

NESC REPORT NO. 27

**NEW FARM OPERATORS,
1971 to 1975**

Price: £2.30

NATIONAL ECONOMIC AND SOCIAL COUNCIL
CONSTITUTION AND TERMS OF REFERENCE

1. The main task of the National Economic and Social Council shall be to provide a forum for discussion of the principles relating to the efficient development of the national economy and the achievement of social justice, and to advise the Government, through the Minister for Finance, on their application. The Council shall have regard, *inter alia*, to:

- (i) the realisation of the highest possible levels of employment at adequate reward,
- (ii) the attainment of the highest sustainable rate of economic growth,
- (iii) the fair and equitable distribution of the income and wealth of the nation,
- (iv) reasonable price stability and long-term equilibrium in the balance of payments,
- (v) the balanced development of all regions in the country, and
- (vi) the social implications of economic growth, including the need to protect the environment.

2. The Council may consider such matters either on its own initiative or at the request of the Government.

3. Members of the Government shall be entitled to attend the Council's meetings. The Council may at any time present its views to the Government, on matters within its terms of reference. Any reports which the Council may produce shall be submitted to the Government and, together with any comments which the Government may then make thereon, shall be laid before each House of the Oireachtas and published.

4. The membership of the Council shall comprise a Chairman appointed by the Government in consultation with the interests represented on the Council, **Ten** persons nominated by agricultural organisations, **Ten** persons nominated by the Confederation of Irish Industry and the Irish Employers' Confederation, **Ten** persons nominated by the Irish Congress of Trade Unions, **Ten** other persons appointed by the Government, and **Six** persons representing Government Departments comprising one representative each from the Departments of Finance, Agriculture and Fisheries, Industry and Commerce, Labour and Local Government and one person representing the Departments of Health and Social Welfare.

Any other Government Department shall have the right of audience at Council meetings if warranted by the Council's agenda, subject to the right of the Chairman to regulate the numbers attending.

5. The term of office of members shall be for three years renewable. Casual vacancies shall be filled by the Government or by the nominating body as appropriate. Members filling casual vacancies may hold office until the expiry of the other members' current term of office and their membership shall then be renewable on the same basis as that of other members.

6. The Council shall have its own Secretariat, subject to the approval of the Minister for Finance in regard to numbers, remuneration and conditions of service.

7. The Council shall regulate its own procedure.

NATIONAL ECONOMIC AND SOCIAL COUNCIL

New Farm Operators, 1971 to 1975

DUBLIN:
PUBLISHED BY THE STATIONERY OFFICE

To be purchased from the
GOVERNMENT PUBLICATIONS SALE OFFICE, G.P.O. ARCADE, DUBLIN 1
or through any Bookseller.

Price: 45p

(PrI. 5832)

No. 27

NATIONAL ECONOMIC AND SOCIAL COUNCIL
MEMBERS

Chairman: Prof. W. J. L. Ryan

Nominated by the Government:

Dr. H. Burke	Mr. A. N. O'Brien	Mr. G. A. Meagher
Prof. N. J. Gibson	Mr. P. Rock	Mr. C. H. Murray
Prof. D. Hannan	Mr. J. Walsh	Mr. T. O Cearbhaill
Dr. K. Kennedy	Dr. T. K. Whitaker	Mr. J. Holloway
Mr. C. Mac Gabhann	Mr. M. J. Barry	Mr. M. O Murchu
	Dr. B. Hensey	

Nominated by the Confederation of Irish Industry:

Mr. F. A. Casey	Mr. J. H. Donovan	Mr. J. H. D. Ryan
Mr. L. Connellan	Mr. R. I. Morrison	

Nominated by the Irish Agricultural Organisation Society:

Mr. J. Buttimer	Mr. P. Kelly	Mr. P. Raftery
-----------------	--------------	----------------

Nominated by the Irish Congress of Trade Unions:

Mr. A. Barr	Mr. H. O'Sullivan	Mr. D. Nevin
Mr. J. Carroll	Mr. D. Larkin	Mr. R. Roberts
Mr. W. J. Fitzpatrick	Mr. D. Murphy	
Senator M. Mullen	Mr. P. Murphy	

Nominated by the Irish Creamery Milk Suppliers' Association:

Mr. P. Hourigan	Mr. D. Murphy	Mr. T. J. O'Callaghan
-----------------	---------------	-----------------------

Nominated by the Irish Employers' Confederation:

Mr. M. Greene	Mr. A. Shiel	Mr. J. J. O'Reilly
Mr. D. J. McAuley	Mr. P. Murphy	

Nominated by the Irish Farmers' Association:

Mr. D. Cashman	Mr. P. Lane
Mr. S. Healy	Mr. J. Richards-Orpen

CONTENTS

Part I

THE COUNCIL'S COMMENTS ON "NEW FARM OPERATORS, 1971 TO 1975"	5
--	---

Part II

NEW FARM OPERATORS, 1971 TO 1975	
By	
Dr Seamus J. Sheehy and Mr Aidan Cotter	13
Preface	
Chapter 1. AGRICULTURAL ADJUSTMENT	17
1.1 Agricultural Adjustment in Ireland	18
1.2 New Entrants to Farming	23
Chapter 2. THE SURVEY	26
2.1 The Representativeness of the Surveyed Area	29
2.2 Validity of the Data	31
Chapter 3. THE RESULTS	35
3.1 Method of Becoming a New Farm Operator	37
3.2 Age of New Farm Operators	41
3.3 Acreage of New Farm Operators	42
3.4 Marital Status and Family Size	48
3.5 Previous Occupation	49
3.6 Land Purchasers	53
3.7 Time Allocated to Farming	55
3.8 Education	58
3.9 Land Use	63
Chapter 4. SUMMARY AND CONCLUSIONS	66
4.1 Summary	72
4.2 Conclusions	72
Bibliography	73
Appendix I Questionnaire used in the Survey	75
Appendix II The Functional Life of a Farm Operator	84

PART I

THE COUNCIL'S COMMENTS ON "NEW FARM OPERATORS, 1971 TO 1975"

I Introduction¹

1. In February 1975, the Council published² projections of the growth in population and the labour force up to 1986. In a subsequent report³, some of the implications of the projections for employment and living standards were examined. If employment is to be provided in Ireland for the projected expansion in the labour force, then considerable growth is required in output, productivity and investment in the agricultural, industrial and services sectors. In order to assess the growth prospects at a sectoral level, the Council decided to begin by examining the potential for development in agriculture.

2. After consultations with farming organisations, expert advice was sought from Mr. L. Folkesson, Professor of Agricultural Marketing and Policy, the Agricultural College of Sweden, Uppsala; Mr. J. F. van Riemsdijk, Professor of Farm Management, Wageningen University of Agriculture, The Netherlands; Mr. R. Savary, until recently Secretary General of the International Federation of Agricultural Producers, Paris; and Dr. S. J. Sheehy, Department of Applied Agricultural Economics, University College, Dublin. These experts met on a number of occasions and suggested a programme of work which was approved by the Council.

1 Following discussions in the Economic Policy Committee at its meeting on 2 and 7 September 1976, and by the Council at its meetings on 23 September 1976 and 21 October 1976, successive drafts of the Council's comments on 'New Farm Operators, 1971 to 1975' were prepared by Tom Ferris in the Council's Secretariat.

2 *Population and Employment Projections: 1971-86*, NESC, No. 5, February 1975.

3 *Jobs and Living Standards: Projections and Implications*, NESC, No. 7, June 1975.

3. This report is the second stage in the study of the potential for growth in the agricultural sector. It provides information about the characteristics of those who are entering farming and of those already in farming who are enlarging their farms. The information is based on the results of a survey of people who assumed or increased management control of land between 1971 and 1975. The study was prepared by Dr. Seamus Sheehy and Mr. Aidan Cotter, of the Department of Applied Agricultural Economics, University College Dublin. The consultants' study is published in full in Part II of this Report.

4. Work is currently under way on the third stage of the agricultural study — an examination of the implications of an "assumed" high rate of growth in agriculture. It is the Council's hope that, when this third stage of the study has been completed, a general report will be prepared on the potential for development in Irish agriculture, and the strategies and policies by which this potential might best be realised.

II The Present Study

5. The purpose of the present study was to assemble information about the characteristics of those who have become farm operators or who have enlarged their farms in recent years. While particular features of Irish agriculture — such as the size and demographic structure of the industry — have been well documented over the years, information about those entering (or expanding their holdings in) agriculture has not been as readily available. Yet such information is important, particularly as many of those who are now becoming farm operators will be working and developing the farms of Ireland over the next generation. And that has relevance for the overall growth of the industry: as the consultants point out — "the economic growth of the agricultural industry is the sum total of the growth that takes place on each of the individual farms in that industry". By examining the characteristics of new farm operators, revealing insights can be gleaned about the way in which changes in size and use of land takes place over time and how the next generation of operators is likely to differ from the present generation.

6. The survey undertaken for this study was aimed at answering the questions: Who is taking control of the land of Ireland? How are they doing it? And what are the consequences for farm size and land use? The survey was confined to those who assumed management control of land between 1971 and 1975. Such new farm operators⁴ fell into two main categories—the "new operators" who became operators in their own right in the period under review, and "enlarging operators" who were already established in farming but who extended their control over additional land by enlarging their holdings during the period.⁵ The sample selected was from within 1½% of all holdings over 5 acres in the State and was based on the location of the enumerators⁶ who volunteered to carry out the survey and thus was not a random sample. The data sought were such that the enumerators could in general achieve an acceptable degree of accuracy directly from their own or their family's personal knowledge of the townlands being surveyed. The approach adopted was novel in so far as the information collected was provided directly by the enumerators rather than by questioning the new farm operators. The consultants undertook a number of consistency tests to check that the information was reasonably representative and valid.⁷

4 For the purposes of the survey, an operator was defined as a person who directs or manages the land in question without regard to the title of the land. If farm development were to take place on such land, the operator would be the one who would plan the development and would apply for grants for such development.

5 The different ways of becoming new operators which were identified were
(i) inheritance or succession during the lifetime of the previous operator,
(ii) inheritance or succession after the death of the previous operator,
(iii) purchase on the open market, and
(iv) allotment from the Land Commission.

6 The enumerators consisted of students of Agricultural Science supplemented by members of Macra na Feirme.

7 The consultants recognise, however, that very poor agricultural areas and very small holdings were somewhat under-represented and that there was some underestimation of new operators who inherited land. Such bias was not considered serious enough to affect the conclusions that can be drawn from the survey results.

7. The survey identified 602 new farm operators among the townlands surveyed.⁸ Some of these were institutions which were omitted from the analysis, while others had dual designations, as both new operators and enlarging operators. The new farm operators consisted of 423 "new operators" and 178 "enlarging operators". The new operators in turn contain 345 inter-generation operators, such as sons of previous operators, and 78 intra-generation operators, such as widows of previous operators. The inter-generation new operators are considered as the portion of the sample representing the new generation of farm operators. Of the "enlarging operators", 73 had enlarged their holdings through Land Commission allotments and 105 had expanded their farms by inheritance or open-market purchase. A change of management control affecting 35,551 acres in the surveyed area, is accounted for.

8. In the case of inter-generation new operators, inheritance is by far the most important method of acquiring management control with only 1 in every 10 doing so by purchase. As regards "enlarging operators", open-market purchase and Land Commission allotments were identified as the two main methods of extending management control. The Land Commission is estimated to account for 56 per cent of all enlargements; of the remainder nearly 2 in every 3 are by open-market purchase.

9. Of the total land purchased on the open market, 54 per cent was purchased by people with non-farm occupations (both part-time farmers and non-farmers) and 46 per cent was purchased by full-time farmers. The purchasers who had been farming full-time were mainly farmers enlarging their holdings, but a minority were relatives assisting on farms who were actually establishing themselves as farmers. These latter represent a mere 4 per cent of the new generation of operators, which gives a vivid measure of the difficulty of entering farming by purchase in the case of young men working full-time in farming. The proportion of all land in the

⁸ In all, 727 townlands were surveyed representing 1.4 per cent of all townlands in the country.

study acquired by open-market purchase (other than that bought by people exchanging farms) which was obtained by farmers previously having over 100 acres who were enlarging their farms was only 17 per cent. A further 19 per cent, however, was purchased by those new entrants who bought over 100 acres each.

10. The *average age* of all new operators was 35.7 years. This average age is likely to be lower than the age of succession because it refers to the age of assuming management control rather than the age of acquiring ownership. This average, however, embraces both inter- and intra-generation categories. The inter-generation people are really the new generation and their average age is only 31 years with 57 per cent of them being under 30 years. The age of succession for the new generation of farm operators is not therefore as high as is usually quoted.

11. Examination of the consultants' results for *size of holding* indicates a slowing down of the process of enlargement. Data relating to the extent of enlargement by *all* methods show that the smaller holdings have a far higher chance of enlargement than the larger holdings. It must be recognised, however, that an increase in the average size of farms is not in itself a sufficient condition for an increase in farm output.

12. The consultants found that only half the new operators in the study were farming full time before becoming farm operators in their own right; 26 per cent had not been farming immediately beforehand. The position in Connacht—Ulster is even more remarkable than in the country as a whole; in that province only one-third of the new generation of farm operators had been farming full-time, another third had been farming part-time, while another third had not been farming at all.

13. The consultants also investigated the *time allocated to farming* of those who had become new operators. Forty-one per cent of the new generation of farm operators in the country are part-time. The figure for those on holdings up to 30 acres is as high as two-thirds. In Connacht—Ulster less than half of the new generation are full-time. The new generation of farmers is nearly twice as dependent on off-farm employment as the present generation. The consultants highlight the strong tendency for the retention of off-farm employment after acquiring land. Only 20 per cent of those who had off-farm employment before acquiring management control of land relinquished their employment to become full-time farmers.

14. The *educational level* of all new farm operators in general, and of inter-generation new operators in particular, is much higher than that of the present generation of farmers. More than half of the new generation of farm operators have a post-primary education in contrast to only 13 per cent of all farmers; more than a quarter have had short courses in agriculture; and 11 per cent have agricultural college training compared with only one per cent for all farmers. These figures are much higher for the younger age categories. Furthermore, in the consultants view these results must be continuing to improve as the impact of the increased educational efforts — both general and agricultural — since the late 'sixties filters through.

15. The broad change in the use of land associated with the new farm operators was examined omitting the 1975 changes of operator.⁹ In general, the change of operator led to improved use, but in about eight per cent of cases the use actually deteriorated. The use of purchased land and land acquired from the Land Commission improved far more than the use of inherited land; full-time farmers improved more than part-timers; and the better-educated farmers improved more than the less well-educated farmers.

⁹ Since new operators who took over in 1975 would not have had time to make changes, these operators were excluded in analysing the results.

III Conclusion

16. The Council in a recent report¹⁰ listed the main reasons why it would be undesirable if there were to be a low rate of growth in Irish agriculture in the future. Furthermore, in its *Prelude to Planning*,¹¹ the Council has emphasised the crucial nature of the contribution that agriculture can make to the growth of the economy. The new generation of farm operators are a critical group in helping to achieve a better growth performance. The extent to which faster growth can be achieved ultimately depends on the ability of the people entering and remaining in the industry. Accordingly, the Council would welcome comments from farming organisations and other interested parties on the implications of the consultants' analysis for the choice of policies and measures to accelerate the growth in Irish agricultural output.

¹⁰ *A Comparative Study of Output, Value-Added and Growth in Irish and Dutch Agriculture*, NESc, No. 24, December, 1976.

¹¹ *Prelude to Planning*, NESc, No. 26, October 1976.

PART II

**NEW FARM OPERATORS,
1971 TO 1975**

By

Dr. Seamus J. Sheehy
and
Mr. Aidan Cotter

(Department of Applied Agricultural Economics,
University College, Dublin).

PREFACE

The poor size structure of Irish farms and the poor demographic structure of Irish farmers have been highlighted in recent years by agricultural economists and sociologists. The data that are available from C.S.O. censuses have been exhaustively analysed and these data have been supplemented by special surveys. The available data provide considerable information about those already in farming, but little is known about those who are currently becoming farm operators. Yet the latter are the people who will work and develop the land of Ireland over the next generation. Knowledge about their characteristics should provide useful insights into the manner by which changes in size of holding take place over time and the extent to which the next generation of farm operators are likely to differ from the past generation.

This report presents the results of a study of a sample of those people who assumed management control of land between 1971 and 1975. These consist of two categories, namely, those who became new operators of land in their own right in that period; and those who were already established in farming but who extended their control over additional land by enlarging their holdings.

Macra na Feirme provided valuable field assistance in carrying out the study and their contribution is gratefully acknowledged. The co-operation of several members of the agricultural advisory service who assisted in checking the accuracy of the data is also greatly appreciated.

CHAPTER 1

AGRICULTURAL ADJUSTMENT

1. The economic status of the individual farmer is largely determined by the quantity and combination of resources available to him on his farm. Furthermore, economic growth on the farm requires a favourable balance between the main productive resources, namely, land, labour, management and capital. Inadequate land can inhibit the development of a farmer who is a competent manager; conversely, deficient managerial ability can retard the development of a farm with a plentiful land supply.

2. Since the economic growth of the agricultural industry is the sum total of the growth that takes place on each of the individual farms in that industry, an optimum resource structure would therefore involve the combination of the various resources on farms in such a way as to minimise imbalances. Such a structure would maximise the potential for growth and it would provide a satisfactory income from farming to those employed in the industry.

3. Economic and technological forces necessitate over time a continuous adjustment in the resource mix on farms to ensure their survival as economically viable units (1). There are a number of possible types of adjustment depending on which resources are varied. The farmer could intensify his farming operations by increasing his capital input in the form of improved land, more fertiliser, more livestock, etc. By such intensification a given workforce could be kept fully employed and adequately remunerated without any change in the quantity of land available. Intensification may be constrained however by the capacity or preferences of the farm manager, or in some cases by the unavailability of markets. A certain amount of adjustment of this type has taken place on Irish farms (2, 3).

4. Alternatively, the labour force on the farm may be reduced to allow the remaining labour to earn a satisfactory income with the available complements of other resources. This is one of the most rapid types of adjustment that occurs in farming generally. In Ireland the farm work-force has declined by 40 per cent over the past 20 years. Typically, the reduction in labour is associated with an increase in capital in the forms of mechanisation and improved farm lay-out.

5. A further adjustment possibility is to seek off-farm employment to supplement the inadequate employment available on the farm and thereby to become a part-time farm worker. This practice has been increasing in recent years. In 1972 about 40,000 farmers in Ireland were estimated to have off-farm employment (4). Obviously, adjustments in the labour force, involving for the individual worker either part or total withdrawal from farming, is dependent on the availability of acceptable employment outside of farming.

6. The final method of adjustment involves increasing the area of land and thus spreading the other resource overheads so that full employment is maintained. This involves amalgamation of holdings into larger farms over time. Such adjustment is especially important where off-farm employment is not readily available and where the labour per farm has dropped to a single unit; in this situation further labour adjustment is not possible unless the individual worker leaves farming altogether (5). In fact, the farming industry of most countries contains a considerable number of under-employed farmers who for one reason or another have not quit farming. Associated with this is a serious low income problem as well as poor demographic and social structure (6).

1.1 Agricultural adjustment in Ireland

7. Irish agriculture has its own special problems in this regard because of the system of land tenure prevailing. Our owner-operator system of tenure is particularly inflexible because entry to farming can in general only be effected by either inheriting land or purchasing land; entry via leasing of land or partnership

TABLE 1.1: Distribution by size of agricultural holdings over 5 acres, 1949, 1960 and 1970

Acreage	1949		1960		1970	
	'000	%	'000	%	'000	%
5-50	211.9	72.5	182.8	68.5	170.0	66.3
51-100	51.3	17.6	54.2	20.3	56.2	21.9
over 100	29.0	9.9	30.0	11.2	30.1	11.7
TOTAL	292.2	100.0	267.0	100.0	256.3	100.0

Source: C.S.O., Agricultural Statistics 1934-1956, The Stationery Office, Pr. 4335. C.S.O., Agricultural Statistics, 1960, The Stationery Office, Pr. 7540. C.S.O., Irish Statistical Bulletin, December 1971.

arrangements which are common in many other countries are not generally practised in Ireland. Inheritance does not normally take place until a relatively late age (7), and purchasing land requires so much capital that it is extremely difficult to become established in farming by this means. Enlargement of farms is also difficult because of the immobility of land. The conacre system of 11-month renting provides some relief, but the short rental period involved makes it an uncertain means of size adjustment.

8. It is not surprising therefore that available statistics relating to enlargement do not show very rapid change over time. Data relating to the distribution of holdings by size in 1949, 1960 and 1970 are shown in Table 1.1. Over this period the total number of holdings declined by 35.9 thousand but the size distribution of holdings changed relatively little; the number of holdings over 50 acres increased by 6.0 thousand or from 27.5 per cent to 33.6 per cent of the total; the number of holdings over 100 acres increased by only 1.1 thousand or from 9.9 per cent to 11.7 per cent of the total. Furthermore, the rate of change was slower in the second half of the period than in the first.

9. Any contribution that conacre might have made to changing size is not reflected in these statistics because conacre is classified in the holding of the rated occupier of the land rather than in the holding of the farmer actually working the land. This contribution

TABLE 1.2: Average labour units per farm, 1955-57 and 1972-74

Acreage	1955-57	1972-74
30-50	1.72	1.13
51-100	2.14	1.44
101-200	2.74	1.71

Source: Data given by A. G. Conway in "Inter-farm Differences in Growth of Output"—Paper read at An Foras Taluntais Conference, November 1975. The figures in this table are calculated by weighting the regional data given by Conway by the number of holdings in the respective size groups and regions in 1955 and 1970 respectively.

in any case is probably small as the area let only increased from 5.5 to 6.0 per cent of total area over the 21 year period.

10. The rapid decline in the labour force associated with the relatively slow change in size of holding means that the labour-land ratio on farms has declined considerably. This is illustrated by the data in Table 1.2 which are derived from farm management surveys. The 101-200 acre farms in 1972-74 had only the labour force of the 31-50 acre farms in 1955-57. It is also evident that many farms are now essentially one-man units so that further reduction in the labour force will be difficult unless either off-farm employment increases or the number of farms declines along with the labour force.

11. Side-by-side with these adjustments in the land-labour mix, the demographic structure of the labour force has been, if anything, deteriorating. The age distribution of male farmers in 1951, 1961 and 1971 is shown in Table 1.3. The percentage under 40 years decreased from 1951 to 1961 and increased again from 1961 to 1971. These changes were largely offset, however, by opposite changes in the 40-54 age category. The percentage over 55 has remained virtually the same over the 20-year period at nearly half the total.

12. The marital status of farmers is shown in Table 1.4 for 1951, 1961 and 1971. These data indicate deterioration in the situation over the years with the percentage married or widowed declining from 71.3 to 65.3 per cent of the total. For those farmers under

TABLE 1.3: Distribution of male farmers by age, 1951, 1961 and 1971

Age	1951		1961		1971	
	'000	%	'000	%	'000	%
Under 40	32.6	16.3	26.5	14.6	28.1	17.2
40-54	67.2	33.7	66.8	36.9	55.6	34.1
Over 55	99.7	50.0	87.9	48.5	79.3	48.7
TOTAL	199.5	100.0	181.2	100.0	163.0	100.0

Source: C.S.O., Census of Population of Ireland, Volume II Part II, 1951, Volume V 1961, and Volume V 1971.

TABLE 1.4: Distribution of male farmers by marital status, 1951, 1961 and 1971

	1951		1961		1971	
	'000	%	'000	%	'000	%
Single	57.3	28.7	56.2	31.0	56.5	34.7
Married or widowed	142.1	71.3	125.0	69.0	106.4	65.3
TOTAL	199.4	100.0	181.2	100.0	162.9	100.0

Source: As for Table 1.3.

40 years of age, virtually the same percentage were married in each of the three years. Over this same period the percentage married in this age category in the country generally rose from 22.7 to 32.5.

13. These trends are reflected in the number of farm families with the head of household over 50 years and no heirs attached to the household. These were estimated in 1972/73 at 42.0 per cent of full-time farmers in the under 30 acre category, 27.0 per cent in the 31-50 acre category, 17.0 per cent in the 51-100 acre category and 11 per cent in the 101+ acre category (5). At the national level there were 43,000 farmers without direct heirs in 1972/73 (4). This would suggest that many holdings should be ceasing to exist as separate units, and amalgamation should be proceeding rapidly. While this inference has been made by many

authors over the years (8, 9), there is little evidence of it in the statistics shown in Table 1.1 up to 1970.

14. These acreage and demographic characteristics of farmers are reflected in the levels and distribution of incomes earned in agriculture. Farm management surveys have consistently shown over the years a distribution of farms which is heavily skewed towards the low income classes. For example, for 1973 the results from the Farm Management Survey of An Foras Taluntais (10) when grossed up to national level give the following distribution of family farm income per family labour unit:

£	% of farms
500 or less	16.7
501-1,000	23.7
1,001-1,500	18.8
1,501-2,000	14.5
2,001-2,500	8.7
2,501-3,000	4.6
Over 3,000	13.0

The average income in 1973 was £1,650 so about two-thirds of all farms were generating an income less than the average; and 40 per cent were below £1,000. Many of these low income farms would of course have supplemental income from outside farming.

15. In addition to this unsatisfactory income situation at any particular time, the growth of the industry over time has also been unsatisfactory (11). Studies of growth at the farm level have established very considerable variation by different categories of farm. It has been shown that the growth rate by size of farm between 1968/69 and 1973 ranged from -7 per cent for 15-30 acre farms up to +28 per cent for farms over 200 acres (12). This same result has also been established for the periods 1955-57 to 1966-68 and 1966-68 to 1972-74 and for the different regions of the country (5).

16. In a more detailed analysis of factors associated with growth in recent years, Johnson and Conway have shown that significant growth occurred only on farms with over 50 acres of good soil or over 100 acres of medium soil (13). Within size and soil class, demographic structure was also important. Farms either with children or with a male under 45 years of age in the household performed consistently better than other farms. Also the more plentiful the labour force available, the better the growth performance. The growth rate was further influenced by whether or not the farm manager had off-farm employment. Part-time farmers had a lower level of product per acre and a lower growth rate than full-time farmers. A clear relationship between the level of education (as measured by whether or not the farm manager had post-primary education) was not established by Johnson and Conway, but Frawley has shown this to be a significant factor (14).

1.2 New entrants to farming

17. On the basis of the foregoing review of the situation it is not surprising that structural maladjustment has been highlighted in recent years as one of the major problems of Irish agriculture, and as a serious constraint on its development (5, 7, 8, 9, 13, 15, 16, 17). The data available relating to structure, as reviewed in the previous section, come from agricultural and population censuses and from farm management and other special surveys. While these data are valuable in describing the nature of the problem at any particular time, they provide little information on how structural change is taking place over time. Certain aspects of change can be studied by inter-census comparisons, but relatively little can be gleaned relating to the method of entering farming and the characteristics of those who are entering farming.

18. The method of entering farming has been quantified in some detail by a study of the ownership status and transfer of land within farm families (7). It has been shown, for example, that the method of acquiring title to the "home-farm" was by inheritance after death or intestate succession for 31 per cent of farmers, by inheritance during the lifetime of the previous operator for

48 per cent of farmers, and by purchase on the open market for 18 per cent of farmers (7). The age of acquiring title was 35 years or higher in 46 per cent of cases.

19. Information on the characteristics of people entering farming is, on the other hand, virtually non-existent. In the absence of any better data, new entrants to farming have been defined as those male agricultural workers aged 15-19 years at the time of each quinquennial census. Using this definition it has been calculated that "an estimated annual average of 2,500 males came into farming in the late 1960s, and this represented a sharp decline (by almost one-half) compared to the number of new entrants in the earlier part of the decade" (18). This information, supported by evidence from the County Advisory Services, enables Macra na Feirme to state that "the number of new entrants per year has decreased from 3,500 (1961-1966) to approximately 1,500 at present. Within a generation of 40 years we will have only 60,000 farmers. If a sizeable proportion of those entering at present leave farming subsequently, then we would be left with much less" (19).

20. The assumption that entrants over any 5-year period coincide with those in the age category 15-19 is dictated by the data available rather than by the logic of the situation. Some in this category will leave farming, as mentioned in the Macra na Feirme statement just quoted. The survivorship rate in farming of this age category has been estimated at 69 per cent in 1966-1971 and was considered to be declining (20). Even if these young men remain on in farming they are not able to exert their full influence on the industry until they obtain management control of land.

21. Entry to farming is defined in this study as the assumption of management control over land. A farmer's son is not therefore deemed to enter farming at the time when he is retained at home to work on his father's farm, but rather when he becomes a farmer in his own right either on the retirement, or death, of the father (21). Entry can therefore take place at any age. Furthermore,

management control over land is taken by people already in farming as well as by newcomers, and these are also included in the study as people enlarging their holdings. A person can enter farming either by inheritance or by land purchase and in both cases the person may be of any age or of any occupational background at the time of entry.

22. Since those people who are currently assuming management control of land will manage the land of the country for the next generation, their calibre is of great importance for the future development of the industry. A survey to provide information on their characteristics is the subject of the remainder of this report. The extent to which one can generalise from the survey results depends on the validity of the survey data; this is examined in Chapter 2. The results of the survey are presented in Chapter 3.

23. Inferences about the future development of agriculture are made in Chapter 4. These inferences are based on the assumption that the entrants over the study period 1971 to 1975 are representative of entrants over a time period equivalent to a generation in farming. If this were the case, then the study period would be a valid profile of the next generation of farmers. Such an assumption cannot be checked. It is not likely to be entirely valid, however, because at least some of the characteristics of new entrants change over time as is evident from the survey results. Nevertheless, some revealing insights into the process of adjustment in farming are provided and these are likely to have considerable implications for the development of the industry in the years ahead.

CHAPTER 2

THE SURVEY

24. The broad questions asked in this study are: who is taking control of the land of Ireland, how are they doing it, and what are the consequences for farm size and land use? Control was defined in a manner similar to that employed by the Central Statistics Office in their definition of agricultural holdings. Control was considered to reside with the 'operator' who was defined as the person who directs or manages the land in question without regard to title to the land. The operator was further defined as the person who, if farm development were to take place, would plan the development and would apply for grants for such development. Thus, in a situation where the son has taken over the management of the farm but the father retains legal ownership, the son and not the father was considered the operator. Only operators whose total area exceeded 5 acres were included.

25. New farm operators were defined as those who, at any time during the period 1971 to 1975 took control of some or all of the land they were operating on December 31, 1975. They therefore include both new-comers who were farming in December 1975, but who were not farming in January 1971; and also established operators who were farming in January 1971, but who had extended their control over further acreage in the subsequent five-year period. The former group are called 'new operators' and the latter group are called 'enlarging operators' in this report. In some cases the same person is both a new operator and an enlarging operator.

26. The complete questionnaire including the instructions to enumerators is included in Appendix I. Further details relating to these definitions are also recorded there.

27. A survey was carried out in 175 clusters of townlands throughout the country as shown in Figure 1. In all, 727 townlands were surveyed accounting for 1.4 per cent of all townlands in the country. These contained 3,994 holdings which represents 1.56 per cent of all holdings over 5 acres in the country at the time of the 1970 agricultural census. The sample was not a random sample. Rather it was dictated by the geographical location of the enumerators who volunteered to carry out the survey. These were asked to survey as many townlands as they had sufficient familiarity with to be able to provide the information sought. Typically the townlands surveyed consisted of the native townland of the enumerator together with adjacent townlands. The average number of townlands surveyed per enumerator was 4.2. All enumerators were supplied with Ordnance Survey maps with the boundaries of the townlands they were surveying delineated.

28. The enumerators consisted of students of agricultural science supplemented by members of Macra na Feirme. All students in second, third and fourth year and on graduate studies were canvassed to co-operate. Of the total canvassed two-thirds or 133 co-operated and carried out the survey. The reasons given by those who did not co-operate were:

Not familiar with any townlands	—	50%
Absent at time of briefing	—	19%
Unwilling to co-operate	—	18%
Native locality unsuitable	—	13%

The last category is the most likely to introduce bias by self-selection and these are not a sizeable proportion of the total.

29. Having identified the student enumerators and their location, estimates were then made of the additional enumerators required to provide a minimum sample of 1.4 per cent of holdings in each county. Macra na Feirme was requested to provide these additional enumerators with an appropriate geographical spread within counties. The total number of Macra na Feirme enumerators who carried out the survey was 39.

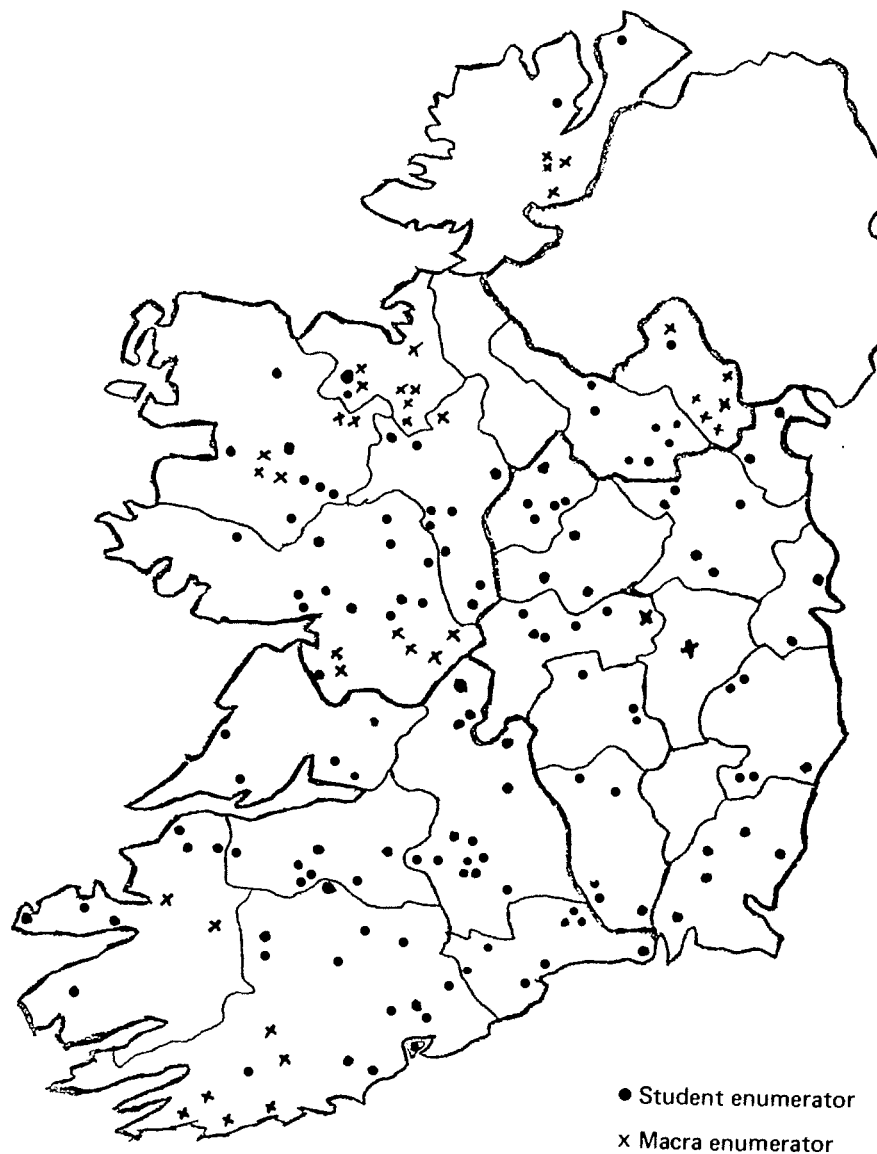


Figure 1. Map of Ireland showing location of townlands surveyed

30. The data sought were selected so that the enumerators could in general provide it with acceptable accuracy directly from their own or their family's personal knowledge of the townlands. No face-to-face interviewing had therefore to be done with those about whom the information is provided. Interviewing would have been desirable but it would have increased the cost of this study enormously. The absence of interviewing risks the possibility of bias and error. It does, however, avoid the same problems encountered in direct questioning because of refusals and false answering. Checks were built into the study to determine as far as possible the validity of the data and its representativeness.

2.1 The representativeness of the surveyed area

31. The data sought in Table 1 of the questionnaire were mainly for the purpose of checking the representativeness of the surveyed area. Specifically the age of operator, the acreage operated and the tillage acreage were recorded to provide a description of the total area surveyed and to enable that area to be compared with the country as a whole on the basis of these variables.

32. The distribution of holdings by size and the average acreage of holdings in the surveyed area in December 1975 is shown in Table 2.1. The closest national data with which this distribution and average can be compared are those derived from the 1970 agricultural census. Some size adjustment would have taken place between 1970 and 1975 but as indicated earlier such change is very slow. Comparing the average size of holding in the surveyed areas with the national average, the former is seen to be 7.5 per cent higher than the latter. When the distributions of holdings by size group are compared, the greatest discrepancy is found in the 5-15 acre size group with the surveyed areas distribution having considerably fewer holdings in this group. There also appears to be sizeable discrepancy in the 31-50 and the 51-100 acre group with the surveyed areas having considerably more holdings in these groups.

33. When, however, the 5-15 acre group is excluded and the averages and distributions calculated with this group omitted, they

TABLE 2.1: Percentage distribution of holdings by size and average acreage in the surveyed area and in the country.

Size	Surveyed area 1975		Country 1970	
	all sizes	without 5-15	all sizes	without 5-15
5 - 15	9.7	—	17.2	—
16 - 30	24.3	26.9	25.6	30.9
31 - 50	28.1	31.1	23.5	28.4
51 - 100	26.1	28.9	21.9	26.4
101 - 150	6.9	7.7	6.6	8.0
over 150	4.9	5.4	5.2	6.3
All	100.0	100.0	100.0	100.0
Average Acreage	58.5	63.5	54.2	63.3

Source: Distribution for country from Irish Statistical Bulletin, December 1971.

become much more similar, as shown in Table 2.1. The lowest size group is still under-represented in the surveyed areas but the difference between the two distributions is not significant. Furthermore, the average acreages in both cases are virtually identical. It appears therefore that the main deficiency in the surveyed area is the under-representation of 5-15 acre holdings. This is believed to have arisen for two reasons. First, the surveyed areas did not adequately represent the extremely poor areas, such as those along the western sea-board, which would have a high proportion of the very small holdings; this is evident from Figure 1. Second, it is likely that the enumerators omitted some small holdings because they considered them to be not more than 5 acres.

34. The tillage acreage recorded in the surveyed areas was 10.9 per cent of the total acreage operated. The corresponding percentage for the country as a whole in 1975 was only 8.1 per cent. Therefore, the surveyed area has significantly more tillage than the country as a whole. This would suggest that the surveyed area is on better quality land than the national average.

35. The distribution of operators in the surveyed area by age is shown in Table 2.2. The closest comparable data at national level

TABLE 2.2: Percentage distribution by age of operators in the surveyed area and of farmers in the country

Age	Surveyed area December 1975	Farmers 1971
Under 40	21.2	15.9
40 - 49	22.6	20.1
50 - 59	27.0	26.6
60 +	29.2	37.4
All	100.0	100.0

Source: Distribution of farmers from Census of Population 1971, Vol. V.

are the age distribution of farmers from the 1971 Census of Population. The discrepancy between the dates of enumeration is of little consequence because age distribution changes very little over time. However, there is a discrepancy between definitions that is significant. The farmer as identified in the Census is an operator who considers farming to be his principal occupation; no such constraint applies to the operator as defined in the survey — all operators in the survey of townlands are included regardless of whether farming is their principal occupation or not. Also in a father-son situation, the father is more likely to be identified in the Census as the farmer than in the survey; as already indicated the operator in the survey would be the son in some cases even though the father may still own the farm. For these reasons the age distribution in the surveyed area would be expected to show a younger structure than in the Census. This is the case in Table 2.2 which shows a higher percentage in each age group up to 59 in the surveyed areas and a considerably lower percentage in the 60+ group.

2.2 Validity of the data

36. The data relating to new farm operators recorded in Table 2 of the questionnaire covered the year of change, the method of change, age, marital status, occupation prior to change, proportion of time after change allocated to farming, education, and the use of the land which came under the control of the new farm operator. In cases where there was more than one change

for a single operator over the five-year period covered by the survey, e.g. a farmer who inherited a farm but also bought some land, the year and method of change were recorded separately for each change; other data in these cases related to the situation before the first change and after the last change.

37. The total number of new farm operators identified was 602. It is possible to make some estimates of the number of changes that would be expected over a five-year period and to compare the survey results with the expected results. The average functional life of a farm operator is estimated in Appendix II to lie somewhere between 30 and 35 years. On the basis of a 30 year functional life, over a five-year period about five-thirtieths or 16.7 per cent of all operators should have departed. On the basis of a 35 year functional life the expected rate of departure would be 14.3 per cent.

38. The number of departing operators was not specifically collected in the survey but an estimate of the number can be made indirectly. Not all of the 602 new farm operators identified, replaced departing operators. For example, land could be sold or transferred during lifetime to a new farm operator by somebody who would remain on as an operator. This happens in particular when a farmer sells one farm and purchases another. In the survey such farmers accounted for 8 per cent of all land purchasers. Alternatively, the land of a single departing operator could be sold or inherited in more than a single lot. This would give rise in the survey to a departing operator being replaced by more than one new farm operator. The best example of this is a Land Commission transfer which could involve a single holding being divided into several portions. There were in fact 15 land acquisitions by the Land Commission in the survey and 74 allottees.

39. If the new farm operators in the survey who acquired land solely from the Land Commission are omitted and the land purchasers are adjusted to remove those merely exchanging farms it is felt that the remaining new farm operators are a reasonable estimate of those who displaced departing operators. These

numbered 515 (as can be derived from Table 3.1) and represent 12.9 per cent of the total operators in the surveyed area. This suggests some under-estimation when compared with the expected range of 14.3 to 16.7 per cent.

40. This under-estimation was identified in a further check which was carried out on over 5 per cent of the questionnaires through the Agricultural Advisory Service. Questionnaires for checking were selected from areas which had the same adviser for the full five-year period. The advisers were asked to check all the information in the questionnaires both in Table 1 and Table 2 and to consider in particular if any changed situations involving new farm operators had been overlooked. In all cases they were able to do this satisfactorily.

41. In general the check established that the information supplied by the enumerators was accurate. Some discrepancies in acreage were revealed but they were not of a serious nature. Also there was some under-estimation in the data relating to the number of new farm operators who had taken short courses in agriculture. The most important revelation was that a significant number of new farm operators had not been identified. These were all in the inheritance category and were mainly of a type that were not readily visible to the enumerator but which the adviser was aware of because of his direct contact with the individual farmers. The extent of under-estimation in the inheritance category was estimated at 22 per cent, i.e., only four-fifths of new farm operators whose method of change was by inheritance were identified in the checked areas. There is no reason to believe, however, that the identified changes were biased in any way.

42. The suggestion above that there could be some under-estimation of change in the survey is therefore confirmed by the advisers' check. If the survey results are adjusted for the omitted changes, the estimated number of departing operators increases from 515 to 623 and the proportion of departing operators increases from 12.9 per cent to 15.6 per cent compared with expected departure rates of between 14.3 and 16.7 per cent.

These figures are quite compatible in view of the approximate method of their estimation.

43. One further check performed on the survey was to compare the proportion of new farm operators, in what the enumerators identified as their native townlands, with the proportion in non-native townlands. Since the enumerators had a free choice of which townlands they surveyed, there was the possibility of bias arising by choice of unrepresentative townlands. As against this the enumerators were asked to choose the townlands on the basis of their knowledge of them and it was felt that in general they would not have adequate knowledge about many more than those which they surveyed. Therefore there would not be much scope for biased selection.

44. The ratio of all new operators to the total number of operators in native townlands was 17.1 compared with a ratio of 14.0 per cent for non-native townlands. This could indicate some bias in the selection of townlands but in fact when the omitted changes in the advisers' check were examined they were all found to be in non-native townlands. Therefore, the difference between the two catéories of townland is fully explainable by the omissions already identified. This is also logical because the main reason for the omissions was that they were not apparent to the enumerator and this was most likely to be the case in the non-native townlands which would be less well known to the enumerator.

45. In summary then, it may be stated that the survey results are reasonably representative and valid. The very poor areas and the very small holdings are under-represented. The quality of land in the surveyed area is probably higher than average. There is considerable under-estimation of new operators by inheritance, and there are reservations about the accuracy of a small portion of the data. None of these weaknesses is important enough, however, to seriously restrict the inferences that can be made from the results.

CHAPTER 3

THE RESULTS

46. New farm operators, as identified in the survey, are all those people or institutions who assumed management control of land over the five-year period 1971 to 1975. Included in the total number of 602 are 15 acquisitions by an institution which in every case is the Land Commission. These 15 are omitted from the analysis. The remaining 587 consist of new operators proper, i.e. those who were not previously operators of a farm in their own right, plus existing operators who enlarged their holdings.

47. New operators proper embrace people like farmers' sons who would represent a new generation of farmers; they also include people like widows and elderly brothers or sisters of departing operators, and these would not normally be considered as part of a new farming generation. Therefore the new operators were subdivided into inter- and intra-generation categories.

48. Inter-generation new operators are defined to include sons, daughters, sons-in-law, nephews and nieces. Intra-generation new operators include widows, widowers, brothers and sisters. For other relatives such as cousins and for non-relatives there is no objective way of separating inter- from intra-generation people. These were therefore rather arbitrarily divided by age; those under 45 years were considered inter-generation while those of 45 years or more were deemed intra-generation. The arbitrariness of this division is mitigated considerably by the fact that less than one-fifth of all new operators fall into these other categories.

49. Eighty-two per cent of all new operators are inter-generation as may be calculated from the data in Table 3.1. In other words, only 4 out of every 5 holdings pass directly to the new generation

of farmers with 1 in every 5 passing to a member of the same generation. These intra-generation people consist of 42 per cent widows or widowers, 28 per cent brothers or sisters, 4 per cent other relatives and 26 per cent land purchasers over the age of 45 years.

50. Enlarging operators are also of two quite distinct types; there are those who enlarged their holdings through Land Commission allotments and there are the remainder who did it either by inheritance or by open-market purchase.

51. New operators and enlarging operators are not mutually exclusive categories. Thirteen of the 587 operators in the survey have dual designations being both new and enlarging operators during the period covered in the survey. When these are classified by their respective roles, the total of 587 becomes 600. As shown in Table 3.1 this is comprised of 345 inter-generation new operators, 78 intra-generation new operators, 73 who enlarged their holdings via the Land Commission and 105 other enlarging operators. One enlarging operator enlarged by two methods—by inheritance and by open market purchase—and he has a dual classification in relation to method of becoming a new farm operator.

52. The number of Land Commission allottees in the survey may appear large at first sight. In fact it is an under-estimate. The Land Commission allotted land to 9,230 people in total over the five-year survey period. This represents 3.6 per cent of all the holdings over 5 acres in the State in 1970. An equivalent percentage of the 3,994 holdings in the survey area would have given 144 allottees. Furthermore, the under-estimation occurs entirely in Munster and Leinster so that the sample is heavily biased towards the West. Therefore, the survey data relating to Land Commission allottees was not considered representative enough to report separately, but it is included in the "all new farm operators" class.

53. Land Commission activity is so localised that it is not sur-

TABLE 3.1: Method of becoming a new farm operator, % distribution by numbers

	New operators		Enlarging operators	
	Inter-	Intra-	Non-LC	LC
Lifetime inheritance	52.2	5.1	11.4	0
Inheritance after death	33.3	69.2	16.2	0
Open market purchase	14.2	25.7	72.4	0
Land Commission allottee	0.3	0	0	100.0
Total	100.0	100.0	100.0	100.0
n =	345	78	105	73

prising to find that it is not properly represented in a general sample such as used in this study. What is surprising is the predominance of Land Commission activity in the enlargement of holdings. The annual allotment of land by the Land Commission averaging 28,800 acres in the 1971 to 1975 period may not appear very large by comparison with the 14 million acres of land in holdings in the State. Yet this allotment affects more farmers than all other methods of enlargement combined. After allowing for the under-estimation in the inheritance categories identified in the previous chapter, the Land Commission is reckoned to account for 56 per cent of all enlargements.

3.1 Method of becoming a new farm operator

54. There are four methods of becoming a new farm operator. In all cases the method refers to the acquisition of management control rather than the acquisition of title. The four methods are inheritance or succession during the lifetime of the previous operator; inheritance or succession after the death of the previous operator; purchase on the open market; and allotment from the Land Commission. The incidence of the four methods is shown in Table 3.1.

55. The method of acquiring management control is seen to differ very considerably depending on the category of operator. For both inter- and intra-generation new operators, inheritance is by far the most important method of management acquisition.

TABLE 3.2: Method of becoming a new farm operator, % distribution by total acreage changing control

	New operators		Enlarging operators	
	Inter-	Intra-	Non-LC	LC
Lifetime inheritance	63.0	4.4	11.7	0
Inheritance after death	26.4	77.7	20.8	0
Open market purchase	10.5	17.9	67.5	0
Land Commission allottee	0.1	0	0	100.0
Total	100.0	100.0	100.0	100.0
n =	24,416	4,923	4,843	1,369

In Table 3.1 inheritance accounts for 85.5 per cent of inter-generation new operators with open market purchase accounting for only 14.2 per cent. The predominance of inheritance is even greater than this, however, because of the under-estimation of inheritance which was identified in Chapter 2. When this is taken into account, inheritance increases to 88 per cent with land purchase being only a little over one-tenth of the total.

56. While land purchase is of only minor significance for new operators, it is very important for enlarging operators. Again, after allowing for the under-estimation in inheritance, nearly two in every three non-Land Commission enlargers increased the size of their holdings by land purchase.

57. With regard to the two types of inheritance—lifetime and after death, lifetime inheritance is the most important for inter-generation new operators accounting for over half the total, but inheritance after death is the most important for both intra-generation operators and non-Land Commission enlargers.

58. The method of becoming a new operator by the acreage involved in the change rather than by the number of people involved is shown in Table 3.2. A change of management control affecting 35,551 acres in the surveyed area is accounted for. The method of change according to the acreage involved shows

inheritance being even more predominant than in Table 3.1. In the case of inter-generation new operators, for example, only 10.5 per cent of the land involved changed by purchase; this would be only one-twelfth of the total if under-estimation of inheritance was taken into account.

59. This result may be compared with that of the survey reported in the Farm Inheritance and Succession Study (22). The participants in that survey were asked for the means of acquiring title to their "home farm". These participants would be equivalent to all new operators in the present study—both inter- and intra-generation. The reply indicated that 79.5 per cent acquired title by inheritance and only 18.2 per cent by purchase. This reply related to acquisition by the generation of farmers in farming in 1970, or acquisition over the previous 30 to 40 years. The corresponding figure from the present study is 13.2 per cent and relates to those who acquired management control in 1971 to 1975. Some of those who entered farming in the 1971/75 period would later sell their farms and move to a purchased farm. This would narrow the gap between the two survey results but it would hardly close it. While the methodologies of the two surveys are not strictly comparable, the results do suggest that land purchase has diminished in importance as a method of entering farming. This is contrary to the common inference that because of the high proportion of apparently heirless farmers an increasing amount of land should be coming on the market rather than passing by inheritance to the next operator (23, 24, 25).

60. Further insight into this question can be got by examining the data in Tables 3.3 and 3.4. Regional data for the new operator category (inter- and intra-generation combined) are presented in Table 3.3. The regions selected are Munster, Leinster and Connacht-Ulster. The percentages of all holdings above 5 acres in the surveyed areas of these three regions were 1.71, 1.48 and 1.50, respectively. Thus all three regions are reasonably well represented in the survey. However, only the new operator category was considered to have sufficient numbers in each region to permit regional analysis.

TABLE 3.3: Method of becoming new operator (inter- and intra-) by region, % distribution by numbers

	Munster	Leinster	Connacht-Ulster
Lifetime inheritance	53.8	50.0	29.7
Inheritance after death	32.3	31.0	52.7
Open market purchase	13.9	19.0	17.0
L.C. allottee	0	0	0.6
Total	100.0	100.0	100.0
n =	158	100	165

61. The data in Table 3.3 show some interesting differences among the regions by method of becoming a new operator. The overall importance of inheritance is very similar in each of the three regions, but there is a great difference among regions in the balance between lifetime and after-death inheritance. In Munster and Leinster the ratio of the former to the latter is over 1.6 to 1.0; in Connacht-Ulster, however, it is only 0.6 to 1.0. The low incidence of lifetime transfers in Connacht-Ulster is undoubtedly associated with the poorer farm size and demographic structure in that region.

62. Purchase as a method of entry to farming is most prominent in Leinster and least prominent in Munster. However, there is no great variation among the regions in this regard. The differences do not reflect, for example, the differences in heirless households by region. These have been defined as "farms in the hands of farmers more than 50 years old who are either unmarried or with no issue attached to the household" (4). There are about 20 per cent of these in the West compared with about 10 per cent in other regions (26), but they do not lead to significantly greater open-market purchase. Evidently family members who are not attached to the household or other relatives emerge as heirs in many apparently heirless households. This is confirmed by the data in Table 3.4. The proportion of sons, daughters and sons-in-law is somewhat less in Connacht-Ulster than elsewhere but this is fully compensated for by proportionately more nephews and nieces.

TABLE 3.4: Percentage distribution by relationship of those who became new operators by inheritance for each region

	Munster	Leinster	Connacht-Ulster
Sons, daughters, sons-in-law	75.0	71.6	66.2
Nephews, nieces	7.4	6.2	11.8
Widows, widowers, brothers, sisters	13.2	16.0	16.9
Other relatives	3.7	2.5	2.9
Non-relatives	0.7	3.7	2.2
Total	100.0	100.0	100.0
n =	136	81	136

3.2 Age of new farm operators

63. The age distributions and average ages of different categories of operator are shown in Tables 3.5, 3.6, 3.7 and 3.8. The averages are calculated using the mid-point of the class intervals in Table 2 of the questionnaire. In Table 3.5 it can be seen that the average age of all new farm operators was 38.6 years compared with 50.4 years for all operators in the surveyed area. Non-Land Commission enlarging operators were six years younger than average, being fairly evenly distributed among all age classes up to 50-59 years.

64. The problems involved in specifying the average age of new operators were discussed in Chapter 2, especially in relation to inter-generation and intra-generation new operators. The average age of all new operators in the survey was 35.7 years. However, when inter-generation operators are considered separately their average age is only 31.1 years as shown in Table 3.5. This is perhaps a more meaningful average describing the age of the new generation of operators than the higher figure relating to all new operators.

65. Age by method of becoming a new farm operator is shown in Table 3.6. The most obvious characteristic is the younger age of the lifetime inheritance category; nearly 90 per cent were under 40 years and they were on average 11 years younger than both the inheritance after death category and the open-market purchase category.

TABLE 3.5 Percentage distribution by age of new farm operators compared with all operators in surveyed area and average age of operators

Age	New operators		Enlargers	All new	All operators
	Inter-	Intra-	Non-LC		
Under 30	57.4	1.3	16.4	37.3	21.2
30-39	26.6	5.1	20.2	22.0	
40-49	11.6	19.2	28.8	17.5	
50-59	3.8	39.7	22.1	13.7	
60-69	0.6	25.7	8.7	7.5	
70 +	0	9.0	3.8	2.0	29.2
Total	100.0	100.0	100.0	100.0	100.0
n =	345	78	104	600	3,957
Average age	31.1	56.2	44.6	38.6	50.4

chasers. But the inheritance after death and open-market purchasers are predominantly either intra-generation or enlarging operators who tend to be older anyway. When the age by method is compared for the inter-generation category as shown in Table 3.7 the differences are relatively small with lifetime inheritance being only three years younger than each of the other two categories. Furthermore, the age did not vary significantly by size of holding for any of the three methods.

66. The comparisons for both inter- and intra-generation new operators in Table 3.8 indicate relatively little difference in the ages by region. Connacht-Ulster, however, has the highest age for each of the two categories.

3.3 Acreage of new farm operators

67. The size distribution and average acreage of the different categories of new farm operators is given in Table 3.9. The average acreage of all new farm operators is 73.1. Inter-generation new operators average 70.7 acres and intra-generation new operators average 63.1 acres. Non-Land Commission enlargers average 105.7 acres. The classification by method of becoming a new farm operator in Table 3.10 shows the lifetime inheritance

TABLE 3.6: Percentage age distribution and average age by method of becoming new farm operator

Age	Lifetime inheritance	Inheritance after death	Open market
Under 30	60.7	33.9	22.8
30-39	27.6	18.8	19.3
40-49	7.1	14.0	31.0
50-59	4.1	18.3	17.9
60-69	0.5	10.2	7.6
70 +	0.0	4.8	1.4
Total	100.0	100.0	100.0
n =	196	186	145
Average age	30.5	41.3	41.9

TABLE 3.7: Percentage age distribution and average age by method of becoming intergeneration new operator

Age	Lifetime inheritance	Inheritance after death	Open market
Under 30	63.3	52.2	46.9
30-39	28.3	25.2	24.5
40-49	6.1	13.0	28.6
50-59	2.3	7.8	—
60-69	—	1.8	—
70 +	—	—	—
Total	100.0	100.0	100.0
n =	180	115	49
Average age	29.5	32.8	32.6

group as being the largest, followed by the open-market purchaser and then by the inheritance after death category.

68. These figures on their own are not very enlightening but when tabulated as in Table 3.11 they are more informative. Table 3.11 contains the size distribution and average size of all new operators compared with all operators in the surveyed areas in

TABLE 3.8: Percentage distribution by age and average age of new operators by region

Age	Munster		Leinster		Connacht-Ulster	
	Inter-	Intra-*	Inter-	Intra-*	Inter-	Intra-*
Under 30	62.5	—	56.4	—	52.7	—
30-39	28.7	—	23.1	—	26.7	—
40-49	7.3	—	12.8	—	15.3	—
50-59	1.5	—	6.4	—	4.6	—
60-69	0	—	1.3	—	0.7	—
70 +	0	—	0	—	0	—
Total	100.0	—	100.0	—	100.0	—
n =	136	22	78	22	131	34
Average age	29.3	55.3	31.8	54.8	32.4	57.8

*Insufficient numbers to calculate a distribution.

TABLE 3.9: Percentage distribution by acreage and average acreage of different categories of new farm operator

Size, acres	New operators		Enlargers	All
	Inter-	Intra-	Non-LC	
Up to 30	27.0	38.5	11.5	23.8
31-50	26.7	28.2	15.4	28.2
51-100	30.1	16.7	41.4	31.0
Over 100	16.2	16.6	31.7	17.0
Total	100.0	100.0	100.0	100.0
n =	345	78	104	600
Average acreage	70.7	63.1	105.7	73.1

1975. Naturally the size for the new operators is larger than that for all operators—25 per cent larger in fact.

69. The rate of change in size over time can be studied by comparing census and survey results. If the change reflected in the survey was continued over a full generation then at the end of the generation the overall size pattern of all holdings in the

TABLE 3.10: Percentage distribution by acreage and average acreage by method of becoming a new farm operator

Size, acres	Lifetime inheritance	Inheritance after death	Open market
Up to 30	16.3	31.7	30.4
31-50	27.6	26.4	17.9
51-100	35.7	24.7	30.3
101 +	20.4	17.2	21.4
Total	100.0	100.0	100.0
n =	196	186	145
Average acreage	84.9	65.3	79.3

TABLE 3.11: Percentage distribution by acreage and average acreage of all new farm operators compared with all operators in surveyed area

Acreage	New	All
Up to 30	23.8	34.0
31-50	28.2	28.1
51-100	31.0	26.1
Over 100	17.0	11.8
Total	100.0	100.0
n =	600	3,994
average	73.1	58.5

country would become that of the new farm operators. There is no way of knowing whether the 1971 to 1975 type of change will continue but on the assumption that it will, this change is a measure of change over a complete generation.

70. Since the census data describe a cross-section of holdings at the date of census, a time period amounting to the average functional life of farmers has to be examined to get a measure of change over a complete generation equivalent to that in the Table 3.11 comparisons. Such a time period is approximated by the inter-census period 1939 to 1970. The average size that can be most reliably calculated over time from census data is the

TABLE 3.12: Average size and annual percentage change in size of holdings over 5 acres from census and survey data

	Average	% change
1939	38.3	} +0.22
1949	39.2	
1955	40.0	} +0.33
1960	41.6	
1965	43.8	} +1.04
1970	45.8	
1939 to 1970	—	+0.57
Survey taken over 31 years	—	+0.72

TABLE 3.13: Acreage of non-Land Commission enlarging farmers after enlargement (B) by size before enlargement (A)

	Not known	Up to 30	31-50	51-100	101+	All known
n	12	26	26	26	14	92
A	0	19.2	40.6	72.8	193.4	66.9
B	68.1	45.7	83.2	108.3	286.9	110.7
Acreage change	—	+26.5	+42.6	+35.5	+93.5	+43.8
% change	—	+138	+105	+49	+48	+65

acreage of crops and pasture per holding rather than the total acreage per holding. The difference between crops and pasture area and total area is marginal land and its definition and measurement over time does not seem to be very reliable.

71. The average size of holding and the annual percentage change in the size of holdings over 5 acres is given in Table 3.12 from the census and the survey data. The rates of change from the survey are assumed to apply to a 31-year period approximating the functional life of farm operators estimated in Appendix II. While these data are subject to a certain amount of estimational error they are still broadly comparable.

72. The survey results indicate some acceleration in the rate of enlargement compared with the entire 1939 to 1970 period. However, within that period there was considerable acceleration

of the rate of enlargement over time. The survey results show a reversal of that trend with the rate of enlargement being now considerably less than that implied in the 1955 to 1970 census data. If the 1971/75 period provides a representative profile of the next generation, it therefore indicates deceleration in the rate of change compared with the 1955 to 1970 period. The deceleration was already evident in the census data for 1970 as indicated by the reduced annual percentage change shown in Table 3.12 for the 1965-1970 period.

73. Information on the extent of enlargement of holdings is presented in Table 3.13 for non-Land Commission enlarging farmers. The distribution of enlargers by size can be compared with the distribution of all operators in the surveyed area shown in Table 3.11. The proportion of enlargers in the 31-50 and 51-100 acre groups is very similar to the proportion in the area as a whole; the up-to-30 acre enlargers constitute 34 per cent of all holdings, but only 28 per cent of enlargers whose acreage before enlargement was known; at the other extreme, there are 15 per cent of 101+ acre enlargers compared with only 12 per cent in the total area. The proportion enlarging might have been expected to be much more biased towards the larger holdings than these results indicate. Land Commission enlargements are virtually all in the up-to-50 acre categories and since these account for more than all other enlargers combined, their inclusion would give the smaller sized categories by far the greatest odds of enlargement.

74. The acreage before exchange is not known for those people who exchanged farms so the degree of enlargement for them cannot be estimated. For all other enlargers the average enlargement was from 66.9 to 110.7 acres or an increase of about 44 acres. The increase ranges from 26.5 acres for the up-to-30 acre group to 93.5 acres for the 101+ acre group. These increases for non-Land Commission enlargers contrast with the average Land Commission increase for the country as a whole of around 15 acres. Therefore while the Land Commission accounts for 56 per cent of all enlargers by number, it accounts for only 30 per cent of the land involved in enlargement. The percentage increase for all enlargers is 65, being 138 per cent for the smallest size category and dropping rapidly as size increases.

TABLE 3.14: Percentage married or widowed by age group (M) and average family size (F) per marriage

Age		New operators		Enlargers	All new farm operators	All farmers 1971*
		Inter-	Intra-	Non-LC		
Under 30	M	22.2	†	23.5	22.4	26.4
	F	0.8	†	0.3	0.7	—
30-44	M	56.5	†	86.1	65.6	59.9
	F	2.4	†	3.1	2.8	—
45+	M	56.5	74.0	86.3	77.8	70.4
	F	4.2	3.8	5.0	4.4	—
All ages	M	36.8	75.6	76.0	53.5	66.3
	F	2.0	3.6	4.0	3.2	—

† Insufficient numbers

* Census of Population 1971, Vol. V.

3.4 Marital status and family size

75. Information on the marital status and family size was collected for all new farm operators. Since these characteristics are closely related to age they can only be analysed within age groups. The results are summarised in Table 3.14.

76. The data on all farmers in the Table are derived from the Census of Population, so the difference in definition between farmers and operators, as discussed in Paragraph 35, has to be taken into account. Comparing all new farm operators with all farmers, a lower percentage overall of new farm operators are married or widowed than in the total farming population. This can be fully explained, however, by the younger age structure of the new farm operators and when comparisons are made within age group a greater percentage of new farm operators are married in the 30-44 and 45+ groups. The lower percentage of new farm operators under 30 years who are married or widowed is partly a reflection of a younger age structure within this group, but the difference in definitions would also probably produce a downward bias in this category of new farm operators.

77. When the results are examined by category of new farm operator, the inter-generation new operators have a consistently lower proportion married or widowed than intra-generation new operators and non-Land Commission enlargers. The average family size per marriage shows higher numbers for enlarging operators than for new operators.

78. In general, the demographic structure seems relatively good for both the enlargers and the intra-generation category. This result for the latter category may seem surprising but considering that widows and land purchasers constitute 70 per cent of the group it is not so surprising. The inter-generation operators is the group with apparently the poorest demographic structure. Many of these, however, may have waited for management control of the farm before marrying and may therefore yet marry in the future.

3.5 Previous occupation

79. Information was collected on the occupation of each new farm operator immediately prior to becoming a new farm operator. The occupations specified were:

- (i) farming only with no other paid occupation—or full-time farming;
- (ii) farming combined with another paid occupation—or part-time farming; and
- (iii) non-farming.

Non-farming occupations were subsequently classified into three classes, namely, professional and business people, other related to farming and other not related to farming. The results are presented in Tables 3.15 to 3.18.

80. In Table 3.15 it is seen that 56.3 per cent of all new farm operators had been farming full-time, 23.7 per cent had been farming part-time and 20.0 per cent had not been farming at all prior to becoming new farm operators. These percentages varied considerably with size of holding; only 31 per cent of new farm operators had been farming full-time on holdings up to 30 acres

TABLE 3.15: Percentage distribution by previous occupation within different size categories

Size, acres	Occupation	New operators		Enlargers	All new farm operators
		Inter-	Intra-	Non-LC	
Up to 30	F	22.6	50.0	41.7	30.8
	P	38.7	0	58.3	33.6
	N	38.7	50.0	0	35.6
31 - 50	F	42.4	63.6	43.8	50.3
	P	31.5	4.6	56.2	31.4
	N	26.1	31.8	0	18.3
51 - 100	F	67.3	69.2	76.7	72.6
	P	14.4	0	23.3	15.1
	N	18.3	30.8	0	12.3
Over 100	F	73.2	61.5	75.8	72.6
	P	8.9	0	24.2	12.7
	N	17.9	38.5	0	14.7
All	F	49.6	59.0	67.3	56.3
	P	24.6	1.3	32.7	23.7
	N	25.8	39.7	0	20.0

F = full-time farming, P = part-time farming, N = non-farming.

while over 70 per cent had been doing so on holdings over 50 acres. On the other hand, nearly a third of the new farm operators up to 50 acres had been farming part-time, but on larger holdings part-time farming was less than half as prominent as this. Similarly, non-farming constituted 35.6 per cent of the occupations of the new farm operators on holdings up to 30 acres but it constituted only 12.3 and 14.7 per cent of the previous occupations of new farm operators on the two larger-sized categories.

81. These trends by size of holdings are also evident within the two categories of new operators and the enlargers. However by definition all those who had not been farming at all are new operators and none are enlargers. Of the inter-generation new operators only a half had been farming full-time before becoming new operators.

TABLE 3.16: Percentage distribution of new operators by previous occupation within different size categories by region

Size, acres	Occupation	Munster		Leinster		Connacht—Ulster	
		Inter-	Intra-*	Inter-	Intra-*	Inter-	Intra-*
Up to 30	F	25.0	—	35.7	—	18.6	—
	P	40.0	—	21.4	—	42.4	—
	N	35.0	—	42.9	—	39.0	—
31 - 50	F	45.5	—	41.2	—	40.5	—
	P	33.3	—	29.4	—	30.9	—
	N	21.2	—	29.4	—	28.6	—
51 - 100	F	75.4	—	60.0	—	52.2	—
	P	11.5	—	25.0	—	13.0	—
	N	13.1	—	15.0	—	34.8	—
Over 100	F	72.7	—	74.1	—	71.4	—
	P	9.1	—	11.1	—	0	—
	N	18.2	—	14.8	—	28.6	—
All	F	60.3	59.1	56.4	54.5	34.3	61.8
	P	20.6	4.5	20.5	0	31.3	0
	N	19.1	36.4	23.1	45.5	34.4	38.2

*Insufficient numbers to calculate distributions by size.

F = full-time farming P = part-time farming N = non-farming

82. Examination of Table 3.16 reveals that the proportion of inter-generation new operators who had been farming full-time was highest in Munster at 60 per cent and lowest in Connacht—Ulster at 34 per cent. Part-time farming and non-farming were each the background of one-third of inter-generation new operators in Connacht—Ulster; there were, therefore, as many new operators in this region from a non-farming occupation as there were from full-time farming. The trends by size of holding are similar to those shown in Table 3.15. In Connacht—Ulster, however, nearly one-third of inter-generation new operators, even in the larger size categories, came from non-farming occupations. A strong pattern has evidently been established in the West of leaving farming for another occupation, but then of assuming control of the farm when the opportunity ultimately arises.

TABLE 3.17: Percentage distribution by previous occupation of method of becoming new farm operator

Occupation	Lifetime inheritance	Inheritance after death	Open market
Full-time farming	62.7	54.8	43.4
Part-time farming	24.0	16.7	26.9
Non-farming	13.3	28.5	29.7
Total	100.0	100.0	100.0
n =	196	186	145

83. Data relating method of becoming a new farm operator to previous occupation are given in Table 3.17. There is more full-time farming in the lifetime inheritance method than in inheritance after death or open-market purchase. Non-farming, however, is the reverse, being most prominent in open-market purchase followed by inheritance after death. Of all open-market purchasers 30 per cent had a non-farming background, 27 per cent had a part-time farming background, and only 43 per cent were farming full-time. The non-farming people have strong links with farming. Two-thirds of them are relatives of the previous operator who inherited the land they acquired, and only one-third were non-relatives who purchased land.

84. The kind of non-farm occupation which part-time and non-farming people had was also investigated. It can be calculated from Table 3.18 that 21 per cent were professional and business people; 17 per cent had occupations directly related to farming such as agricultural contractors; and 62 per cent had other occupations not related to farming.

85. The method of becoming a new operator for these people is examined in Table 3.18. Only half of the professional and business people actually purchased land, the other half being mainly inheritors; in this regard they were similar to those with other occupations related to farming. However, those with other occupations not related to farming became new operators mainly by inheritance with only a fifth having purchased land.

TABLE 3.18: Percentage distribution by method of becoming new farm operator by previous non-farm occupation

	Professional and businessman	Other related to farming	Other not related to farming
Lifetime inheritance	10.7	34.1	32.1
Inheritance after death	33.9	13.6	36.4
Open market	51.8	45.5	20.4
Land Commission allottee	3.6	6.8	11.1
Total	100.0	100.0	100.0
n =	56	44	162

3.6 Land purchasers

86. It was shown in paragraphs 55 and 56 that land purchase is of only minor significance for new operators but that it is very important for enlarging operators accounting for nearly 2 in every 3 enlargements other than Land Commission enlargements. Furthermore, land purchase is an emotive subject with frequent allegations of abuses in the land market. It is therefore of interest to examine land purchasers specifically. Land purchasers include both Land Commission allottees and open-market purchasers. Land Commission allotments are estimated to amount to about one-quarter of all land purchased. The open-market purchasers are examined below in greater detail.

87. Out of the total number of 145 open-market land purchasers in the survey only 43 per cent had been farming full-time, as shown in Table 3.17, 20 per cent were business or professional people, 23 per cent had other occupations not related to farming, and 14 per cent had other occupations related to farming. When the situation is examined by the area of land purchased rather than by the number of people purchasing, 46 per cent was purchased by people who had been farming full-time, 22 per cent by business or professional people, 13 per cent by people with occupations related to farming and 19 per cent by people with occupations not related to farming. Thus people with non-farm occupations i.e. either part-time farmers or non-farmers account for more than half of the land market whether measured as a proportion of the numbers buying land or as a proportion of the total land purchased.

TABLE 3.19. Land purchased on the open-market by different categories of farm operator

Size before enlargement acres	Previous occupation	Distribution by numbers	Average size before acres	Average size after acres	Proportion of all open-market land purchased %
0	Non-F	54	0	46.3	41.9
	F	15	0	77.4	15.7
	All	69	0	49.8	57.6
up to 30	Non-F	10	16.3	27.9	1.9
	F	7	18.7	45.9	3.2
	All	17	17.3	35.3	5.1
31 to 50	Non-F	7	41.7	91.3	5.8
	F	8	40.4	68.4	3.8
	All	15	41.0	79.1	9.6
51 to 100	Non-F	1	100.0	110.0	0.2
	F	20	69.5	100.5	10.4
	All	21	71.0	101.0	10.6
101+	Non-F	4	267.5	336.3	4.6
	F	8	166.3	259.5	12.5
	All	12	200.0	285.1	17.1
All sizes	Non-F	76	—	—	54.4
	F	58	—	—	45.6
	All	134	—	—	100.0

Non-F = non-full-time farming, either part-time or non-farming.

F = full-time farming.

88. The data in Table 3.19 describe the land market by size category as well as by whether the purchaser had been full-time farming or otherwise. Of the 145 land purchasers 11 exchanged farms. No information was collected on the acreage these 11 had before the purchase so they are excluded from Table 3.19.

89. Of the remaining 134, just over one-half were new entrants to farming as represented by the people who had zero acreage before enlargement in Table 3.19. Of this group however most had non-

farm jobs; only 15 had been farming full-time. These latter were presumably mainly farmers' sons who entered farming by open-market purchase. They represent a mere 4.3 per cent of all inter-generation new operators. This small proportion is a vivid measure of the difficulty of entering farming by purchase in the case of young men working full-time in farming.

90. The enlarging purchasers were two-thirds full-time farmers and one-third had non-farm occupations. Their distribution by size is not unduly biased towards larger operators as might be expected from the widespread belief that it is mainly large farmers who purchase land. Less than one-fifth of both full- and non-full-time operators were over 100 acres before enlargement and both groups between them purchased only 17 per cent of all land purchased. Some of the new entrants also purchased farms of over 100 acres and when these are added in, the proportion of all land purchased that is accounted for is 36 per cent.

3.7 Time allocated to farming

91. Data relating to time allocated to farming after becoming new farm operators are presented in Tables 3.20 to 3.22. Only 64 per cent of all new farm operators were farming full-time; 28 per cent spent less than half their time in farming and 8 per cent were between half and full-time. This seems a remarkably high proportion of part-time operators. Viewed by category of operator the results are even more remarkable. For inter-generation new operators the proportion part-time is 40.6 per cent, much higher than for both intra-generation new operators and non-Land Commission enlargers.

92. The proportion of part-time farmers in the total population of farm operators in the country was estimated in 1972 at 22 per cent (4). The figure from this study of 41 per cent for inter-generation new operators indicates that the new generation of farm operators is nearly twice as dependent on off-farm employment compared with the present generation.

93. The ratio of part- to full-time farming is strongly related to

TABLE 3.20: Percentage distribution by time allocated to farming for different size categories

Size, acres	Time	New operators		Enlargers	All new farm operators
		Inter-	Intra-*	Non-LC	
Up to 30	< ½	57.0	—	58.3	55.9
	½ - F	9.7	—	0	6.3
	F**	33.3	—	41.7	37.8
31 - 50	< ½	39.1	—	31.2	30.8
	½ - F	9.8	—	18.8	10.6
	F	51.1	—	50.0	58.6
51 - 100	< ½	19.2	—	7.0	14.5
	½ - F	6.7	—	11.6	7.5
	F	74.1	—	81.4	78.0
Over 100	< ½	7.1	—	12.1	9.8
	½ - F	3.6	—	9.1	4.9
	F	89.3	—	78.8	85.3
All	< ½	32.8	30.8	18.3	28.2
	½ - F	7.8	0	10.6	7.7
	F	59.4	69.2	71.1	64.1

* Insufficient numbers to calculate distributions within size categories.
 **F = full-time.

size as would be expected. For all new farm operators the percentage part-time decreases from 62 on holdings up to 30 acres to 15 on holdings over 100 acres. Similar decreases are recorded for inter-generation new operators and non-Land Commission enlargers.

94. The situation for new operators by region is shown in Table 3.21. For the inter-generation group Connacht-Ulster has much more part-time than Munster or Leinster. For all sizes taken together, the percentages are 53 for Connacht-Ulster, 34 for Munster and 30 for Leinster. Thus one in every three of the new generation of farm operators were farming part-time in Munster and Leinster and over one in every two were part-time farmers in Connacht-Ulster. Part-time farming is again strongly related to size within each region and the higher proportion of part-time

TABLE 3.21. Percentage distribution of new operators by time allocated to farming within different size categories by region

Size, acres	Time	Munster		Leinster		Connacht-Ulster	
		Inter-	Intra-*	Inter-	Intra-*	Inter-	Intra-*
Up to 50	< ½	50.9	—	32.3	—	51.5	—
	½ - F	11.3	—	12.9	—	7.9	—
	F**	37.8	—	54.8	—	40.6	—
51 - 100	< ½	14.7	—	20.0	—	30.4	—
	½ - F	3.3	—	15.0	—	8.7	—
	F	82.0	—	65.0	—	60.9	—
Over 100	< ½	9.1	—	3.7	—	14.3	—
	½ - F	4.5	—	3.7	—	0	—
	F	86.4	—	92.6	—	85.7	—
All	< ½	27.9	27.3	19.2	31.8	45.8	32.4
	½ - F	6.6	0	10.3	0	7.6	0
	F	65.5	72.7	70.5	68.2	46.6	67.6

* Insufficient numbers to calculate distributions within size categories
 **F = Full-time

TABLE 3.22: Change in time allocated to farming before and after becoming new farm operator

Before \ After	After		Total
	Full-time	Part-time	
Full-time	327	4	331
Part-time	19	115	134
Non-farming	32	90	122

farm operators in Connacht-Ulster is largely a consequence of the smaller sized holdings in the West.

95. Finally, it is of interest to examine the extent to which the acquisition of control of land changed the status of new farm operators with respect to time allocated to farming. The data in Table 3.22 show that of the 331 new farm operators who had been farming full-time before acquiring land or additional land virtually all remained full-time; the four who became part-time presumably

did so for reasons other than the acquisition of land. Of the 134 new farm operators who had been farming part-time, 19 or 14 per cent became full-time farmers but most remained part-time. Of the 122 new farm operators who had not been farming at all, 32 or 26 per cent changed to full-time farming and three-quarters became part-time.

96. The tendency of those who have an off-farm job to hold on to it is therefore quite strong. Many of these new farm operators did not acquire sufficient acreage to become viable as full-time farmers but some did. The percentage size distribution of the part-time farmers and non-farming people who remained or became part-time was as follows:

	<i>Part-time</i>	<i>Non-farming</i>
Up to 30	35.5	51.1
31 - 50	39.7	23.3
51 - 100	16.5	20.0
Over 100	8.3	5.6

About a quarter in both cases acquired more than 51 acres and these might be considered the ones who could be viable as full-time farmers if they chose.

3.8 Education

97. Information was sought regarding the general education and agricultural experience and education of all new farm operators. In checking with the Agricultural Advisory Service, some under-estimation of the numbers who had short courses in agriculture was identified and this has to be allowed for in interpreting the results relating to short courses. Virtually all new operators – 92 per cent – had more than a years experience working on a farm as would be expected in a country which is still so predominantly agricultural. On the other hand, only four per cent of sons inheriting their parents farm had resided for more than a month on a non-relative's farm outside his own parish. The data relating to post-primary education, short courses in agriculture and agricultural college training are summarised in Tables 3.23 to 3.27.

TABLE 3.23: Percentage with specified education levels by age group

Age	Education	New operators		Enlargers	All new farm operators
		Inter-	Intra-*	Non-LC	
Under 30	P	62.6	—	58.8	60.3
	S	35.0	—	52.9	35.0
	C	16.2	—	35.3	17.0
30 - 44	P	44.3	—	44.4	39.5
	S	13.1	—	25.0	17.3
	C	4.1	—	0	2.7
45 +	P	26.1	—	18.4	22.0
	S	13.0	—	10.4	8.6
	C	0	—	2.1	0.5
All ages	P	53.6	32.5	34.3	41.8
	S	25.7	1.3	22.8	21.2
	C	10.9	0	6.9	7.4

*Insufficient numbers to calculate data within age groups.

P = post-primary;
S = short courses in agriculture;
C = agricultural college.

98. The education levels of all new farm operators in the survey can be seen in Table 3.23. Forty-two per cent had post-primary education, 21 per cent had short courses and over 7 per cent had agricultural college training. These education levels are far higher than those prevailing in the overall farming population. In the 1966 Census of Population (Volume V) only 13 per cent of males in agricultural occupations had post-primary education; a similar figure was derived from a survey in 1972 (27). No national figures are available for short courses in agriculture. However, the 1972 survey established that only one per cent of farmers in the total population had agricultural college experience (28) in contrast to the figure of 7.4 per cent in the present survey for new farm operators.

99. While the level of education of new farm operators is considerably higher than all existing operators, the results still leave

TABLE 3.24: Percentage with specified education levels by age group and method of becoming new farm operator

Age	Education	Lifetime inheritance	Inheritance after death	Open market
Under 30	P	63.0	60.3	63.6
	S	38.1	31.7	39.4
	C	17.8	12.7	27.3
30-44	P	40.0	44.9	47.2
	S	23.7	8.2	13.0
	C	5.2	4.1	0.0
45 +	P	35.3	21.9	30.9
	S	5.9	2.7	11.1
	C	0.0	0.0	1.9
All ages	P	53.6	41.1	44.7
	S	30.9	14.1	18.4
	C	12.4	5.4	7.1

P = post-primary
S = short courses in agriculture
C = agricultural college

much to be desired. Three-fifths of all new farm operators did not have post-primary education; four-fifths did not have short courses in agriculture; and over nine-tenths did not have agricultural college training. These results are, however, continuing to improve rapidly as the increased educational efforts of recent years are filtering through.

100. When examined by category of operator the best educated were the inter-generation group; over a half of these had post-primary education, a quarter had short courses and over a tenth had agricultural college training.

101. The educational levels of each category of new farm operator is highly related to age. The under-30 age groups are the best educated with three-fifths having post-primary education, one-third having short courses in agriculture and one-sixth having agricultural college training. Again, however, these results may be considered either satisfactory when compared with all farm

TABLE 3.25: Percentage of new operators with specified education levels by age group and region

Age	Education	Munster		Leinster		Connacht-Ulster	
		Inter-	Intra-*	Inter-	Intra-*	Inter-	Intra-*
Under 30	P	67.1	—	72.7	—	50.7	—
	S	37.6	—	48.8	—	23.2	—
	C	15.3	—	25.6	—	11.6	—
30 - 44	P	47.8	—	52.0	—	37.3	—
	S	8.5	—	20.8	—	13.7	—
	C	0	—	13.0	—	3.9	—
45 +	P	50.0	—	25.0	—	18.2	—
	S	25.0	—	0	—	18.2	—
	C	0	—	0	—	0	—
All ages	P	60.0	22.7	61.0	57.1	42.7	23.5
	S	27.2	0	34.7	4.8	19.1	0
	C	9.6	0	18.9	0	7.6	0

*Insufficient numbers to calculate data within age groups.

P = post-primary
S = short course
C = agricultural college

operators in the country or unsatisfactory when the large numbers without the specified education levels are considered.

102. The educational levels by the different methods of becoming a new farm operator are given in Table 3.24. Taking all ages combined the lifetime inheritance group are the best educated, but this is entirely a reflection of age differences. Within age groups the only consistent difference among groups is that the inheritance after death group are the least educated.

103. The situation by region for new operators as shown in Table 3.25 is — as might be expected — best in Leinster, next best in Munster and worst in Connacht-Ulster. In the under-30 year age group 73 per cent of inter-generation new operators have post-primary education in Leinster versus 51 per cent in Connacht-Ulster; 49 per cent have short courses in agriculture versus 23 per cent; and 26 per cent have agricultural college training versus 12 per cent.

TABLE 3.26: Percentage with specified education levels for different size categories

Size, acres	Education	New operators		Enlargers	All new farm operators
		Inter-	Intra-	Non-LC	
Up to 30	P	51.6	20.7	41.7	42.3
	S	15.1	0	33.3	13.4
	C	6.5	0	8.3	4.9
31 - 50	P	42.9	18.2	31.3	29.8
	S	21.7	0	6.3	14.2
	C	3.3	0	0	1.8
51 - 100	P	56.7	46.2	31.0	43.2
	S	36.5	0	31.0	33.0
	C	13.5	0	7.1	9.2
Over 100	P	69.1	69.2	37.5	59.0
	S	30.2	7.7	16.1	22.7
	C	26.9	0	9.7	17.7

P = post-primary
 S = short course
 C = agricultural college

104. The education level is shown to vary by size of holding in Table 3.26. The level drops, moving from the under 30 acre to the 31-50 acre groups. This probably arises because of the higher proportions of relatively well educated part-time farmers in the smallest size category. The education level generally rises with size from the 31-50 acre category upwards.

105. In Table 3.27 the inter-generation new operators are classified by both age and size. The educational levels, as already established, improve with size above the up-to-30 acre category and deteriorate with age. Examining the under-30 year group with over 100 acres who are the best educated group, four-fifths have post-primary education and two-fifths have both short courses and agricultural college training. Conversely, even in this favoured group, one-fifth do not have post-primary education and three-fifths have neither short courses in agriculture nor agricultural college education.

TABLE 3.27: Percentage of inter-generation new operators with specified education levels for different age and size categories

Size, acres	Education	Under 30 years	
		Under 30 years	30 years +
Up to 30	P	61.4	42.9
	S	22.7	8.2
	C	11.4	2.0
31 - 50	P	55.4	22.9
	S	30.4	8.6
	C	3.6	2.9
51 - 100	P	62.3	45.7
	S	44.9	20.0
	C	20.3	0
Over 100	P	79.3	57.7
	S	39.3	19.2
	C	39.3	11.5

P = post-primary
 S = short course
 C = agricultural college

3.9 Land use

106. The effect on land use of the new farm operator was considered of interest in the survey. However, the precision of such information could not be very high as the enumerators had to provide it indirectly from their knowledge of the land involved. Therefore broad questions were framed relating to land let before and after the new farm operator took over, the tillage acreage before and after the change, and whether the stocking rate on grassland was considered to have remained unchanged, to have decreased or to have increased. Since new operators who took over in 1975 would not have had time to make changes, these operators were excluded in analysing the results. The results are presented in Table 3.28 for relevant operators by selected characteristics. Less acreage let, more tillage and a higher stocking rate are taken as improved uses though this may not be necessarily the case for land let.

107. In the case of all relevant operators the acreage let decreased by 42 per cent, the acreage of tillage increased by 10 per cent, and

TABLE 3.28: Percentage change in acreage let and in acreage of tillage and percentage of relevant operators increasing their stocking rate by selected characteristics

	Acreage let % change	Tillage acreage % change	Stocking rate % increasing
<i>All</i>	-42	+10	58
<i>By Time Allocated</i>			
Full-time	-65	-1	63
Part-time	+8	+118	48
<i>By Method for Full-time</i>			
Inheritance	-2	-14	55
Purchase or LC	-96	+55	80
<i>By General Education for Full-time</i>			
Post-primary	-28	+2	68
No post-primary	-76	-8	58
<i>By Short Courses for Full-time</i>			
Short courses	-87	-1	80
No short courses	-57	-4	55
<i>By Agr. College for Full-time</i>			
Agr. College	-100	+34	+79
No agr. college	-60	-14	+60

the percentage increasing their stocking rate was 58. Nationally the tillage acreage declined by 9 per cent between 1972 and 1974 which should be roughly comparable with the period of change measured in the survey. The new operators therefore are considerably better than the national population in tillage acreage. No similar comparison can be made for land let or for stocking rate.

108. While generally the change in control led to an improved use of the land, in about 8 per cent of the cases the change led to an increase in land let and in a similar per cent of cases the intensity of use deteriorated. (These were cases where stocking rate declined with no change in tillage, or tillage declined with no change in stocking rate, or both tillage and stocking rate declined.)

109. When land use is related to certain characteristics of new farm operators there are some interesting results. Full-time farmers were strikingly better than part-time farmers as measured by the change in land let and the proportion increasing their stocking rate; the acreage let actually increased for the part-time farmers. However, tillage was increased considerably by part-timers while there was virtually no change by full-time farmers. The use by full-time farmers of purchased land, or land acquired from the Land Commission, improved far more than inherited land. Education also led to better use though not as strikingly as in the previous case.

CHAPTER 4

SUMMARY AND CONCLUSIONS

4.1 Summary

110. Serious farm size and demographic problems in Irish agriculture have been highlighted by both government reports and agricultural economic researchers in recent years. Only one-third of all holdings are over 50 acres; half of all farmers are over 55 years of age; and over 20 per cent of all farmers are reckoned to be without heirs. These size and demographic features are reflected in a poor income structure, with two-thirds of all farms generating a below average income. The growth of the industry is also being impeded despite an apparently good performance over the past few years.

111. Agriculture is of course adjusting its resource mix over time, but the pace of adjustment is slow. Labour has been leaving the industry at a reasonably rapid rate and there have been suggestions of a drastic reduction in the number of young people entering farming.

112. Available data from population and agricultural censuses and from special surveys provide valuable insights into the composition and characteristics of the generation of people currently in farming. Very little can be gleaned from these data, however, about the characteristics of people entering the industry. A common assumption has been that entrants to farming coincide with the 15-19 year-olds but this is dictated by the data available rather than by logic. It is at the stage when management control can be exercised over land that entry really takes place and this is the definition that is used in the present study. Since these entrants are a profile of the next generation, their characteristics should provide a preview of the type of farm operator we are

likely to have in the future. The reliability of this preview depends on the stability of the characteristics over time, since if the characteristics are changing rapidly then the next generation is not well represented in one cross-section of entrants.

113. This study is an attempt to establish the characteristics of new farm operators in the 1971 to 1975 period. The broad questions asked are: who is taking control of the land of Ireland? How are they doing it? And what are the consequences for farm size and land use?

114. A new farm operator is defined as any person who assumed management control of land during the period. They therefore include both new operators proper who assumed management control of land for the first time in this period as well as enlarging operators who were already established in farming but who enlarged their holdings by acquiring control of additional land. The new operators in turn contain not only new generation people, such as sons of departing farmers, but also intra-generation people, such as widows or brothers. Four out of every five new operators in the study were inter-generational and one in five was intra-generational.

115. The enlarging operators also consist of two broad categories: those who enlarged by getting land from the Land Commission and those who enlarged otherwise. The Land Commission has a very prominent role in the process of enlargement—contrary to the impression one might get from the relatively small total acreage handled by it. It is estimated that more farmers in the country enlarge their farms by a Land Commission allotment than by all other means combined. However, Land Commission enlargements average about 15 acres in contrast to all other enlargements which averaged 44 acres.

116. The data in this study were derived from a survey of 175 clusters of townlands throughout the country containing 1.56 per cent of all holdings in the State over 5 acres. A change in management control of 35,551 acres was accounted for. The

survey was carried out by agricultural science students complemented by Macra na Feirme members. The sample of townlands was not a random one but rather was determined by the availability and willingness of students and Macra members to participate. However, a number of checks were built into the survey which enabled the conclusion to be reached that it was reasonably representative and that the data are reasonably accurate. The very poor agricultural areas and very small holdings are somewhat under-represented and there is under-estimation of new farm operators who inherited land. These weaknesses are not important enough, however, to seriously affect the conclusions that can be drawn from the results.

117. The methods of becoming a new farm operator were (i) inheritance during the lifetime of the previous operator; (ii) inheritance after the death of the previous operator; (iii) open-market purchase; and (iv) Land Commission allotment. After allowance is made for the under-estimation of inheritors, it can be estimated that nine in every ten of the new generation of operators enter farming via inheritance with only one in every ten being a purchaser. This applies in each of the three regions of the country analysed, namely, Munster, Leinster and Connacht-Ulster. While open-market land purchase is of only minor significance for new operators. It is, however, very important for enlarging operators—apart from Land Commission allottees; of these, nearly two in every three increased the size of their holdings by purchase. Furthermore, the importance of open-market purchase as a means of land transfer seems to be declining over time. This is contrary to a widely held view that because of the large number of apparently heirless farmers an increasing amount of land should be coming on the market rather than passing by inheritance to the next operator. On the contrary, the pattern identified is one whereby heirs emerge on many farms that seem heirless.

118. The characteristics of land purchasers are of interest. Of the total land purchased on the open market 46 per cent was purchased by people who had been farming full time; 22 per cent was purchased by business or professional people; and 32 per cent

was purchased by people with other occupations. Therefore people with non-farm occupations—either part time farmers or non-farmers—account for more than half of the land market. The purchasers who had been farming full time were mainly farmers enlarging their holdings, but a minority were relatives assisting on farms who were actually establishing themselves as farmers. These latter represent a mere four per cent of the new generation of operators which gives a vivid measure of the difficulty of entering farming by purchase in the case of young men working full time in farming.

119. The people who purchased land were not unduly biased towards larger operators as is widely believed. In fact, the proportion of all land acquired by open-market purchase in the study, other than that bought by people exchanging farms, which was acquired by farmers over 100 acres who were enlarging their farms was only 17 per cent. A further 19 per cent, however, was purchased by those new entrants who bought over 100 acres each.

120. The average age of all new operators was 35.7 years, and the average functional life in farming was estimated to be between 30 and 35 years. This average age should be somewhat less than what is generally called the age of succession because it refers to the age of assuming management control rather than the age of acquiring ownership. This average is, however, a mongrel concept because it embraces both inter- and intra-generation categories. The inter-generation people are really the new generation and their average age is only 31 years with 57 per cent of them being under 30 years. The age of succession for the new generation of farm operators is not therefore as high as is usually quoted. Furthermore, this age varies relatively little as between method of entry, size of holding or region of the country.

121. Examination of the results for size of holding indicate a slowing down of the process of enlargement compared with the 1955 to 1970 period. In fact, this was already evident in the 1965 to 1970 Agricultural Census data. Data relating to the extent of enlargement by all methods other than Land Commission allotment indicate that the proportion enlarging is only slightly

biased in favour of larger holdings. When the Land Commission efforts are added in, then the smaller holdings have a far higher odds of enlargement than the larger holdings.

122. Of all new farm operators in the survey only 56 per cent had been farming full time immediately prior to becoming new farm operators; 24 per cent had been farming part time; and 20 per cent were from outside farming. However, only eight out of the 20 per cent had less than a year's experience working on a farm at some time, so the majority of them were from a farming background. In fact two-thirds of them were relatives who inherited the land and one-third were purchasers.

123. Of new operators, as distinct from all new farm operators, only a half were farming full time before becoming farm operators in their own right, while 26 per cent had not been farming at all immediately beforehand. The position in Connacht-Ulster is even more remarkable than in the country as a whole; in that province only one-third of the new generation of farm operators had been farming full time, another third had been farming part time and another third again had not been farming at all. The proportions in all cases are strongly related to size but even in the over-100 acre group less than three-quarters had been farming full time.

124. Occupations not related to farming predominate among non-farming occupations which people held prior to becoming new operators. Occupations relating to farming constituted only 17 per cent of the total. Professional and business occupations accounted for 21 per cent of the total.

125. The time allocated to farming after becoming a new operator was also investigated. Forty-one per cent of the new generation of farm operators in the country are part time and the figure for those on holdings up to 30 acres is as high as two-thirds. In Connacht-Ulster less than half of the new generation are full time. The new generation of farmers is nearly twice as dependent on off-farm employment as the present generation. There is a strong

tendency to retain off-farm employment after acquiring land. Only 20 per cent of those who had off-farm employment before acquiring management control of land relinquished their employment to become full-time farmers.

126. The educational level of all new farm operators in general, and of inter-generation new operators in particular is, as would be expected, much better than that of the present generation of farmers. More than a half of the new generation of farm operators have a post-primary education in contrast to only 13 per cent of all farmers; more than a quarter have had short courses in agriculture; and 11 per cent have agricultural college training compared with only one per cent for all farmers. These figures are much higher for the younger age categories.

127. While these results are satisfactory in one sense, in another sense they leave a lot to be desired. There is nearly a half of the new generation of farm operators without post-primary education, there are up to three-quarters without short courses in agriculture; and there are nearly nine-tenths without agricultural college training. Even selecting the under-30 years group on over 100 acres who are the best educated group, up to sixty per cent have not had the benefit of short courses in agriculture or agricultural college training and one-fifth have not had post-primary education. These results must, however, be continuing to improve as the impact of the increased educational efforts—both general and agricultural—since the late 'sixties is filtering through.

128. The broad change in the use of the land associated with the new farm operators was examined, omitting the 1975 changes of operator. In general the change of operator led to improved use, but in about 8 per cent of cases the use actually deteriorated. The use of purchased land and land acquired from the Land Commission improved far more than the use of inherited land; full-time farmers improved more than part-timers; and the better educated farmers improved more than the poorer educated farmers.

4.2 Conclusions

129. In conclusion, this study indicates that the already rigid land tenure system in Ireland is becoming even more rigid. Potential inheritors seem to be more keen to take management control of land now than in the past. Consequently holdings that might pass through the land market and help towards enlargement are now more likely to be retained by the inheritor. This is not perhaps surprising considering the valuable nature of land as an asset in a prospering agriculture and in an inflationary world.

130. The view that the number of entrants to farming has declined drastically is clearly contradicted. What really has happened is that relatives assisting on farms, such as sons, no longer assist on the farm but instead they take up off-farm employment. They do not, however, depart entirely from farming but return again mainly as part-time farmers when the opportunity arises on the death of the owner.

131. While this new pattern is obviously attractive to and desirable for those fortunate enough to inherit land, it reduces the already limited scope for enlargement of those who are in farming. The pace of enlargement will therefore continue to be a slow one—depending to an inordinate extent on the work of the Land Commission. At the same time, the role of off-farm employment will increase. Such an increase is necessary to allow the large number of one-man farms which now exist to adjust their increasingly productive labour to a more or less fixed land acreage. However, the adverse effect of this arrangement on productivity of land must retard the growth of agriculture in the years ahead.

BIBLIOGRAPHY

1. Iowa State College Press, "Agricultural Adjustment Problems in a Growing Economy", edited by E. O. Heady *et al.* Part I.
2. Kearney, B., "Change and Adjustment in Irish Agricultural Production", paper read at An Foras Taluntais Conference, November 1974.
3. Hickey, B. C., "Developments in the Structure and Level of Regional Agricultural Production", paper read at An Foras Taluntais Conference, November 1975.
4. Frawley, J., "Rural Developments in a Regional Context—a Sociological Appraisal", paper read at An Foras Taluntais Conference, November 1975.
5. Conway, A. G., "Inter-farm Differences in Growth of Output", paper read at An Foras Taluntais Conference, November 1975.
6. O.E.C.D., "Low Incomes in Agriculture", Paris 1964.
7. Macra na Feirme, "Farm Inheritance and Succession", Irish Farm Centre, Dublin 12, 1973. Chapters 5 and 6.
8. Fennell, R., "Structural Change in Irish Agriculture", Irish Journal of Agricultural Economics and Rural Sociology, Volume 1, No. 2, 1968.
9. Scully, J. J., "Agricultural Adjustment in Ireland", page 208 in *Irish Agriculture in a Changing World*, Oliver & Boyd, 1971.
10. An Foras Taluntais, private communication.
11. N.E.S.C., "A Comparative Study of Output, Value-added and Growth in Irish and Dutch Agriculture", Report No. 24, December 1976.
12. Sheehy, S. J., "Distribution Effects of Farm Product Price Increases", Agricultural Economics Society of Ireland Proceedings, 1973. An Foras Taluntais.
13. Johnson, R. G. and Conway, A. G., "Factors Associated with Growth in Farm Output", paper read to the Agricultural Economics Society of Ireland, June 1976.

14. Frawley, J. *et al.*, "Personal and Social Factors related to Farming Performance in Ireland", *Irish Journal of Agricultural Economics and Rural Sociology*, Volume 5, No. 1, 1974-1975.
15. Crotty, R. D., "Irish Agricultural Production—its Volume and Structure", Cork University Press, 1966. Chapters 9, 10, 11.
16. "The Third Programme for Economic and Social Development", The Stationery Office, Dublin, Prl. 431. Par. 107 to 114.
17. "Report of the Committee on the Review of State Expenditure in Relation to Agriculture", The Stationery Office, Dublin, Prl. 1231. Chapter 3.
18. Commins, P., "Human Aspects of Change in the Rural Economy", paper read at the Foras Taluntais Conference, November 1974.
19. Macra na Feirme, "Modernising Irish Agriculture—The Real Issues", Irish Farm Centre, Bluebell, Dublin 12. 1975.
20. N.E.S.C., "Population and Employment Projections: 1971-1986", Report No. 5, February 1975.
21. (7), Chapter 8.
22. (7), Table 5.3.
23. (8), pp. 180-181.
24. Scully, John J., "Agriculture in the West of Ireland". The Stationery Office, Dublin, Prl. 2017, p.37.
25. (4), p. 22.
26. (4), Table 6.
27. (4), Table 3.
28. (4), p. 15.

APPENDICES

APPENDIX I. QUESTIONNAIRE USED IN THE SURVEY

Department of Applied Agricultural Economics,
University College, Dublin

NEW FARM OPERATORS, 1971 TO 1975

Instructions to Enumerators

Before completing Table 1 and Table 2 attached, please study carefully the following instructions.

1. Table 1

The information sought in Table 1 is of a general nature relating to all Operators as defined below in the townlands you are surveying. Entire townlands (or well defined portions of townlands such as Upper or Lower) should be surveyed—and not any arbitrarily selected sample of Operators within townlands.

2. Table 2

The information sought in Table 2 is more specific and relates to situations where there has been a change of Operator as defined below. It is essential that *all* questions be answered relating to every change situation you encountered in your townland.

3. The Operator

The Operator is that individual who, on December 31, 1975, alone or with the assistance of others and without regard to title, operates, directs or manages the land in question. He need not therefore possess the full legal title to the land. In order to ascertain the identity of the Operator in instances where this may

not be clearcut, the enumerator should name as the Operator that individual who, if farm development were to take place, would plan the development and would apply for grants for such development.

It is desirable that wherever possible these development functions should be accurately associated with the appropriate individual. Where, however, the functions are truly shared among more than a single individual, the owner should be considered the Operator where the owner is known; where the owner is not known, the oldest of the partners should be taken as the Operator.

4. Operators to be included in Column 2 of Table 1

The Operators to be included in Table 1 are:

- (i) All Operators resident in the townland whose total acreage operated exceeds five acres regardless of whether all or any of their land is situated in the townland or not.
- (ii) Non-resident Operators with land in your townlands who do not reside in other townlands elsewhere in Ireland but who reside in towns, or in villages, or outside of the country.

Where a holding is operated by the Forest and Wildlife Service, Bord na Mona, or other such institution, public or private, the name of the Operator is the name of that institution. For land operated by the Land Commission but not yet distributed, the Land Commission should be taken as the Operator.

5. Acreage operated as requested in Column 4 of Table 1

Acreage operated by each Operator consists of all land under the control of the Operator named in Column 2 on December 31, 1975 which is used wholly or partly for agricultural production regardless of title; it may be in one or more places and in one or more townlands or counties provided it is operated as a single unit. Mountain, marsh, etc., should be included if it is used wholly or partly for agricultural production, but land held in commonage is excluded. Land let by the Operator to another person is included in the acreage operated, and land let to the Operator by another person is excluded from the acreage operated. Statute acres should be used in all cases.

6. Tillage Acreage as requested in Column 5 of Table 1

The tillage acreage refers to the acreage operated that was under tillage in the crop year 1975. Tillage is defined to include all corn, root and green crops, fruit and other horticultural crops and to exclude grass and grass-seed, hay and silage.

7. Change of Operator as requested in Column 6 of Table 1

A change of Operator should be indicated in each instance where the Operator, as named in Column 2 for December 31, 1975, is not the same as the Operator on January 1, 1971 in the case of all or any of the acreage operated as given in Column 5.

(Since the purpose of this Survey is to study the characteristics of new operators of farms, any error or omission in answering this question will prejudice the entire study.)

8. Acreage to which Change refers as requested in Column 7 of Table 1

The acreage to which change refers is that acreage in Column 4 which was not operated by the Operator in Column 2 on January 1, 1971. It may be the entire acreage as in Column 4 or it may be only portion of that acreage as in the case where additional land has come under the control of the Operator between January 1971 and December 1975.

9. New Operator for the purposes of Table 2

Table 2 has to be completed in each case where a change of Operator has been indicated in Column 6 of Table 1. The name of the New Operator in Table 2 is the same as that in Column 2 of Table 1. Where the New Operator is an institution, as referred to under 4 above, only questions 1, 2, 3 and 8 in Table 2 need be completed.

10. Year of Change of Operator for the purposes of Table 2

Where the acreage to which change refers (as in Column 7 of Table 1) has come under the control of the Operator in different years—

- (i) under Question 2 record the different years and the acreage changing in each year;

- (ii) under Question 4 take the age at the time of the first change;
- (iii) under Question 5 take the marital status at the time of the first change;
- (iv) under Question 6 take the occupation immediately prior to the first change except under sub-question 6.3 where the proportion of the Operator's time allocated to farming should be taken in 1975 after the most recent change;
- (v) under Question 7 take the Educational Record immediately prior to the first change.

11. Educational Record of the New Operator as requested in Question 7 of Table 2

General education of a formal nature includes all organised non-agricultural courses such as primary, secondary, vocational, adult education, etc.

Experience working on a farm includes occasional periods such as summer vacations.

TABLE 1: ENUMERATION OF FARM OPERATORS
as of December 31, 1975.

Name of enumerator:
County: Parish:

Col. 1 Townland	Col. 2 Name of Operator on December 31, 1975	Col. 3 Age of Operator			Col. 4 Acreage Operated Dec. 31, 1975	Col. 5 Tillage Acreage	Col. 6 Change of Operator 1971 to 1975		Col. 7 Acreage to which Change refers
		Under 40	40-49	50-59			60+	YES	
	1.								
	2.								
	3.								
	4.								
	5.								
	6.								
	7.								
	8.								
	9.								
	10.								
	11.								
	12.								
	13.								
	14.								
	15.								
	16.								
	17.								
	18.								
	19.								
	20.								
	21.								
	22.								
	23.								
	24.								
	25.								

Enumerator:

County:

Townland:

Table 2: NEW OPERATORS

1. **Name of New Operator:** _____

2. **Year of Change of Operator:** 197_____

3. **Method of Change** (tick whichever applies):

- (a) Inheritance or succession
- (i) During lifetime of previous operator
- (ii) After death of previous operator
- (b) Purchased: On Open Market
- From Land Commission

State acreage involved under (a) _____

(b) _____

4. **Age of New Operator at Time of Change** (please tick one).

- Under 20
- 20-24
- 25-29
- 30-34
- 35-39
- 40-44
- 45-49
- 50-54
- 55-59
- 60-64
- 65-69
- over 70

5. **Marital Status at Time of Change**

Single Married (or widowed) No. of children

6. **Occupation of New Operator Immediately Prior to Change** (please tick one):

- (a) Farming only – no other paid occupation
- (b) Farming combined with another paid occupation
- (c) Non-farming

6.1 If (a), (b) or (c) applies, was the New Operator:

- (i) The Operator of a farm in his/her own right Yes No
 - (ii) An assistant to an Operator Yes No
 - (iii) A relative of the previous Operator Yes No
- If Yes specify the relationship:

6.2 If (b) or (c) applies, was the New Operator:

- (i) A professional: Yes No
- (ii) A businessman: Yes No
- (iii) Other: Yes No

Where the answer to (iii) is Yes specify the nature of the job:

6.3 What proportion of the Operator's time in 1975 after the change is allocated to farming:

- Less than one-quarter
- One-quarter to a half
- A half to three-quarters
- More than three-quarters
- Full-time

7. **Educational Record of the New Operator Immediately Prior to Change:**

- (a) General education of a formal nature (please tick one):
 - (i) No post-primary
 - (ii) Post-primary

(b) Agricultural experience and education (please tick one in each case):

(i) Experience working on a farm:

Less than a year

More than a year

(ii) In the case where the New Operator is a son inheriting his father's/mother's farm, has any of the experience working on a farm been obtained while resident for more than a month on a non-relative's farm outside his own parish:

Yes No

(iii) Short courses such as Winter Farm Schools, Winter Agricultural Classes, the Macra na Feirme Proficiency Scheme, etc.:

Yes No

(iv) Agricultural College:

Yes No

(c) On the grassland acreage, if any, has the stocking rate

Remained unchanged

Increased

Decreased

between the period prior to change as in (a) and 1975 as in (b)?

(d) If the stocking rate has changed, is the extent of the change.

(i) less than 20%

(ii) greater than 20%

8. Use of the Land referred to in Col. 7 of Table I.

Acreage

(a) Prior to change: Let _____

Grassland not let _____

Tillage not let _____

Total acreage (equal to Col. 7 of Table I).

(b) In 1975: Let _____

Grassland not let _____

Tillage not let _____

Total acreage (equal to Col. 7 of Table I)

APPENDIX II

THE FUNCTIONAL LIFE OF A FARM OPERATOR

The functional life of a farm operator is defined as the average length of time over which a person exercises management control in farming. The average age of acquiring management control has been estimated by Frawley as 32.3 years (1). The expectation of life at this age was about 38 years, but not all new operators would continue in farming until death. Some retire and hand over management control during their lifetime.

In another survey 52 per cent of farmers were found to have acquired ownership and management at the same time (2). This corresponded with the percentage of farmers who either purchased land or inherited it on the death of a person. The inherited land came from people of the previous generation who had continued in farming till death, and much of the purchased land would also derive from this category. Therefore the functional life of this part of the previous generation in farming would have been about 38 years—equal to their life expectancy at the age of entry to farming. Of the remaining 48 per cent of farmers, there was an average time-lag between management and ownership of about seven years. The functional life of this part of the previous generation would therefore have been about 31 years. This gives an average functional life for all farmers of about 35 years.

This estimate assumes a constant age structure of population over time and also a constant death rate. The age structure changed very little between 1951 and 1971 and the main change in the death rate in that period occurred in the female population which accounts for only about 10 per cent of farmers. Therefore the estimate should not change much over time for these reasons.

The estimate of 35 years is derived from data which relate to a period earlier than the present survey period. The data themselves could have some degree of error in them or they might not

relate to the 1971-1975 period. There is some reason to expect earlier retirement of farmers in recent years because of reductions in the pension age and perhaps because of the structure and increasing incidence of death duties in the early 'seventies. However, earlier retirement does not shorten the functional life if it is associated with earlier entry to farming.

The age of entrance to farming is a difficult statistic to define and measure. The average of 32.3 years quoted above was procured by asking a sample of farmers when did they take over responsibility for their farm. This average therefore includes not just farmer's sons and other inter-generation people entering farming but also brothers and widows of deceased farmers who could be at quite an advanced age. The comparable average from the present survey can be derived from the results relating to the category 'new operators' and is 35.7 years.

The difference between these two averages could be attributable to sampling error. It could also arise from the different methods of collecting the data. The data in the present survey were supplied by enumerators about people they personally knew and apply to those who became new operators in the 1971-1975 period. The data in the previous survey were supplied directly in answer to a question as described above; the result relates to those who became new farmers over the previous generation. Elsewhere it was considered that such information relating to events over 30 years previously was subject to bias towards a younger age (3). This suggests a possible under-estimation in the 32.3 figure.

If the two averages are valid and representative, they would indicate that the average age of entry to farming has increased rather than declined. The comparison may, however, be a confounded one consisting of an increasing proportion of intra-generational entrants which would tend to raise the average age even though the inter-generational entrants may not be ageing or may even be getting younger.

As far as the functional life of farm operators is concerned, the average age of entry of 35.7 years in the present survey is almost bound to shorten the life estimated from the lower age of 32.3. The life expectancy at 35.7 years was 36.5, so with the same

proportions departing by death and retirement and with the same lag between the acquisition of management and ownership as used above, the estimated functional life would be 33 years. However, there is evidence to suggest that the proportion departing by retirement rather than by death has increased (4). Furthermore the age of retirement may have decreased. Allowance for these trends could shorten the functional life to as little as 30 years. Therefore it is concluded from the limited data available that the functional life lies somewhere in the 30 to 35 year range.

1. *Frawley, J. et al*

"Personal and Social Factors related to Farming Performance in Ireland". Irish Journal of Agricultural Economics and Rural Sociology, Volume 5, No. 1, 1974-1975, Table 3.

2. *Macra na Feirme*

"Farm Inheritance and Succession". Irish Farm Centre, Dublin 12, 1973. Tables 5.2 and 5.10.

3. (2), Paragraph 5.3.4.

4. (2), Paragraph 5.3.2.