

The Distribution of Personal Wealth by County in Ireland, 1966¹

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INTRODUCTION

The level and distribution of incomes and wealth are some of the most important factors in the study of economics, and some of the most contentious factors in the political arena. Until quite recently, statistical data concerning these topics in the Republic was very limited. Official estimates for the total of personal income have been published by the Central Statistics Office for many years, but there are as yet no estimates for the distribution of incomes by size of income, although there is an unofficial estimate for the distribution of non-agricultural incomes in

¹ The author would like to thank Mr George Colley, Minister for Finance, and Mr James Duignan, Chairman of the Revenue Commissioners, for allowing him to compile the data for this study, and he would like to express his gratitude also to the staff of the Estate Duty Branch for facilitating that compilation. The entire contents of the analysis, however, remain the responsibility of the author.

1954.² The study of incomes has proceeded in other directions, however, concerning, in particular, the level and composition of personal incomes in each of the twenty-six counties of the Republic. Vital pioneering work in this field has been undertaken by Attwood and Geary³ for 1960, followed by the important papers by Miceal Ross, which estimated county incomes in 1965⁴ and 1969⁵, and dealt with the methodology in considerable detail.⁶

The study of wealth has followed a different course. There are no official estimates in any form concerning personal wealth in Ireland. Private researchers have concentrated upon the distribution of personal wealth among individuals, classified by the amounts of wealth possessed, leading to estimates of the total of personal wealth in the Republic. Studies of this nature are now undertaken by official agencies in many other countries, having been made privately for some years, but it was not until 1961 that the first private estimates were made by Nevin for the Republic of Ireland. It does not appear merely coincidental that such an important Paper was the first ever published by The Economic Research Institute.⁷ Nevin's study was primarily concerned with wealth distribution in 1953-55, although comparative estimates for 1923-25 and 1937-39 were also published. Later estimates for the Republic in 1960 were given in the course of a paper on personal wealth in Northern Ireland presented to the Statistical and Social Inquiry Society by Corley⁸ in 1962.

Finally, the present author has published estimates for the distribution of personal wealth in 1966 for both the Republic⁹ and Northern Ireland.¹⁰ All these studies used the mortality-multiplier approach to estate duty statistics, which is used in other countries, although there were some differences in the methodology employed in each case.

The main subject under examination in these researches was the distribution of wealth in the whole area of the Republic or the whole area of Northern Ireland, together with analyses of, *inter alia*, the distribution of total wealth between the sexes and among the different age groups, the

² L. Reason, "Estimates of the Distribution of Non-Agricultural Incomes and Incidence of Certain Taxes", *Journal of the Statistical and Social Inquiry Society of Ireland*, Vol. XX, Part IV, 1960-61, pp. 42-72.

³ E. A. Attwood and R. C. Geary: *Irish County Incomes in 1960*, The Economic and Social Research Institute, Dublin: Paper No. 16, 1963.

⁴ M. Ross: *Personal Incomes by County 1965*, The Economic and Social Research Institute, Dublin: Paper No. 49, 1969.

⁵ M. Ross: *Further Data on County Incomes in the Sixties*, The Economic and Social Research Institute, Dublin: Paper No. 64.

⁶ M. Ross: *Methodology of Personal Income Estimation by County*, The Economic Research Institute, Dublin: Paper No. 63, 1971.

⁷ E. T. Nevin: *The Ownership of Personal Property in Ireland*, The Economic and Social Research Institute, Dublin: Paper No. 1, 1961.

⁸ T. A. B. Corley: "The Personal Wealth of Northern Ireland, 1920-60", *Journal of the Statistical and Social Inquiry Society of Ireland*, Vol. XXI, Part 1, 1962-63, pp. 14-30.

⁹ P. M. Lyons, "The Distribution of Personal Wealth in Ireland", Chap. VI in A. A. Tait and J. A. Bristow (eds) *Ireland—Some Problems of a Developing Economy*, Dublin: Gill and Macmillan, 1972, pp. 159-185.

¹⁰ P. M. Lyons, "The Distribution of Personal Wealth in Northern Ireland", *Economic and Social Review*, Vol. 3, No. 2, January 1972, pp. 213-225.

components of total wealth, and its location. No attempt has been made to estimate the total of personal wealth owned by persons resident in each county. This paper presents the results of an investigation into wealth holdings by individuals in each county in the Republic for 1966.

Ross describes some of the ways in which the estimates of county income distribution may be used.¹¹ Their utility derives from the fact that not only are figures available for total personal income and income per head in each county, but, of much more importance, the composition of those incomes is also given. It is thus possible to discover the proportion of total personal income in each county which accrues from employment and self-employment, both in agriculture and in other sectors, and the importance of other sources of income such as interest, dividends and rent, transfer payments and emigrants' remittances. Estimates of county wealth holdings by persons could be of similar usefulness, but it is not yet possible to provide detailed estimates giving the components of wealth in each county. For reasons which are discussed below, the present paper does not present, for example, estimates of the relative importance of land, or business premises, or company shareholdings, within each county. At the moment it is practicable only to calculate the distribution of the total money value of wealth for each county, divided between males and females, and to calculate wealth per head of the adult population and the total population in each county. Nevertheless, an estimate of even the total personal wealth in a county will provide an indication of the wealth-producing powers of each county, and could provide some underlying explanation of, for example, the level of income within that county. This analysis follows a detailed discussion of the methodology employed, and the paper concludes with a comparison of the estimates of county wealth in 1966 with the estimates of county incomes in 1965.

METHODOLOGY

(a) Nature of the Calculation

Essentially it is assumed that persons who die each year are a representative sample of those still alive in each age and sex group in the population in that year. The estates of the deceased, which are examined for estate duty purposes, are similarly assumed to be representative of the property held by the surviving population. The estates are then grossed up in each age and sex group cell, using the reciprocals of the numbers who died in each cell to the survivors, to estimate the total wealth possessed by the surviving population in each cell. This is commonly referred to as the mortality-multiplier calculation.

(b) Some Difficulties in the Estate Duty Approach

This procedure is not entirely satisfactory for many reasons, and its imperfections are freely admitted by all authors in this area. Some of the main difficulties are as follows.

¹¹ Ross, *Personal Incomes by County 1965*, p. 1.

1. Reasonably comprehensive data are only published concerning those estates which are liable to estate duty, that is those which have a net value in excess of £5,000 in Ireland. Little or no information is available concerning estates below the exemption limit, but persons possessing less than £5,000 net wealth are estimated to account for nearly 30 per cent of total personal wealth in the Republic.¹²
2. The deceased in a single year might not be a random and representative sample of those who did not die, and accordingly their estates might not be representative of the property of the survivors. An attempt is made to reduce the possible error in this instance by using estates of persons who died in a two- or three-year period rather than estates of those who died in a single year. But the smaller the area covered, the smaller the numbers deceased, as in the present exercise, and the greater is the danger that they are not representative.
3. The credibility of the larger estates for these calculations is open to serious doubt, due to the fact that, as the amount of wealth possessed by an individual becomes larger, there is a greater incentive to either avoid estate duty, or to evade it. Avoidance, which is perfectly legal, can be done by passing property on to children or other members of the family in anticipation of death. It can also be done, though this appears to be uncommon, by transferring assets into forms where the liability to estate duty is reduced, i.e. into agricultural land, for example, or Irish Government securities. Evasion, which is not legal, is achieved by not revealing property or possessions in the estate of the deceased. This could occur particularly with movable property, including, for example, cash, furniture and livestock. Another form of evasion is achieved by declaring property below its real value.
4. Assets can be legally undervalued for estate duty purposes. Artificially low valuations are applied to agricultural land in the Republic in certain circumstances, and reduced valuations are allowed for certain Government and Stock Exchange securities.¹³
5. Assets might be valued somewhat below their market value by the Revenue Commissioners, particularly where market valuation presents difficulties. This would apply to, *inter alia*, shares in private companies and works of art.

These factors almost certainly lead to undervaluation of holdings of personal property in the State as a whole. An additional important theoretical difficulty is that the mortality multiplier approach merely produces estimates for the distribution of wealth possessed by individuals. It does not lead to a distribution by wealth-possessing units. Whereas wealth might be legally held in the name of a particular individual, especially the head of the household, it is the family which, strictly speaking, enjoys that wealth, morally, socially and in practical terms. Implicit in all estimates of wealth distribution is the assumption that if the head of the

¹² Lyons, *Distribution of Personal Wealth in Ireland*, p. 169.

¹³ Lyons, *Distribution of Personal Wealth in Ireland*, pp. 173-174.

household owns wealth, neither his wife nor adult children possess any of that wealth. This assumption would make the distribution of wealth appear more inequitable than it is in actual fact.¹⁴ At the same time, the estimates may include the wealth holdings of several adult members of the same family, but they do not combine this total wealth to show family ownership of wealth. If this were done, it could well result in an even less equitable distribution of total personal wealth.

Finally, there is the problem of choosing the correct mortality multiplier. It was stated above that the multiplier used is the reciprocal of those who died in a particular age and sex group cell to the survivors in that cell. It is, however, a reasonable assumption that persons who possess wealth will tend to belong to the upper social classes in a population, among which mortality tends to be lower than in the general population. This reciprocal, by over-estimating the mortality of those who possess wealth, will underestimate the amount of wealth possessed by those persons. Accordingly, studies in other countries make use of mortality rates applicable to the upper socio-economic classes.¹⁵ While this approach has much to commend it, Revell has criticised it as being useless, due to discrepancies present in the calculation of these upper class mortality rates.¹⁶ It has not been possible to use social class mortality factors in Ireland, since different mortality rates are not published for the various social classes, and the general population mortality ratios had to be employed in all previous investigations. There is some improvement in the present analysis, however, in that mortality ratios are calculated for each age and sex group within each county, treating Dublin City and the Borough of Dun Laoghaire, and Cork city separately, thus making some allowance for the fact that inhabitants of rural areas tend to have a different mortality experience compared with those living in urban areas.¹⁷

(c) *The Collection of Data*

The basic data in this analysis comprised estates presented to the Estate Duty Office. Published information in respect of larger estates, i.e. with a net value in excess of £5,000, revealed only the components of those estates classified by age group and sex, and no information at all was published concerning estates not liable for duty. The essential information required comprised the value of each estate, and the age, sex, and county of residence of the deceased. This necessitated an investigation of a large number of files in the Estate Duty Office.

¹⁴ An attempt is being made to investigate this particular matter, for eventual publication.

¹⁵ H. F. Lydall and D. G. Tipping, "The Distribution of Personal Wealth in Britain", *Bulletin of the Oxford University Institute of Statistics*, Vol. 23, No. 1 (1961), pp. 98-100.

¹⁶ J. Revell, *The Wealth of the Nation*, Cambridge University Press, 1967, p. 120.

¹⁷ According to the Irish Life Tables, Nos. 6 and 6A, 1960-62 (published in the *Irish Statistical Bulletin*, June 1965, pp. 85-95), the expectation of life for both males and females is greater in All Ireland (and therefore in rural areas) than in urban areas in the younger age groups, but somewhat lower in the older age groups.

(i) *Large Estates*

All estates with a net value exceeding £5,000 dealt with by the Estate Duty Office in the years 1965/66 and 1966/67 were scrutinised, and the above information ascertained. These estates formed the basis of the original study, and a full description of the difficulties encountered and the nature of the estates was given therein.¹⁸ Many of the estates examined had to be discarded for one reason or another, and many of those included related to persons who had died some years prior to the years of inquiry. The number of estates included in the analysis, however, exceeded the number which first became liable to duty in the years of inquiry.

(ii) *Small Estates*

A random sample of estates with a net value below £5,000 in those years was also examined. Only estates of persons who died in the calendar years 1965 and 1966 were included, and estates of persons dying before 1965 were discarded. Many other estates could not be included because sufficient information was not available from the files, or because the persons left a negative net wealth. Nearly six thousand small estates were examined before a satisfactory selection of 2,144 estates was obtained, comprising a 10 per cent sample of the smaller estates. As before, the information extracted concerned the net value of the estate, and the age, sex, and county of residence of the deceased.

(d) *The Computations*

At this stage, a fundamental problem arose in respect of the characteristics of small samples. Sampling errors are undoubtedly present in a large sample taken from the total population. These errors increase to a considerable extent when very small samples are taken from very much smaller sub-populations. In this analysis, an estate was classified to a particular cell according to sex (2), age group (8), and county of residence (28).¹⁹ There were thus 448 potential cells to which an estate could be classified, and many contained none or only a very few estates. The problem was worsened since it was not possible to stratify the population of all small estates by county in order to draw a random sample from each county collection of estates.

In sampling the smaller estates, it is possible that only one male, for example, in a younger age group in a particular county, died during the period of inquiry, and left a small estate, which was included in the sample. Since the sampling fraction was 1/10, this estate was taken to represent the estates of 10 deceased in that male age group in that county, but only one male died in that category. Grossing up this kind of data results in ten times as many persons owning wealth as were actually alive

¹⁸ Lyons, *Distribution of Personal Wealth in Ireland*, pp. 179-181.

¹⁹ Estates in counties Dublin and Cork were further classified into either the County Borough Area (including Dun Laoghaire Borough with Dublin County Borough) or the rest of the County.

at the time. While this is an extreme sample, this feature occurred on many occasions with the smaller estates, with either more persons apparently owning wealth than were alive, or an unrealistically high proportion of those alive owning wealth. This tended to occur mainly in the younger age groups and in the smaller estates, but it was sometimes found in the larger estates as well.

Recourse had to be taken to the essential, but arbitrary and non-statistical, procedure of manipulating the data by omitting some of the material collected. The general approach was to ensure that not more than one-third of males in the four youngest age groups (up to 54 years) were shown as possessing wealth greater than nil, and not more than one-half in the other age groups. Slightly lower proportions were applied in the case of females, but relatively few adjustments had to be made to the data concerning females. These proportions were chosen since they appeared to be reasonable based upon the previous analysis of wealth distribution by age groups, although it was not possible to adhere rigidly to these proportions at all times. Adjustments were made in 97 out of 2,527 categories, or 3.8 per cent of the total.²⁰ This approach undoubtedly produced a further element of under-estimation, and affected some counties more than others. Apart from these adjustments, in each category the number of small estates was multiplied by ten to obtain the total number of such estates.

The resulting analysis showed the numbers of estates in different size categories of net estate, classified by age group, by sex, and by county of residence. The data for Dublin and Cork were further sub-divided, as explained above, enabling account to be taken of different mortality experience in the cities compared with rural areas, and providing more detailed information in the subsequent analyses.

These distributions of estates were then grossed up to represent the total adult population by multiplying them by the reciprocals of the ratios of the numbers of deaths in the calendar years 1965 and 1966 to the population recorded in the Census of Population of 1966. These latter ratios were again classified by age group, sex and county of residence. The resulting figures for numbers of persons were taken to one place of decimals, a procedure which has led to some slight difficulty due to rounding in some of the following Tables. Finally, the numbers of persons in each size category of net wealth were multiplied by the mid-point of that category in order to obtain the total wealth possessed by that particular group. There were no persons in the final open-ended class (£400,000 and over).

As was explained above, the omission of portions of the data which had a distorting effect upon the analysis inevitably produced some under-estimation, but grossing up estates for the whole country, and grossing them up by individual counties and totalling these, should result in some

²⁰ The author is willing to make available the detailed work-sheets, showing both the original and adjusted numbers of estates, to any person on request.

measure of agreement. A comparison of the more important aggregates is given in Table 1.

TABLE 1
Comparison of principal results

<i>Category</i>	<i>Original Article</i>	<i>Present Analysis</i>	<i>Original Article Percentage</i>	<i>Present Analysis Percentage</i>
<i>Number of Estates:</i>				
Nil	1,120,278	1,217,040	65.0	70.6
Under £5,000	511,943	419,277	29.7	24.3
£5,000 and over	92,029	87,934	5.3	5.1
<i>Total</i>	1,724,250	1,724,250	100.0	100.0
<i>Value of Estates:</i>				
Nil	—	—	—	—
Under £5,000	£603m	£649m	28.4	33.3
£5,000 and over	£1,518m	£1,299m	71.6	66.7
<i>Total</i>	£2,121m	£1,948m	100.0	100.0
<i>Number of Estates:</i>				
Males	856,299	856,299	49.7	49.7
Females	867,951	867,951	50.3	50.3
<i>Total</i>	1,724,250	1,724,250	100.0	100.0
<i>Value of Estates:</i>				
Males	£1,527m	£1,354m	72.0	69.5
Females	£595m	£595m	28.0	30.5
<i>Total</i>	£2,121m	£1,948m	100.0	100.0
<i>Wealth per Head:</i>				
Male adults	£1,783	£1,581	—	—
Female adults	£686	£685	—	—
<i>Total adults</i>	£1,230	£1,130	—	—
<i>Total Population</i>	£735	£676	—	—

Note: In this and subsequent Tables, the individual items may not add up to the totals shown due to rounding.

It is apparent that the present analysis under-estimates both the number of wealth-holders with net wealth greater than nil and the amount of wealth possessed by those persons, compared with the original article. Total net wealth was estimated at £2,121 million in the original article, but at only £1,948 million in the present analysis, which latter represents 91.8 per cent of the original aggregate. The number of wealth-holders possessing less than £5,000 has been reduced from 511,943 to 419,277, a decrease of 18.1 per cent, and the number of wealthier persons has been reduced by 4.4 per cent. This is a reflection of the fact that the adjustments

were made mainly by reducing the numbers of estates in the under £5,000 category.

A different picture is presented by the comparison of the total net wealth possessed by persons who owned less than or more than £5,000 net wealth. In spite of the reduction in the numbers of small wealth-holders, the total wealth possessed by them is shown to have increased from £603 million to £649 million. This has resulted from a very different distribution of wealth in this category compared with the original research, the latter being based on a sample of only 321 estates as opposed to the 2,144 of the present analysis. A much larger proportion of estates of younger persons was discovered in the present research, and this had a marked effect on the total wealth possessed by this category. In addition, the proportion of total small estates in the £2,000 to £5,000 category increased from 22.4 per cent to 24.5 per cent, and these were given an average value of £3,500 in the present analysis, but £3,321 in the original article.²¹ The amount of wealth possessed by persons owning more than £5,000, however, shows a considerable reduction, from £1,518 million to £1,299 million. Although only a relatively small number of larger wealth-holdings was omitted from this second analysis, those omitted were generally in the category which might be termed "very wealthy", and they were all reasonably young. They were included in the original analysis, since they were regarded as producing relatively minor distortions in the population for the whole country.

Their inclusion in separate counties would have produced extremely serious distortions, but it would now appear that their inclusion originally on the grounds that distortions would be small has proved somewhat optimistic.

All the under-estimation in the current analysis is found in wealth possessed by males. Total and average wealth appears at £595 million and £686 (or £685) respectively in both analyses for females, whereas for males total wealth is reduced from £1,527 million to £1,354 million, and the average adult male possession is reduced from £1,783 to £1,581. As was explained above, very little of the basic data on females was omitted in this analysis, but a relatively large amount of data pertaining to males was not included. Mean wealth per head for adults and for the whole population also show reductions, by £100 and £59 respectively.

The overall comparison for the country demonstrates that the present analysis results in lower total net wealth, due largely to the omission of certain data, but in some part also the different data-collecting and estimating methods employed. It is considered that this under-estimation is not of significant proportions for the country as a whole. But in the discussion which follows it must be borne in mind that the adjustments affected the different counties to different extents. Some suffered larger deductions than others, although the differences in total wealth possessed in the different counties are too large, in most cases, to have been produced entirely by this approach. The relative positions in the wealth scale of

²¹ Lyons, *Distribution of Personal Wealth in Ireland*, pp. 184-185.

some counties, however, might have been altered somewhat by the manipulations employed. The errors resulting from the small samples of estates in each county are almost certainly of more importance than the non-statistical techniques employed in the analysis.

THE RESULTS

(a) *The Distribution of Wealth by Counties*

The main results of the inquiry are shown in Table 2, which presents the distribution of estates by county in 1966, separating those who owned nil wealth from those who owned up to £5,000 net wealth and those who possessed more than £5,000 net wealth. The total amounts of wealth possessed by persons in each category are also shown. Table 3 is derived from this distribution, and shows the percentage distribution of wealth-holders and net wealth in each county.

As might be expected, the residents of Dublin City, including Dun Laoghaire, account for more wealth than any other area, followed by Dublin County and Cork County. There are, however, many more persons possessing wealth in Cork County than in Dublin County. The counties of Leinster contain somewhat less than half the adult population of the State, but more than 57 per cent of the total wealth of the country is owned there. There are wide variations in the amount of wealth held in each county, down to the £11 million odd in Carlow and Longford, which are also the counties in Leinster with the smallest number of inhabitants. In the whole country, only Leitrim shows a smaller total of net wealth.

In the country as a whole, just over 70 per cent of the adult population own no net wealth. In Leinster, both Carlow and Wicklow appear to have much higher proportions owning nothing, whereas the lowest proportion in this category is found in Dublin City, 66.1 per cent, but this is not as far below the country mean as the others are above it. In Munster all areas are above the national mean except Cork County which is well below it with only 61.5 per cent of the adult population owning zero wealth. Both Connacht and part of Ulster show reasonably small fluctuations on either side of the mean. Taken together the Cities and Counties of Dublin and Cork both have rather smaller percentages owning nil wealth than the national average.

Slightly more than two-thirds of the personal wealth in Ireland is possessed by those who own more than £5,000 of net wealth, but they account for only 5.1 per cent of the total adult population. (There is a reduction in the proportion of wealth held by this category compared with the original analysis, since the total amount of wealth has been reduced considerably, as was demonstrated above). In this category, much larger percentages of wealth-holders are to be found in Dublin County and Meath, but much smaller percentages in Westmeath, Wexford, Cork City and Kerry, and very much smaller percentages in Longford, Clare, Mayo, Roscommon, Cavan, Donegal and Monaghan, with Leitrim again at the bottom of the list. In considering the proportion of total wealth held by persons in the £5,000 and over category, very much higher proportions than the national average are found in Wicklow and Kildare,

TABLE 2
The Distribution of Estates by County, 1966

County	Number of Estates				Total Value of Net Estates (£)			
	Nil	Under £5,000	Over £5,000	Total	Nil	Under £5,000	Over £5,000	Total
Carlow	16,078	2,639	770	19,487	—	3,055,900	8,848,325	11,904,225
Dublin County	66,833	20,174	9,545	96,552	—	38,697,660	156,898,825	195,596,485
Dublin City	244,291	102,248	23,203	369,741	—	196,328,125	379,822,025	576,150,150
Kildare	28,714	5,623	2,528	36,864	—	6,995,855	40,315,600	47,311,455
Kilkenny	28,743	5,697	1,706	36,146	—	5,614,055	21,486,175	27,100,230
Laoighis	19,453	6,274	1,072	26,798	—	12,857,770	19,093,200	31,950,970
Longford	13,686	3,472	476	17,634	—	6,591,575	5,076,825	11,668,400
Louth	31,298	7,599	1,716	40,613	—	7,989,680	28,944,550	36,934,230
Meath	25,730	9,598	3,436	38,763	—	13,126,860	54,853,025	67,979,885
Offaly	22,648	5,858	1,178	29,683	—	7,378,610	13,181,850	20,560,460
Westmeath	22,050	7,652	1,116	30,818	—	14,208,495	14,432,625	28,641,120
Wexford	37,814	10,086	1,734	49,634	—	12,700,935	20,675,850	33,376,785
Wicklow	29,784	3,650	2,163	35,598	—	4,363,435	36,045,750	40,409,185
Leinster	587,119	190,569	50,643	828,331	—	329,908,955	799,674,625	1,129,583,580
Clare	34,084	11,052	1,054	46,189	—	12,347,030	14,790,750	27,137,780
Cork County	82,999	43,429	8,540	134,968	—	71,754,330	109,609,850	181,364,180
Cork City	51,270	18,677	2,591	72,539	—	20,609,840	35,769,050	56,378,890
Kerry	50,840	16,503	2,603	69,945	—	25,996,705	38,015,125	64,011,830
Limerick	59,186	16,879	4,253	80,317	—	23,005,510	65,646,125	88,651,635
Tipperary	54,621	13,686	4,609	72,914	—	16,387,325	58,524,600	74,911,925
Waterford	32,603	9,511	2,088	44,202	—	13,788,775	28,355,975	42,144,750
Munster	365,603	129,736	25,738	521,074	—	183,889,515	350,711,475	534,600,990
Galway	59,245	25,562	3,772	88,578	—	44,083,210	48,971,975	93,055,185
Leitrim	14,743	4,821	334	19,897	—	3,670,690	3,249,175	6,919,865
Mayo	49,630	19,115	1,522	70,268	—	17,119,020	23,652,450	40,771,470
Roscommon	23,548	11,159	764	35,471	—	12,895,575	7,059,850	19,955,425
Sligo	23,038	7,139	1,618	31,794	—	12,950,555	16,970,300	29,920,855
Cannacht	170,204	67,795	8,009	246,008	—	90,719,050	99,903,750	190,622,800
Cavan	23,561	9,292	780	33,634	—	11,603,170	10,136,975	21,740,145
Donegal	49,460	15,477	1,989	66,926	—	24,519,245	30,456,225	54,975,470
Monaghan	21,094	6,408	775	28,277	—	8,839,345	7,820,975	16,660,320
Ulster (part of)	94,115	31,177	3,544	128,837	—	44,961,760	48,414,175	93,375,935
TOTAL	1,217,040	419,277	87,934	1,724,250	—	649,479,280	1,298,704,025	1,948,183,305
Cork County & City	134,270	62,106	11,130	270,507	—	92,364,170	145,378,900	237,743,070
Dublin County & City	311,123	122,423	32,749	466,293	—	235,025,785	536,720,850	771,746,635

TABLE 3
Percentage distribution of estates by county, 1966

County	Percentage of Estates				Percentage of Total Value of net Estates			
	Nil	Under £5,000	Over £5,000	Total	Nil	Under £5,000	Over £5,000	Total
Carlow	82.5	13.5	4.0	100.0	—	25.7	74.3	100.0
Dublin Co.	69.2	20.9	9.9	100.0	—	19.8	80.2	100.0
Dublin City	66.1	27.6	6.3	100.0	—	34.1	65.9	100.0
Kildare	77.9	15.2	6.9	100.0	—	14.8	85.2	100.0
Kilkenny	79.5	15.8	4.7	100.0	—	20.7	79.3	100.0
Laoighis	72.6	23.4	4.0	100.0	—	40.2	59.8	100.0
Longford	77.6	19.7	2.7	100.0	—	56.5	43.5	100.0
Louth	77.1	18.7	4.2	100.0	—	21.6	78.4	190.0
Meath	66.4	24.8	8.8	100.0	—	19.3	80.7	100.0
Offaly	76.3	19.7	4.0	100.0	—	35.9	64.1	100.0
Westmeath	71.6	24.8	3.6	100.0	—	49.6	50.4	100.0
Wexford	76.2	20.3	3.5	100.0	—	38.1	61.9	100.0
Wicklow	83.7	10.2	6.1	100.0	—	10.8	89.2	100.0
<i>Leinster</i>	70.9	23.0	6.1	100.0	—	29.2	70.8	100.0
Clare	73.8	23.9	2.3	100.0	—	45.5	54.5	100.0
Cork Co.	61.5	32.2	6.3	100.0	—	39.6	60.4	100.0
Cork City	70.7	25.7	3.6	100.0	—	36.6	63.4	100.0
Kerry	72.7	23.6	3.7	100.0	—	40.6	59.4	100.0
Limerick	73.7	21.0	5.3	100.0	—	26.0	74.0	100.0
Tipperary	74.9	18.8	6.3	100.0	—	21.9	78.1	100.0
Waterford	73.8	21.5	4.7	100.0	—	32.7	67.3	100.0
<i>Munster</i>	70.2	24.9	4.9	100.0	—	34.4	65.6	100.0
Galway	66.9	28.8	4.3	100.0	—	47.4	52.6	100.0
Leitrim	74.1	24.2	1.7	100.0	—	53.0	47.0	100.0
Mayo	70.6	27.2	2.2	100.0	—	42.0	58.0	100.0
Roscommon	66.4	31.5	2.1	100.0	—	64.6	35.4	100.0
Sligo	72.5	22.4	5.1	100.0	—	43.3	56.7	100.0
<i>Connacht</i>	69.2	27.6	3.2	100.0	—	47.6	52.4	100.0
Cavan	70.1	27.6	2.3	100.0	—	53.4	46.6	100.0
Donegal	73.9	23.1	3.0	100.0	—	44.6	55.4	100.0
Monaghan	74.6	22.7	2.7	100.0	—	53.1	46.9	100.0
<i>Ulster (part of)</i>	73.0	24.2	2.8	100.0	—	48.2	51.8	100.0
TOTAL	70.6	24.3	5.1	100.0	—	33.3	66.7	100.0
<i>Cork Co. & City</i>	64.7	29.9	5.4	100.0	—	38.9	61.1	100.0
<i>Dublin Co. & City</i>	66.7	26.3	7.0	100.0	—	30.5	69.5	100.0

while much lower proportions appear in Leitrim, Roscommon, Cavan and Monaghan.

While there are wide variations between the percentages of persons owning £5,000 or more, and the proportions of total wealth owned by those persons, there is a general tendency for the two proportions to increase together, as shown in Diagram I, giving some indication that higher proportions of wealth in this category are due more to the fact that there are higher proportions of wealth-holders than the existence of very large wealth-holdings in the hands of only a few.

At this stage, some further important weaknesses of the estate duty method in analysing county wealth must be emphasised. No examination was undertaken of the components of net wealth in each county. Aside altogether from the additional work which would be required, the components of estates would be subject to even greater sampling errors than are already present in the investigation. It is considered that the aggregates presented for each county are reasonably accurate, but that a component analysis could well prove to be misleading, since there might be considerable fluctuations in the components from year to year. Here it is interesting to compare two independent estimates, for different years, of wealth possessed in Northern Ireland, an area smaller than the Republic, but larger than any of our individual counties. As the Table in the footnote shows,²² the aggregates appear compatible, given the accumulation of

²² *Distribution of Personal Wealth in Northern Ireland, 1961 & 1966*

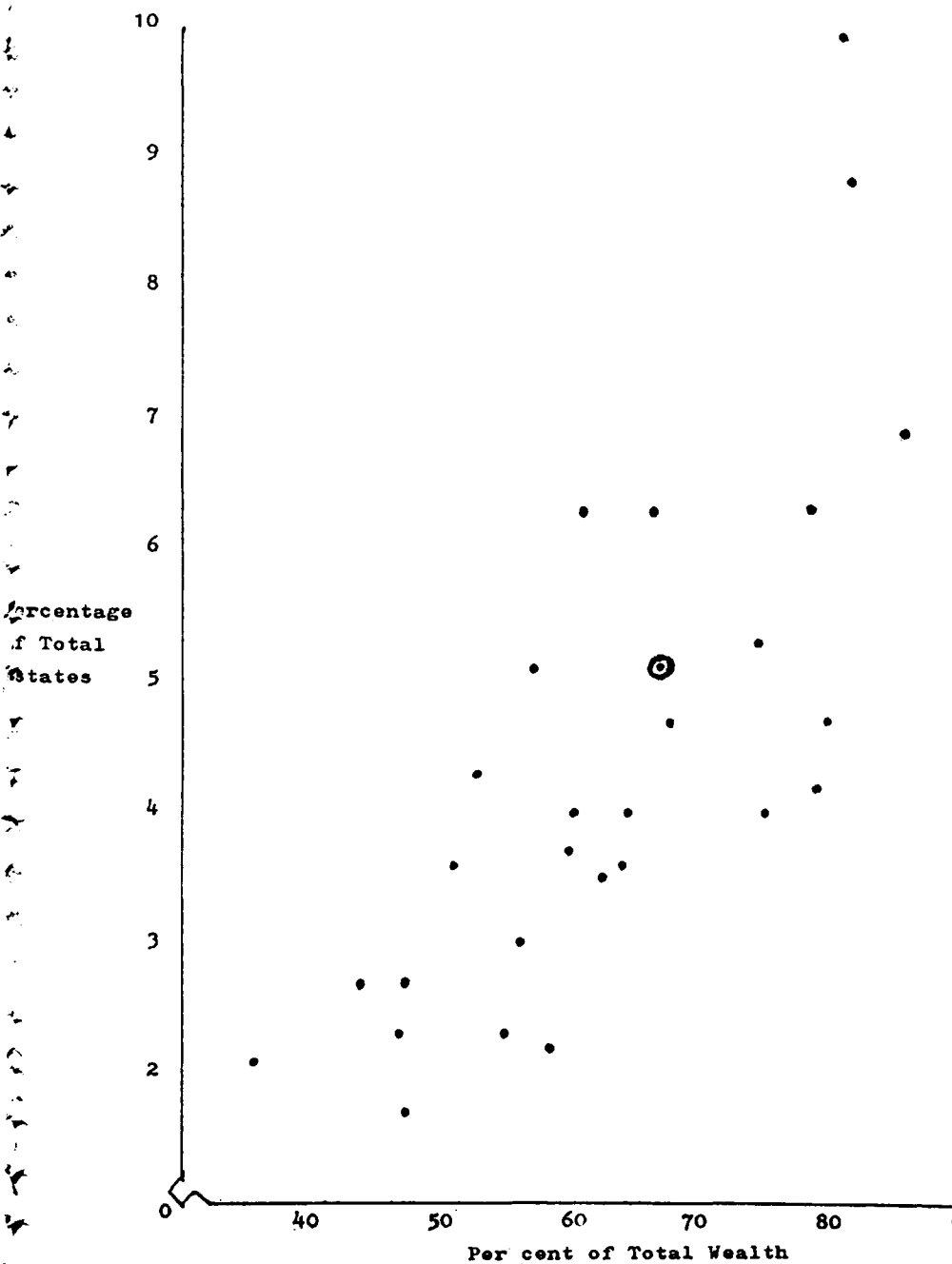
Type of Asset	Value (£ million)		Percentage Distribution	
	1961	1966	1961	1966
Government and municipal securities				
—domestic	83	70	7.62	4.51
Government and municipal securities				
—foreign	7	106	0.64	6.83
Corporate securities—domestic ...	110	99	10.10	6.38
Corporate securities—foreign ...	23	188	2.11	12.11
Mortgages, money on bills, etc. ...	17	38	1.56	2.45
Household goods	44	46	4.04	2.96
Insurance policies	112	60	10.28	3.86
Cash in house and at bank ...	188	327	17.26	21.07
Trade assets	70	53	6.43	3.42
Other personalty	104	74	9.55	4.77
Total Personalty	758	1,061	69.61	68.36
Land	136	281	12.49	18.11
Houses and other property ...	268	321	24.61	20.68
Total Realty	404	602	37.10	38.79
Total Gross Capital	1,162	1,663	106.70	107.15
Deductions	73	111	6.70	7.15
Total Net Capital	1,089	1,552	100.00	100.00

Sources: 1961: Revell, *The Wealth of the Nation*, p. 147.

1966: Lyons, *Distribution of Personal Wealth in Northern Ireland*, p. 221.

Diagram I.

Percentage Distribution of Estates and Wealth Among
Persons Owning £5000 or More, 1966.



capital and price inflation between 1961 and 1966, but the components exhibit marked variations which could not have occurred in reality.

While components are not analysed separately, they do form part of the aggregate figures. Agricultural land has been shown to be one of the least satisfactory components in this type of analysis in Ireland,²³ due to the artificial valuation allowed in certain circumstances for such property. It is generally the smaller holdings which benefit from this arrangement, and we should expect to find a relatively low total of capital in those counties where the majority of farms are small, but a fairly high total capital value in those counties where farms are larger and tend not to benefit from the artificial valuation. In most cases, where the proportion of holdings over 50 acres in size in 1965 was well below the average for the county as a whole, the proportion of wealth-holders owning more than £5,000 net wealth was also well below the national average, and this feature is apparent in most counties outside Leinster. Where the proportion of larger holdings was above the average for the State, the findings were mixed, particularly in Leinster, where some counties had a higher, and others a lower, proportion of persons owning £5,000 or more than the national average.

Ownership or tenancy of private dwellings is another factor which might be considered to influence the possession of wealth. We should therefore expect to find that the proportion of wealth-holders owning nil wealth was highest in those counties where the proportion of tenanted property was highest, and *vice versa*. In about half the counties this picture emerged, but the reverse was the situation in the rest.

Finally, the estate duty method does not give a clear picture of the location of actual wealth at the county level. According to the analysis, the deceased's place of residence or place of death determined the area to which all that person's assets were to be attributed. Thus a person might have lived in Dublin but owned property in other counties, or shares in companies outside Dublin, or outside the State. In his estate, all these assets would be attributed to Dublin. This has undoubtedly increased the total amount of capital possessed by Dublin residents, and it has probably worked to a lesser extent in some other counties also. To the extent that this occurred in some counties, it would accordingly lessen the total amounts of wealth apparently present in others.

(b) *The Distribution of Population and Wealth, and Wealth per Head in each County*

Table 4 presents the percentage of the total adult population of the country resident in each county, the percentage of the total population in each, and the percentage of the total net wealth of the country owned by persons in each county. Table 5 shows the net wealth per head of the adult and the total populations for each county, and the ranking order of these figures, the figures in brackets giving the ranking with Dublin City and County combined and Cork City and County combined.

²³ Lyons, *Distribution of Personal Wealth in Ireland*, pp. 173-174.

TABLE 4

Percentage distribution of population and wealth, 1966

<i>County</i>	<i>Per cent of Total Adult population</i>	<i>Per cent of Total Population</i>	<i>Per cent of Total Wealth</i>
Carlow	1.1	1.2	0.6
Dublin County	5.6	6.1	10.0
Dublin City	21.4	21.5	29.6
Kildare	3.1	2.3	2.4
Kilkenny	2.1	2.1	1.4
Laoighis	1.6	1.5	1.6
Longford	1.0	1.0	0.6
Louth	2.4	2.4	1.9
Meath	2.2	2.3	3.5
Offaly	1.7	1.8	1.1
Westmeath	1.8	1.8	1.5
Wexford	2.9	2.9	1.7
Wicklow	2.1	2.1	2.1
<i>Leinster</i>	48.0	49.1	58.0
Clare	2.7	2.6	1.4
Cork County	7.8	7.5	9.3
Cork City	4.2	4.2	2.9
Kerry	4.1	3.9	3.3
Limerick	4.7	4.8	4.6
Tipperary	4.2	4.3	3.8
Waterford	2.6	2.5	2.2
<i>Munster</i>	30.2	29.8	27.4
Galway	5.1	5.1	4.8
Leitrim	1.2	1.1	0.4
Mayo	4.1	4.0	2.1
Roscommon	2.1	1.9	1.0
Sligo	1.8	1.8	1.5
<i>Connacht</i>	14.3	13.9	9.8
Cavan	2.0	1.9	1.1
Donegal	3.9	3.8	2.8
Monaghan	1.6	1.6	0.9
<i>Ulster (part of)</i>	7.5	7.2	4.8
TOTAL	100.0	100.0	100.0
<i>Cork County and City</i>	12.0	11.8	12.2
<i>Dublin County and City</i>	27.0	27.6	39.6

TABLE 5

Wealth per head by county, 1966

<i>County</i>	<i>Wealth per Head-Adult Population £</i>	<i>Ranking</i>	<i>Wealth per Head-Total Population £</i>	<i>Ranking</i>
Carlow	610.9	23 (21)	354.4	26 (24)
Dublin County	2,025.8	1 (—)	1,120.9	1 (—)
Dublin City	1,558.3	3 (—)	928.5	3 (—)
Kildare	1,283.4	5 (3)	712.5	6 (4)
Kilkenny	749.7	18 (16)	448.2	18 (16)
Laoighis	1,192.3	6 (4)	716.5	5 (3)
Longford	661.7	21 (19)	402.5	19 (17)
Louth	909.4	15 (14)	531.3	15 (14)
Meath	1,753.7	2 (1)	1,009.8	2 (1)
Offaly	692.7	19 (17)	397.6	22 (20)
Westmeath	929.4	13 (12)	541.4	14 (13)
Wexford	672.5	20 (18)	400.0	21 (19)
Wicklow	1,135.2	7 (6)	668.7	7 (6)
<i>Leinster</i>	1,363.7	— —	798.6	— —
Clare	587.5	25 (23)	368.7	23 (21)
Cork County	1,343.8	4 (—)	833.6	4 (—)
Cork City	777.2	17 (—)	461.6	17 (—)
Kerry	915.2	14 (13)	567.6	13 (12)
Limerick	1,103.8	8 (7)	645.4	8 (7)
Tipperary	1,027.4	10 (9)	610.0	10 (9)
Waterford	953.5	11 (10)	576.7	12 (11)
<i>Munster</i>	1,026.0	— —	622.1	— —
Galway	1,050.5	9 (8)	627.3	9 (8)
Leitrim	347.8	28 (26)	226.3	28 (26)
Mayo	580.2	26 (24)	352.9	27 (25)
Roscommon	562.6	27 (25)	354.9	25 (23)
Sligo	941.1	12 (11)	583.7	11 (10)
<i>Connacht</i>	774.9	— —	474.2	— —
Cavan	646.4	22 (20)	402.4	20 (18)
Donegal	821.4	16 (15)	506.5	16 (15)
Monaghan	589.2	24 (22)	364.3	24 (22)
<i>Ulster (part of)</i>	724.8	— —	448.3	— —
<i>TOTAL</i>	1,129.9	— —	675.5	— —
<i>Cork County & City</i>	1,145.7	— (5)	699.9	— (5)
<i>Dublin County & City</i>	1,653.1	— (2)	970.7	— (2)

In only four counties in Table 4 is there even a moderate agreement between the proportion of total wealth owned and the proportion of total population. In the vast majority of cases, each county owns a much greater, or a much lower, percentage of the total wealth than its share of population would warrant—another way in which wealth may be said to be unequally distributed. The range is from Dublin County at one end, whose 6.1 per cent of the population account for 10 per cent of the country's personal wealth, down to lowly Leitrim, which has 1.1 per cent of the population, but only 0.4 per cent of the country's wealth. Only 6 counties have a higher proportion of wealth than population—Dublin City, Dublin County, Kildare, Laoighis and Meath (all of which are in Leinster), and Cork County. The rest have lower proportions, including all counties of Connacht and Ulster.

In Table 5, Dublin County again is at the head of the list, with £2,025.8 per head of the adult population, and £1,120.9 per head of the total population. Meath comes second in both distributions, although when the figures for the City and County of Dublin are combined, Meath moves to the top. Leitrim is at the foot of the rankings by a very considerable distance.

The wide variation in mean wealth-holdings throughout the country and within provinces is worthy of note. The provinces, in order of wealth per head of both the adult and total populations, are Leinster, Munster, Connacht and Ulster. But several counties in Leinster, notably Carlow, Offaly and Wexford, are well down the rankings, as are Longford and Kilkenny. Several of these would not normally be regarded as "un-wealthy" counties, and there must be grounds for suspicion concerning the original data for this analysis. In Munster, the counties are grouped reasonably closely together in the rankings, apart from Cork County which occupies a higher place than any other, and helps pull up Cork City and County combined, and apart also from Clare, which is well down the list. In Connacht, three counties are lowly placed, but Galway and Sligo, while they have net wealth per head below the national average, are in the upper half of the rankings. In Ulster, Donegal has the highest mean wealth-holding. In exactly half the cases the ranking is the same for both the adult and total populations, the differences elsewhere being fairly small, reflecting the differing proportions of those under 20 years in the populations of those counties.

Diagram II presents the data of Table 5 for wealth per head of total population in 5 ranges of mean wealth. Without detailed information on the components of wealth in each county, as well as the probability of different sampling errors in each county, it is impossible to analyse the reasons for the picture of wealth distribution with any certainty. Nevertheless some clear patterns emerge from the distribution of wealth per head of population. There are four adjacent counties with wealth per head exceeding £700, these being all-Dublin, Kildare, Meath and Laoighis. The presence of industry, or the proximity of Dublin, and the quality and size of farms would lend support to the wealth situation revealed in these counties. Dublin City and County separately would both be in this category,

as would Cork County on its own, but in combination with Cork City, this area drops to the next category. This next group comprises five counties with wealth per head between £600 and £699. These are Wicklow, Galway, Tipperary, Limerick and all-Cork. Again the position of these counties is not unexpected. Wicklow is close to Dublin, and possesses some industry, while Limerick and Cork have fairly prosperous agricultural and industrial sectors, although Cork's agricultural wealth appears to be somewhat offset by the lack of wealth in Cork City. Tipperary's wealth is probably due more to agriculture, but the placing of Galway is a little surprising. This is possibly due to the presence of Galway City and some wealthy retired persons living in the county, as well as reflecting the prosperity induced by tourism.

The next category, with wealth per head between £500 and £599, contains six counties, these being Donegal, Sligo, Louth, Westmeath, Waterford and Kerry. One might expect Sligo, Louth and Westmeath to be in the middle ranking of the counties, with Waterford somewhat higher, and Donegal and Kerry somewhat lower. This is almost the picture that emerges within this class interval, but with Waterford just behind Sligo at the top, and Donegal at the bottom of this group. Kerry still remains in a higher place than might be expected, although tourism is an important industry in this county, and parts of it are agriculturally well-endowed.

The fourth group contains four counties with wealth per head between £400 and £499—Cavan, Longford, Kilkenny and Wexford. Wexford, certainly, and Kilkenny, to a lesser extent, seem to be well below their expected rankings, and they are possibly suffering worse than most counties from sampling errors with a downward bias. Finally, there are seven counties at the foot of the list, with net wealth per head of under £400 in each case. These are Monaghan, Leitrim, Mayo, Roscommon, Clare, Offaly and Carlow. Again, Carlow and Offaly appear to be placed in a lower category than one might expect.

Admittedly, different class intervals would have produced a somewhat different pattern. In another distribution, with, say, a class interval running from £350 to £449, Offaly and Wexford would have been placed close together, with wealth per head of £397.6 and £400.0 respectively. Nevertheless, the picture produced is of interest, in spite of some probable inaccuracies. It must be stressed, however, that all the above remarks are extremely tentative. Many factors are at work in the creation of wealth, and they may often be working in opposite directions, or causing different rates of growth in the individual wealth components. Concrete and valid conclusions would require a detailed analysis of the components of personal wealth in each county, spread over a number of years (which itself would create problems in valuation) in order to minimise the sampling variability.

(c) *The Distribution of Wealth between Males and Females*

Although it was not possible to analyse county wealth by age groups or by components, it was possible to study its distribution between males and females. Table 6 shows this distribution of wealth, giving the numbers of estates owned by adult males and females separately, and the total values

Diagram II.

Wealth per Head of Total Population, 1966.

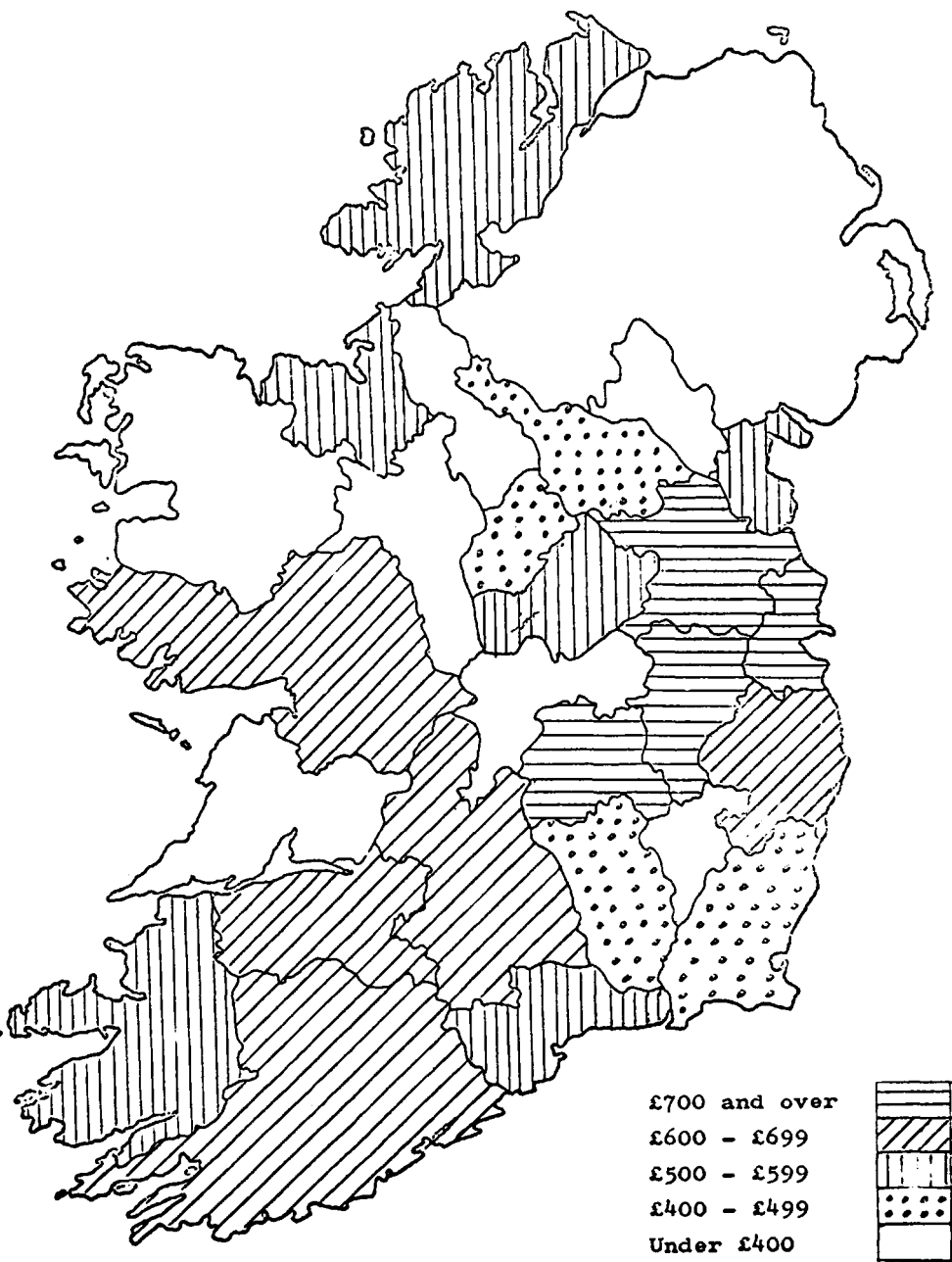


TABLE 6
Distribution of Wealth among Males and Females, 1966

County	Number of Estates			Total Value of Net Estates (£)		
	Males	Females	Total	Males	Females	Total
Carlow	10,007	9,480	19,487	9,574,070	2,330,155	11,904,225
Dublin County	45,968	50,584	96,552	153,718,825	41,877,660	195,596,485
Dublin City	164,338	205,403	369,741	327,652,070	248,498,080	576,150,150
Kildare	19,329	17,535	36,864	42,567,060	4,744,395	47,311,455
Kilkenny	18,854	17,292	36,146	19,688,130	7,412,100	27,100,230
Laoighis	14,340	12,458	26,798	26,341,765	5,609,205	31,950,970
Longford	9,357	8,277	17,634	9,370,415	2,297,985	11,668,400
Louth	19,728	20,885	40,613	25,933,295	11,000,935	36,934,230
Meath	20,040	18,723	38,763	51,219,065	16,760,820	67,979,885
Offaly	15,700	13,983	29,683	17,739,065	2,821,395	20,560,460
Westmeath	15,959	14,859	30,818	20,981,100	7,660,020	28,641,120
Wexford	24,973	24,661	49,634	26,006,360	7,370,425	33,376,785
Wicklow	17,532	18,066	35,598	24,506,200	15,902,985	40,409,185
Leinster	396,125	432,206	828,331	755,297,420	374,286,160	1,129,583,580
Clare	24,714	21,475	46,189	20,152,220	6,985,560	27,137,780
Cork County	69,049	65,919	134,968	134,015,745	47,348,435	181,364,180
Cork City	32,909	39,630	72,539	34,419,175	21,959,715	56,378,890
Kerry	36,734	33,211	69,945	47,980,080	16,031,750	64,011,830
Limerick	39,973	40,344	80,317	63,052,555	25,599,080	88,651,635
Tipperary	37,766	35,148	72,914	58,847,295	16,064,630	74,911,925
Waterford	21,783	22,419	44,202	29,195,750	12,949,000	42,144,750
Munster	262,928	258,146	521,074	387,662,820	146,938,170	534,600,990
Galway	46,831	41,747	88,578	74,766,795	18,288,390	93,055,185
Laitrim	10,850	9,047	19,897	5,315,120	1,604,745	6,919,865
Mayo	36,544	33,724	70,268	23,872,755	16,898,715	40,771,470
Roscommon	19,098	16,373	35,471	16,106,595	3,848,830	19,955,425
Sligo	16,402	15,392	31,794	20,643,680	9,277,175	29,920,855
Connacht	129,725	116,283	246,008	140,704,945	49,917,855	190,622,800
Cavan	18,263	15,371	33,634	16,429,675	5,310,470	21,740,145
Donegal	34,439	32,497	66,926	41,207,185	13,768,285	54,975,470
Monaghan	14,829	13,448	28,277	12,343,970	4,316,350	16,660,320
Ulster (part of)	67,521	61,316	128,837	69,980,830	23,395,105	93,375,935
Total	856,299	867,951	1,724,250	1,353,646,015	594,537,290	1,948,183,305
Cork County and City	101,958	105,549	207,507	168,434,920	69,308,150	237,743,070
Dublin County and City	210,306	255,987	466,293	481,370,895	290,375,740	771,746,635

TABLE 7
Percentage distribution of wealth between males and females, 1966

<i>County</i>	<i>Percentage of Estates</i>			<i>Percentage of Total Values of Net Estates</i>		
	<i>Males</i>	<i>Females</i>	<i>Total</i>	<i>Males</i>	<i>Females</i>	<i>Total</i>
Carlow	51.4	48.6	100.0	80.4	19.6	100.0
Dublin County	47.6	52.4	100.0	78.6	21.4	100.0
Dublin City	44.4	55.6	100.0	56.9	43.1	100.0
Kildare	52.4	47.6	100.0	90.0	10.0	100.0
Kilkenny	52.2	47.8	100.0	72.6	27.4	100.0
Laoighis	53.5	46.5	100.0	82.4	17.6	100.0
Longford	53.1	46.9	100.0	80.3	19.7	100.0
Louth	48.6	51.4	100.0	70.2	29.8	100.0
Meath	51.7	48.3	100.0	75.3	24.7	100.0
Offaly	52.9	47.1	100.0	86.3	13.7	100.0
Westmeath... ..	51.8	48.2	100.0	73.3	26.7	100.0
Wexford	50.3	49.7	100.0	77.9	22.1	100.0
Wicklow	49.2	50.8	100.0	60.6	39.4	100.0
<i>Leinster</i>	47.8	52.2	100.0	66.9	33.1	100.0
Clare	53.5	46.5	100.0	74.3	25.7	100.0
Cork County	51.2	48.8	100.0	73.9	26.1	100.0
Cork City	45.4	54.6	100.0	61.0	39.0	100.0
Kerry	52.5	47.5	100.0	75.0	25.0	100.0
Limerick	49.8	50.2	100.0	71.1	28.9	100.0
Tipperary	51.8	48.2	100.0	78.6	21.4	100.0
Waterford	49.3	50.7	100.0	69.3	30.7	100.0
<i>Munster</i>	50.5	49.5	100.0	72.5	27.5	100.0
Galway	52.9	47.1	100.0	80.3	19.7	100.0
Leitrim	54.5	45.5	100.0	76.8	23.2	100.0
Mayo	52.0	48.0	100.0	58.6	41.4	100.0
Roscommon	53.8	46.2	100.0	80.7	19.3	100.0
Sligo	51.6	48.4	100.0	69.0	31.0	100.0
<i>Connacht</i>	52.7	47.3	100.0	73.8	26.2	100.0
Cavan	54.3	45.7	100.0	75.6	24.4	100.0
Donegal	51.4	48.6	100.0	75.0	25.0	100.0
Monaghan	52.4	47.6	100.0	74.1	25.9	100.0
<i>Ulster (part of)</i>	52.4	47.6	100.0	74.9	25.1	100.0
TOTAL	49.7	50.3	100.0	69.5	30.5	100.0
<i>Cork County & City</i>	49.1	50.9	100.0	70.8	29.2	100.0
<i>Dublin County & City</i>	45.1	54.9	100.0	62.4	37.6	100.0

of those estates. Table 7 presents these results in percentage form, showing the percentages of males in each county and the percentage of the total wealth possessed by them, together with similar information for females.

In the country as a whole, females account for just over half of the adult population, but for only 30.5 per cent of the total personal wealth. This proportion of wealth held is inflated by the proportions in Dublin City

(43.1 per cent), Wicklow (39.4 per cent), Cork City (39 per cent) and Mayo (41.4 per cent). The winds of Women's Liberation have not blown in County Kildare where women own only 10 per cent of the total wealth in that county, although they form 47.6 per cent of the total adult population. These results may arise from the fact that women tend not to own farms and houses. They are of some relevance in that the structure of wealth and its efficient utilisation may differ between males and females.

Table 8 shows the distribution of wealth per head between adult males and females in each county, together with their respective rankings.

For males, Dublin County heads the rankings with £3,344 per adult male, down to the mean holding of £489.9 in Leitrim. With females, Dublin City comes first, with a mean holding of £1,209.8, with Leitrim again in the lowest position with £177.4 per adult female. If Dublin City and County are combined, they take second place behind Meath for males, but remain at the top for females. There are some very wide discrepancies between the two sets of rankings. Kildare males are placed third, but their female counterparts are twenty-fourth, and while males in Mayo are twenty-seventh, females are placed in twelfth position. Apart from the very unusual situation in Mayo, females tend to perform relatively better than males in the rankings where there are large cities, in which the proportion of the population which is female is fairly high, including Dublin and Cork Cities, and probably in Limerick. The presence of large towns also appears to boost the female rankings.

(d) *A Comparison of Wealth and Income by Counties*

One would expect a close relationship between income and wealth, the connection being one of circular causality, although income arises from all the wealth possessed by an individual, including his own human capacities, and not all wealth possessed by an individual (a private house, for example, or furniture) is capable of producing an income. Wealth is, to an extent, a reflection of income earned in the past, and it can assist in generating further income in the future.

Ross²⁴ has produced revised figures for income per head of total population for each county in 1965, and these figures are included in Table 9. This Table shows the income per head of total population for each county in 1965, wealth per head of total population in 1966, the rankings of these two distributions, the ratio of wealth to income, and the ranking of these ratios.

It will be immediately apparent that there is a much wider variation in wealth per head than in income per head. The lowest wealth figure is £226.3, and the highest is £1,009.8. For incomes the respective figures are £207 and £389. In the second place, the rankings agree only for Mayo in twenty-fifth place, and Leitrim in last place. In a number of other cases the rankings are fairly close, but in many cases there are differences of ten or more places in the rankings. The rank correlation calculated from these data produced an r^2 of 29.32 per cent indicating a low degree of correlation between these data for income and wealth.

²⁴ Ross, *Further Data on County Incomes in the Sixties*, p. 19.

TABLE 8
Distribution of wealth per head, males and females, 1966

Wealth per Head—Adults

County	Male £	Ranking	Female £	Ranking
Carlow	956·7	22 (20)	245·8	25 (23)
Dublin County	3,344·0	1 (—)	827·9	4 (—)
Dublin City	1,993·8	4 (—)	1,209·8	1 (—)
Kildare	2,202·2	3 (3)	270·6	24 (22)
Kilkenny	1,044·2	19 (17)	428·6	17 (15)
Laoighis	1,836·9	6 (4)	450·2	15 (13)
Longford	1,001·4	21 (19)	277·6	23 (21)
Louth	1,314·5	13 (12)	526·7	10 (8)
Meath	2,555·8	2 (1)	895·2	2 (2)
Offaly	1,129·9	17 (16)	201·8	27 (25)
Westmeath	1,314·7	12 (11)	515·5	11 (9)
Wexford	1,041·4	20 (18)	298·9	22 (20)
Wicklow	1,397·8	10 (9)	880·3	3 (3)
<i>Leinster</i>	1,906·7	— —	866·0	— —
Clare	815·4	26 (24)	325·3	20 (18)
Cork County	1,940·9	5 (—)	718·3	5 (—)
Cork City	1,045·9	18 (—)	554·1	9 (—)
Kerry	1,306·1	14 (13)	482·7	13 (11)
Limerick	1,577·4	8 (7)	634·5	6 (5)
Tipperary	1,558·2	9 (8)	457·1	14 (12)
Waterford	1,340·3	11 (10)	577·6	8 (7)
<i>Munster</i>	1,474·4	— —	569·2	— —
Galway	1,596·5	7 (6)	438·1	16 (14)
Leitrim	489·9	28 (26)	177·4	28 (26)
Mayo	653·3	27 (25)	501·1	12 (10)
Roscommon	843·4	24 (22)	235·1	26 (24)
Sligo	1,258·6	15 (14)	602·7	7 (6)
<i>Connacht</i>	1,084·6	— —	429·3	— —
Cavan	899·6	23 (21)	345·5	19 (17)
Donegal	1,196·9	16 (15)	423·7	18 (16)
Monaghan	832·4	25 (23)	321·0	21 (19)
<i>Ulster (part of)</i>	1,036·4	— —	381·6	— —
<i>TOTAL</i>	1,580·8	— —	685·0	— —
<i>Cork County & City</i>	1,652·0	— (5)	656·6	— (4)
<i>Dublin County & City</i>	2,288·9	— (2)	1,134·3	— (1)

For the country as a whole, the ratio of wealth to income is 229 per cent. It ranges from 399·1 per cent in Meath down to 109·3 per cent in Leitrim. To some extent, the higher is this ratio, the lower is the income return from

capital. Thus while Meath has eleventh place in the income ranking, it is first in the wealth ranking and is also at the head of the wealth/income ratio ranking. This could be a reflection of the fact that a much higher value is often put on agricultural land than is warranted by its income-producing capacity or performance. Ross does, however, express surprise at the income position of Meath.²⁵ At the other end of the scale, it cannot be argued that Leitrim's ratio of 109·3 per cent demonstrates high income-earning performance from capital in that county. Agricultural land there is fairly poor and its income yield small. Dublin is well out in front in the income distribution, but falls to second place in the wealth distribution. Here it is likely that many of its residents have reasonably high incomes but live in Corporation houses, and own relatively little wealth. It is still placed in a very high wealth position, since more than any other county a large proportion of its total income arises from interest, dividends and rent,²⁶ all of which arise from the possession of property of some variety.

Some explanations can be suggested for the wide disparities in the rankings in other counties. Carlow draws a large proportion of its total income from the remuneration of non-agricultural employees,²⁷ many of whom probably own little property. It is reasonably high on the incomes scale but very low on the wealth scale. Ross states that Laoighis is very dependent on agriculture,²⁸ and a type of agriculture which fared badly in 1965. This would partly account for its low income, added to the fact that little new non-agricultural employment was attracted there, but the capital value of land would probably still remain at a high level, giving it a high wealth ranking. Longford²⁹ had a very low increase in non-agricultural employment, whereas Louth has had a large non-agricultural sector for many years,³⁰ and these factors might account for the differences in the pairs of rankings in these counties. There is also a discrepancy between the rankings for Wexford, but both must be considered very low. Ross³¹ states that 'it is possible that the methodology employed failed to reflect adequately the efficiency of Wexford farming, or under-estimated the revenue from tourism or dividends and so indicated too low an income.' Nevertheless, it is remarkable that the estimates for both income and wealth, and other income estimates for this county, should apparently err considerably in the same direction. Finally in Leinster, there seems no obvious explanation for the difference in the rankings for either Kilkenny or Offaly.

Incomes in Clare are probably enhanced by the industrial estate at Shannon,³² and its proximity to Limerick City, while some of the agricultural land is of poor quality and low value. Waterford has benefited

²⁵ Ross, *Personal Incomes by County 1965*, p. 7.

²⁶ Ross, *Personal Incomes by County 1965*, p. 5.

²⁷ Ross, *Personal Incomes by County 1965*, p. 7.

²⁸ Ross, *Personal Incomes by County 1965*, p. 8.

²⁹ Ross, *Personal Incomes by County 1965*, p. 9.

³⁰ Ross, *Personal Incomes by County 1965*, p. 5.

³¹ Ross, *Personal Incomes by County 1965*, p. 8.

³² Ross, *Personal Incomes by County 1965*, p. 9.

TABLE 9
Distribution of wealth and income by county

County	Total Population		Rankings		Ratio of Wealth to Income Per cent	Ranking of Wealth to Income Ratios
	Income per Head 1965 £	Wealth per Head 1966 £	Income	Wealth		
Carlow	261	354.4	10	24	135.8	25
Dublin	389	970.7	1	2	249.5	6
Kildare	285	712.5	6	4	250.0	5
Kilkenny	269	448.2	9	16	166.6	18
Laoighis	225	716.5	21	3	318.4	2
Longford	217	402.5	23	17	185.5	15
Louth	302	531.3	4	14	175.9	16
Meath	253	1,009.8	11	1	399.1	1
Offaly	240	397.6	16	20	165.7	19
Westmeath	251	541.4	12	13	215.7	13
Wexford	247	400.0	14	19	161.9	22
Wicklow	277	668.7	7	6	241.4	7
<i>Leinster</i>	332	798.6	—	—	240.5	—
Clare	251	368.7	12	21	146.9	24
Cork	305	699.9	2	5	229.5	10
Kerry	243	567.6	15	12	233.6	9
Limerick	293	645.4	5	7	220.3	12
Tipperary	276	610.0	8	9	221.0	11
Waterford	304	576.7	3	11	189.7	14
<i>Munster</i>	286	622.1	—	—	217.5	—
Galway	231	627.3	19	8	271.6	3
Leitrim	207	226.3	26	26	109.3	26
Mayo	214	352.9	25	25	164.9	20
Roscommon	218	354.9	22	23	162.8	21
Sligo	229	583.7	20	10	254.9	4
<i>Connacht</i>	222	474.2	—	—	213.6	—
Cavan	235	402.4	17	18	171.2	17
Donegal	215	506.5	24	15	235.6	8
Monaghan	233	364.3	18	22	156.4	23
<i>Ulster (part of)</i>	224	448.3	—	—	200.1	—
<i>TOTAL</i>	295	675.5	—	—	229.0	—

from the industrial estate in terms of incomes,³³ possibly explaining the high income level in that county. None of the other Munster counties exhibit striking disparities.

³³ Ross, *Personal Incomes by County 1965*, p. 8.

Of the eight counties in Connacht and Ulster, four show great similarity in their rankings. The low position of incomes, however, in Sligo and Donegal might be explained by the slow growth of non-agricultural employment,³⁴ although this is less true of Donegal, since part of its industrial employment might well be associated with commuters into Northern Ireland.³⁵ Both have much higher positions on the wealth scale, probably due to agricultural land. Monaghan demonstrates a higher ranking in income than in wealth, possibly because parts of the county come within the hinterland of Louth's industry.³⁶ Last of all, Galway occupies nineteenth place in the income ranking but eighth in the ranking by wealth. A possible explanation for this wealth position has already been suggested, while low incomes might be due to the poor quality of the land, in spite of some growth in industrialisation.

CONCLUSION

This paper has been an attempt to use estate duty data and the mortality-multiplier calculation to estimate the holdings of personal wealth in each Irish county in 1966. In spite of the limitations of both the data and the calculation, many of the findings proved to be in accordance with what might have been expected. There were some inexplicable results, however, and it was found that there is no simple relationship between personal wealth and personal income in each county. The most important limitation in this analysis is that no component analysis of personal wealth-holdings was possible. Further research in this field would require to concentrate upon this component aspect, in order fully to explain the county differences in wealth, probably by estimating the components from sources other than the estate duty statistics.

DISCUSSION

Professor Louis Smith: This paper continues the work which Mr Lyons has presented to a meeting of Economists and in the book, "Ireland some Problems of a Developing Economy" edited by Tait and Bristow. The opinions expressed by colleagues and signed reviews were frank and have been ignored. As is shown by the unusual step of prior publication in the public press, the proceedings of this meeting are not of merely academic concern. The statement "in the country as a whole, just over 70 per cent of the adult population own no wealth" is clear political material and has already so been used as a result of the previous papers of Mr Lyons. We economists are not responsible for the use made of our findings, but we are responsible for the production of figures which are untrue or likely to mislead.

Strangely, in view of the topic, no definition of wealth is given. What we have here is a distribution in itself interesting of the Death Duties which

³⁴ Ross, *Personal Incomes by County 1965*, p. 9.

³⁵ Ross, *Personal Incomes by County 1965*, p. 10.

³⁶ Ross, *Personal Incomes by County 1965*, p. 9.

(under a particular convention) were levied by the authorities. The figure works out at £676 per head of the total population (Table 1). Taking the single item of agricultural land we find that there are 12 million acres of farm land or roughly 4 per person. For each £100 at which we assess an acre there is therefore £400 of property per person. There are roughly two cattle for every person say £100 at 1966 prices. My point is that if we take sale prices, the assets of agriculture were not very much different to the total sum for the country shown in this paper. Because the revenue produced from these assets was small and the estates of farmers, small similarly, the revenue commissioners have adopted a special valuation for tax purposes. This is done on practical, not economic reasoning.

While the main underestimate is in agriculture, other problems arise in owner occupied houses.

A further problem arises with the population considered. This is noted by Mr Lyons but is not dealt with. Are wives to be considered property-less—in spite of their legal rights in the Succession Act? Is there some implication that the sons of large farmers are members of the proletariat? This looseness leaves the paper and, to some extent, the Society open to mis-quotation from political platforms.

The inter-county comparisons must be seriously distorted by the undervaluation of farm land. The matter is not improved by a Procrustean “essential but arbitrary and non-statistical procedure of manipulating the data” to ensure that not more than one-third of the males in the four youngest age groups were shown as possessing wealth, greater than nil. In the farming counties there is naturally a much greater quantity of land per person than in the densely populated cities and eastern areas. In the small farm areas, many farmers are presumed to have nil property according to this assessment. The natural finding that farming counties are wealthy but poor in income is obscured.

Work is needed on this topic. We do not know the distribution of wealth in this community but our position is not improved by publishing in quotable political terms material with known and grave faults.

Dr Geary: The multiplier method used by the lecturer is of venerable statistical antiquity. It was much used and critically discussed in the Royal Statistical Society in the early years of the century, much on the lecturer's lines. The paper is a thorough-going exercise in the multiplier technique. Mr Lyons is so critical of his own methods and results as to raise seriously the question of their acceptability.

I also shall be critical but sympathetically so, as a labourer in the analogous field of county incomes. Attwood-Geary did the best job they could with the statistics available then; they evolved an elaborate technique for testing the general acceptability of their estimates, involving correlation and component analysis using seven correlative series like motor cars per 1,000 population etc. I would wish our lecturer had done the same. In the end they had to confess their incredulity about a few of their estimates. Miceal Ross's estimates are probably more reliable as they are based on later statistics than those of Attwood-Geary, yet Ross also had to

express scepticism about one or two of his figures. Mr Lyons is commendably critical about some of his results. Especially notable is his remark about the far greater inter-county variability of his estimates of wealth than Ross's estimates of income—and he could have added Attwood-Geary's.

A director of statistics is by nature and training critical: it is a large part of his job. He has occasionally to say to a colleague "My dear chap, I am edified by your industry and ingenuity but I don't accept your results". He may make such a statement without detailed examination of his colleague's methods. While fully admitting the possibility of prejudice, error, and that things have changed since his time, an ex-director asserts the existence of a near-diagonal from Louth to Cork; economically speaking SE of the diagonal is good, NW bad. Most of the multitude of individual series display (or should one say displayed?) the diagonal phenomenon. Obviously the contrast is like Leinster-Munster against Connacht-Ulster (3 Cos.). It is nearly so—with Longford and Kerry in the bad zone.

Can one credit so great a disparity between the ordering of wealth and county incomes to which the lecturer draws attention. The short answer must be No. Glancing at Diagram II, I find too many anomalies, I regard Donegal, Sligo, Kerry and especially Galway as overrated and the SE corner of Kilkenny, Wexford and especially Carlow as underrated, as, indeed, the lecturer has pointed out. There are many more county estimates out of plumb than is the case with Ross and Attwood-Geary.

When there are so many similarities of economic behaviour (e.g. non-farm household consumption) between counties one is at a loss to understand how saving habits could be so different. Could statistics of time deposits, P.O. savings and the like not be obtained classified by counties?

The lecturer is highly critical of his own methods. In his wide-ranging studies has he ever questioned the Revenue Commissioners' methods of valuation? I am convinced that small estates (of little interest from the tax viewpoint) are undervalued. I have not had time to do so but I am sure I could get county and national values of selling price of land per acre. There are 11 million acres of agricultural land in the Republic. If £100 an acre be taken for 1966 (it is much more now) wealth in land alone would be £1,100 m. There are some 700,000 dwellings in the Republic. If each were valued at £2,000—surely an actual estimate could easily be made?—wealth in dwellings is £1,400 m. I am of the opinion that wealth in land and dwellings alone is substantially in excess of the lecturer's aggregate in Table 6, namely £1,948 million. As an additional item, the 4½ million cattle would account for £225 million.

That the lecturer's global estimate of personal wealth falls far short of the truth does not necessarily vitiate the *relative* position of counties. My major objection to the estimates generally is their impossibly large variability. Table 9 shows a nearly 5:1 range in wealth per head. The corresponding income range is less than 2:1.

I suggest that the lecturer should estimate independently some of the principal headings of personal wealth countrywise. Alternatively, (or

perhaps as a check) he might divide counties into groups (i) counties for which estimates (by reference to incomes, cars registered etc.) are acceptable and (ii) the rest. Establish a regression of wealth per head on five or six regressors from counties in (i) and use the formula to re-estimate counties in (ii).

To conclude, some detail remarks:

- (i) In Table 2 and elsewhere round off values to *at most* one decimal place in £m. A false impression in accuracy is conveyed otherwise.
- (ii) Concentration on percentage of number and value of estates under and over £5,000 is overdone—it doesn't rate a diagram (I)—especially as the value under £5,000 is almost certainly undervalued substantially.
- (iii) I cannot see that there is much interest in sex of owners of wealth.

Statistics of income and wealth are poorly developed in Ireland. That Mr Lyons had to produce his statistics single-handed meant that he had to do with a sample from a single year with small cell entries. Statistics of income and wealth are of great importance in the comparative poverty context, especially classification by size. The State should provide resources for their development. Astronomers are luckier than statisticians in their access to resources. USA in its Apollo project has spent £10,000 million for some cwt. of moon dust and rock, useful only to astronomers. The cost of censuses of wealth and income would be perceptibly less. They are the only way. Ingenuity of estimation is not enough.

Mr Colm McCarthy: It gives me great pleasure to express appreciation of Mr Lyons' work on the distribution of wealth. Given their obvious social and political importance the neglect by economists of distributional questions has been considerable.

I must agree with earlier speakers regarding the figure of around £2,000 million which Mr Lyons calculates for total personal wealth in 1966. This figure seems much too low. I can offer some further rough calculations for certain components of personal wealth. Beginning with durable goods we know the approximate numbers of television and radio sets, motor vehicles and so on which were owned in 1966. If one values these at plausible figures, making rough guesses at the other durable items, a total of around £500 million seems reasonable for 1966. Turning to financial assets, outstanding public debt was around £700 million while currency, current and deposit accounts totalled over £600 million. Some of these financial assets are owned by foreigners, some by enterprises. Since net foreign holdings are known to be positive and since no value has been put on private holdings of shares in enterprises we need not worry about double counting.

The value of durables and certain financial assets in 1966 was not far short of the £2,000 million figure which the mortality multiplier method yields as the total of personal wealth. However, nothing has been said about residential property, agricultural land, the capital stock of enterprises, the value of agricultural stocks, net foreign assets and several other items.

It would appear that a figure at least three times Mr Lyons' £2,000 million was in fact the level of personal wealth in 1966.

It would hardly be surprising if an estate duty method were to underestimate wealth. Any data collected in the course of taxation should be treated as minimum figures—there is always an incentive to under-report, none to over-report. This effect could well be rather pronounced in the case of estate duty and certainly raises questions about the efficacy of the taxation of wealth only at transfer.

While I have expressed some reservations about the total wealth figure, the distribution pattern appears more plausible. If the distribution of items which escape the estate duty net was the same as the distribution of items which do not, then the pattern, if not the level, of Mr Lyons' data would be correct. At the end of his paper, Mr Lyons suggests that independent sources of information on wealth-holding might be explored. Could I suggest that the feasibility of holding a Household Balance Sheet Survey be investigated? We already conduct Household Budget Surveys and a Balance Sheet survey should be no more difficult in principle. Such surveys have been successfully carried out in the United States and have formed the basis for several important cross-section studies on consumption and the demand for money.

Notwithstanding the obvious need for further work on the distributions of both income and wealth in Ireland, there is now a fair amount of information available. We have operated in this country, since the foundation of the State, a system of progressive taxes on income and on the transfer of wealth at death. These taxes have had unspecified redistributive objectives and their effectiveness in achieving redistribution has never been assessed. While economists can only ask what the objectives of these taxes are they can surely urge that policy in this area be re-orientated so that these objectives are explicit, thus making it possible to measure the extent to which they are achieved.

Finally, Mr Lyons has been criticised on the grounds that his work is open to misrepresentation in the press. This may be a little unfair—if authors were confined to areas where misquotation is not possible then very little work of the kind Mr Lyons has reported would be undertaken. He is to be congratulated on his efforts in what has clearly been a labour intensive area.

Reply by Patrick M. Lyons: I would like to thank all those who attended my lecture, and especially those who took part in the discussion. I am heartened by many of the encouraging words and constructive criticisms, but I am forced to ignore those who simply point out areas where improvement is necessary—and there are many of these—without giving any indication of how that improvement might be made. Nor can I agree with the speaker who said that imperfect results should never be published. No results of any scientific and statistical inquiry are ever perfect, especially when they are concerned with human beings, and publication leads to comment and criticism, which, hopefully, can assist in achieving better estimates on the next occasion. Time, however, and our gracious chairman

permit me only to deal with some of the points raised tonight.

Dr Baker criticised the low figure for personal capital based on the estate duty method. This approach seems to give reasonable results in other countries, but is open to more criticism in Ireland. It is rather strange that in both the UK and Ireland, personal wealth is about two and a half times National Income. If the wealth estimates are undervaluations, then either our wealth is much less productive than in the UK, or our income estimates are too low, or a combination of both. I was interested to hear that Dr Baker had compared the estimates of income from property—dividends, interest and rent—with the present county personal wealth estimates, and discovered a very low correlation. This confirms other calculations which I have performed.

Professor Smith is right to draw attention to the very serious problems of underestimation in the agricultural sector, but the fact that this type of research is often misquoted is no reason for not undertaking it. He made an interesting point about the high proportion of houses which are privately owned, but he may have overlooked that there are often several adults in each house, whereas it is legally owned by only one person—usually the head of the household. What is needed here is an estimate of family, rather than individual, ownership of wealth.

Dr Geary also mentioned the large number of private houses, but he must be reminded that these estimates attempt to measure net wealth. There are a large number of houses, but many have large mortgages, or other debts, outstanding.

Both Dr Geary and Mr McCarthy suggested adding up the values of individual assets, and Mr McCarthy gave us some interesting remarks on how this might be done, with some indicative statistics. Again, however, we are measuring net wealth, and from the total of asset values must be deducted the total value of liabilities—mortgages, overdrafts, hire purchase debts, and so on—which total hundreds of millions of pounds. A fundamental criticism of this approach, however, is that it can give no picture of the distribution of personal wealth—a point recognised implicitly by Mr McCarthy. His final suggestion of a household balance sheet survey requires serious study.

Finally, may I return to the words of Dr Baker? He said that this study should beckon others on. I hope it does, since it is a lonely, not to say morbid, area of research, but a very vital one in our state of social and economic affairs.