AGRICULTURAL ADJUSTMENT UNIT · UNIVERSITY OF NEWCASTLE UPON TYNE

Structural Change in Northern Farming

Studies in Structural Change

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THE AGRICULTURAL ADJUSTMENT UNIT
THE UNIVERSITY OF NEWCASTLE UPON TYNE

In recent years the forces of change have been reshaping the whole economy and, in the process, the economic framework of our society has been subject to pressures from which the agricultural sector of the economy is not insulated. The rate of technical advance and innovation in agriculture has increased, generating inescapable economic forces. The organisation of production and marketing, as well as the social structure, come inevitably under stress.

In February 1966 the Agricultural Adjustment Unit was established within the Department of Agricultural Economics at the University of Newcastle upon Tyne. This was facilitated by a grant from the W. K. Kellogg Foundation at Battle Creek, Michigan, U.S.A. The purpose of the Unit is to collect and disseminate information concerning the changing role of agriculture in the British and Irish economies, in the belief that a better understanding of the problems and processes of change can lead to a smoother, less painful and more efficient adaptation to new conditions.

Publications

To achieve its major aim of disseminating information the Unit will be publishing a series of pamphlets, bulletins and books covering various aspects of agricultural adjustment. These publications will arise in a number of ways. They may report on special studies carried out by individuals; they may be the result of joint studies; they may be the reproduction of papers prepared in a particular context, but thought to be of more general interest.

The Unit would welcome comments on its publications and suggestions for future work. The Unit would also welcome approaches from other organisations and groups interested in the subject of agricultural adjustment. All such enquiries should be addressed to the Director of the Unit.

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STRUCTURAL CHANGE IN NORTHERN FARMING

A SUMMARY REPORT OF A SURVEY OF THE FOUR NORTHERN COUNTIES OF ENGLAND IN THE SERIES STUDIES IN STRUCTURAL CHANGE

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PREFACE

This bulletin is the fourth in the series 'Studies in Structural Change'. The first, 'The Elements of Agricultural Adjustment' attempted to provide a general setting. The second, 'Farm Size Adjustment' was concerned with the changing pattern of farm size and land ownership. The third, 'Capital Adjustment in Agriculture' discussed various aspects of capital and capital investment.

In the course of preparing these three reports it became apparent that a more detailed investigation of structural change was warranted. Towards this end, the Unit undertook a survey of farms in the North of England to provide data which would contribute towards a better understanding of the process of adjustment. The survey occupied most of the Unit staff while it was being conducted, together with a team of graduate and undergraduate students. Their help is acknowledged with a brevity that does not reflect their contribution. This bulletin contains the preliminary findings of that survey. It reveals a complex pattern of change and demonstrates that the picture presented by aggregate statistics is oversimplified. Further analysis is continuing and follow-up investigations are being considered at Newcastle. It is hoped that this bulletin will encourage research elsewhere and lead to an improved level of public debate.

JOHN ASHTON.

STRUCTURAL CHANGE IN NORTHERN FARMING

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I. INTRODUCTION

The phrase agricultural adjustment is a shorthand describing the interaction of forces in the agriculture of developed economies, which exert pressures that change the structure of agriculture to one of a smaller number of farm business units of larger average size. In the course of this process agricultural incomes may lag behind the growth of incomes in other sectors and governments usually intervene to ameliorate the situation. There are many facets to agricultural adjustment, with topics ranging from rural community issues to the organisation of agricultural research and education.

The general trends in agricultural adjustment are well documented[1], but structural change in the aggregate is no more than a summation of the results of individual decisions by farmers, either to expand or to reduce size of business, or to retire. And a detailed study of individual farms helps to understand the overall process.

The underlying economic pressure for change on the individual farm, is the cost/price squeeze, a phenomenon not unique to British agriculture. Product prices have risen relatively slowly for U.K. farmers, by some 8–9 per cent in the last fifteen years, whereas purchased input prices have risen on average by 18–20 per cent in the same period, although there are marked variations between different items. Faced with this combination of adverse price movements the farmer can resign himself to a lower income and continue his current practices; he can move out of farming, by selling up or by giving up some of his land, or by adapting to a lower intensity of farming; finally he can attempt to maintain or increase his income by improving his efficiency and/or expanding his size of business.

The possibilities open to the individual seeking income improvement depends on his current situation. Sometimes relatively simple changes in crop or livestock husbandry will produce the required results and many would argue that the recent rising levels of farm efficiency have been in response to the cost/price squeeze. Sometimes a change in the balance of enterprises on the farm can improve income without materially increasing overhead costs; much farm management advice has been on these lines and probably the best example of the results of this type of change has been the expansion of the cereal acreage in what were formerly minor cereal producing regions. For farmers who have already rationalised their programmes in these fairly straightforward ways, and there are increasing numbers of such farmers, further farm development, whether by intensification or extensification, will inevitably involve sustained capital investment. Here is the

[1] See for example A.A.U. Bulletin 4, 'The Elements of Agricultural Adjustment' by S. J. Rogers.

problem of the 'capital appetite' of the farm business which has attracted considerable attention in recent years.

The economic and social environment within which the farmer takes decisions involves not only the interplay of market forces, but also the range of government intervention policies. Some of these are specifically agricultural policies; others are general economic and social policies, which may or may not have an intended purpose in agriculture. Although these policies are not necessarily directed towards agricultural adjustment, nevertheless they may, collectively or individually, have profound effects on the process, whether this be from the standpoint of national efficiency or of the equitable treatment of a minority group. Research into the changing structure of agriculture must, therefore, aim at providing information on the basis of which government policies can be improved. Structural change is a slow process and many policies will only have an impact over a number of years. For example capital gains tax has been in operation since 1965, but as yet has had little measurable effect on agriculture since land values have been increasing fairly slowly and the number of land sales in any year is a small proportion of the total. However, the slow nature of adjustment should not discourage research, rather it should suggest the need for a long-run investigation programme to identify the significant factors in sufficient time for their implications to be evaluated.

There are many related questions to which such a study should be addressed. Has purchase of land by an individual limited his investment in other directions? Or has the additional land required further investment in machinery to achieve economic operating standards and thereby increased the volume of borrowing? Has labour been shed by expansionist farmers streamlining their farming systems or by a reorganisation on those farms with a fairly constant business size? What are the characteristics of farms and farmers which have been changing? Is change a function of the type of farming or the availability of capital, or is it to do more with the motivation of individuals, and their educational background?

In an attempt to answer some of these questions and to understand in some detail the process of structural change, the Agricultural Adjustment Unit carried out a survey of farms in the North of England in the summer of 1968. This report presents the first results of that survey.

There are two points which need to be made prior to discussing the survey. The first is to note that there are considerable regional differences in patterns of structural change and that it is not possible to generalise from the four Northern counties of England to the whole U.K. The second point concerns the time of the survey. The field work was carried out in the summer of 1968, but related to the farm situation between 1962 and 1967. Since 1967 circumstances have changed. There were two bad years for farming in 1968 and 1969, which coincided with a period of high interest rates. The 1967 Agricultural Act was put on the statute book and

there have been a number of other policy changes. Even within the limits of the four northern counties, therefore, it could be misleading to extend the analysis from 1967 to the present day without qualifications.

The first section of the report looks at some published aggregate statistics for the northern region and discusses the survey sample and its correspondence with published statistics. The next sections are concerned with measurements of structural change, examining land, non-land capital, and intensity of farming and labour use respectively. Then a section examines the age and educational background of farmers. The final section presents a summary and conclusions and indicates further questions which need to be examined.

II. PUBLISHED STATISTICS

Farming in the four northern counties of England has, in recent years, undergone substantial change, both in the pattern of enterprises and in the structure of farm businesses. Table 1 shows that these regional changes are in line with similar developments in England and Wales as a whole.

The cereal acreage of the four counties has expanded by 36 per cent since 1957, but more than 64 per cent in Northumberland. The number of dairy cows has fallen by 10 per cent mostly in Northumberland. There has been a massive run down of the regular hired labour force from nearly 19,000 in 1957 to nearly 13,000 in 1967. Additionally the structure of the industry has been changing with the number of holdings declining from 19,000 in 1947 to 18,000 in 1957 to 16,000 in 1967. There has also been a substantial volume of investment in improving land, new buildings, plant machinery and additional working capital. The present structure of farming in the four northern counties, based on an analysis of the June Census for 1967 is given in Table 2. About one third of the holdings are categorised as part-time (i.e. less than 275 S.M.D.). Of the 9,526 full-time holdings, more than 4,000 are mainly specialist dairy farms, while a further 3,000 are in other ruminant livestock.

TABLE 1

Census Data

	Wheat, Barley and Oats acreage			*Number of Dairy Cows*			*No. of Regular Full-time Male Employees*		
	1947	*1957*	*1967*	*1947*	*1957*	*1967*	*1947*	*1957*	*1967*
Northumberland	114,411	95,765	156,731	29,191	25,150	16,383	7,786	6,499	4,505
Durham	100,352	91,480	114,970	30,950	33,605	25,628	6,538	5,104	3,220
Cumberland	81,266	48,820	52,712	55,782	75,138	79,830	5,977	5,148	3,691
Westmorland	19,983	9,926	10,345	24,043	31,469	29,854	2,231	1,967	1,368
Total 4 counties	316,012	245,991	334,758	139,966	165,362	151,695	22,532	18,718	12,784
England and Wales	6,076,426	5,742,427	7,964,795	2,250,030	2,609,264	2,335,627	491,595	411,839	258,009

Source: Agricultural Statistics, M.A.F.F.

TABLE 2

Farm Classification—June 1967 Distribution of Standard Man-Day Requirements in the 4 Counties

	Standard Man-Day Size Group											
	275–499 S.M.D.		*450–599 S.M.D.*		*600–1199 S.M.D.*		*1200–1799 S.M.D.*		*1800 S.M.D. & over*		*Total*	
	Holdings	*S.M.D.*	*Holdings*	*S.M.D.*	*Holdings*	*S.M.D.*	*Holdings*	*S.M.D.*	*Holdings*	*S.M.D.*	*Holdings*	*S.M.D.*
Holdings with 275 S.M.D. or more:												
Specialist Dairy	435	161,613	376	196,198	765	647,423	235	340,700	75	176,076	1,886	1,522,010
Mainly Dairy	387	143,963	430	226,159	1,138	969,003	375	539,454	157	388,296	2,487	2,266,875
Livestock Rearing and Fattening:												
Mostly Cattle	84	28,363	36	18,712	49	39,656	9	12,424	9	22,561	187	121,716
Mostly Sheep	76	27,363	75	39,693	248	211,346	83	119,639	60	159,541	542	557,582
Cattle and Sheep	489	176,591	407	212,517	973	834,962	306	442,276	216	581,847	2,391	2,248,553
Predominantly Poultry	30	10,914	26	13,476	36	32,411	17	24,312	17	60,302	126	141,415
Pigs and Poultry	37	13,514	22	11,584	41	34,742	12	17,651	15	39,148	127	116,639
Cropping: Mostly Cereals	72	26,243	74	38,368	160	133,343	42	60,955	42	116,777	390	375,686
General Cropping	68	24,309	50	25,900	144	124,866	72	103,643	35	90,425	369	369,143
Predominantly Vegetables	8	3,003	1	507	6	5,130	3	4,961	4	13,556	22	27,157
Predominantly Fruit	2	779	—	—	—	—	—	—	—	—	2	779
General Horticulture	30	11,059	30	15,763	83	70,356	30	42,506	44	176,266	217	315,950
Mixed	106	37,438	109	56,503	342	298,125	112	157,042	111	342,125	780	891,233
Total Holdings with 275 S.M.D. or more	1,824	665,512	1,636	855,380	3,985	3,401,363	1,296	1,865,563	785	2,166,920	9,526	8,954,738
Holding less than 150 S.M.D.	—	—	—	—	—	—	—	—	—	—	5,047	195,817
Holdings with 150–274 S.M.D.	—	—	—	—	—	—	—	—	—	—	1,301	274,618
TOTAL ALL HOLDINGS	1,824	665,512	1,636	855,380	3,985	3,401,363	1,296	1,865,563	785	2,166,920	15,874	9,425,173

Source: Agricultural Statistics, M.A.F.F., May 1968.

III. THE SURVEY

A copy of the questionnaire and a description of the sampling technique are given in Appendix 1. Here it may suffice to say that a stratified random sample of 300 farms was drawn, with the help of the Ministry of Agriculture, Fisheries and Food. Field interviewers completed the survey work during the months of July and August 1968. Completed questionnaires were obtained from 80 per cent of respondents with partial information collected from a further 10 per cent. This satisfactory response was to some extent due to the interviewers, but was more particularly due to the full measure of co-operation afforded by the 300 farmers who had been selected. For this co-operation the Unit records its sincere gratitude.

Information from the sample has been multiplied by an appropriate raising factor, taking account of the original sampling fraction and of the response rate to particular questions, so that the aggregated information is representative of the four counties. In many instances there is no way of checking the data, e.g. against published statistics, but Tables 3 and 4 show that as far as the acreage of crops and grass is concerned the sample information is within some 10 per cent of published statistics. Regarding structure, not all farms are equally represented in the sample. In view of the problem of equating 'holdings' to 'farm business' all the error here may not rest with the sample.

TABLE 3

Comparison of Sample Information and Published Statistics

Size of Farm, Crops and Grass Acreage	*0–49*	*50–149*	*150–299*	*300+*	*Total C+G acreage*
No. of farms:					
Sample	7,091	5,131	2,683	951	1,617,242
M.A.F.F.	6,537	5,455	2,575	972	1,647,282
% Sample/M.A.F.F.	108%	94%	108%	98%	98%

Source: Sample and Agricultural Statistics, M.A.F.F., 1967.

The sample was drawn from farmers in business in 1967, and describes their situation in 1962; it does not include those who were farming in 1962, but who have since ceased farming in the area. Because the total number of farms declined between 1962 and 1967, the relative importance of the farms sampled increased

between 1962 and 1967, expressed as a percentage of the total population figures for those two years (Table 4).

TABLE 4

A comparison of Census and Survey Estimates for Various Items

	Population Total	*Raised Sample Estimate*	*Proportion of the total number of farms accounted for by the raised estimate of farmers in the survey who were on same farm in both 1962 and 1967*	
	1967	*1967*	*1962* %	*1967* %
No. of full-time holdings (at least 275 S.M.D's)*	9,526	(9,526)	74·9	86·7
Acreage crops and grass	1,647,000	1,617,000	84·3	88·4
Cereals Acreage	340,000	324,000	86·8	87·0
No. of Cattle	843,000	892,000	93·5	95·9
No. of Sheep	2,642,000	2,696,000	84·8	91·9

Source: M.A.F.F. published statistics and survey.

* S.M.D's are standard man-days, further described in section VI below.

About 13·5 per cent of the full-time holdings in 1962 had disappeared by 1967, an annual rate of 2·8 per cent. New entrants to farming, after 1962, were represented in the sample. However, for most of the statistical comparisons between 1962 and 1967 new entrants have been shown separately.

Particular items may be inaccurate, because of the inability of farmers to remember precise figures or because of their reluctance to disclose some information, the latter of which might bias the figures. It is, therefore, worth recording that 90 per cent of the farmers in the sample allowed us to obtain copies of their June Census forms from the Ministry of Agriculture, Fisheries and Food. Furthermore in the case of financial aspects of the questionnaire, 83 per cent of the respondent farmers provided information, while 48 per cent allowed information to be extracted directly from Balance Sheets. Notwithstanding these reassuring features, it is preferable to regard the information presented in subsequent sections of the report as indicative of general trends, with a tolerance of possibly $\pm$ 10 per cent, rather than attach undue importance to the accuracy of a particular figure.

IV. FARM ACREAGE CHANGES

Acreage change alone is not an adequate measure of change of business size, since it is also possible to expand the size of farm business by intensification (often involving new investment). In effect, expansion of either kind is a form of structural change. The balance of advantage between increasing area and intensification depends on the farming system and the resources of the farmer. Farm consolidation by a landlord and land acquisition by an owner-occupier involve dealing in land, where for a variety of institutional, social and economic reasons, rates of return to investment tend to be lower than the average of other investments in agriculture and rates of return of non-agricultural business firms. For many types of farming, structural change means acreage change, since intensification may not be possible, and the factors which determine land values, many of which are only indirectly related to commercial farming, may be affecting the rate of structural change and also the rate of investment in other capital items.

Table 5 below and Table 2.1 in Appendix 2* show the changes in acreage size-groups between 1962 and 1967. Numbers in heavy print on the diagonal are farms which have not changed area category between 1962 and 1967, whereas those on the upper right of that diagonal are farms which have expanded, while those to the lower left of the diagonal have reduced area. Care is necessary in interpreting these figures for several reasons. Firstly, because it has been necessary to work within a framework of acreage size-groups, changes between these size-groups are apparent but changes within each group are not. Thus a change from 95 acres to 105 would be recorded, while one from 105 to 145 acres would not. The amount of change therefore, tends to be understated. Secondly, it must be remembered that farm businesses which have disappeared as separate entities between 1962 and 1967 will not be represented in the sample, since they did not exist in 1968 at the time of the survey. Consequently the sum total of acreage changes in Table 5 shows an acreage increase, representing land which has been acquired from farmers no longer in business. Finally since only a small proportion of land changes hands in any year, usually estimated at around 4 per cent, the availability of land in a particular locality over five years is largely fortuitous. It may well be that many of the farmers who have not changed acreage would have been both willing and able to purchase land had the opportunity arisen.

Bearing these qualifications in mind, the results of Table 5 are interesting. Almost 90 per cent of farms stayed in the same size-group over the five-year period, with tenant farms being slightly lower than this. About 6 per cent of farms had increased in area, 5½ per cent of those which were owner-occupied and 6½ per cent of those which were tenanted; while there were about 4½ per cent of farms which

* Appendix 2 contains detailed tables in support of the text and summary tables.

had reduced acreage, most of which were tenanted. These figures conflict with the general assertion that the landlord/tenant section has been restructuring to larger size of farm substantially faster than the owner-occupied, but it could be that the regional characteristics in this respect are unusual. Moreover the raised figure of 456 tenant farms with reduced acreage, may be a biased result, arising from the small sample.

TABLE 5

Number of Farms in Different Crops and Grass Acreage Categories, 1962 and 1967

1967 Acreage Category / 1962 Acreage Category	*0–29*	*30–49*	*50–99*	*100–149*	*150–299*	*300–499*	*500–699*	*700–899*	*900–999*	*1,000+*	*Total*
0–29	**3,486**		8								*3,494*
30–49	338	**2,690**	80	51							*3,159*
50–99		72	**2,152**	224	26						*2,474*
100–149			134	**1,579**	274	26					*2,013*
150–299	9		21	63	**2,187**	93	51				*2,424*
300–499						**553**	8		8		*569*
500–699							**60**			8	*68*
700–899				9				**0**			*9*
900–999									**0**		*0*
1,000+										**51**	*51*
TOTAL	3,833	2,762	2,395	1,926	2,487	672	119	—	8	59	**14,261**
Entrants since 1962	*352*	*158*	*580*	*222*	*205*	*89*	—	—	—	—	*1,606*
TOTAL	4,185	2,920	2,975	2,148	2,696	761	119	—	8	59	15,867

Note: For this and similar tables later in the text and Appendix 2 the source is the raised survey results. Rows and columns may not sum to totals exactly due to rounding errors.

The rate of change with respect to size-group is significant. Most of the acreage reductions occurred in groups smaller than 150 acres in 1962; some 50 per cent of reductions were from farms of under 50 acres; most of the farms concerned have become part-time farmers in terms of S.M.D.'s. Among the increases, the proportion in the 100–149 acre group is higher than average, with the adjacent two size-groups also well represented. A possible explanation of this is that the 100–149 acre group of farmers, which would often fall within the Ministry of Agriculture classification of 'small family farmers', have recognised their vulnerability to the cost/price squeeze and are more motivated to expand than others, perhaps assisted by various government schemes e.g. Small Farmers' Scheme.

V. CAPITAL INVESTMENT

Total investment in land improvement, buildings, plant and machinery by farmers who were in the four northern counties over the period 1962–1967 (but excluding land purchase, working capital and livestock) was some £38 million. Land improvements accounted for some £3 million, buildings about £18 million, plant and machinery £17 million. To these figures must be added investment by new entrants since 1962 and by those who left the industry between 1962 and 1967; as a broad estimate £3 million of new investment is suggested for these two groups. The average new investment per farmer was about £2,700 of which subsidies provided some £300, landlords* £200, the farmer having to find the remaining £2,200 himself. Table 6 gives further details.

TABLE 6

Total New Investment : 1962–67

(£000)

	Total Investments		*Farmer Provided*		*Landlord Provided*		*Subsidies Provided*		%
	£	%	£	%	£	%	£	%	
Buildings	18,005	47	12,095	67	2,590	14	3,320	18	100
Land Improvement	2,955	8	2,134	72	149	5	672	23	100
Plant and Machinery	17,311	45	17,262	100	—	—	49	—	100
TOTAL	38,271	100	31,491	83	2,738	7	4,041	11	100

New Investment per Farmer : 1962–67

	Total		*Farmers Provided*		*Landlord Provided*		*Subsidies Provided*	
	£	%	£	%	£	%	£	%
Buildings	1,256	100	843	67	180	14	321	18
Land Improvement	206	100	148	72	10	5	46	22
Plant and Machinery	1,207	100	1,204	100	0	—	3	—
TOTAL	2,669	100	2,196	82	191	7	281	11

To achieve this level of investment farmers borrowed almost £20 million, half of which came from banks, nearly £3 million from family sources and £4 million from the Agricultural Mortgage Corporation. Bearing in mind the contributions

*In some instances tenants could not give the landlords' investment, which was reflected in an increase in rent. The figures, therefore, tend to understate the importance of landlords' investment.

from Government subsidies and from landlords, it would appear that farmers provided from their own funds about one-third of the total investment of £38 million, either out of ploughed-back profits or reserves, which could have included non-farm assets. However, although nearly two-thirds of the new investment was not financed from the farmers' own resources, it remains true that ploughed-back profits are still important, particularly with regard to the gearing of borrowing which they facilitate.

One important aspect of investment is the relationship between purchase of additional land and other capital investment, where one might argue in one of two ways; either that extra land would call for additional other capital or that purchase of land reduced the availability of funds for other investment. The evidence of the survey, presented in Table 7 below, supports the first explanation. The average new investment of farmers whose acreage has remained the same was £2,700 while that

TABLE 7

New Investment per Farmer 1962–67

Farmers with unchanged acreage	*Total Investments* £	*Farmer Provided* £	*Landlord Provided* £	*Subsidies Provided* £
Buildings	1,299	880	184	233
Land Improvements	203	147	11	44
Plant and Machinery	1,150	1,146	—	3
TOTAL	2,652	2,173	195	280
Farmers who have increased acreage				
Buildings	1,428	843	229	355
Land Improvements	397	273	6	117
Plant and Machinery	2,560	2,555	—	4
TOTAL	4,385	3,671	235	476
Farmers who have reduced acreage				
Buildings	141	91	35	14
Land Improvements	—	—	—	—
Plant and Machinery	537	537	—	—
TOTAL	679	628	35	14

of farmers with an increased acreage was £4,400 in items other than land, i.e. the difference is mostly accounted for by additional plant and machinery. Those farmers who reduced acreage had a much lower level of new investment, averaging £700, which was almost entirely machinery replacement. Thus there is little evidence of farmers disposing of land to raise funds for intensification.

Relating investment to level of loans, those farmers who increased their acreage borrowed more than those with constant acreage.

Caution must be exercised at this stage in drawing too many conclusions from the evidence. While it is clear that land purchase did not prevent higher levels of investment, the evidence is not sufficiently detailed to decide whether the additional investment was adequate or not. Moreover there is always the possibility that some farmers were deterred from buying land, because they recognised the need for further investment and had not the necessary financial resources to proceed. However, on the basis of the survey there is no evidence for suggesting that capital investment was reduced because of land acquisition.

It might be thought that omission hitherto of the major division between landlord/tenant and owner-occupied farms would weaken the argument, but analysis on this basis shows that owner-occupiers tended to invest only slightly less (£2,540) than tenants (£2,772) (see Appendix 2, Table 2.2). Owner-occupiers have increased their acreage at a slightly slower rate than tenant farmers, and are investing at a slightly lower rate, so that the assertion that owner-occupancy is changing slowly relative to landlord/tenancy has to be tempered. In the four northern counties at least, the differences in rates of change are fairly small. Again, it would be unwise to be dogmatic, since owner-occupiers experiencing rising land values might have become better placed to borrow funds than tenants.

Information was collected on the change in net worth which arose from additional capital investment, borrowing and the inflation of land values. Although the response rate to those questions, at about 80 per cent, was higher than might have been expected, the results were somewhat unsatisfactory in several respects; in particular the way in which land was valued and revalued varied widely. A large relative increase in net worth might have been occasioned by a decision to upvalue assets in order to raise funds for investment. Broadly speaking, just over a third of all farms had recorded a marked increase in net worth and there was little difference in this proportion between those which had increased acreage and those which had not. As might be expected, those who had reduced acreage had a higher proportionate reduction of net worth.

The equity held by the farmer in his own business may be an important determinant of the intensity at which a farm is operated. It is argued that a high debt burden will result in more concentrated use of farm resources to allow debts

to be paid off. More detailed analysis of the survey statistics at a later stage may allow this assertion to be tested.

To obtain some measure of off-farm assets questions were asked concerning sources of income. A summary is presented in Table 8 below and further details are in Appendix 2, Table 2.3. About two-thirds of farmers were dependent on the one farm for 75 per cent or more of their income. The bulk of the remainder were dependent on off-farm employment to supplement their income. Nearly one-third of all farmers had private means of some sort but non-agricultural assets contributed under 10 per cent of aggregate income. Farmers who had increased their acreage did not have a disproportionate share of non-farm income. Three-quarters of those who had increased their acreage were completely dependent on that farm for a livelihood, so that there is nothing to suggest that expanding farmers were relying on non-farm income and capital to finance land purchase. On the other hand those who reduced acreage tended to be part-time farmers, only one-third depending on the farm for 100 per cent of their incomes. In a number of cases, the reduced acreage made a more manageable part-time unit. About one-sixth of the tenant farmers had some form of private means, but although this was about the same proportion as owner-occupiers, the latter had a lower response rate to the question. New entrants to farming since 1962 had roughly the same dependence on their farm for income as the other categories.

TABLE 8

Dependence of Farmers on one Farm for Income

Dependence on Farm		Dependence on off-farm income		
(1)		(2) *Off-farm employment*		(3)
Degree of dependence upon farm income for livelihood	*Proportion of farmers*	*Proportion of farmers in group affected*	*Proportion of aggregate income from this source*	*Proportion of aggregate income from other sources than (1) and (2)*
%	%	%	%	%
0–24	25	90	77	15
25–49	3	14	4	66
50–74	7	38	12	30
75–99	24	5	1	10
100	41	—	—	—
TOTAL	100	29	17	13

VI. INTENSITY AND TYPE OF FARMING

A useful conventional method of measuring farm business size is by attributing Standard Man-Day (S.M.D.) factors to each unit of every enterprise on the farm, thus deriving a whole-farm measure of labour-input. As technology improves so the S.M.D. factors will be reduced, and a comparison of business size on an S.M.D. basis should allow for this, consequently the tables and narrative here have been prepared with lower S.M.D. factors for 1967 than 1962. Table 9 below and Table 2.4 of Appendix 2 compares total S.M.D. changes between 1962 and 1967; again farms in heavy type on the diagonal are those which have not changed their S.M.D. size; those to the upper right have increased, those to the lower left decreased their S.M.D. requirements.

TABLE 9

Farms with respect to S.M.D. Categories, 1962 and 1967

Number of Holdings

1967 Category	*0–274*	*275–449*	*450–599*	*600–1,199*	*1,200–1,799*	*1,800+*	*Total*
1962 Category							
0–274	**5,843**	195					*6,038*
275–449	195	**914**	97	105		9	*1,321*
450–599	48	229	**532**	249	12		*1,072*
600–1,199		79	278	**2,862**	449	30	*3,700*
1,200–1,799				162	**856**	131	*1,152*
1,800+				51	64	**734**	*850*
TOTAL	6,087	1,418	909	3,430	1,385	905	**14,143**
New Entrants since 1962	*582*	*348*	*241*	*321*	*153*	*73*	*1,722*
TOTAL	6,670	1,768	1,151	3,752	1,538	979	15,874

Note: This and similar tables includes those farm businesses deemed to be 'part-time', i.e. those below 275 S.M.D's.

Farms in same S.M.D. category 1962–67:	11,741 (83%)
Farms who have moved up in S.M.D's:	1,277 (9%)
Farms who have moved down in S.M.D's:	1,106 (7%)

In total slightly more farms (9 per cent) have expanded by the S.M.D. definition, to the extent of changing category, as have contracted (7 per cent), but there is a marked difference between those farms with increased, constant or reduced acreage.

Expanded acreage is associated with increased S.M.D. requirements, while constant acreage farming has been relatively stable in terms of business size and those with reduced farming area have also reduced business size. This conclusion helps confirm the earlier analysis of capital investment. There is little evidence that an expansion of the area farmed leads to a reduction in farming activity by lowering the intensity of farming; there is no evidence to suggest that farmers have been selling agricultural land to finance intensification. The figures presented in Table 2.4 have also been analysed regarding owner-occupiers and tenants, but there is little difference between these groups, and the results are not presented here.

Particular farms can be categorised according to their enterprises weighted by S.M.D's into types such as predominantly dairying, or cropping farms. Using definitions similar but not identical to those of the Ministry of Agriculture classification, Table 10 below and Table 2.5 in Appendix 2, show the way in which the pattern of farming has changed between 1962 and 1967. For convenience the categories are listed roughly in ascending order of intensity i.e. the more intensive systems are at the bottom of the tables, so that farms to the upper right of the table can be defined as having intensified. There has been quite a large measure of change, affecting some 24 per cent of farms. Of those with increased acreage (see Table 2.5), 22 per cent increased intensity while 12 per cent reduced intensity; regarding the latter it must be remembered that their total S.M.D's were generally the same or greater, so that the move towards extensification was relatively limited. Although changes in the pattern of farming of those whose acreage was unchanged (Table 2.5) was on balance towards intensification, the proportion of intensification was lower than those whose area increased and three-quarters of them did not change categories at all. Those who reduced acreage evolved in much the same way and there were no dramatic moves towards intensification.

TABLE 10

Movements of all farms between type categories, 1962–1967

1967 Category		*1*	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*	*12*	*Total*
1962 Category														
Sheep	*1*	**62**	118											*180*
Livestock	*2*	177	**2,440**	103		50	67		112	50				*3,002*
Beef	*3*			**50**										*50*
Mixed	*4*		588	9	**140**	67	21		720	210	20	12		*1,792*
Cropping	*5*		100		50	**256**	59	12	51					*531*
Cereal	*6*						**12**							*12*
Horticulture	*7*							**0**						*0*
Dairy, Mainly	*8*		59		62	50			**1,189**	474				*1,840*
Dairy, Predominantly	*9*		9						255	**354**				*619*
Mainly Pigs and Poultry	*10*										**0**			*0*
Predominantly Pigs and Poultry	*11*										50	**0**		*50*
Part Time	*12*												**6,697**	*6,697*
TOTAL	*13*	240	3,319	162	253	424	159	12	2,334	1,093	70	12	6,697	**14,788**
Entrants since 1962	*14*	*58*	*140*		*72*	*50*			*242*	*88*		*9*	*417*	*1,078*
TOTAL	*15*	298	3,460	162	326	475	159	12	2,576	1,181	70	21	7,115	15,874

Increased Intensity: 2,146 (15%)
Constant Intensity: 11,200 (76%)
Decreased Intensity: 1,409 (9%)

VII. LABOUR USE

The national trend of reduction in hired labour is reflected in the region as a whole, as indicated by Table 2 in the opening section of the report. However, once this aggregate information is broken down a complex pattern of change emerges. Thus in Table 11 and Table 2.6 of Appendix 2 although a total reduction of regular hired labour of 2,600 is recorded, farmers with increased acreage did not reduce their labour force at all. Those with a constant acreage shed an average of a fifth of a man per farm in this group, but those which had hired labour in 1962 (less than half of the total) showed an average reduction of half a man per farm by 1967. Although the number of farms with reduced acreage is small it is interesting to observe that while they did not intensify their systems of farming, neither did they shed labour as much as the unchanged acreage group.

TABLE 11

Farms with Different Numbers of Regular Full-Time Workers, 1962–67

No. of Workers in 1967	*0*	*1*	*2*	*3*	*4*	*5*	*6+*	*Total*
No. of Workers in 1962								
0	**7,813**	347	14					*8,179*
1	626	**1,302**	306	9	9			*2,257*
2	184	438	**1,111**	*125*				*1,862*
3	0	123	443	**444**	9			*1,021*
4	0	52	131	107	**68**	55		*414*
5			120	9	132	**0**		*261*
6+		52	9			55	**64**	*180*
TOTAL	8,627	2,320	2,138	697	218	110	64	**14,186**
Entrants	*1,128*	*367*	*98*	*82*				*1,678*
TOTAL	9,759	2,688	2,238	779	218	110	64	*15,874*

Farms with: Increased labour force 874 (6%)
Constant labour force 10,802 (76%)
Decreased labour force 2,481 (17%)

It is clear that the simple regional labour statistics hide a complex pattern of events. There would appear to be substantial substitution of capital for labour, which is not fully accounted for by the average decline of labour. This substitution

is found predominantly on farms which have not changed acreage, but also on about one-sixth of farms which have expanded area. Off-setting this are a number of farms who have increased their labour force to handle a larger farm business. This was found in two situations. First, some 6 per cent of farms with unchanged acreage increased their labour force to cope with intensification. Second, some 20 per cent of those farms which increased their acreage took on extra men to handle the enlarged size of business. Further analysis is required to examine the implications of these statistics.

VIII. AGE AND EDUCATION OF FARMERS

The age-distribution of farmers in the North of England is given in Table 12 below. Nearly one-third of the farmers were 60 years of age or older, while well over half were from 40 to 59. Farmers who have increased acreage were not noticeably younger on average than the group as a whole. As might be expected, and confirming the suggestions made earlier, those who have reduced acreage were substantially older than average.

The educational pattern of farmers is shown in Table 13. With the increasing importance of technology and the need for technically competent management, it is of interest to note that less than 10 per cent of the farmers have received some post-secondary school higher education. In view of the age-structure of farmers this is largely a reflection of the educational opportunities a generation ago. However, it also indicates a future problem which may be facing an industry comprising a large number of small firms which has traditionally been based on hereditary family management. Each farm firm has only a small and not necessarily technically trained management staff, but scientific development is continuing at a rapid rate, so that each farm will increasingly need sophisticated technology.

There is very little difference in educational background between those farmers who have expanded and those who have not, certainly not enough to support any contention in favour of, or against, higher education as an aid to management and development of commercial farming.

TABLE 12

Age of Farmer Related to Change in Acreage, 1962–67

Age of Farmer	*Total Four Counties*	%	*Farmers with Increased Acreages*	%	*Farmers with Unchanged Acreage*	%	*Farmers with Decreased Acreages*	%	*Farmers Starting After 1962*	%
Under 30	315	2	7	1	42	—	—	—	266	17
30–39	1,597	10	83	9	1,049	8	87	14	375	24
40–49	5,808	37	297	34	5,144	40	22	4	341	22
50–59	3,490	22	252	29	2,781	22	79	13	374	24
60–64	3,023	19	126	14	2,638	21	81	13	176	11
65+	1,612	10	108	12	1,148	9	355	57	—	—
TOTAL	15,874	100	878	100	12,815	100	625	100	1,536	100

TABLE 13

Relation between Changes in Area of Farms and the Educational Experience of Farmers

	Total		*Farmers with Increased Acreages*		*Farmers with Unchanged Acreages*		*Farmers with Decreased Acreages*		*Farmers Starting after 1962*	
	Number	*%*	*Number*	*%*	*Number*	*%*	*Number*	*%*	*Number*	*%*
(i) Age Left School										
12–14	12,108	100	559	5	10,301	85	572	5	664	5
15–17	3,650	100	295	8	2,465	68	55	2	831	23
18+	325	100	28	9	251	77	0	—	45	14
(ii) Years of Higher Education										
1	584	100	15	3	334	57	169	29	64	11
2	246	100	76	31	75	31	0	—	95	39
3+	524	100	13	2	202	39	42	8	265	51
Total	1,357	100	104	8	613	45	211	16	426	31
None	14,508	100	779	5	12,191	84	416	3	1,108	8
(iii) Fields of Higher Education										
Agricultural	917	100	49	5	457	50	169	18	241	26
Non-agricultural	699	100	63	9	274	39	42	6	317	45
(iv) Institutions Attended										
University	150	100	13	9	45	30	0	—	91	61
Colleges	606	100	36	6	187	31	169	28	211	35
F.I.	308	100	7	2	259	84	0	—	42	14
Others	551	100	56	10	238	43	42	8	212	38

IX. SUMMARY AND CONCLUSIONS

The main point which emerges from the preceding sections is that an examination of changing agricultural structure at the individual farm level reveals a far more complex evolution than that suggested by the aggregate published statistics. Even the data presented here require further breaking down to reveal more detail about the different types of farming in different parts of the Northern Region of England. This finding is not unexpected and confirms the need for continuing observation to establish with some precision the course of the adjustment process.

As with all surveys, there are bound to be errors in the collated results arising from sampling techniques and inappropriate responses to some of the questions. These errors may be magnified by the procedure of raising the sample results to cover the whole region. It would, therefore, be a mistake to lean too heavily on particular numerical data. Within the broad limits of error, where a margin of ± 10 per cent has been suggested, a number of conclusions can however be drawn about recent trends in changes in farm area, in capital investment, type of farming and labour use.

It must be emphasized that the changes described here relate to the period 1962–67 and that farmers who left the industry between 1962 and 1967 are not represented and there is only partial information for those who have taken their farms since 1962. The three years since 1967 have been years of substantial change, both in the economy at large and within agriculture and have witnessed a number of policy changes. Extrapolation from the evidence must, therefore, be undertaken with caution.

About 90 per cent of farms in the North of England did not change their acreage by a significant amount over the five years 1962–67. The rate of increase in farm area among owner-occupiers was much the same as that among tenants, so that tenure was not of itself, a major factor accounting for differential rates of structural change. Most of the farms which had reduced their area over the five years were originally under 100 acres in size and tended to be farmed by older men. Most of the farms which increased in area were originally in the size-group 100–149 acres, with the adjacent size groups well represented. Many of these farms are classified as 'small family' farms and this is the group which has been identified as most exposed to income pressure and consequently needing expansion of the individual farm business to provide a reasonable livelihood. It would seem therefore that structural change has been most rapid where it has been most desired.

Total investment in the four counties in items other than land purchase has been estimated at about £40 million over the five-year period, out of which farmers' own resources provided some one-third, while they borrowed about a half. Those

farmers who increased their area also tended to invest more, whether owner-occupiers or tenants, the additional funds being mostly for plant and equipment. There was little evidence that those who acquired land had to limit their supporting investment. Neither was there any evidence of farmers reducing area in order to intensify on the remaining acreage; quite the contrary for their level of investment was mostly confined to replacement of machinery.

Although the survey results reflected the trend of a declining labour force, this was shown to conceal two divergent elements. As expected there were many farms whose labour force remained unchanged, about three-quarters of the total; about 17 per cent shed labour, but 6 per cent had increased labour. More detailed analysis is required, but there appear to be two distinct approaches to the cost/price squeeze. There are some farmers streamlining by substituting capital for labour and there are some farmers expanding either by intensification or by acquiring more land, or both, while retaining their labour force.

About 80 per cent of farms continued to be the same size of business as measured by S.M.D's. About three-quarters of the farms continued in the same category of type of farm, roughly at the same intensity. Farmers with increased area did not on the whole move into less intensive farming systems and often moved into a larger S.M.D. size-group. Those farms with a constant area tended to stay at the same level of intensity. Those who reduced area tended to reduce S.M.D's more than the other groups.

As far as age and education were concerned there was little difference between the various groups, except that those who had reduced area tended to be older, while entrants since 1962 were younger.

There is thus an interesting and consistent pattern, with several types of farm and farmer identified. There are expansionists, some of whom have acquired extra land, some of whom have intensified, whose use of labour and capital is increasing. There are farmers who are streamlining, by making capital investment to shed labour. There are large numbers of farmers whose main characteristic is absence of change, having the same area, type of farming, labour force and so on. There are those who are moving to a smaller scale of business, either to become part-time or to move into partial retirement.

There are several important questions to which the survey could not provide answers, but which will have a bearing on the future. It is not possible to assess how many farmers would have taken the opportunity to acquire additional land had it been conveniently available. It is difficult to assess the role which rising land values play in adjustment, since on the one hand increasing land prices may deter some farmers from buying, while on the other hand they provide a capital gain on existing assets, against which funds can be raised for additional land purchase.

More information is required on those who are considering leaving the industry. Until such investigations are undertaken it is necessary to defer judgment on the major issues which arise, namely whether the present rate of structural change could be increased to the advantage of the industry as a whole, and if so what government policies would best achieve this.

The survey which has been discussed in this report was undertaken by the Agricultural Adjustment Unit in the hope that it would enable a better understanding of the process of structural change to be achieved. Further analysis is continuing and the results will be published as soon as possible. As with many fields of enquiry the initial study tends to generate more questions than answers, but this in itself is useful.

It is important to remember that the preparation of this bulletin has only been possible as a result of the willingness of these farmers to provide full answers to the detailed, and often personal, questions that were asked. It is hoped that the findings recorded here and in subsequent reports will be of some value to them in reaching their decisions concerning future policies.

APPENDIX 1

SAMPLE AND QUESTIONNAIRE

Sampling

The sample was drawn with the assistance of the Ministry of Agriculture, Fisheries and Food, both in London and at regional offices. Holdings are classified as full-time or part-time and by crops and grass acreage. Because the main subject of enquiry was structural change, it was decided to devote more interviewing time to full-time farmers than part-time, and more to those who had recently changed acreage than those who had not.

Consequently different sampling fractions were used as follows:

Full-time holdings, changing acreage: 1 in 8
not changing acreage: 1 in 48

Part-time holdings, changing acreage: 1 in 80
not changing acreage: 1 in 480

For the analysis of the sample data, it was necessary to multiply by appropriate factors in order to provide estimates for agriculture in the four Northern counties. These factors were derived from the original sampling fractions (as above) and the response rates to particular questions.

Farm Code Number.....

AGRICULTURAL ADJUSTMENT UNIT

UNIVERSITY OF NEWCASTLE UPON TYNE

STRUCTURE SURVEY

1. THIS FARM NOW (as on June 4th return 1967)

	This Holding	Other holdings farmed with this holding as one business for which separate June 4th census forms are filled in			Other holdings farmed as separate businesses	
		a.	b.	c.	a.	b.
a. Acreage of crops and grass						
b. Acreage of rough grazing						
c. Woodland, waste ground etc.						
d. Total Acreage						

2. USE OF OTHER LAND

	Yes/No	Acreage or Number	How long for	Purpose
a. Common rights				
b. Other land rented for part of the year				
c. Own land rented for part of the year				
d. Livestock sent away for part of the year				
e. Livestock taken in for part of the year				

3. Will you allow us access to your June 4th returns at the Ministry of Agriculture?

Yes ☐ No ☐

If no, answer 4. If yes, go on to 5.

4.

a. Please list the amount of crops and livestock on your farm on June 4th 1967 and 1962.

Enterprise		1967	1962
Cereals	acreage		
Grass—temporary	,,		
Grass—permanent	,,		
Grass—rough grazing	,,		
Potatoes and Sugar Beet	,,		
Horticultural crops	,,		
Other crops	,,		
Dairy cows and heifers in milk	number		
Other cattle—intensive	,,		
Other cattle—at pasture	,,		
Sheep—breeding ewes (2 tooth and over)	,,		
Other sheep	,,		
Pigs—breeding sows (incl. gilts in pig)	,,		
Other pigs	,,		
Poultry—laying hens	,,		
Other poultry	,,		
Other enterprises:	,,		
	,,		
	,,		
	,,		

b. How many workers were employed on this farm on June 4th 1967 and on June 4th 1962?

			1967	1962
Regular Workers Including relatives (other than the occupier's wife) regularly employed on the holding	Whole Time			
	Males	65 years old and over		
		20–64 years		
		18–19 years		
		Under 18 years old		
	Females			
	Part Time			
	Males	20 years old and over		
		Under 20 years		
	Females			
Seasonal or casual workers	Males	20 years old and over		
		Under 20 years		
	Females			
TOTAL WORKERS				

5. LIVESTOCK KEPT FOR PART OF THE YEAR
(Including those kept on common grazing)

	1967	1962	On farm on June 4th, 1967
Dairy cows from to			
Store or fattening cattle from to			
Sheep from to			
Pigs fattened or reared for breeding in last 12 months No. of batches			
Broilers produced and young birds (other than day-old chicks) sold for fattening in last 12 months No. of batches			
Other poultry sold for slaughter or reared for flock replacement in last 12 months No. of batches			

6. LABOUR

a. Did you use contract work in 1967? Yes ☐ No ☐
1962? Yes ☐ No ☐

If yes, what was the cost in 1967? £.....
1962? £.....

b. How many new men did you employ between 1962 and 1967? .....

How many men left your employment between 1962 and 1967? .....

c. Have you tried to obtain any labour in the last five years? Yes ☐ No ☐

d. Have you had difficulty in obtaining labour? Yes ☐ No ☐

Response to advertisements for labour .....

7. PREVIOUS FARMS

Have you farmed any farms before this one? Yes ☐ No ☐
If no, go on to 8.

	Year taken over	Location	Occupier's Status	Previous Occupier	Present Occupier	Present use
1						
2						
3						
4						

8. CHANGES IN FARMING AREA OF THIS FARM

	Initial Acreage			Subsequent Additions				Subsequent Losses				Intending Additions	Intending Losses
	a	b	c	1	2	3	4	1	2	3	4		
Year acquired or lost													
Acreage													
Distance from initial farm													
Previous or present farmer													
Where did he go													
Where did his sons go?													
Previous or present use													
Occupier's status													
Type of landlord													
Change in status { Year / New status }													
Price or rent when taken over or sold													
Price or rent on change of status													
Current price or rent													

9.

a. Is there any land available for you to rent or buy and incorporate in your farm business?

Yes ☐ No ☐

If no, go to 10

b. What is its acreage .....

location .....

estimated price or rent.....

c. Do you intend to buy or rent it?

Yes ☐ No ☐

d. (If no) Reason if given

Lack of capital	
Lack of labour	
Does not need more land	
It would not pay at the price	

10. THE FARMER

Relation to Farmer	Age	Marital Status	Occupation	Proportion of Time Spent on Administration
1 Farmer				manual % admin. %
2				
3				
4				
5				
6				
7				
8				

Other children not living at home

1				
2				
3				
4				

11. FARMERS EDUCATION

Age left school.....years. Have you had any further formal training? Yes No
If no, go to 12. Duration of Education.....

Agricultural/Non-Agricultural	Institution	Full or Part-time
1		
2		
3		

12. PREVIOUS OCCUPATIONS

Have you had any previous full-time or part-time occupation, before farming on your own account that lasted at least one year? Yes ☐ No ☐ If no, go to 13.

Nature	Full-time/Part-time	Where	Duration
1			
2			
3			
4			
5			
6			
7			
8			

13. OTHER EMPLOYMENT

a. Do you have any other employment now? Yes ☐ No ☐
If no, go to b

	Job	Full, Part or Spare Time	Location
1.			
2.			
3.			

b. What other types of employment are available to farmers and farmworkers in this area?

	Job	Full, Part or Spare Time	Wage/ Salary	Location	Don't know	None
1.						
2.						
3.						

14. Were/are any of the following relations farmers?

	Farmer	Wife
Father		
Mother		
Grandfather/Grandmother		
Brothers or sisters		
Sons		

15. FUTURE OF THE FARM

What will happen to this farm when you stop farming it and when will this be?

Child will take over	Relative will take over	When and how	Other

16.

a. Do you intend to retire? Yes ☐ No ☐

b. Where will you live on retirement? .....

c. Will you still be involved in making any decisions on the farm? Yes ☐ No ☐

17. OTHER SOURCES OF INCOME

Do you obtain income from other sources as well as from this farm?

	% of total income from all sources	Absolute income
This farm		
Other farms (farmed by you)		
Pension		
Land rents		
Employment off the farm		
Private means		

18. SOURCE OF CAPITAL AND ASSET STRUCTURE

a.

	1967	1962	
Total Assets of which:			
1. Land and buildings (at cost)			
2. New buildings and improvements			
3. Livestock			
4. Machinery			
5. Tenants right			
6. Bank			
7. Sundry debtors and others			
Total Liabilities borrowed from:			Ability to obtain more
1. Family			
2. Landlord			
3. Bank (loan)			
4. Bank (overdraft) { Max. / Min.			
5. A.M.C. and L.I.C.			
6. A.C.C.			
7. Merchants			
8. Hire Purchase			
9. Other			

b. Capital borrowed since 1962

Amount	Source	Purpose

19. CAPITAL INVESTMENTS

What major capital investments have you made since 1962?

	Date bought	Item	Cost net of subsidy with labour cost if farm labour was used		Subsidy	Was it a replacement
			To you	To landlord		
Buildings						
Land Improvements and Services						
Either Machinery						

Or Total valuation of Machinery in 1967.....

1962.....

20. Ask tenants: How did you finance the working capital necessary to take over this farm and additional land?

Ask owner occupiers: How did you finance the purchase of your land?

	Original Land	Additional Land				
Status						
Self						
Private Sources						
A.M.C. or L.I.C.						
Bank						
Other						

APPENDIX 2

FURTHER DATA

TABLE 2.1

Number of Owner-Occupiers and Tenants of Different Crops and Grass Acreage Categories 1962 and 1967

1967 Acreage Category	*0–29*	*30–49*	*50–99*	*100–149*	*150–299*	*300–499*	*500–699*	*700–899*	*900–999*	*1,000+*	*Total*
1962 Acreage Category	OWNER OCCUPIERS										
0–29	**3,431**		8								*3,439*
30–49	169	**252**	30								*451*
50–99		13	**782**	31							*826*
100–149				**601**	171	17					*789*
150–299			8		**1,100**	72	51				*1,231*
300–499						**265**					*265*
500–699							**8**			8	*16*
700–899								**0**			—
900–999									**0**		—
1,000+										**0**	—
TOTAL	3,600	265	828	632	1,271	354	59	—	—	8	**7,017**
Entrants since 1962	*352*	*46*	*189*	*213*	*111*	*8*	—	—	—		*919*
TOTAL	3,952	311	1,017	845	1,382	362	59	—	—	8	7,936
	TENANTS										
0–29	**55**										*55*
30–49	169	**2,438**	50	51							*2,708*
50–99		59	**1,370**	193	26						*1,648*
100–149			134	**978**	103	9					*1,224*
150–299	9		13	63	**1,087**	21					*1,193*
300–499						**288**	8		8		*304*
500–699							**52**				*52*
700–899				9				**0**			*9*
900–999									**0**	51	*51*
1,000+										**51**	*51*
TOTAL	233	2,497	1,567	1,294	1,216	318	60	—	8	51	**7,244**
Entrants since 1962	—	*112*	*391*	*9*	*94*	*81*	—	—	—	—	*687*
TOTAL	233	2,609	1,958	1,303	1,310	399	60	—	8	51	7,931

TABLE 2.2

New Investment 1962–1967

	Total Investment		*Farmer Provided*		*Landlord* Provided*		*Subsidies Provided*	
	£	%	£	%	£	%	£	%
(a) (i) Total New Investment—Owner-Occupiers (£'000)								
Buildings	6,925	100	5,447	79	49	1	1,430	21
Land Improvement	2,004	100	1,557	78	27	1	420	21
Plant and Machinery	7,497	100	7,463	100	—	—	34	—
TOTAL	16,427	100	14,467	88	76	—	1,883	11
(a) (ii) New Investment per Farmer—Owner-Occupiers								
Buildings	1,073	100	844	79	7	1	221	21
Land Improvement	310	100	241	78	4	1	65	21
Plant and Machinery	1,162	100	1,156	100	—	—	5	—
TOTAL	2,546	100	2,242	88	11	—	291	11
(b) (i) Total New Investment—Tenants (£'000)								
Buildings	11,080	100	6,649	60	2,541	23	1,890	17
Land Improvement	950	100	577	61	121	13	253	27
Plant and Machinery	9,814	100	9,799	100	—	—	15	—
TOTAL	21,844	100	17,024	78	2,662	12	2,158	10
(b) (ii) New Investment per Farmer—Tenants								
Buildings	1,406	100	843	60	322	23	239	17
Land Improvements	120	100	73	61	15	12	32	27
Plant and Machinery	1,245	100	1,243	100	—	—	1	—
TOTAL	2,772	100	2,160	78	337	12	273	10

* A few farmers, classified as owner-occupiers in 1967, rented some or all of their land during the previous 5 years.

TABLE 2.3

Dependence of Farmers on one Farm for Income

Percentage of Total Incomes derived from one Farm	*Number of Farmers*	*Percentage*	*Off-Farm Employment*		*Percentage of Aggregate Income from other Sources of Income*
			Percentage of Farmers Affected	*Percentage of Aggregate Income from this Source*	
(i) Farms with Increased Acreage					
0–24	9	1			100
25–49	67	9			57
50–74	14	2	100	31	10
75–99	104	13			10
100+	578	75			
TOTAL	772	100	2	—	16
(ii) Farms with Unchanged Acreage					
0–24	2,713	25	94	82	10
25–49	387	3	17	4	67
50–74	811	7	30	9	33
75–99	2,938	27	5	2	10
100+	4,192	38			
TOTAL	11,051	100	31	18	23
(iii) Farms with Reduced Acreage					
0–24	258	62	100	97	
25–49	—				
50–74	—				
75–99	9	2			19
100+	150	36	4		
TOTAL	418	100	52	55	—

TABLE 2.3 *continued*

Dependence of Farmers on one Farm for Income

Percentage of Total Incomes derived from one Farm	*Number of Farmers*	*Percentage*	*Off-Farm Employment*		*Percentage of Aggregate Income from other Sources of Income*
			Percentage of Farmers Affected	*Percentage of Aggregate Income from this Source*	
(iv) Entrants since 1962					
0–24	415	34	51	75	16
25–49	0				
50–74	106	9	100	50	
75–99	137	12	10		6
100+	532	45			
TOTAL	1,191	100	22	30	7
(v) Owner-Occupiers					
0–24	1,892	39	89	78	18
25–49	131	3	49	21	36
50–74	493	9	19	6	37
75–99	362	8	18	8	8
100+	2,030	41			1
TOTAL	4,914	100	44	27	12
(vi) Tenants					
0–24	1,503	18	92	76	8
25–49	323	4			73
50–74	438	5	62	26	14
75–99	2,827	33	4		11
100+	3,426	40			
TOTAL	8,525	100	19	9	13

TABLE 2.4

Farms, with respect to S.M.D. Categories 1962–1967

1967 Category	*0–274*	*275–449*	*450–599*	*600–1,199*	*1,200–1,799*	*1,800+*	*Total*
1962 Category							
(i) Farms where Acreage was Increased							
0–274	**0**	0	0	0	0	0	*0*
275–449	0	**14**	16	0	0	9	*39*
450–599	0	0	**14**	118	12	0	*144*
600–1,199	0	0	0	**209**	81	30	*321*
1,200–1,799	0	0	0	9	**85**	12	*106*
1,800+	0	0	0	0	0	**158**	*158*
TOTAL	0	14	30	337	179	209	**770**

Higher category in 1967: 278 (36%) Same category in 1962–1967: 480 (62%)
Lower category in 1967: 9 (1%)

(ii) Farms with Unchanged Acreage							
0–274	**5,437**	195	0	0	0	0	*5,632*
275–449	146	**900**	67	105	0	0	*1,220*
450–599	48	213	**518**	111	0	0	*892*
600–1199	0	67	169	**2,541**	367	0	*3,146*
1,200–1,799	0	0	0	153	**771**	119	*1,044*
1,800+	0	0	0	51	64	**575**	*691*
TOTAL	5,632	1,375	755	2,963	1,204	695	**12,632**

Higher category in 1967: 964 (7%) Same category in 1967: 10,742 (85%)
Lower category in 1967: 911 (7%)

(iii) Farms with Reduced Acreage							
0–274	**406**	0	0	0	0	0	*406*
275–449	48	**0**	14	0	0	0	*62*
450–599	0	16	**0**	18	0	0	*34*
600–1,199	0	12	109	**110**	0	0	*231*
1,200–1,799	0	0	0	0	**0**	0	*0*
1,800+	0	0	0	0	0	**0**	*0*
TOTAL	454	28	124	129	0	0	**735**

Higher category in 1967: 32 (4%) Same category in 1962–1967: 516 (70%)
Lower category in 1967: 185 (25%)

TABLE 2.5

Farms classified by Types, 1962 and 1967

1967 Category		*1*	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*	*12*	*Total*
1962 Category														
(i) Acreage Increased														
Sheep	*1*	**12**												*12*
Livestock	*2*	68	**460**							50				*578*
Beef	*3*			**50**										*50*
Mixed	*4*		117	9	**26**		21		206	58	12			*451*
Cropping	*5*					**137**	9							*146*
Cereal	*6*						**0**							*0*
Horticulture	*7*							**0**						*0*
Dairy, Mainly	*8*								**146**	38				*184*
Dairy, Predominantly	*9*		9						9	**29**				*47*
Pigs and Poultry, Mainly	*10*										**0**			*0*
Pigs and Poultry, Predominantly	*11*											**0**		*0*
Part Time	*12*												**272**	272
TOTAL	*13*	80	587	59	26	137	30	0	362	175	12	0	272	**1,748**

Increased Intensity: 394 (22%)

Constant Intensity: 1,132 (65%)

Reduced Intensity: 212 (12%)

TABLE 2.5 *continued*

Farms Classified by Type, 1962 and 1967

1967 Category		*1*	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*	*12*	*Total*
1962 Category														
(ii) Acreage Unchanged														
Sheep	*1*	**50**	51											*101*
Livestock	*2*	100	**1,969**	103		50	67		112					*2,403*
Beef	*3*			**0**										*0*
Mixed	*4*		461		**114**	67			493	151	8	12		*1,308*
Cropping	*5*		100		50	**119**	50		51					*373*
Cereal	*6*						**0**							*0*
Horticulture	*7*							**0**						*0*
Dairy, Mainly	*8*		51		62	50			**952**	427				*1,546*
Dairy, Predominantly	*9*								234	**313**				*548*
Pigs and Poultry, Mainly	*10*										**0**			*0*
Pigs and Poultry, Predominantly	*11*										50	**0**		*50*
Part Time	*12*												**6,034**	*6,034*
TOTAL	*13*	151	2,636	103	227	287	117	0	1,847	895	58	12	6,034	**12,375**

Increased Intensity: 1,642 (13%)

Constant Intensity: 9,551 (77%)

Reduced Intensity: 1,158 (9%)

TABLE 2.5 *continued*

Farms Classified by Type, 1962 and 1967

1967 Category		*1*	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*	*12*	*Total*
1962 Category														
(iii) Acreage Decreased														
Sheep	*1*	**0**	67											*67*
Livestock	*2*	9	**8**											*17*
Beef	*3*			**0**										*0*
Mixed	*4*		9		**0**				21					*30*
Cropping	*5*					**0**		12						*12*
Cereal	*6*						**12**							*12*
Horticulture	*7*							**0**						*0*
Dairy, Mainly	*8*		8						**89**	9				*106*
Dairy, Predominantly	*9*								12	**12**				*24*
Pigs and Poultry, Mainly	*10*										**0**			*0*
Pigs and Poultry, Predominantly	*11*											**0**		*0*
Part Time	*12*												**389**	*389*
TOTAL	*13*	9	92	0	0	0	12	12	122	21	0	0	389	**658**

Increased Intensity: 109 (17%)

Constant Intensity: 510 (77%)

Reduced Intensity: 38 (6%)

TABLE 2.6

Farms with Different Numbers of Regular Full-Time Workers, 1962–1967

No. of Workers in 1967	*0*	*1*	*2*	*3*	*4*	*5*	*6+*	*Total*
No. of Workers in 1962								
(i) Farms where Acreage had Increased								
0	**183**	17	0	0	0	0	0	*200*
1	18	**100**	37	9	9	0	0	*175*
2	0	38	**132**	18	0	0	0	*188*
3	0	0	61	**0**	9	0	0	*70*
4	0	0	0	0	**0**	55	0	*55*
5	0	0	0	9	9	**0**	0	*18*
6+	0	0	9	0	0	0	**9**	*18*
TOTAL	202	155	240	37	27	55	9	**727**
Farms with: Increased labour in 1967: 154 (21%) Same labour in 1962–1967: 424 (58%) Reduced labour in 1967: 144 (19%).								
(ii) Farms with Acreage Unchanged								
0	**7,141**	330	0	0	0	0	0	*7,472*
1	563	**1,184**	260	0	0	0	0	*2,010*
2	184	377	**966**	107	0	0	0	*1,636*
3	0	123	371	**391**	0	0	0	*887*
4	0	52	131	107	**68**	0	0	*359*
5	0	0	120	0	123	**0**	0	*243*
6+	0	52	0	0	0	55	**55**	*162*
TOTAL	7,890	2,122	1,852	608	191	55	55	**12,782**
Farms with: Increased labour in 1967: 697 (5%) Same labour in 1962–1967: 9,805 (76%) Reduced labour in 1967: 2,258 (17%)								
(iii) Farms where Acreage Decreased								
0	**486**	0	14	0	0	0	0	*500*
1	44	**17**	9	0	0	0	0	*71*
2	0	23	**12**	0	0	0	0	*35*
3	0	0	9	**52**	0	0	0	*61*
4	0	0	0	0	**0**	0	0	*0*
5	0	0	0	0	0	**0**	0	*0*
6	0	0	0	0	0	0	**0**	*0*
TOTAL	531	40	44	52	0	0	0	**670**
Farms with: Increased labour in 1967: 23 (3%) Same labour in 1962–1967: 567 (84%) Reduced labour in 1967: 76 (11%)								

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