referring to the Census of Population. This problem was complicated in cases where the industry re-

ported the total wages and salaries paid per county but did not indicate the number of persons involved. The problem was particularly noticeable in public administration where the total numbers obtained from the individual departments and those reported in the Census of Population were in broad agreement. However, the county distributions differed markedly. It was concluded that where this occurred there were commuting patterns.

However, the estimates for net commuters posed certain problems due to the particular classification procedures employed in the Industries Volume of the Census of Population which differed from those used by other recording agencies. For example the industry classified as 'other government departments' in the Census of Population includes Coras Trachtala, and Bord Baine, while the Census puts An Foras Taluntais and An Foras Forbartha under 'planning and research organisations.' For national income purposes An Foras Taluntais, Coras Trachtala and Bord Baine are included in the 'other domestic sector' together with Bord lascaigh Mhara. The latter is included under the fishing industry in the Census of Population. These differences do not create problems where the research worker is fully conversant with the classification of industries used in the Census of Population. In this regard we were fortunate to have the active support of the CSO. However, there is still a problem where a body, such as the ESB, contains both production workers and salesmen. Company records may differ from the self-reporting of the Census. This may not be apparent since show-room employees are not separately identified from other employees in retail distribution in the CP Hardware and Electrical Goods Distribution Industry. Equally 'forestry' includes some but by no means all the salaried staff in the Forestry Division. The latter did not supply a return in time so that the estimates of commuters in special counties were made more doubtful, e.g. in Wicklow and Galway. These differences also beset the calculations undertaken by those engaged in estimating national accounts but are much more of a problem in the case of county estimates.

The Census of Population distinguishes those engaged in any industry by their employment status. These are employers and own account workers, relatives assisting them, employees etc. Whereas there is a detailed national breakdown by employment

status, there are no corresponding figures for counties. Where the number of employees is given in a return for an industry, the balance obtained by comparison with the Census of Population may be made up of employers, relatives assisting, employees in very small firms not covered by the enquiry, and commuters. There is no easy way at present to disentangle these different categories.

The figures for self-employed workers create difficulties for national accounts also. The NIE publishes an aggregate figure and no reliable detailed breakdown of this aggregate is readily available. For the purposes of country estimation it is necessary to make assumptions about the distribution of income between employers in different industries. There is very little to use as a guideline in this exercise and the national estimates may therefore contain a considerable margin of error.

If the national estimates themselves are accurately estimated, there still remains the problem of distributing these on a county basis. There are no sources by which to determine the alternative income of employers in any industry in different parts of the country, for example the remuneration of doctors in Mayo versus Carlow. One hopeful development in this area has been the computerising of Schedule D income tax by the Revenue Commissioners.

At the time of writing the Revenue Commissioners have repeated their agreement to provide information on a regional index of earnings by profession where this does not violate the rules of confidentiality. This welcome development, which has the full support of the Department of Finance, would mean that greater use can be made in the future of the Revenue Commissioners' data. Other countries base their regional estimates very largely on this source. The advantage of this source is that separate estimates of income from investments and rents can be obtained. These have been provided already for Schedule D taxpayers but as such are of limited use until similar information is available for PAYE taxpayers.

The availability of such data would eliminate some of the weaknesses of the current study. The county figures published for 1965 for income from dividends and interest was based on a very small sample. Even if the resources were available to repeat

the sample, there would be severe statistical problems in inferring any change. While the Revenue Commissioners' data also creates difficulties, they do at least afford an opportunity of developing a reasonable year-to-year index of changes on a regional basis. It would be an advantage if therefore the Revenue Commissioners could record incomes on the basis of the county of residence of the payee rather than that of the tax district office which negotiates with the payee's accountant.

The Revenue Commissioners' data will become all the more important since the Census of Population is unlikely to produce another report on industries for another seven years.

Apart from employer incomes, the Revenue Commissioners' data could be a valuable source of information on employees. There seems to be very little information on county differentials in earnings. Even if there were nationally agreed rates for particular jobs, the actual duration of work in any week could differ markedly from county to county. If, in addition, there are no standard rates, then the problem is compounded. Thus, it would be of little interest to know what a carpenter earned per hour, or doctors charged per call, if we do not know, in addition, the number of hours worked in a week, or the number of calls made. Some rough figures are available from the Census of Industrial Production and the Census of Distribution but in both cases the averages are very much influenced by the composition of the industries. High industrial earnings in Carlow could be due to one or two firms, such as the Sugar Company. Low retail wages in Meath can be attributed to the absence of the more highly paid retail jobs due to proximity to Dublin.

Another reason for pressing ahead with new sources of regional income data is the deteriorating situation with regard to traditional sources of data. Transfer payments by the central government are in many instances no longer available on a regional basis. In this report children's allowances had to be estimated on the basis of population. Old age pensions have not been recorded in recent years and the latest figures for widows and orphans contributory pensions relate to the mid-sixties.

It was customary to publish wages and salaries in CIP industries by county every five years. The last figures so published relate to 1963. Regional figures were published for 1968. Through

the good offices of the CSO a special calculation was made for this study for 1972.

Since the series of county income estimates was initiated, there have been new developments which offer alternative possibilities for county income estimation. The Household Budget Survey now covers both urban and rural households and investigates income in considerable detail. However, as mentioned in the text, the cost of obtaining income data in terms of non-response may decide the CSO against repeating the exercise. In addition, the national farm survey could be a useful source of income estimation for agriculture. This would be a welcome development since the method of estimating income from cattle employed in the current series suffers from some limitations.

Agriculture

The incomes of agriculture in 1973 were developed for each county following the procedures developed in the *Methodology of Personal Income Estimation by County*. It has become increasingly difficult to find a satisfactory method of estimating the county distribution of the sale of certain products off the farm, such as feeding barley, oats and potatoes. Very detailed figures were obtained on the acreages of horticultural crops from the Department of Agriculture and these were used to distribute the national estimates.

In estimating the agricultural inputs, the use of fertilisers was calculated on the basis of the fertiliser survey by An Foras Talúntais and standard applications were attributed to tillage crops in all counties. In the case of permanent pasture, An Foras Talúntais made available some data from the National Farm Survey and this was used instead of the Central Statistics Office estimates of fertilisers applied to grassland since the latter figures have not been collected for over a decade.

The allocation of feed costs was changed in the current exercise as a very detailed study of purchased feed was undertaken on a county basis by Liam Dunne of An Foras Talúntais.

In 1973 considerably more 'subsidies not related to sales' appear and these were allocated with the assistance of the Department of Agriculture and Bord na gCapall (in the case of horses).

The details supplied by the Department of Agriculture for industrial milk did not distinguish the amounts of subsidy paid for skim milk returned to suppliers on a county basis. For this reason this subsidy was included with milk output. As a consequence, the figures for output are higher than the official figures but the figures for 'subsidies not related to sales' are correspondingly lower. The estimates for income arising are, however, correct.

The method used to allocate wages paid in agriculture has departed from previous practice. The 1973 national farm survey was used to obtain estimates of wages paid to permanent workers and casual workers separately on a provincial basis. These were allocated in accordance with the number of males engaged in agriculture in June 1973. However, the infrequent occurrence of hired labour in certain counties could mean that in some counties the numbers involved would be less than 50. In a sample enumeration, such as that of 1973, the corresponding estimates would be shown as zero. To overcome this difficulty the 1973 reported numbers were not used where the numbers were very low. Instead the provincial trend between 1970 and 1973 was applied to the 1970 numbers. As the 1970 figures related to a full enumeration the actual numbers for that year were available in published form.

Remuneration in forestry was allocated with the help of the Central Statistics Office, while profits in fishing was again estimated with the help of the Fisheries Division of the Department of Agriculture and Fisheries.

Employee Remuneration

The estimation of industrial remuneration followed the established methodology by accounting for 'allocated' CIP industries, specified State-sponsored bodies and industrial sections of central and local authorities. Commuters were estimated after estimates for self-employed persons had been deducted from the totals in the Census of Population though here improved methods may mean that the estimates for these 'residual' workers are not strictly comparable with previous years.

Employee remuneration in the major sectors was calculated as before and owes a great deal to the active co-operation of many bodies, especially CIE.

The estimates of retail remuneration were based on material supplied specially by the CSO from the 1971 Census of Distribution. This Census, incidentally, gives details of both permanent and part-time workers whereas the Census of Population does not distinguish between these, being based on self-reporting as on a specified day each five years. This makes for problems in relating the two sets of figures to each other.

The Census of Population showed 59,271 persons *resident* in Leinster and engaged in the retail trade. The Census of Distribution estimated 60,040 *working* in Leinster. The balance would be part-time workers and net commuters. To adjust for commuters it was assumed that the ratio of part-time to full-time workers was the same in all Leinster counties outside Dublin. An exception was made of Longford which was assumed to have a higher proportion of part-time workers and no commuters into the county. On this basis the Census of Population was used to calculate the expected numbers in the Census of Distribution. Since the former was based on residence and the latter on place of work the difference was taken to be made up of net commuting. This resulted in the following adjustments to total wages and salaries, again in thousand pounds:

Carlow	- 54 (- 2)	Kildare	+ 224 (+ 3)
Dublin	- 630 (- 1)	Kilkenny	+ 18 (+ 0)
Louth	- 260 (- 3)	Laois	+ 36 (+ 1)
Westmeath	- 63 (- 1)	Meath	+ 397 (+ 5)
Wexford	- 44 (- 1)	Offaly	+ 51 (+ 1)
		Wicklow	+ 324 (+ 5)
	<hr/>		<hr/>
	- 1050		+ 1050

The impact of these adjustments on per capita incomes is given in parentheses and again in Table A1.

No special Census is available for employment and remuneration in Public Administration and Defence. For this reason reliance must be placed on the voluntary cooperation of State Departments and Local Authorities. As it turned out not all state Departments were able or willing to provide a breakdown of their payments of wages and salaries on a county basis. Where returns

were not received, an index was developed from the previous return and applied to the numbers adjusted for changes reported in the Directory of State Services. The latter booklet, however, contains details of sanctioned employment rather than an account of actual numbers.

The estimation of commuters in the public service was complex. The estimated 1973 employment by each Department was recalculated on a 1971 basis and with frequent reference to the 1976 Census of the Civil Service. A very close agreement was obtained with the Census of Population estimates though salaried forestry workers included under 'forestry' presented a problem. If anything commuters into Dublin were under-estimated. A different treatment of forestry workers would have eliminated commuting between Galway and Roscommon.

Other income

Table 4 details the income of self-employed by county in 1973. As mentioned earlier, national totals for individual industries had to be determined first before any county distributions could be made. The results do not disagree too seriously with data from the Revenue Commissioners based on Tax Districts.

Social Welfare payments were calculated with the aid of the Department of Social Welfare. In many cases the most recent figures were not too up-to-date and many are no longer calculable on a county basis. Local Authority transfers were based on the 1971 *Returns of Local Taxation*, which is the last report to be published in the traditional detail. It also contains data on health transfers for the period immediately before the handing over of responsibility to the Regional Health Boards.

Up-to-date education transfers were not available and the 1973 estimates were either related to remuneration or to previous returns. Greater detail was available for several of the 'other transfers from Central Government'.

The estimates for the remaining sources of personal income, apart from rents, are in many cases the least satisfactory since no new indices could be developed for interest, dividends, foreign pensions or emigrants' remittances. The estimates of rents were calculated using the same methodology as previously. Local Authority rents were derived from the most recent *Returns of*

Local Taxation. The calculation of rents of 'other housing' was facilitated by the recent publication of the *Housing* volume of the *Census of Population*. The reported housing stock of private dwellings was updated by including private dwellings built in each county in 1972 and 1973 as reported by the Department of Local Government. The Volume also provided new estimates of average monthly rents. These were used with the same reservations about their appropriateness as set out in the *'Methodology of Personal Income Estimation by County.'*

NATIONAL ECONOMIC AND SOCIAL COUNCIL PUBLICATIONS

	Title	Date
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4.	Regional Policy in Ireland: A Review	Jan. 1975
5.	Population and Employment Projections: 1971-86	Feb. 1975
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