Teagasc National Farm Survey 1999

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(The detailed report is available from Teagasc, 19 Sandymount Avenue, Dublin 4; Price £15)

INTRODUCTION

The National Farm Survey (NFS) is designed to

a) determine the financial situation on Irish farms by measuring the level of gross output, costs, income, investment and indebtedness across the spectrum of farming systems and sizes,

b) measure the current levels of, and variation in, farm performance for use as standards for farm management purposes, and

c) provide a database for agricultural economic and rural development research projects.

To this end, a farm accounts book is recorded for each year on a sample of farms throughout the country. For 1999, 1107 farms are included in the analysis.

As with the 1998 NFS, farms falling into the Pig/Poultry Systems were not included in the 1999 sample, due to the inability to obtain a representative sample of this system. For 1999 the results are presented for Objective One Region Appendix Tables 12a – 12e and

Non-Objective One Region Appendix Tables 13a – 13e, this is a change from previous years where the results were presented on an East – West basis.

The National Farm Survey is designed to collect and analyse information relating to farming activities as its primary function. Information relating to other activities by the household are considered secondary and as such where this information is presented it should be interpreted with caution.

SUMMARY

- Average Family Farm Income (FFI) in 1999 was £9,100, a decrease of 17.9% on 1998. The fall in the value gross output contributed 14.3 percentage points of the 17.9% drop.

- FFI from the market place (i.e. FFI less direct payments) showed a decrease of 31%.

- Direct payments fell by 12.1% between 1998 and 1999 yet direct payments accounted for 74% of average family farm income.

- The average FFI varied across farming systems ranging from £3,900 in the Cattle Rearing System to £18,300 in the specialist Dairying System. The average FFIs in the Tillage and Sheep Systems were £16,600 and £6,000 respectively.

- Approximately 51% of all farms had an income from farming of less than £5000 showing a large increase on the 1998 figure. On an estimated 45% of these farms the farmer held an off-farm job.

- 6% of farms had an FFI exceeding £30,000, more than 80% of these were in dairying.

- The Dairying System had an income decrease of 3.5% per farm, due in large part to an increase of 4.4% in direct costs.

- Both the cattle systems showed substantial decreases in family farm income, 30% in the Cattle Rearing System and 35% in the Cattle Other System.

- Average FFI on Mainly Sheep farms was down by 17%.

- Due mainly to an increase of 10.5% in direct costs and a decrease of 1.2% in the value of output, average FFI in the Tillage System decreased by 15.7%.

- Average net new investment was estimated at £2,525 per farm in 1999.

- In 1999 only 10% of farms achieved a gross margin of over £1,000 per hectare (£400 per acre) and the majority of these were in the specialist Dairying System.

- On 45% of farms the farmer and/or spouse had an off farm job. On 32% of farms a job was held by the farmer, with the highest incidence of off-farm employment occurring in the drystock systems. Overall on 63% of farms the farmer and/or spouse had some source of off-farm income be it from employment, pension or social assistance.

Overview of 1999

There was a decrease of 17.9% in Family Farm Income (FFI) between 1998 and 1999. This fall in Family Farm Income is mainly due to a decrease in cattle output caused by lower cattle prices and a decrease in direct payments of 12.1%. Indeed FFI fell across all farming systems in 1999 with the cattle systems experiencing the largest fall, 30% and 35% in Cattle Rearing and Cattle Other Systems respectively. There was an increase of 5.6% in direct costs in 1999, with the effects of the fodder crisis in 1998 impacting on purchased feed costs into 1999.

In relation to off-farm activity the farmer held an off-farm job on 32% of farms. On those farms where the off-farm income was stated, 21% of the population, the average off-farm income was £10,900 and the corresponding FFI on those farms was £4,200 giving a combined income of £15,100.

Average Family Farm Income

In this report, the principal measure of the income which arises from the year's farming activities, is **Family Farm Income per Farm** (FFI). This is calculated by deducting all the farming costs from the value of farming gross output, and represents the financial reward to all members of the family, who work on the farm, for their labour, management and investment. It does not include income from non-farming sources and thus may not be equal to household income, but where it does represent all the income of the farm family it is expected to provide for that family's living expenses as well as being a source of future investment in the farm business.

The data in Table 1 summarise the average levels of Family Farm Income per farm, which were achieved in 1999 across the range of farming systems and size groups. When evaluated in conjunction with the main tables at the end of this report (Appendix A) the following conclusions can be drawn:

Table 1: Family Farm Income by System and Farm Size (UAA)

Size (Ha)	<10	10-20	20-30	30-50	50-100	> 100	Hill Farms	All
				£/Farm				
Dairying	-	8000 (84)	13800 (70)	20900 (53)	32000 (48)	76900 (41)	7000 (96)	18300 (89)
Dairying/ Other	-	-	7900 (66)	13600 (67)	27200 (56)	51100 (50)	9100 (118)	16400 (101)
Cattle Rearing	1500 (117)	2300 (114)	4100 (138)	7800 (96)	8700 (104)	-	4200 (101)	3900 (136)
Cattle Other	-	2200 (124)	3900 (108)	7000 (95)	10800 (80)	-	3700 (138)	4500 (133)
Mainly Sheep	-	2600 (101)	6300 (50)	9600 (66)	10900 (101)	-	7300 (104)	6000 (111)

Tillage Systems	-	4500 (44)	-	13000 (77)	17600 (71)	43800 (89)	-	16600 (125)
All	2000 (83)	3200 (122)	6800 (104)	12800 (81)	21100 (76)	42200 (80)	6100 (114)	9100 (140)

(Figures in brackets are coefficients of variation - these show that within each group there is considerable variability)

- The positive relationship between farm size and income is still clearly evident and indeed income per hectare for the intermediate size groups also increases with farm size.

- There is wide disparity in the levels of average FFI across the farming systems. The average FFI on the dairy and tillage based systems are notably higher than those of the drystock based systems.

- The FFI per hectare in the specialist dairy system is more than three times the average FFI per hectare in any of the drystock (cattle/sheep) based systems.

- The average FFI for many sub-groups, especially in the cattle systems, is below the agricultural wage rate, therefore those farm families do not receive a return on either their labour or investment.

Income Distribution

The variation in incomes within the farm sector, already referred to, is further reflected in the distribution of income as shown in Table 2.

Table 2: Distribution of Family Farm Income

(£000)	< 5	5 – 10	10 – 15	15 - 20	20 - 30	> 30
			% Farms			
1997	40	23	12	8	10	7
1998	40	23	13	8	10	6
1999	51	20	9	7	7	6

- For 1999, 51% of farms had an income of less than £5,000 which shows a substantial increase on the 1998 figure of 40%.

- 13% of farms had an income from farming greater than £20,000 a drop of three percentage points from 1998. The average farm size for this group was 68.6 hectares (approx. 170 acres) compared with the overall average size of 33.3 hectares (approx. 82 acres). The holder tended to be younger than average at 47 years and 84% were married compared with 69% in the overall farming population. The majority of farms in this group, 78%, were in the dairying systems.

- In the lowest income group, i.e. less than £5000 per farm, 86% were in drystock systems. For this group the farmer and/or spouse had some source of other income be it from employment, pension or social assistance on 81% of farms. Therefore there are about 12,000 farms which have a FFI of less than £5,000 and the farmer/spouse have no stated off-farm income from the sources outlined above.

- Also in the lowest income group the farmer and/or the spouse had an off-farm job on 53% of farms and on 45% of farms the farmer held an off-farm job.

- Of the highest income group – those with an income of over £30,000 – 81% of farms were in dairying, a further 10% were tillage farms and the remaining 9% were in drystock farming.

Comparison with Previous Years

Overall Analysis:

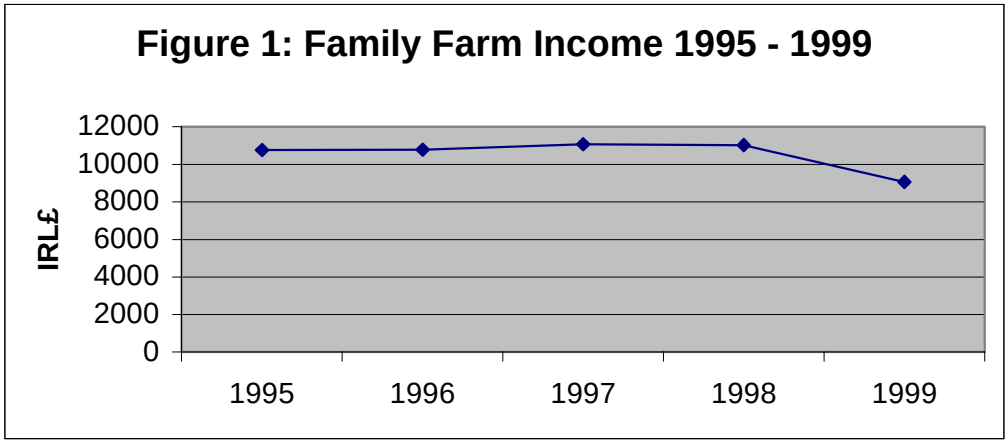

Figure 1 shows the average levels of family farm income from 1995 to 1999.

Average family farm income per farm in 1999 was £9,061, a decrease of 17.9% on the 1998 figure of £11,042. There are many ways of looking at the composition of this decline and the following three approaches, which are summarised in Table 3 have been chosen for the report.

(i) The changes in output and costs.
(ii) The changes in enterprise outputs.
(iii) The analysis of cash income and inventory changes.

Table 3: Analytical Breakdown of FFI Change

Approach 1: Changes in Output and Costs		**Approach 2: Changes in Enterprise Outputs**		**Approach 3: Cash Income and Inventory Changes**	
Gross Output	- 14.3	Dairying	- 3.1	Cash Income	- 4.8
Direct Costs	- 5.0	Cattle	-13.4	Depreciation	+ 1.4
(Gross Margin	**- 19.3)**	Sheep	- 1.0	Inventory Change	-14.5
Overhead Costs	+ 1.4	Other	+ 0.5		
		(Total Livestock	**-17.0)**		
		Crops	+ 1.4		
		Other	+ 1.3		
		(Total Output	**-14.3)**		
		Direct Costs	- 5.0		
		Overhead Costs	+ 1.4		
Family Farm Income -17.9%		Family Farm Income -17.9%		Family Farm Income -17.9%	

(i) The 17.9% decrease in FFI can be broken-down as follows, the fall in gross output contributed 14.3 points with direct payments accounting for 8.4 points alone, the increase in direct costs contributed 5 points and the fall in overhead costs gave a positive contribution of 1.4 points.

(ii) The 17.9% decrease in FFI when analysed from an enterprise viewpoint results in the following conclusions: the cattle output decrease contributed 13.4 points being by far the most significant contributor, while dairying and sheep contributed 3.1 and 1.0 points respectively.

(iii) On analysing the fall in FFI from the cash income and inventory change approach, cash income contributed 4.8 points and the inventory change contributed 14.5 points with depreciation giving a positive contribution of 1.4 points.

Analysis by Farming System:

- Average FFI in the specialist dairy system decreased by 3.5% in 1999. This was mainly due to an increase of 4.4% in direct costs, with increased purchased feed cost once again being the main contributing factor. The value of gross output decreased by 1%

with the increased value of milk output largely compensating for the reduced value of cattle output.

- In the Dairy/Other System FFI fell by 8.6%, with the increased value of gross output not being sufficient to compensate for the increase expenditure on inputs.

- Both cattle systems showed substantial decreases in FFI, 30% and 35% in the Cattle Rearing and Cattle Other Systems respectively. This was caused by both a decrease in output and an increase in costs. The decrease in output can be mainly attributed to the decrease in direct payments of almost 10% in Cattle Rearing and 20% in the Cattle Other System.

- The decrease in output of 2.9% and the increase in costs of 6.6% in the Mainly Sheep System resulted in a decrease in FFI of 16.9%.

- Average FFI in the Tillage System decreased by 15.7% in 1999, due to an increase of 10.5% in direct costs and a 1.2% decrease in the value of output.

Table 4 shows average return per hectare to land across the different farming systems. Average FFI/Ha in 1999 at £272 shows a decrease of 19% or £64 on the 1998 figure.

Table 4: Family Farm Income per Hectare

	FFI/Ha 1998	FFI/Ha 1999
Dairying	540	511
Dairying/Other	405	352
Cattle Rearing	229	158
Cattle Other	263	169
Mainly Sheep	200	164
Tillage Systems	340	280
All Systems	336	272

Direct Payments

The impact on incomes of direct payments to farmers has increased significantly in the aftermath of the CAP reforms in 1992 and their importance will continue to grow in the context of Agenda 2000. Also new forms of compensatory payments which have been introduced since 1992 are usually “piggy-backed” on the mechanisms of these reforms, e.g. monetary compensation payments. A further aspect of these annual payments is that their rates and timing can be adjusted so as to have a bearing on farm incomes within any particular year. Thus when payments are made in two moieties and in separate financial years, the size and timing of the first moiety can be adjusted to support farm incomes in the year in which it is paid. Of course this also reduces the size of the second moiety and affects incomes in the second year. This occurred in 1998 when a greater proportion of the premia payments due were paid, 80% in 1998 compared with 60% in 1997 and 1999. As a consequence of this direct payments are lower in 1999 than in 1998.

A more detailed presentation of the impact and incidence of direct payments can be seen in the Appendix A tables.

Table 5: Direct Payments as a Percentage of Family Farm Income

Size (Ha)	<10	10-20	20-30	30-50	50-100	> 100	Hill Farms	All Farms
				%				
Dairying	-	17	18	22	18	17	43	20
Dairying/ Other	-	-	69	50	50	60	76	54
Cattle Rearing	157	175	156	147	171	-	165	160
Cattle Other	-	150	120	130	131	-	177	126
Mainly Sheep	-	163	122	137	137	-	160	145
Tillage Systems	-	66	-	94	98	95	-	91
ALL	84	105	76	66	59	68	134	74

Note: direct payments account for more than 100% of income whenever market based output is not sufficient to cover total costs.

The main elements as summarised in Table 5 are:

- Although the total amount of direct payments decreased by 12.1% in 1999, direct payments as a percentage of FFI increased to 74% in 1999 from 69% in 1998.

- Direct payments accounted for 160% and 126% of average FFI in the Cattle Rearing and Cattle Other Systems respectively, rising to over 170% in some subgroups.

- In the Mainly Sheep System direct payments accounted for 145% of FFI in 1999, showing a substantial increase for the second year running, having been 91% in 1997 and 128% in 1998.

- The contribution of direct payments to average FFI in the Tillage Systems increased from 83% in 1998 to 91% in 1999.

- At present the concept of direct payments as a proportion of income does not have the same relevance for dairying as for the other major systems. Since these payments are not used as a mechanism under CAP for supporting dairy farm incomes - the combination of supply management and the pricing system is used instead. As a result, direct payments only account for 20% of average FFI on specialist dairy farms which was lower than the 1998 figure of 25%. In the Dairying/Other System, where there was a substantial cattle and/or tillage enterprise in addition to the dairy herd, direct payments accounted for 54% of average FFI.

An estimated 31% of farms received REPS payments in 1999. The average FFI on those farms receiving REPS was £8,800. Close to 75% of farms which participate in REPS are in the three drystock systems, namely Cattle Rearing, Cattle Other and Mainly Sheep. As can be seen from the tables below there was considerable difference in FFI in the drystock systems between those farms which participate in REPS and those which do not, indeed the

difference is approximately the average amount of the REPS payment. Hence in 1999, as in previous years, the REPS scheme has benefits both in terms of the environment and in terms of income.

The following tables present the key information in relation to farms participating in REPS (Table 5(a)) and those not participating in REPS (Table 5(b)).

Table 5(a): FFI, Direct Payments and Farm Size for farms in the different farming systems which participated in REPS in 1999

	Dairying	Dairying /Other	Cattle Rearing	Cattle Other	Mainly Sheep	Tillage Systems	All
				£/Farm			
F.F.I.	15,361	14,852	6,211	6,643	7,565	13,963	8,843
Direct Payments	7,088	12,046	9,258	8,945	10,324	12,300	9,646
REPS Contribution	4,122	4,293	3,423	3,113	3,557	3,825	3,551
Farm Size (UAA)	35.0	43.5	27.9	29.6	34.5	37.5	32.6

Table 5(b): FFI, Direct Payments and Farm Size for farms in the different farming systems which did not participate in REPS in 1999

	Dairying	Dairying /Other	Cattle Rearing	Cattle Other	Mainly Sheep	Tillage Systems	All
				£/Farm			
F.F.I.	18,904	16,785	2,738	3,613	4,290	18,152	9,159
Direct Payments	2,865	7,859	4,700	4,345	6,978	16,802	5,441
Farm Size (UAA)	35.8	47.4	23.0	25.3	39.0	72.0	33.6

Gross Output, Costs and Margins

The cost competitiveness of Irish agriculture is growing in importance with the potential movement towards a freer trade in international markets for agricultural products. The simplest expression of efficiency of production is the proportion of gross output which is absorbed by the costs of inputs into the production process.

On a national basis, 68% of gross output was absorbed by total costs in 1999. If direct payments are excluded from gross output, then costs as a percentage of the market based value of gross output in 1999 was 89%, the corresponding figure in 1998 was 85%.

In 1999, only 17% of farms were capable of keeping costs below 50% of output whereas 44% of farms had costs which were above 70% of output. The corresponding figures for 1998 were 27% and 26% and for 1997 were 34% and 24%. The figures indicate that between 1997 and 1999 the percentage of farms which were capable of keeping costs below 50% of output have halved.

Gross Margins

Gross Margin (gross output including direct payments, minus direct costs) provides a useful index of the relative profitability of the various farm systems.

Table 6: Distribution of Farms by Level of Gross Margin (£) Per Hectare (UAA)

Gross Margin/Ha	< 200	200-400	400-600	600-800	800-1000	1000-1200	> 1200	All
				% Farms				
Dairying	2	5	16	17	20	19	21	100
Dairying/ Other	6	17	26	21	21	7	2	100
Cattle Rearing	25	41	27	5	1	1	-	100
Cattle Other	12	49	29	7	1	2	-	100
Mainly Sheep	20	36	30	8	2	4	-	100
Tillage Systems	1	7	36	37	15	1	3	100
ALL	13	32	26	11	8	6	4	100

- Overall, 10% of farms achieved a gross margin of over £1,000 per ha (£400 per acre). The Dairying Systems once again show the higher returns to land, with over 70% of those farms that achieved a gross margin per hectare of over £1,000 being in the specialist Dairying System.

- 45% of farms had a gross margin per ha of less than £400 (£160 per acre) the majority of these, about 90%, were in the drystock systems.

New Investment

The level of new investment on farms increased in the mid 1990s, starting in 1993, this increase continued to 1997. The year 1998 showed a decline in investment and level of investment per farm has remained relatively stable in 1999. The average net new investment per farm in 1999 was £2,525 compared with £2,513 in 1998.

Table 7: Average Annual New Investment - All Farms

	Dairying	Dairying /Other	Cattle Rearing	Cattle Other	Mainly Sheep	Tillage Systems	All
			£/Farm				
Gross New Investment	5713	6271	1605	1481	1867	5825	3120
Net New Investment	4847	5687	1102	975	1382	4930	2525
Depreciation	2903	2950	931	1045	989	3067	1675
% of farms on which investment was made	69%	65%	38%	42%	43%	65%	50%

(Note: Net new investment is equal to gross new investment in machinery, buildings, quotas and land improvements (including Forestry) minus sales and capital grants received during the year.)

- Overall net new investment in 1999 was equivalent to 28% of total income in farming. Farms where dairying is the principal farm enterprise contributed 62% of the total net new investment, although they comprise about 30% of the farming population. Farms in the Tillage System contributed another 10% of the total net new investment.

- The drystock systems while comprising 65% of the farming population contributed 28% of total net new investment

- 50% of farms made some new investment in 1999. Average FFI on these farms which had new investment in 1999 was higher across all systems than for farms where no new investment occurred.

Other Gainful Activity

Data on family farm incomes, as presented in this report, are confined to the income earned from on-farm activity. In recent years off-farm employment has become more prevalent, making the situation quite different from earlier decades where the main sources of off-farm income would have been pensions and social assistance. The incidence of off-farm employment is shown in Table 8 by size and system of farming while further information is presented in Appendix A.

Table 8: Estimates of Percentages of Farms Where Farmer and/or the Spouse has an Off-Farm Job

Size (Ha)	<10	10-20	20-30	30-50	50-100	> 100	Hill Farms	All Sizes
Dairying	-	22 (17)	49 (21)	29 (6)	29 (3)	50 (20)	29 (15)	32 (12)
Dairying/ Other	-	-	33 (11)	39 (12)	27 (5)	14 (5)	21 (21)	30 (12)
Cattle Rearing	54 (54)	52 (48)	62 (44)	56 (32)	56 (28)	-	73 (62)	58 (47)
Cattle Other	-	43 (38)	53 (47)	42 (36)	23 (13)	-	61 (57)	46 (39)
Mainly Sheep	-	58 (47)	65 (41)	36 (16)	44 (39)	-	39 (24)	54 (41)
Tillage Systems	-	60 (50)	-	48 (19)	40 (33)	25 (0)	-	40 (24)
ALL	58 (53)	44 (38)	53 (36)	40 (20)	32 (14)	22 (8)	49 (38)	45 (32)

(Figures in brackets refer to the farmer only)

In general the 1999 data reveal that, in relation to the farmer and /or the spouse:

- There was an off-farm job on 45% of farms, continuing the general upward trend in recent years, 40% in 1996, 43% in 1997 and 44% in 1998.
- On 32% of farms the farmer held an off-farm job.
- The incidence of the farmer having an off-farm job is highest in the small farm size groups, while the spouse is most likely to have an off-farm job in the intermediate size groups.
- The cattle and sheep systems have the highest incidence of the farmer and/or the spouse having off-farm employment while the dairy farms have the lowest; the same is true in relation to the farmer. However this distinction is not evident in relation to the spouse where the incidence of off-farm employment is similar across the farming systems, with an overall mean estimate of 22%[1].
- On 63% of farms the farmer and/or the spouse had some source of off-farm income, be it from employment, pension or social assistance.

Tables 9(a) and 9(b) present population estimates for 1998 and 1999 of the incidence of off-farm employment, the average off-farm income, Family Farm Income and the corresponding sample numbers. The information is presented for farms where the farmer had an off-farm job and stated the off-farm income and for farms where the farmer had no off-farm job. These same farms are also split between part-time farms and full-time farms as defined in the National Farm Survey.

The estimates should be interpreted with caution because the underlying data are not always sufficiently robust; this is due to the problem of non-response, about one third of

[1] The estimate should be interpreted with caution because the underlying data are not always sufficiently robust; this is due to the problem of non-response and the fact that the information is received from respondents without documentary verification.

farmers with off-farm jobs did not give income data, and the fact that the information is received from respondents without documentary verification. They should be regarded as indicative of relative levels rather than as accurate absolute levels.

Table 9(a): Estimates of Off-Farm Employment For Farmer Only - 1999.

	Sample Number	Population %	Average Off-Farm Income (1)	Average FFI (2)	Income (1) + (2)
Farmer has Off-Farm Job and Income Stated					
All Farms	165	21%	£10,900 (57)	£4,200 (151)	£15,100 (55)
Full -Time Farms [2]	50	4%	£8,900 (70)	£9,500 (108)	£18,400 (65)
Part –Time Farms [2]	115	17%	£11,400 (54)	£3,000 (140)	£14,400 (48)
Farmer has no Off-Farm Job					
Full –Time Farms [2]	602	34%	-	£18,400 (90)	£18,400 (90)
Part –Time Farms [2]	246	34%	-	£4,100 (115)	£4,100 (115)

Table 9(b): Estimates of Off-Farm Employment For Farmer Only - 1998.

	Sample Number	Population %	Average Off-Farm Income (1)	Average FFI (2)	Income (1) + (2)
Farmer has Off-Farm Job and Income Stated					
All Farms	159	22%	£10,000 (64)	£5,700 (117)	£15,700 (56)
Full –Time Farms [2]	40	3%	£8,300 (77)	£12,900 (88)	£21,200 (62)
Part –Time Farms [2]	119	19%	£10,300 (61)	£4,500 (100)	£14,800 (51)
Farmer has no Off-Farm Job					
Full –Time Farms [2]	644	37%	-	£20,100 (79)	£20,100 (79)
Part –Time Farms [2]	230	33%	-	£5,400 (80)	£5,400 (80)

(figures in brackets are the coefficients of variation - these show that within each group there is considerable variability)

For 1999, there were 259 farms in the sample where the farm holders stated that they had an off-farm job. From data available on 165 of these farms the estimate of average off-farm income was £10,900. The corresponding FFI was £4,200 down £4,900 from the overall population estimate of £9,100. The corresponding data for 1998 were that there were 237 farms in the sample where the farm holders stated that they had an off-farm job. From data available on 159 of these the estimate of average off-farm income was £10,000. The corresponding FFI was £5,700 down £5,300 from the overall population estimate of £11,000.

[2] A full-time farm requires at least 0.75 standard labour units to operate, as calculated on a standard man day basis, whereas a part-time farm requires less than 0.75 standard labour units to operate calculated on a standard man day basis also.

In 1999 there was an estimated 34% of the population which were full-time farms and the farm holder had no off-farm job, the average FFI on these farms was £18,400. The average FFI on part-time farms where the farm holder had no off-farm job was estimated at £4,100 and this group represents approximately 34% of the population. The corresponding estimates for 1998 are presented in Table 9(b).

Table 10 gives population estimates of the incidence of the farmer having an off-farm job broken down by FFI. Where FFI was less than £5,000 the farmer had an off-farm job in approximately 45% of farms. This percentage decreased to approximately 8% when FFI was greater than £20,000.

Table 10: Estimates of Off-Farm Jobs (Farmer) by FFI - 1999

FFI	**All Farms**	**Farmer has an Off-Farm Job**	**Farmer has not an Off-Farm Job**
< £5,000	51%	23%	28%
£5,000- £10-,000	20%	6%	14%
£10,000-£20,000	16%	2%	14%
>£20,000	13%	1%	12%
Total	100%	32%	68%