THE SIZE DISTRIBUTION OF PERSONAL WEALTH IN THE REPUBLIC OF IRELAND[1]

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This paper presents the results of applying the mortality multiplier approach to estate duty statistics in order to estimate the size distribution of personal wealth in the Republic of Ireland. It commences with an examination of the limitations of the estate duty statistics, a discussion of the problems involved in collecting the data, and a short consideration of the mortality multipliers used.

Estimates are presented for the size distribution of personal wealth, and the distribution of wealth between age groups. Some comparisons are given with wealth in Northern Ireland, Great Britain and the U.S.A. Estimates of the components of personal capital were not found possible.

Finally, preliminary estimates are made for the distribution of wealth among married and single persons, in order to provide the basis for an analysis of wealth possessed by wealth-owning units (defined as single males, single females and married couples). By making extreme assumptions, upper and lower limits are placed on the actual pattern of the size distribution of wealth by wealth-owning units.

INTRODUCTION

In many countries, for varying numbers of years, estimates have been made of the size distribution of personal wealth, based on estate duty data and the mortality-multiplier calculation. The pioneering work has generally been undertaken by private researchers,[2] with official estimates being introduced at a later date.[3] In the Republic of Ireland, the only work in this field has been done by private researchers.[4] Several important publications have been based upon both private and official investigations into the distribution of personal wealth, even though all of these investigations are subject to serious imperfections. This paper presents a revised analysis of the distribution of personal wealth in Ireland, including a fairly extensive description of the methodology used and the difficulties encountered. It is to be hoped that this section might act as a reminder to those who use the resulting statistics, mostly non-economists and non-statisticians, that the data do suffer from limitations and are not completely reliable, without at the same time discouraging persons from attempting similar approaches in those

[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. The analysis and its deficiencies, however, remain the personal responsibility of the author.

[2]For example, in the U.S.A., R. J. Lampman, "Changes in the Share of Wealth Held by Top Wealth-Holders, 1922–1956," *Review of Economics and Statistics*, 41 (November 1959), pp. 379–392; and in the U.K., G. W. Daniels and H. Campion, *The Distribution of National Capital*, Manchester 1936; and H. F. Lydall and D. G. Tipping, "The Distribution of Personal Wealth in Britain," *Bulletin of the Oxford University Institute of Statistics*, Volume 23, No. 1, (1961), pp. 83–104.

[3]For example, see *Inland Revenue Statistics*, 1970, H.M.S.O., London, 1970, pp. 176–184.

[4]E. T. Nevin, *The Ownership of Personal Property in Ireland*, Economic Research Institute, Paper No. 1 (Dublin, 1961); and 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.

countries where estimates of personal wealth distribution have not yet been produced. After the discussion of the Irish estimates, there are presented the results of an inquiry into personal wealth distribution among wealth-owning units rather than among individuals.

THE NATURE OF THE CALCULATION

The mortality-multiplier approach has been extensively employed, so that a full description of, and justification for, this method is superfluous. In simple terms, however, it may be outlined as follows:—deceased individuals in each age and sex group, whose estates come up for examination for estate duty purposes in a given period of time, are regarded as being a random sample of that group in the population. Accordingly, the wealth which forms their estates is regarded as being a representative sample of the wealth possessed by the surviving individuals in the country. Each deceased person is classified by sex and age group, and the total number of persons in each sex and age group in the whole country is known from the Census of Population, or derived inter-censal estimates. The total number of deceased in each sex-age group cell is expressed as a proportion of the numbers similarly classified in the whole population. The reciprocal of this proportion is then applied to the total wealth possessed by the deceased individuals, and this grossed-up amount is taken to represent the total wealth possessed by all persons in that cell in the surviving population. If we assume that in a particular sex and age group cell 1,000 persons died in a particular year, and if there were 10,000 persons in the entire population in that cell during the year, this implies that the mortality rate was 10 percent. If these deceased possessed total wealth between them of £1 million, it follows, according to this formula, that among the whole population in that category total wealth amounted to £10 million.

Limitations upon the Estate Duty Approach

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

1. Reasonably comprehensive data are only published concerning those estates which are liable to estate duty, and which have been scrutinized by the office responsible for the assessment of liability to estate duty. In Ireland, estates to be liable must have a net value in excess of £5,000. Most individuals possess only a small amount of wealth, and therefore detailed information is available each year for only a small proportion of total estates, and for only a very small proportion of all personal wealth. Little or no information is available concerning estates below the exemption limit.

2. The deceased in a single year might not be a random and representative sample of the population and, accordingly, their estates might not be representative of total personal wealth. 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, it is possible to increase the size of the sample, and thereby reduce sampling error.

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 the progressive 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. In countries where this is possible, the gift *inter vivos* must be made some years before death. Avoidance can also be achieved in some countries by transferring assets into forms where the liability to estate duty is reduced. 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, e.g. shares in private companies.

4. In some countries, assets can be legally undervalued for estate duty purposes. In Ireland, for example, artificially low valuations are applied to agricultural land in certain circumstances, and reduced valuations are allowed for certain Government and Stock Exchange securities.[5]

5. Assets might be valued somewhat below their market value by the estate duty assessors, particularly where market valuation presents difficulties. This would apply to, *inter alia*, shares in private companies and works of art. There is also, in Ireland at least, some evidence of generosity or kind-heartedness among the assessors, who accept independent assessments of the value of certain assets.

6. There is always some delay in the presentation of estates for assessment, and some of the estates presented in one year must relate to a period of time prior to that year. There may often be a considerable delay in presentation, particularly in the case of the larger and more complex estates. In a period of rising prices this must lead to undervaluation of the assets in these estates, since the value given to any asset is its value at the time of death.

7. Where relief of estate duty is allowed for gifts *inter vivos*, difficulties arise whose magnitude is hard to estimate. If gifts are made prior to a certain date before death, they are not included in the estate of the deceased at all. If the period between the gift and death is less than a certain number of years, such gifts are included in part in the estate, the proportion of the value of the gift increasing the nearer are the events of settling and death. Nevin[6] argues that the assets concerned are subject to a dual mortality risk during this period, and may thus be over-estimated. Against this argument it must be stated that outside this period there is only a single mortality risk, and since it is normal that gifts are made from one individual to a younger person, the overall mortality risk is probably lower than would have been the case if the gift had not been made. Some estates are therefore subject to estate duty twice in a short period of time, whereas other estates may escape the estate duty net for generations.

8. Among specific assets in estates, life insurance policies present peculiar difficulties. Life insurance policies are included in an estate at their value immediately after death. This may be considerably greater than their value immediately prior to death. Again, Nevin[7] considers this to provide an element of over-estimation. Lydall and Tipping[8] found, however, that there was considerable under-statement

[5]Lyons, *op. cit.*, pp. 173–174.
[6]Nevin, *op. cit.*, p. 4.
[7]Nevin, *op. cit.*, p. 5.
[8]Lydall and Tipping, *op. cit.*, p. 103.

of sums assured, part of which they attributed to the fact that many life insurance policies are associated with mortgages on dwelling houses, and the proceeds of the matured policies are used to extinguish the mortgage debt. The value of the house would be included in the estate, but not the value of the insurance policy.

In spite of these, and other, defects, the estate duty statistics still remain the most convenient method of arriving at some estimation of the total of personal wealth and the distribution of that wealth, short of a full-scale census or survey.

The Collection of Data

In Ireland, the Revenue Commissioners publish annually an analysis of property by age-group and sex of deceased. These statistics cover all estates liable for estate duty, being those whose net capital value exceeds £5,000. There is no analysis published giving, for these estates, the total size of net estate classified by age group and sex; it is merely the components of all estates which are thus classified. No information at all is published concerning estates below the minimum level for payment of estate duty. Mortality multipliers could be applied to the published information, but these would have revealed only a component analysis of property possessed by those owning net wealth in excess of £5,000. A size distribution of personal wealth would not have been revealed, nor would any information have been produced about wealth-holders owning £5,000 or less. In addition, when the calculation was undertaken, the component analysis revealed obvious and serious underestimation in many respects. A partial consideration of these aspects is given in the original article.[9]

Accordingly it was necessary to obtain much more comprehensive information relating to both "large" estates (defined as those with a net value exceeding £5,000) and "small" estates, that is those of £5,000 and under. This was done by means of a detailed and, in some ways, comprehensive study of the basic data used in the preparation of the statistics published in the Reports of the Revenue Commissioners. The year 1966 was chosen as the base for this investigation, firstly because it coincided with a year in which a Census of Population was taken, and secondly because it was assumed that this date was sufficiently far back in time to ensure that all pertinent estates would have been dealt with fully.[10] Since such a small number of estates above the exemption limit is presented each year, it was considered that it would be preferable to combine the estate duty statistics for the years 1965–66 and 1966–67 in order to include persons who died in the two years 1965 and 1966. Estates of persons below the age of 20 years, and those of persons not domiciled in Ireland, were excluded. The essential information required comprised the net value of each estate, and the age and sex of each deceased person. This necessitated an investigation of a large number of files in the Estate Duty Office.

(*i*) *The Large Estates*

In order to compile a table showing the size distribution of estates, classified by age group and sex, the basic estate duty data had to be scrutinized in three stages. In the first place, as duty is paid on each estate, either on the whole estate

[9]Lyons, *op. cit.*, pp. 171–175.
[10]The investigation was undertaken during the summer months of 1970 and 1971.

or on part of it, records are kept of such estates, month by month, in the Office of the Accountant-General of Revenue. These records include the name of the deceased, the file number of the estate, the size category of the estate, the sex and age (where known) of the deceased, and the various component parts of the estate upon which duty is at that time paid. Monthly record-books are kept of the components, each record-book including only estates in a particular size category. The aggregate records at the end of each year form a book-keeping record of all estates upon which duty was paid in that year, and form the basis of the published information.

Details were abstracted from these monthly records of all individuals who paid duty on any portion of their net estates during the period April 1965 to March 1967, that is during the years 1965–66 and 1966–67. Since an individual could appear several times during this period, and move from one net capital category to another, all the records were checked against each other from the end of that period to the beginning, in order to ensure that no individual estate appeared more than once, and that each estate was as near the end of its career in paying estate duty as possible, so that it would be in the correct size category during that period. The estates thus abstracted included those which appeared only in this two-year period, those which had appeared first in some previous period, and subsequently appeared between April 1965 and March 1967, and others which first appeared in this period, but which also continued to appear in later years. The time period for estates was chosen so as to cover persons who died in the calendar years 1965 and 1966, utilizing the time-lag, generally accepted elsewhere, of three months between death and presentation of the estate. The time-lag in the presentation of Irish estates, however, was found to be considerably greater, in many cases amounting to years, and in some to decades. In addition, there was also a delay between the assessment of duty and the payment of duty, when the estate appeared in the statistics of the Accountant-General for Revenue. Since many of the estates referred to persons who died a considerable time before the period of inquiry, the net values of these were accordingly undervalued.

In many cases, the details collected were incomplete, giving no details of age or domicile, so that the second stage of the inquiry involved a search of the records of the Estate Duty Office for the missing information. As a third and last resort, an investigation was undertaken into the Register of Deaths at the Office of the Register-General. There were still some estates excluded because ages were unascertainable, some persons having died before 1921 or outside the country, or because domicile could not be satisfactorily established. The number of estates included in the analysis, however, exceeded the number which first became liable to duty in the years of inquiry.

(ii) The Small Estates

The small estates, with a net capital value of £5,000 and under, presented serious difficulties since no published information was available concerning them, except the total net capital value of the estates upon which no duty was paid. A solution was attempted in two stages. In the first place, it was necessary to establish how many small estates were presented to the Estate Duty Office in the period of inquiry. Until September 1965 daily records were kept of the number of small estates classified by amount of net capital. The records show the number of estates in each category, together with the total capital value of those estates. It was assumed that the total number of small estates was, for the period April 1965 to March 1967, four times the number of estates in the six months between April and September 1965, since no figures were available for the number of these estates in the relevant period.

The total of small estates was thus estimated to be 21,436, but the records gave no details regarding age and sex of the deceased, nor could they be regarded as up-to-date. In order to ascertain age and sex, a random sample of estates with a net value of £5,000 and under in those years was 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, because the deceased were not domiciled in Ireland or were under 20 years of age, 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 percent sample of the smaller estates. As before, the information abstracted concerned the net value of the estate, and the age and sex of the deceased. The numbers of estates in each cell, classified by age, sex and net value range of estate, were then grossed up by a factor of 10 to represent all the small estates in the years of inquiry.

The Mortality Multipliers and the Estimate of Wealth Distribution

These two investigations produced an analysis of all estates during the period April 1965 to March 1967, classifying the number of estates in each range of value of net estate by sex and age group. From the analysis it was apparent that two males left an estate with a value above nil for every one female, and that females tended to own capital at a somewhat later age than males, since the modal female holding occurred in a later age group than that of males. This is a reflection of the fact that females have a longer life expectancy than males, and marry younger, and that there are, therefore, more women alive at advanced ages (a) to own wealth, and (b) to have inherited it from their deceased spouses.

(*i*) *The Mortality Multipliers*

It was stated above that the multiplier used is the reciprocal of those who died in a particular sex and age group cell to the surviving population in that cell. It is, however, a reasonable assumption that persons who possess wealth will tend to belong to the upper social classes in any population, among which mortality tends to be lower than in the general population. The reciprocal of mortality for the general population, by over-estimating the mortality of those who possess wealth, will accordingly under-estimate the amount of wealth possessed by the wealthy. Thus studies in other countries make use of mortality rates applicable to the upper socio-economic classes.[11] While this approach has much to commend it, Revell has criticised it as being useless, due to the discrepancies present in the calculation of these upper class mortality rates.[12] It has not been possible to use social class mortality factors in Ireland, since different mortality rates are not published for

[11]Lydall and Tipping, *op. cit.*, pp. 98–100.

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

the various social classes, and the general population mortality ratios had to be employed. These were obtained in each sex and age group cell by taking the number of deaths in the calendar years 1965 and 1966 as a ratio of the population in that cell as recorded in the Census of Population in April 1966. The reciprocals of these ratios were applied to the numbers of persons in each category classified by range of net estate, to estimate the number of wealth-holders classified by age group, sex and range of net estate. All other persons aged 20 years and over in the population not shown as possessing wealth in the above categories were assumed to possess net wealth of nil. No one was assumed to possess negative net wealth. The estates of three persons were excluded from these calculations since the estates were very large and the owners died at a very early age, and their inclusion would have had a seriously damaging effect upon the calculations. The inclusion of one of these estates, for example, would have resulted in the addition of over £100 million to the wealth owned by one of the younger female age groups.

(ii) The Estimate of Wealth Distribution

The final stage in the estimation of wealth distribution among individuals was to calculate the total amount of wealth possessed in each cell of the analysis. The number of wealth holders in each cell was multiplied by the mid-point of the net wealth range. The mid-point of the final open-ended class (exceeding £400,000) was assumed to be £700,000.

THE RESULTS

(i) The Distribution of Personal Capital

The calculations produced the estimates for the distribution of personal net capital among individuals in Ireland in 1966 which are contained in Tables 1 and 2. Table 1 presents the estimates showing, for each range of net wealth, the numbers of males and females and total adults owning capital, and the total amount of net capital owned (to the nearest £1 million). Table 2 shows the percentage distributions of persons and net capital in a lesser number of net wealth categories.

These estimates suggest that total personal net capital in Ireland in 1966 was £2,376 million. Of this, £1,530 million was owned by about 92,000 persons who possessed more than £5,000 each. While 62 percent of the population possessed net wealth of nil, over 32.6 percent of the population in the next category, which included amounts up to but not exceeding £5,000, possessed over 35.6 percent of total capital, and the remaining 5 percent, approximately, of the population possessed amounts exceeding £5,000, with this group accounting for over 64 percent of the total personal wealth in Ireland. More detailed analysis shows that the top 1 percent of the population owned 33.6 percent of total personal wealth, the top 5 percent accounted for 63 percent and the top 10 percent owned 73.7 percent of the total. According to these estimates, males owned 69 percent of the total net capital, while females possessed 31 percent of it, although females comprised 50.3 percent of the adult population.

These estimates produce values which are substantially higher than those of Nevin,[13] where he estimates total net wealth on average in the years 1953–55 to

[13]Nevin, *op. cit.*, p. 8.

TABLE 1

ESTIMATED DISTRIBUTION OF PERSONAL NET CAPITAL IN IRELAND, 1966*

Net Capital		Number of Persons aged 20 or over			Amount of Net Capital (£ million)	
	Male	Female	Total	Male	Female	Total
Nil	423,089	646,290	1,069,379	0	0	0
Under £100	9,514	5,483	14,997	0.5	0.3	1
Exceeding / Not Exceeding						
£100 £1,000	190,021	111,559	301,580	105	61	166
£1,000 £2,000	55,228	35,986	91,214	83	54	137
£2,000 £5,000	113,518	41,533	155,051	397	145	543
Total small estates	368,281	194,561	562,842	585	261	846
Exceeding / Not Exceeding						
£5,000 £6,000	9,629	5,660	15,289	53	31	84
£6.000 £7,000	7,673	2,901	10,574	50	19	69
£7,000 £8,000	5,329	1,793	7,122	40	13	53
£8,000 £10,000	10,659	3,321	13,980	96	30	126
£10,000 £12,500	6,668	3,823	10,491	75	43	118
£12,500 £15,000	4,900	1,823	6,723	67	25	92
£15,000 £17,500	4,719	953	5,672	77	15	92
£17,500 £20,000	3,343	803	4,146	63	15	78
£20,000 £25,000	3,550	1,680	5,230	80	38	118
£25,000 £30,000	2,144	737	2,881	59	20	79
£30,000 £35,000	1,998	353	2,351	65	11	76
£35,000 £40,000	845	312	1,157	32	12	43
£40,000 £45,000	351	394	745	15	17	32
£45,000 £50,000	665	1,148	1,813	32	55	86
£50,000 £60,000	779	439	1,218	43	24	67
£60,000 £75,000	547	274	821	37	18	55
£75,000 £100,000	613	392	1,005	54	34	88
£100,000 £150,000	270	187	457	34	23	57
£150,000 £200,000	51	16	67	9	3	12
£200,000 £250,000	75	5	80	17	1	18
£250,000 £400,000	71	86	157	23	28	51
£400,000 and over	50	—	50	35	0	35
Total large estates	64,929	27,100	92,029	1,053	477	1,530
Total all estates	856,299	867,951	1,724,250	1,639	738	2,376

*In this and subsequent tables, the individual items may not add to the totals shown because of rounding.

have been £792.4 million. In the intervening years to 1966 there was a reasonably rapid rise in the level of prices, considerable economic growth, and undoubtedly a great amount of real accumulation of property. In addition, Nevin's exercise almost certainly produced substantial under-estimation, although there is no claim to absolute perfection in the current analysis. Taking personal net wealth as a percentage of National Income, it stood at 280 percent in 1966, but, according

TABLE 2

PERCENTAGE DISTRIBUTION OF ADULT POPULATION AND PERSONAL NET CAPITAL IN IRELAND, 1966

Net Capital		Percentage of Persons aged 20 or over	Percentage of Net Capital
Nil		62.020	0.000
Not exceeding £5,000		32.643	35.607
Exceeding	Not Exceeding		
£5,000	£10,000	2.724	13.974
£10,000	£20,000	1.568	16.007
£20,000	£50,000	0.822	18.284
£50,000	£100,000	0.177	8.852
Exceeding £100,000		0.047	7.275
Total		100.000	100.000

to Nevin,[14] at 178 percent in 1953–55, as compared with 282 percent in 1937–39, and 257 percent in the period 1923–25. The 1966 estimates are therefore more in line with Nevin's estimates for earlier years and, as will be seen below, more in line also with the situation in Northern Ireland and Great Britain.

Although the three economies are markedly different in size and character, it is of interest to compare the distributions of personal wealth in the three neighboring areas. Table 3 shows the percentage distributions of persons and net capital in the Republic, Northern Ireland and Great Britain. The estimates for Northern Ireland are those of the present author,[15] while those for Great Britain are based on adaptations of official estimates.[16] The latter source cited shows the number of wealth-holders in Great Britain in 1966 at 17,921 thousand out of an adult population of over 36 million: for Table 3, similar assumptions were made for the remaining population aged 20 years and over as were made in the other estimates, i.e. that those persons not shown as possessing wealth had a wealth-holding of nil.

Nearly 60 percent of adults in Northern Ireland, and 62 percent of those in the Republic, possess no wealth. The comparative figure for Great Britain is estimated at just over 50 percent. 35.6 percent of adults in Northern Ireland own net wealth of less than £5,000, and they account for over half, or 52.5 percent, of total wealth, whereas in Great Britain wealth-owners in this category comprised 40.7 percent of the adult population and owned 31.8 percent of total net wealth. In the Republic, 32.6 percent of adults owned £5,000 or less, and their share of the total wealth was only 35.6 percent. Slightly less than 5 percent of the adult population in Northern Ireland owned net wealth in excess of £5,000 and they accounted for 47.5 percent of the total, while in Great Britain the proportion of adults owning more than this sum is in excess of 9 percent, and their share is over 68 percent of the total, compared with 5.3 and 64.4 percent respectively in the Republic. Further inspection demonstrates that the degree of inequality in the distribution of wealth

[14]Nevin, *op. cit.*, p. 8.

[15]P. M. Lyons, The Distribution of Personal Wealth in Northern Ireland, *Economic and Social Review*, Vol. 3, No. 2, January 1972, Dublin, pp. 215–225.

[16]*Inland Revenue Statistics, 1972*, H.M.S.O., 1972, Table 86, p. 121.

TABLE 3

PERCENTAGE DISTRIBUTION OF ADULT POPULATION AND PERSONAL NET CAPITAL IN THE REPUBLIC OF IRELAND, NORTHERN IRELAND AND GREAT BRITAIN, 1966

Net Capital		Republic of Ireland		Northern Ireland		Great Britain	
		Percent of Population	Percent of Net Capital	Percent of Population	Percent of Net Capital	Percent of Population	Percent of Net Capital
Nil		62.02	0.00	59.65	0.00	50.26	0.00
Not exceeding £5,000		32.64	35.61	35.42	52.51	40.65	31.77
Exceeding	Not Exceeding						
£5,000	£10,000	2.72	13.97	2.85	12.66	5.40	17.71
£10,000	£20,000	1.57	16.01	1.55	16.13	2.19	14.58
£20,000	£50,000	0.82	18.28	0.28	6.28	1.10	15.36
£50,000	£100,000	0.18	8.85	0.21	8.95	0.27	8.72
Exceeding	£100,000	0.05	7.28	0.04	3.47	0.12	11.85
Total		100.00	100.00	100.00	100.00	100.00	100.00

in the Republic is somewhat more marked than it is in both Northern Ireland and Great Britain.

Net wealth as a percentage of National Income for the Republic was quoted above at 280 percent, whereas for the United Kingdom it was 256 percent, excluding wealth in Northern Ireland, and 261 percent including the wealth estimate for Northern Ireland. Full National Income Accounts are not published for Northern Ireland separately, and the only comparative ratio available is that of total personal wealth as a percentage of personal income. The ratio is 235 percent of personal income in Northern Ireland, 263 percent in the Republic, and 239 percent in the United Kingdom, excluding wealth in Northern Ireland, and 244 percent including that wealth. Finally, personal wealth per head of the adult population (those aged 20 years and over) in the Republic is estimated at £1,378, compared with £1,686 in Northern Ireland, and £2,131 in Great Britain.

(ii) The Distribution of Wealth Between Age Groups

Studies of wealth distribution in other countries demonstrate that a disproportionate share of total wealth is owned by the relatively small number of elderly persons, so that average wealth increases regularly with age. Lydall and Tipping,[17] for example, estimated that average net capital per person in the 20 to 24 year age group in 1954 was £330, rising with each age group, to a maximum of £2,310 in the 75 years and over group. The present author's study of wealth in Northern Ireland showed a similar pattern, with some anomalies.[18]

A comparable investigation was possible with the Irish data, and the results are contained in Table 4, which presents the estimated distribution of all personal capital among age groups, showing the percentage of persons in each age group owning capital, the percentage of total capital owned by persons in each age group,

[17]Lydall and Tipping, *op. cit.*, p. 96.
[18]Lyons, *Distribution of Personal Wealth in Northern Ireland*, pp. 222–224.

TABLE 4

ESTIMATED DISTRIBUTION OF ALL CAPITAL BETWEEN AGE GROUPS, REPUBLIC OF IRELAND, 1966

Age Group	Percent in Group Owning Capital	Percent of Total Net Capital Owned by Age Group	Percent of Total Population Aged 20 and over in Age Group	Average Net Capital per Person (£)
20–24 years	27.05	2.23	10.75	286
25–34 years	42.85	15.19	17.16	1219
35–44 years	26.21	16.47	18.42	1232
45–54 years	40.41	19.72	19.22	1414
55–64 years	45.73	22.54	15.71	1977
65–74 years	45.87	15.14	11.85	1761
75–84 years	37.86	7.31	5.71	1765
85 years and over	28.94	1.41	1.18	1654
Total	37.98	100.00	100.00	1378

the percentage of the adult population and average net capital per person in each age group.

The results demonstrate that those aged 55 years and over possess, on average, more wealth than those below that age. But the results are surprising in that they differ from experience elsewhere. Average net capital per person increases with age until it reaches its maximum level in the 55 to 64 year age group. It drops quite sharply in the following age group, rises slightly again in the 75 to 84 year group, and finally falls markedly in the final group comprising those 85 years and over. Part of the explanation for this phenomenon might lie in the fact that the Republic has a fairly large proportion of elderly people, many of whom own very little capital. Another explanation would suggest that a relatively large proportion of the elderly are in the agricultural population, and their farms are often given an artificially low valuation for estate duty purposes. In addition, this unusual distribution might suggest that the transfer of property before death was more common in Ireland than had previously been thought. One stimulus to this might be the desire of the elderly to divest wealth in order to qualify for the old age pension.

The pattern does, however, differ considerably from that observed in Northern Ireland and Great Britain, although it is possible that a somewhat different trend might emerge from these latter analyses if they provided more information concerning the oldest age group. In a detailed study of wealth distribution, Mendershausen[19] states that "studies of the age-wealth correlation among decedents in various foreign countries show a tendency for the average size of wealth to rise with the age of the decedent. Some of these data also suggest that the positive relation of age and wealth may cease to hold from a certain advanced age onwards.... In the three instances [of studies from other countries] where the highest age-groups are shown separately, a decline of average wealth is apparent from a certain advanced age onwards." Mendershausen's data for the United States shows this pattern in the most advanced age groups.[20] In more recent studies in the

[19]H. Mendershausen, "The Pattern of Estate Tax Wealth" in R. W. Goldsmith, *A Study of Saving in the United States*, Vol. III, Princeton University Press, 1956, p. 280.

[20]H. Mendershausen, *op. cit.*, pp. 333–335.

United States, Projector and Weiss have discovered that both mean and median wealth reach a peak in the 55 to 64 year age group.[21] This shift to a negative correlation, however, appears to occur at a much earlier age in Ireland, and it is of interest in this context to quote the statement made by Atkinson[22] that "Wedgwood argued that inequality in the age group 55–64 might provide a reasonable guide to the degree of inequality of inherited wealth on the grounds that they would in general have already inherited, but not yet made substantial gifts *inter vivos*. Unfortunately, our knowledge of the processes by which wealth is transmitted is so limited that it is hard to assess the validity of this argument. It is interesting to note, however, that the inequality among this group is not significantly lower than that for other age groups." Inequality of wealth distribution among this age group in Ireland is not demonstrated by the above results, but the disproportionate share of total wealth held by this age group suggests that inheritance in Ireland might be an even more important factor causative of inequality in the distribution of wealth than it is in Britain. The importance of inheritance in Britain has more recently been investigated by Harbury,[23] but there are no comparable analyses yet available in Ireland.

(ii) The Distribution of Personal Wealth by Wealth-Owning Units

Studies in various countries, including Ireland, of the size distribution of net personal wealth have considered only the wealth possessed by individuals. They thus ignore the fact that wealth, more so than income, is properly in the effective ownership of the family unit, while it is legally held in the name, generally speaking, of the head of the household. The mortality-multiplier approach based upon estate duty statistics recognises wealth in the ownership of individual males or females. Wealth may, however, be owned separately, as well as jointly, by more than one member of a family. Analysis of estate duty data does not allow the combination of the wealth owned by individual members of a single family to give the total wealth owned by that family. A sufficient number of husbands and wives do not oblige wealth-researchers by dying in the same year so that their estates can be combined for this purpose. It is even less likely that enough of their wealth-owning children would also die in the same year permitting analysis of all the wealth owned by a complete family.

[21] Projector, Dorothy S., and Weiss, Gertrude S., *Survey of Financial Characteristics of Consumers*, Board of Governors of the Federal Reserve System, Washington, 1966, p. 110 and p. 30, where the following derived statistics of wealth ownership by age group are given:—

Age of head of household	Mean wealth $	Median wealth $
Under 35	6,304	1,032
35–44	16,068	6,931
45–54	22,581	10,847
55–64	32,527	13,129
65 and over	30,838	10,049
All consumer units	20,982	6,721

[22] A. B. Atkinson, "The Distribution of Wealth and the Individual Life Cycle," *Oxford Economic Papers*, Vol. 23, No. 2, July 1971, pp. 249–250, citing J. Wedgwood, *The Economics of Inheritance*, Routledge, 1929.

[23] C. D. Harbury, "Inheritance and the Distribution of Personal Wealth in Britain," *Economic Journal*, Vol. LXXIII, December 1962, pp. 845–868.

This concentration upon individual ownership of wealth must give a distorted picture of the true distribution of wealth, some of the problems presented being outlined in a recent article by the present author,[24] where it is stated that "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 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. 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."

These difficulties have been recognised by other authors. Revell[25] states that "estate duty is necessarily levied on the estates of individual persons as they die, but the distribution of personal wealth between individual persons is of very little interest. We should be much more interested in a three-fold distribution between married couples and their dependent children, single men and single women, such as we can get for the distribution of income from the income tax statistics. The nearest we can get to such a distribution of wealth is the distribution by marital status within either sex." In addition,[26] "our distribution of personal wealth necessarily counts many wives of rich men as having little or no property in their own right."

Atkinson,[27] also stresses the importance of this problem. "There are in fact good reasons for taking the family as the basic unit for analysis. The wife and children of a wealth-holder share many of the benefits of his wealth and, as was argued by G. W. Daniels and H. Campion, 'it would obviously be misleading to place the wives and children of persons with £50,000 in the same category as paupers.' If it is the case that property tends to be vested in one of the partners in a marriage, the estate duty estimates of wealth-holding will tend to exaggerate the degree of inequality among families. In an extreme case where men owned all the property, the estate duty statistics might show the top 5 percent of the adult population as owning 50 percent of all wealth, but these would make up some 10 percent of all families, so that in terms of families the degree of concentration would be less."

Some thought has therefore been given to the possibility of devising a three-way analysis, between married couples, single men and single women. An analysis including children, adult or dependent, with married couples has not been thought feasible. There are two approaches to this analysis, apart from a full-scale census or sample survey of wealth possessed by families in the state:

[24]P. M. Lyons, *The Distribution of Personal Wealth by County in Ireland, 1966*, paper presented to the Statistical and Social Inquiry Society of Ireland, 8 December, 1972, pp. 3–4.

[25]J. Revell, "Changes in the Social Distribution of Property in Britain during the Twentieth Century," paper presented at the Economic History Conference, Munich, September 1964, and published as pp. 367–384 of *Actes du Troisième Congrès International d'Histoire Economique*, Vol. 1, Munich, 1965, p. 378.

[26]Revell, *op. cit.*, p. 380.

[27]A. B. Atkinson, *Unequal Shares—Wealth in Britain*, Allen Lane The Penguin Press, 1972, pp. 15–16.

1. An investment income approach based on income tax data can provide estimates on a husband and wife basis, as well as providing information about single males and females. The recorded investment income from income tax data is used, in this approach, to estimate the capital which must have given rise to the income. Such an analysis was used by *The Economist* some years ago, and is described by Atkinson,[28] who states that "distribution of wealth obtained using this method differs from that derived from the estate duty statistics in that it relates to *income units* as defined for tax purposes rather than to *individuals*. Under income tax and surtax the income of a married couple is aggregated, so that the investment income approach is closer to a family basis than in the case of the estate duty method." The results of this analysis showed a much greater degree of concentration than those of the estate duty estimates.[29] The investment income approach is not possible in Ireland due to the non-availability of any income tax source material, including data concerning investment income.

2. An alternative approach is to use the data on individuals from the estate duty analysis, and to "marry off" individuals. By making extreme assumptions, upper and lower limits can be placed on the degree of concentration of wealth, although this approach can prove nothing about the actual concentration of wealth, nor will it combine wealth-owning parents and children.

This second approach is attempted here. Estimates are derived for the numbers of married couples, and single adult males and females. Based on the original analysis of personal wealth distribution, estimates of the numbers of wealth-owners, classified by sex and marital status, are produced, and several alternative methods of combining married wealth-holders are attempted, each of which produces a different estimate of the distribution of wealth by wealth-owning units. No attempt is made to estimate wealth-ownership by families combining the wealth of married couples with that of their single adult children, nor by combining the wealth of the widowed with their children.

The Distribution of Personal Wealth by Marital Status

(a) *Numbers of Married and Single Adults*

The Census of Population in Ireland presents, in Volume II, the numbers of males and females in 1966, classified by marital status, that is whether married, single or widowed, by age group. This information is given in Table AI of the Appendix[30] which presents a distribution of males and females classified by whether married or single (including widowed). Persons in the 15 to 19 years age group are included in this table, since a small proportion are married. Only these married persons are included in the subsequent analysis.

It will be noticed that there are 11,254 more married females in the Republic than married males. It was decided to treat this excess number of married females as single, on the assumption that their husbands were permanently living and working outside the State. The numbers of married females in the age groups

[28] Atkinson, *op. cit.*, p. 15.

[29] See Atkinson's estimates based on this source for 1968, elsewhere in this issue.

[30] All Tables in the Appendix, that is Tables AI to AIX, which were presented to the Conference, are, for reasons of space, not presented here. They may be obtained from the author upon request.

20–24 years to 55–64 years (i.e. the "working" age groups) were reduced in proportion, so that the total number of married females was reduced to equal the total number of married males. The number of single women in each of these age groups was correspondingly increased. The adjusted distribution is shown in Table AII of the Appendix.

(*b*) *Wealth Owners by Marital Status and Sex*

It was then necessary to allocate the wealth possessed by males and females separately in the different age groups according to marital status. No information was available from the estate duty data concerning the marital status of the individuals, and accordingly the important assumption was made that wealth was shared between married and single persons in proportion to their relative numbers in the sex/age group as a whole.

This assumption concerning the relative shares of wealth owned by married and single persons is undoubtedly arbitrary, and subject to question. It is, however, probably less arbitrary than any alternative assumption which might have been made. It could be argued that married persons were more likely to possess, *inter alia*, a house and furniture, constituting wealth, than unmarried persons. This would hardly be the case in respect of agricultural property, however, and while the unmarried are probably less likely to own residential property, in most cases their incomes are not significantly less than those earned by their married colleagues, and they would have greater opportunity for saving and holding their property in forms of assets different from those of the married. It is also of importance that net capital is being measured and married men owning houses are likely to have large outstanding debts, such as mortgages, overdrafts and hire purchase commitments, particularly in the younger age groups, thus reducing their net capital In addition, in the older age groups, the single persons include a large proportion of widowed, many of whom probably own houses, and in the youngest age group the proportion of married persons is very small. It is only in the age groups from 25 to 54 years that this assumed division might introduce substantial errors, but they are as likely to be biased in favour of married persons as against them. Overall, the assumption made appears to be the safest and most neutral in the circumstances, without further information.

This sub-division of wealth by marital status is presented in Tables AIII to AVI in the Appendix. Tables AIII and AIV show the distribution of wealth-holders for single (including widowed) males and females respectively, classified by net capital category and age group, and the total net capital owned by these persons. Tables AV and AVI show similar information for married males and females separately. In these latter Tables, an additional column is included showing the numbers of married males and females in the age group 15–19 years. These are assumed to possess nil net capital and are included in order to equate the numbers of married males and females. Unmarried persons in this age group, as explained above, are completely excluded from this analysis.

(*c*) *The Combination into Married Wealth-Owning Units*

No further manipulation of the data is required in the case of single males and females. Married males and females, however, must be combined in some way to obtain a distribution of wealth among married couples. Three different assumptions were made, two of which certainly provide extreme lower and upper limits to the pattern of wealth distribution, while the third is more in accordance with reality towards the upper limit. These assumptions are that:

(1) All persons possessing wealth are married to spouses possessing nil wealth—the lower extreme of concentration.

(2) All persons possessing wealth are married to spouses possessing wealth, the wealthiest males being married to the wealthiest females, in rank order, regardless of age—the upper extreme of concentration.

(3) All persons possessing wealth are married to spouses possessing wealth, as in (2), within each age group—the upper extreme of concentration in age groups. When married persons were combined in each of the above ways, the resulting distributions were added to the distributions of single males and females, to produce three separate wealth distributions. The full distributions are contained in Tables AVII, AVIII and AIX of the Appendix, with shortened Tables being provided in the text.

(1) The Lower Extreme of Concentration

For this computation, it was assumed that the wealthiest married male was married to the poorest married female, in a converging series, and that the wealthiest female was married to the poorest male, at the same time. In this case, the number of married males and females possessing wealth above nil was 364,373, or less than half the 954,800 married persons. Thus each male possessing any wealth could be assumed to be married to a female possessing no wealth, and each female possessing wealth could be assumed to be married to a male with none, leaving over 100,000 couples where neither husband nor wife owned any wealth. This calculation was undertaken for the whole married population irrespective of age, since combining within age groups would have made no difference to the resulting distribution. Table 5 shows a shortened version of this distribution, giving the

TABLE 5

PERCENTAGE DISTRIBUTION OF WEALTH-OWNING UNITS AND WEALTH—LOWER EXTREME OF CONCENTRATION

Net Capital		Percentage of Wealth-Owning Units	Percentage of Net Capital
Nil		47.578	0.000
Not exceeding £5,000		45.055	35.607
Exceeding	Not Exceeding		
£5,000	£10,000	3.759	13.974
£10,000	£20,000	2.164	16.007
£20,000	£50,000	1.136	18.284
£50,000	£100,000	0.243	8.852
Exceeding	£100,000	0.065	7.275
Total		100.000	100.000

percentages of wealth-owning units and of net capital owned in each of seven ranges of net capital.

(2) *Upper Extreme of Concentration*

The assumption made in the previous section would appear to be somewhat unrealistic. It is more likely that males and females owning wealth would be married to each other than to partners possessing no wealth. Accordingly, it was assumed that all married males and females were ranked in order of amount of net wealth possessed, and were then combined as married couples, with the wealthiest male married to the wealthiest female, the second wealthiest male married to the second wealthiest female, and so on. The mid-points of the net wealth range for each partner were added to give the mid-point of the range of wealth possessed for each married couple. Table 6 gives the shortened version of this distribution, showing the percentages of wealth-owning units and of net capital in seven ranges of net capital.

TABLE 6

PERCENTAGE DISTRIBUTION OF WEALTH-OWNING UNITS AND WEALTH—UPPER EXTREME OF CONCENTRATION

Net Capital		Percentage of Wealth-Owning Units	Percentage of Net Capital
Nil		57.034	0.000
Not exceeding £5,000		36.008	30.240
Exceeding	Not Exceeding		
£5,000	£10,000	2.910	10.528
£10,000	£20,000	2.462	17.552
£20,000	£50,000	1.207	19.394
£50,000	£100,000	0.228	8.136
Exceeding	£100,000	0.151	14.149
Total		100.000	100.000

(3) *Upper Extreme of Concentration in Age Groups*

While the preceding analysis of the upper extreme of concentration is probably more in accordance with reality than the lower extreme, it does suffer from the defect that the wealthiest are assumed to be married to each other, irrespective of age. Thus it does, in some cases, involve combining a wealthy elderly woman with a wealthy young man, for example, as a married couple, whereas situations of this kind are not likely to be a reflection of the actual state of affairs.

Accordingly, the exercise of combining the wealthiest married males and females was undertaken within age groups, on the assumption that people are more likely to marry persons near their own age, and in particular on the assumption that males tend not to marry females a great deal older than themselves. Indeed, in the vast majority of cases, males tend to marry younger females, and this feature, while not fully recognized in the analysis, is partially taken into account, since, starting from the youngest age group, there was always an excess number of females owning nil wealth who were transferred to the next highest age group for combining with males in that higher age-group, except in the final age group. Implicit in this operation is the assumption that while males in one age group may be married to females in the preceding age group with nil wealth, they are not married to females with some wealth in that preceding age group. Thus some errors probably remain between age groups. Table 7 shows the shortened version of this distribution.

TABLE 7

PERCENTAGE DISTRIBUTION OF WEALTH-OWNING UNITS AND WEALTH—UPPER EXTREME OF CONCENTRATION IN AGE GROUPS

Net Capital		Percentage of Wealth-Owning Units	Percentage of Net Capital
Nil		57.034	0.000
Not exceeding £5,000		35.733	29.561
Exceeding	Not Exceeding		
£5,000	£10,000	3.392	12.544
£10,000	£20,000	2.278	16.606
£20,000	£50,000	1.150	18.276
£50,000	£100,000	0.292	10.692
Exceeding	£100,000	0.120	12.322
Total		100.000	100.000

(d) Comparison of Principal Results

None of the three derived wealth distributions by wealth-owning units presented above can be demonstrated to be a true representation of wealth distribution in Ireland, even if the assumptions underlying the apportionment of wealth between married and single (including widowed) persons are correct. They do, however, provide lower and upper extremes for wealth distribution, with the true situation lying somewhere between these limits. Two important points must be emphasised before these three distributions are compared with each other, and with the distribution by individuals. In the first place, the three derived distributions are merely the result of arithmetical manipulations; they possess no properties superior to those of the original analysis by individual wealth-holders, while preserving at least all the defects of that analysis. Secondly, the figures obtained by "marrying-off" married males and females must not be interpreted too literally. It is not to be supposed that specific wealthy individuals are in fact married to each other. What is attempted, however, is to illustrate the pattern which would emerge if the wealthy *as a group* intermarried among themselves. Thus the shortened versions of the tables in the text are in some ways superior to the basic tables in the Appendix in this respect, since they show the distribution of wealth among married couples in different size categories of wealth. The results do not, therefore, imply that the richest marry the richest, and so on down, but that the rich tend to marry among themselves.

Table 2, the distribution among individuals, and Tables 5, 6 and 7, the distributions among wealth-owning units, may now be compared. To assist in this comparison, these Tables are further simplified and combined in Tables 8(a) and 8(b). Table 8(a) shows the percentage of persons or wealth-owning units for each of the four distributions, classified by amount of wealth possessed, whether nil, not exceeding £5,000 or over £5,000, while Table 8(b) shows the percentage of net capital owned, similarly classified for each of the distributions.

TABLE 8

PERCENTAGE DISTRIBUTIONS OF WEALTH-HOLDERS AND WEALTH

Wealth Distribution	Nil	Not Exceeding £5,000	Exceeding £5,000	Total
(a) Percentage of Persons or Wealth-Units				
1. Individuals	62.0	32.6	5.4	100.0
2. Wealth Units—Lower Extreme	47.6	45.1	7.3	100.0
3. Wealth Units—Upper Extreme	57.0	36.0	7.0	100.0
4. Wealth Units—Upper Extreme in Age Groups	57.0	35.7	7.3	100.0
(b) Percentage of Net Capital				
1. Individuals	0.0	35.6	64.4	100.0
2. Wealth Units—Lower Extreme	0.0	35.6	64.4	100.0
3. Wealth Units—Upper Extreme	0.0	30.2	69.8	100.0
4. Wealth Units—Upper Extreme in Age Groups	0.0	29.6	70.4	100.0

On the assumption that the richest marry the poorest—the lower extreme of concentration—it is obvious that many individuals who possessed no wealth enter a positive wealth-owning unit when it is assumed that they are married to a partner possessing wealth, and the table indicates a substantial reduction in the proportion of nil wealth-owning units compared to the proportion of individuals shown as possessing nil wealth. The proportion of wealth-owning units possessing amounts not exceeding £5,000 is markedly increased, and there is an increase also in the proportion of units owning more than £5,000, compared to the distribution of wealth among individuals. The percentages of net capital in each range are, however, identical, since in all combinations of married persons, an amount of wealth possessed by one spouse was combined with nil wealth owned by the other. Thus, while there is still marked inequality in the distribution of wealth among wealth-owning units, it is considerably less unequally distributed, on these assumptions, than it is among individuals. These estimates provide the lower extreme of concentration, indicating that wealth is not distributed with less inequality than is shown here. The assumptions underlying this distribution are almost certainly extremely unrealistic, especially when it is borne in mind that many assets, particularly houses, household possessions and bank deposits, are owned jointly by husband and wife, and each possesses some wealth, a factor which is totally ignored in this distribution.

The third analysis, with the wealthy married to the wealthy, and the poor to the poor, provides the upper extreme of concentration, since wealth cannot be distributed more unequally than is shown here. It will be observed that the proportion of units owning nil wealth is somewhat below the proportion of individuals in this category, since many married women with nil wealth were combined with married men owning positive amounts of wealth. The proportions of wealth units owning some capital, both not exceeding and exceeding £5,000, are increased compared to the distribution among individuals. The distribution of net capital has, however, altered in favour of the wealthier units. The proportion of wealth owned by units with £5,000 or under has decreased, while it has increased correspondingly for units with more than £5,000. At the top of the range, as may be seen in Tables 2 and 6, the proportion of net capital has almost doubled in the category exceeding £100,000, but the proportion of wealth-owning units has increased more than three-fold. There is thus some evidence of increasing concentration among the middle wealth-owning units compared with individuals.

Compared with the lower extreme of concentration, the proportion of units owning nil wealth is markedly increased, with an almost corresponding decrease in the proportion of units owning not more than £5,000. The percentage of net capital owned by units in this range has fallen, however, to increase the share owned by those possessing more than £5,000, whose percentage share of the units has decreased slightly. Not surprisingly, the upper extreme of concentration shows wealth to be less equally distributed than at the lower extreme, but the increased concentration appears to be in the middle ranges of wealth-ownership, not in the highest ranges. This distribution appears to be more in accordance with reality than the lower extreme, if account is taken of the second reservation emphasised above.

Finally, another upper extreme is provided by the analysis of married couples within age groups. The pattern emerging from the analysis within age groups is very similar to that revealed for the previous upper extreme, and the remarks already made in the comparison with the other two distributions apply here also.

An alternative method of comparing these distributions is to calculate the percentage of total wealth owned by the top percentiles of the population. Table 9 shows, for each of the four distributions, the percentage of total net wealth owned by the top 1, 5 and 10 percents of individuals in the first distribution, and of wealth-owning units in the other three distributions.

For each of these percentiles, the greatest proportion of wealth is owned at the upper extreme of concentration among units, followed by the upper extreme within age groups (the two being identical at the tenth percentile), closely followed by the distribution among individuals, with the lower extreme of concentration having the smallest proportion. One may thus conclude that the top 1 percent of wealth owning units possess between 29 percent and 34.6 percent of total personal capital, the top 5 percent between 56.7 percent and 64 percent, and the top 10 percent between 69.2 percent and 76.6 percent. A remarkable feature of this analysis is the limited ranges within which the true percentages for these percentiles are presumed to lie.

(e) Concluding Remarks

In addition to the usual defects of the mortality-multiplier approach in Irish circumstances, the present analysis suffers from two further weaknesses;

TABLE 9

PERCENTAGES OF TOTAL WEALTH OWNED BY TOP WEALTH-HOLDERS

Wealth Distribution	Top 1%	Top 5%	Top 10%
1. Individuals	33.6	63.0	73.7
2. Wealth Units—Lower Extreme	29.0	56.7	69.2
3. Wealth Units—Upper Extreme	34.6	64.0	76.6
4. Wealth Units—Upper Extreme in Age Groups	34.3	63.4	76.6

1. It merely indicates lower and upper extremes for the inequality of wealth distribution among married couples and single persons, without indicating exactly the true situation; and

2. It does not provide any information on ownership of wealth by *families*. One of the basic assumptions employed was that a wealth-owning unit was a single person or a married couple. Single adults, however, may very often be part of their parents' families, and, therefore, part of a wealth-possessing unit, until they themselves marry. Such persons may be wealthy if they have wealthy parents, especially if gifts *inter vivos* are prevalent, and if this were the case, the distribution of wealth among families could be concentrated even more than is shown for wealth-owning units. The total number of wealth-units identified in this analysis was 1,249,231, whereas the Census of Population of 1966 (Vol. VI) enumerated 687,304 private households. The total number of persons in these households was 2,754,450 out of the 2,884,002 in the population as a whole. Although "private households" are not synonymous with "families" it is apparent that there are far fewer families than wealth-owning units as here defined

Summary and Conclusions

This paper has been a combination of an attempt to arrive at estimates of personal wealth-holding in Ireland, as well as a trial of the usefulness of applying techniques employed elsewhere to Irish data. In addition, an attempt was made to investigate the picture presented by combining the wealth of married persons in different ways. The following conclusions emerge from the analysis:

(a) Estate duty statistics would suggest that total personal wealth in Ireland in 1966 was of the order of £2,376 million, which represents an average of about £1,378 per head of the adult population. It represented about 2.8 times the National Income of that year, and just over 30 percent was owned by females, who comprised just over half the total adult population.

(b) There is substantial inequality in the distribution of wealth. 62 percent of the adult population owned no wealth, while the 5 percent of the population at the top of the distribution owned 63 percent of total personal capital.

(c) The most significant conclusion of this analysis might well be the result which demonstrated that average wealth does not, in Ireland, rise with age, but reaches a peak in the 55 to 64 year age group which, in turn, suggests that many gifts *inter vivos* are made.

(d) The analysis of wealth-ownership among single persons and married couples shows that if the wealthy of one sex are married to the poor of the other, the top 1 percent of wealth-owning units possess 29 percent of total wealth, whereas if the wealthy are assumed to marry among themselves the top 1 percent of units possess 34.6 percent of total wealth.

(e) The mortality-multiplier approach appears to be in some ways limited in its applicability to Irish conditions, especially in the context of analysing the components of personal wealth. In addition, recent alterations in estate duty legislation will reduce the usefulness of this technique to a considerable extent. The new Government, indeed, specifically promised the abolition of estate and death duties in a pre-election manifesto. Failing the introduction of an annual wealth tax, which would incidentally reveal information about the possession of wealth, the only alternative would appear to be a household balance sheet survey, along the lines of the household budget survey. This should provide more reliable information about the ownership and distribution of wealth than is now available, and in a more realistic and meaningful form, as well as providing more accurate data on the components of personal wealth. Such a survey could not, however, be undertaken by private researchers; it must be the responsibility of the Central Statistics Office.