

Rural Economy & Development Programme

Working Paper Series

Working Paper 11-WP-RE-03

Recent Trends in Employment and Unemployment: Assessing the impact of the economic downturn on part-time farmers

David Meredith*

Spatial Analysis Unit, Teagasc, Ashtown Research Centre,
Ashtown, Dublin 15



For More Information on the REDP Working Paper Series

Email: Cathal.odonoghue@teagasc.ie,
Web: www.agresearch.teagasc.ie/rerc/

REDP

**Recent Trends in Employment and
Unemployment:
Assessing the impact of the economic downturn
on part-time farmers**

David Meredith*

Abstract

This paper provides an overview of contemporary trends in national employment and unemployment before providing a synopsis of the regional distribution of unemployment and how it has changed in recent years. Using Quarterly National Household Survey data (QNHS) the analysis then focuses on a sub-group within the QNHS data who report employment in Agriculture, Forestry or Fishing as a secondary occupation. This latter group derive the majority of their income off-farm and fall firmly within the 'part-time' farming category. Exploring changes in employment patterns amongst this group not only highlights the impact of the recession on farm-based families but also reveals some of the ongoing consequences of the restructuring of Ireland's rural economy. The paper concludes by considering the implications of these findings with regard to demand for state supports to farmers.

* David Meredith: Email: david.meredith@teagasc.ie

Introduction

This paper begins with an overview of contemporary trends in national employment and unemployment before providing a synopsis of the regional distribution of unemployment and how it has changed in recent years. Using Quarterly National Household Survey data (QNHS) the analysis then focuses on a sub-group within the QNHS data who report employment in Agriculture, Forestry or Fishing as a secondary occupation. This latter group derive the majority of their income off-farm and fall firmly within the 'part-time' farming category. Exploring changes in employment patterns amongst this group not only highlights the impact of the recession on farm-based families but also reveals some of the ongoing consequences of the restructuring of Ireland's rural economy. The paper concludes by considering the implications of these findings with regard to demand for state supports to farmers.

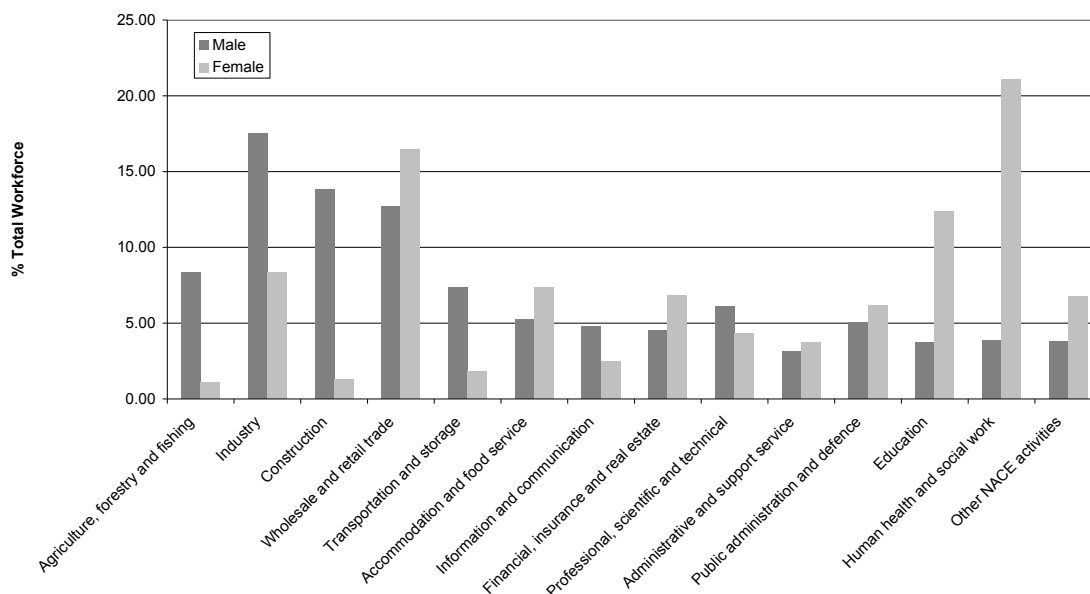
Recent Trends in Employment and Unemployment: The National Picture

The total number of people in employment nationally increased from 1,838,100 to 1,944,900, a growth of 5.49%, between Q1 2004 and Q2 2009. Employment reached a peak in Q3 2007 when 2,138,900 persons were recorded as being at work. By Q2 2009 however the number employed declined to 1,944,900, a fall of 10%. The decline corresponds to increasing unemployment arising from the impact of the downturn in economic activity. The combination of these trends, accompanied by a growing labour force, has seen the unemployment rate increase from 4.5% to 11.6% in the period Q3 2007 – Q2 2009. The number of unemployed grew from slightly less than 110,000 persons to 259,000, an average growth of 20% per quarter since Q3 2007. Since Q2 2009 the number of unemployed has increased by an additional 293,600 to bring the official, seasonally adjusted, unemployment rate to 13.2% by Q2 2010 (CSO, 2010). Recent statistics also indicate that the labour force is no longer growing due to increasing emigration of younger cohorts, return to education and training and decreasing immigration (CSO, 2010).

Comparing between major industrial sectors one finds that trends in employment and unemployment differ significantly. An assessment of peak employment, the quarter that most people were employed in a given sector, finds that Construction and Industry related employment achieved a high point in mid 2007 whilst the Agriculture, Wholesale and Retail, Transportation and Accommodation, Food Services and Administrative Services sectors peaked in late 2007 and early 2008. A number of sectors have continued to perform strongly throughout the economic downturn including information and communication, financial and insurance related activities and public administration and education; these all recording peaks in 2009. Whilst the latter two sectors are strongly related to public sector spending the former are closely associated with knowledge intensive or 'smart economy' enterprises.

The differences in sectoral employment trends have a number of implications. These include variance between males and females in terms of their exposure to the risk of unemployment and differential spatial impacts. An analysis of national level QNHS data highlights the extent of labour market segmentation between men and women. Males are more likely to work in the agriculture, industry and construction sectors whilst females are more likely to be employed in the public and retail services sectors (Figure 1). Commerce is one of the few sectors where male and female participation are roughly equal although it is understood that there is clear segmentation between the types of jobs filled by men and women (Russell et al., 2009). Other sectors with greater levels of female employment include Accommodation and Food Services and Financial, Insurance and Real Estate. Bearing the gendered structure of the workforce in mind it is worth assessing the impact of recent economic developments on male and female unemployment.

Figure 1 Sectoral Distribution of Male and Female Employment Q2 - 2009

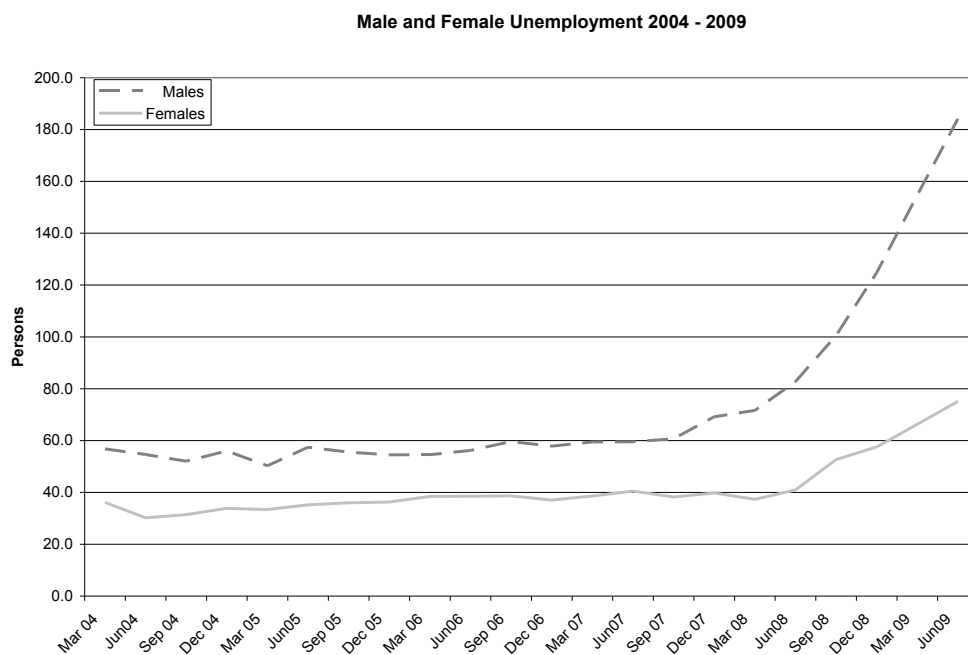


Source: Author’s Calculations form QNHS Data.

The QNHS data indicate that, from 2004 to 2007 male unemployment was relatively stable at under 61,000. From Q3 2007 onwards however, unemployment increased rapidly with the rate of increase growing in each quarter (Figure 2). Female unemployment was stable at under 40,000 up to Q2 2008 from when it began to increase albeit at significantly lower rates than their male counterparts. These differences are attributed to the gendered structure of the workforce wherein rapid decline in construction related employment accounted for the vast proportion of increased male unemployment whilst reduction in the number of women in employment is associated with the impacts of the economic downturn on a number of sectors. An assessment of changes in male and female sectoral employment patterns between Q1 and Q2 2009 demonstrates this point. In the period covered by Q1 – Q2 2009 a total of 42,500 males lost their jobs. Of this number, 88.4% of the decline is accounted for by reductions in agriculture, industry (manufacturing) and construction related employment. Construction alone accounts for 62.9% of the increase in male unemployment. In contrast to their male counterparts, 10,200

females lost their jobs over the same period. Interestingly female employment in construction increased by 5.5%. This latter figure needs to be treated with caution as there is no way of knowing, using the aggregate statistics from the QNHS, the quality of these jobs and whether they are permanent or temporary. Declines in industry (22%), wholesale and retail (20.7%) and the professional and scientific (20.8%) sectors accounts for 63.5% of the fall in female employment.

Figure 2 Male and Female Unemployment 2004 - 2009



Source: Author's Calculations form QNHS Data.

This assessment demonstrates clear differences in the impact of increasing unemployment between men and women with males being affected at an earlier stage due, largely, to declines in construction related employment. Female unemployment lagged that of their male counterparts and increased as a consequence of the general economic downturn rather than the impact of declines in a specific sector. The assessment highlights the precarious structure of male employment which, in the case of construction, was particularly exposed to external

shocks and, with regard to industry, the trend towards manufacturing plants relocating to lower-cost countries. Increasing female unemployment was, by contrast, driven by the parallel declines in industry, retailing and professional, scientific and technical services. Sectoral differences in male and female employment account for the substantial disparity in the rate of unemployment growth between men and women during the Q1 – Q2 2009 period.

Spatial Impacts of Recent Trends in Unemployment: The Regional Picture

Research undertaken by Dillon et al. (2009) highlighted significant differences in the spatial distribution of economic activities with financial services and information and communication employment highly concentrated in urban centres. In contrast agriculture, construction and manufacturing activities are highly dispersed. These findings accord with the work of Meredith (2009) who, analysing CSO Place of Work – Census of Anonymised Records, found concentration of professional and managerial occupations in urban areas whilst skilled and unskilled occupations predominated in rural areas. These differences are linked to the structure of the rural economy and the structure of the workforce, which is male dominated. In contrast to Ireland's urban areas, rural economies depend to a greater extent on agriculture, manufacturing and construction related employment. Analysis of the sectoral composition of employment in rural areas establishes that 45% of those living and working in rural areas are employed in these sectors. The equivalent figure for urban economies is 19%. Significantly more people living and working in urban areas are employed in commerce related activities (35.9%), public administration and defence (7.3%) and education, health and social work (20.7%). Whilst these differences reflect variance in the spatial distribution of employment opportunities, they clearly establish that the rural economy, in 2006, was highly dependent on economic sectors that currently account for much of the increase in unemployment in recent times. Given the structural features of the rural economy, those administrative regions, of which there are eight in the Republic of Ireland,

with relatively small urban populations can be expected to have experienced greater than average increases in unemployment.

An analysis of regional changes in unemployment confirms this assumption. Whilst the State's unemployment rate increased from 4.6% to 12%, spatially, change in unemployment was highly uneven. At a regional level, unemployment in the Dublin, Mid-West and Border regions did not grow to the same extent as the State as a whole. In the cases of the Border and Mid-West regions the relatively high rate of unemployment in Q3 2007 accounts for the relative lack of growth in unemployment since then. These regions had, respectively, the highest (5.8%), and second highest (5.5%) unemployment rates in the country in 2007. The Dublin Region had an unemployment rate of 4.5% in Q3 2007 that increased to 10.3% by Q2 2009, (+128.9%). Unemployment rate developments in this region differ from those of the Border and Mid-West regions in that the rate was low to begin with and has not increased to the same extent as other regions. As a result, in Q2 2009, it has the lowest unemployment rate in Ireland.

Ireland's other region's, the Mid-East, South-East, South-West, West and Midland, all recorded increases in their unemployment rate above the national figure for the period Q3 2007 – Q2 2009. The Mid-East, South-East, South-West and West all saw increases of between 176.9% and 192.1%. Whilst these reflect exceptionally large increases in unemployment, the Midland region saw unemployment grow by 291.9% resulting in the unemployment rate increasing from 3.7% in Q3 2007 to 14.5% by Q2 2009. In relative terms this moved the Midland region from having the lowest unemployment rate in 2007 to the second highest in 2009; the South-East region recorded the highest unemployment rate in Q2 2009.

Employment Change in the Agriculture, Forestry and Fishing Sector 2004 - 2009

Considering changes in agriculture, forestry and fishing employment between 2004 and 2009 one finds that the numbers employed initially declined from an average of 114,000 to 110,000 between 2004 and 2005 and thereafter remained relatively stable at this level until Q3 2007. At this time, the number of people employed in Agriculture, Forestry and Fishing began to increase, growing from 109,000 to 115,000 between Q3 2007 and Q4 2008. This growth corresponds to two developments, both of which may have influenced the numbers employed in agriculture. The first related to the decline in male employment in general and the construction industry in particular from 2007 onwards. Research undertaken by O'Brien and Hennessy (2008) established that many farmers with off-farm employment were engaged in this sector. As employment opportunities declined it is possible that many re-engaged in agriculture on a full-time basis resulting in an increase in the total number employed in the sector. The return to full-time farming may have been facilitated by significant increases in agricultural commodity prices during 2007. From the beginning of 2009 however, the numbers employed in agriculture have fallen from the Q4-2008 high by 15.43 percent¹. This fall brings the number of people employed in agriculture, expressed as a proportion of the total workforce, to 5.03 percent, the lowest level recorded during the 2004 – 2009 period. The trend in agricultural employment indicates that not only are the absolute numbers working in the industry falling, so too is the sector's relative share of total employment as other industries continue to hold employment, and in a number of instances grow, despite the economic downturn.

Using a QNHS dataset specially prepared for the author by the CSO that summarises structural changes in agricultural employment it was established that the primary driver of the decline in employment between Q2-2008 and Q2-2009 was a fall in the number of self-employed agricultural workers followed by a decline in the number of farm employees. During the 12 months in question, the total number

of people employed in the agriculture sector fell by 17,600. The reduction in the number of self-employed individuals, from 87,100 to 74,900, accounts for 69.3 percent of the total reduction in the agricultural workforce. A further 30.1 percent of the decline is accounted for by the reduction in the number of employees (-5,300 persons). Finally, there was a small drop, -100, in the number of persons 'assisting relatives'.

Other agricultural workers affected by the downturn include those employees with a permanent job in another sector and a secondary job in farming. Though a relatively small number of people, 13,500 in Q2-2008, they are of interest in that their experience may be representative of individuals living in rural areas dependent on pluriactivity income strategies. In the year Q2-2008 – Q2-2009 their number has declined by 3,600 or 26.6 percent. This assessment indicates that individual's dependent on casual labour may be particularly exposed to unemployment. Furthermore, these data suggest that the significant declines in agricultural commodity prices resulted in reduced demand for casual labour on farms.

Assuming that most of these changes in employment are occurring in the agriculture sector, rather than the fishing or forestry sectors, they represent a significant development. Whereas, in the past, agriculture may have been viewed as an industry with the means of soaking up unemployed males in rural areas, it is apparent that this is not currently the case as evidenced by the decline in both employees and those assisting relatives.

Significance of Off-farm Employment to Farm based Households

The data presented thus far do not provide any indication of the impact of the economic downturn on farmers that engage in off-farm employment. The most recent data from the National Farm Survey (NFS), relating to 2008, indicate that 40% of all farmers held an off-farm job (Connolly et al., 2009). For these individuals, this accounted for 71% of their total household income. Data published from the NFS pertaining to 2008 established that, amongst part-time farmers, off-farm

income accounted for 80.7% of their income (Connolly et al., 2009, p.22). Hennessy and O'Brien (2008) found that off-farm income is increasingly important in ensuring the economic viability of farm households and highlighted the role of off-farm employment in contributing to the viability of the farm enterprise. The underlying need of so many farm households to supplement their incomes through off farm employment is directly related to declining farm income and limited capacity to increase farm business revenue due to regulatory restrictions, e.g. milk quotas, and resource restrictions, i.e. limited availability of suitable land.

Comparing the average income from farm enterprises in 1999 and 2009 one finds a decline of 57% when adjusted for inflation (Connolly et al., 2010). A detailed examination of changes in income between these two periods highlights that all types of farm enterprise, whether dairy, beef, sheep or tillage, saw their income decline. Furthermore, with the exception of 'Cattle Other' enterprises, all farms regardless of size (measured in hectares) experienced a decline in income (Table 1).

Table 1 Family Farm Income Change between 1999 and 2009 by Farm Size and System

		10-20 ha	20-30 ha	30-50 ha	50-100 ha	>100 ha	All
Dairying		NA	-64.67	-34.44	-33.87	-70.66	-26.35
Dairying Other		NA	NA	-48.08	-45.84	-31.12	-40.04
Cattle Rearing		0.28	-50.44	-22.30	-7.43	NA	-4.24
Cattle Other		13.01	-17.44	-3.68	18.61	NA	17.63
Manly Sheep		-42.64	-26.03	-14.87	7.64	NA	-8.12
Tillage		NA	NA	-52.06	-30.85	-61.38	-47.73
All		-28.83	-51.69	-34.15	-29.34	-42.53	-25.16

Source: Authors calculations using 1999 and 2009 NFS Data

Given these developments it is unsurprising to find, using NFS data, that the percentage of farmers with an off-farm income increased from 32% in 1999 to a high of 42% in 2006. The proportion of farmer's spouses with an off-farm income also increased throughout this period from 46% in 1999 to a high of 59% in 2006 and 2007. The increasing prevalence of off-farm income, whilst a response to reduced farm incomes, was driven by growing availability of employment in the broader economy, increased female labour-force participation rates and structural changes in agriculture, i.e. converting from labour intensive dairying to extensive cattle systems. The latter changes freed up time to avail of off-farm employment opportunities. Unsurprisingly, given these developments, the structure of farm household income changed substantially throughout this period. An assessment of the CSO Household Budget Survey 2000 and 2005 indicates that the contribution of farm income to total farm household income fell from 44% in 2000 to 38% in 2005. Conversely, the proportion of farm household income accounted for by off-farm wages and or salaries increased 5% to 53%.

Impact of the Economic Downturn on Farmers with Off-farm Employment

The QNHS records an individual's primary and, where they have another source of employment, secondary occupation. A request was made to the CSO to provide summary data for the population of workers with a secondary job in agriculture in Q2-2008 and Q2-2009. Analysis of these data establishes that the total number of persons with a secondary job in agriculture in Q2-2008 and Q2-2009 declined by 6,900 or 30.5%, from 22,600 to 15,700, in the 12 months to Q2-2009. This development resulted in a reduction in the proportion of all agricultural workers with off-farm income from 19.8% to 16.1%. The difference between the 40% off-farm employment figure reported in the NFS and the QNHS figure of 19.8% is explained with reference to the way off-farm employment is defined. Whilst the NFS records anyone with an off-farm income, the QNHS data used in this paper refers only to those who's primary source of income comes from off-farm employment. The NFS

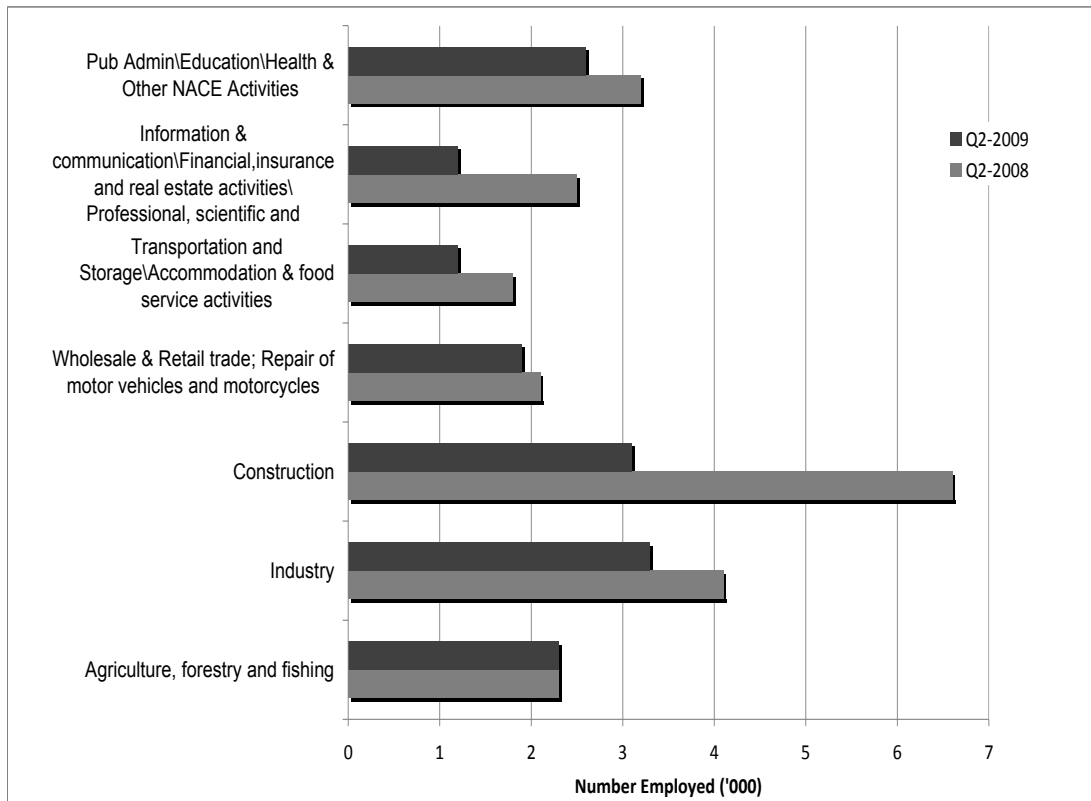
data is likely to be capturing a proportion of farmers who, though, working off-farm, are doing so in a limited capacity.

A detailed assessment of changes in the sectoral composition of off-farm employment establishes considerably variance in the rate of job loss depending on which sector farmers were employed in (Figure 3). Unsurprisingly, those working in construction, the most important source of off-farm employment, witnessed the greatest fall in employment. By Q2-2009 the proportion of farmers with an off-farm job in the construction sector had fallen from 29.2 percent to 19.75 percent in the space of 12 months. This fall accounts for 50.7 percent of the total reduction in off-farm employment recorded by the QNHS. Declines in Information & communication \ Financial, insurance and real estate activities\ Professional, scientific and technical activities\Administrative and support service activities and Industry account for a further 30.4 percent of the reduction in off-farm employment¹. It is understood that much of this decline, from 2,500 to 1,200 jobs, is accounted for by reductions in financial, insurance and real estate activities.

Contextualising off-farm job losses through a comparison with national and sectoral employment changes indicate that those with a secondary job in agriculture face a greater risk of unemployment. Nationally, the number of persons employed declined from 2,117,000 to 1,944,900 million persons, a reduction of 8.1 percent. For those with a secondary job in agriculture, the reduction was 30.5 percent. Expressing the differential rate of employment change for workers who are also part-time farmers and the workforce as a whole demonstrates the level of exposure of those with secondary employment in agriculture to employment loss (Table 2).

Figure 3 Changes in the number of people with off-farm jobs Q2-2008 - Q2-2009

¹ The CSO grouped these sectors together for the purpose of reporting the data so as to protect the confidentiality of individuals.



Source: Author's Calculations form QNHS Data.

The data establish that, within the national workforce, for every 1000 persons employed in the construction sector in Q2-2008, 350 had lost their jobs one year later. The equivalent figure amongst part-time farmers is 530. The difference between part-time farmers and the national workforce is equally stark when one considers the declines in Transportation and Storage / Accommodation and Food Services employment. Whilst, nationally, 21 persons per thousand employed in these sectors lost their jobs, 333 per thousand persons with a secondary occupation in agriculture and a primary occupation in Transportation and Storage / Accommodation and Food Services lost theirs.

Two key factors are thought to influence the level of exposure to unemployment; education / skill levels and geographic location relative to employment opportunities. Research undertaken by Behan and O'Brien (2007) established that education qualifications amongst farmers are, in general, low with 70 percent of all farmers recording lower-secondary education as their highest qualification. As of

2006 only 6 percent of farmers had a third level degree (Behan and O’Brien, 2007, p.151). Dillon et al. (2009) found that those within the workforce with low education and skill levels are more likely to become unemployed and spend longer periods being unemployed. It is also clear from the NFS data detailing the percentage of farmers with off-farm income that many farmers secured off-farm employment in the years immediately preceding the economic downturn. These individuals had limited time to acquire experience resulting in a higher exposure to job loss.

Table 2 Rate of job losses per thousand workers Q2-2008 – Q2-2009

	National Workforce	Part-time Farmers
Agriculture, forestry and fishing	-150.07	0.00
Industry	-99.19	-195.12
Construction	-350.11	-530.30
Wholesale & Retail trade; Repair of motor vehicles and motorcycles	-96.25	-95.24
Transportation and Storage\Accommodation & food service activities	-21.25	-333.33
Information & communication\Financial, insurance and real estate activities\ Professional, scientific and technical activities\Administrative and support service activities	-50.62	-520.00
Pub Admin\Education\Health & Other NACE Activities	18.44	-187.50

Source: Author’s Calculations form QNHS Data.

Welfare Implications of Reduced Off-farm Employment

Constrained farm incomes resulting from weak commodity prices and reduced off-farm incomes have combined to increase demand for State supports amongst farmers. Whilst it was not possible to assess changes in the number of farmers who, on losing their off-farm income, became eligible for Jobseekers Benefit or Jobseekers Allowance it is feasible to evaluate recent developments in the numbers

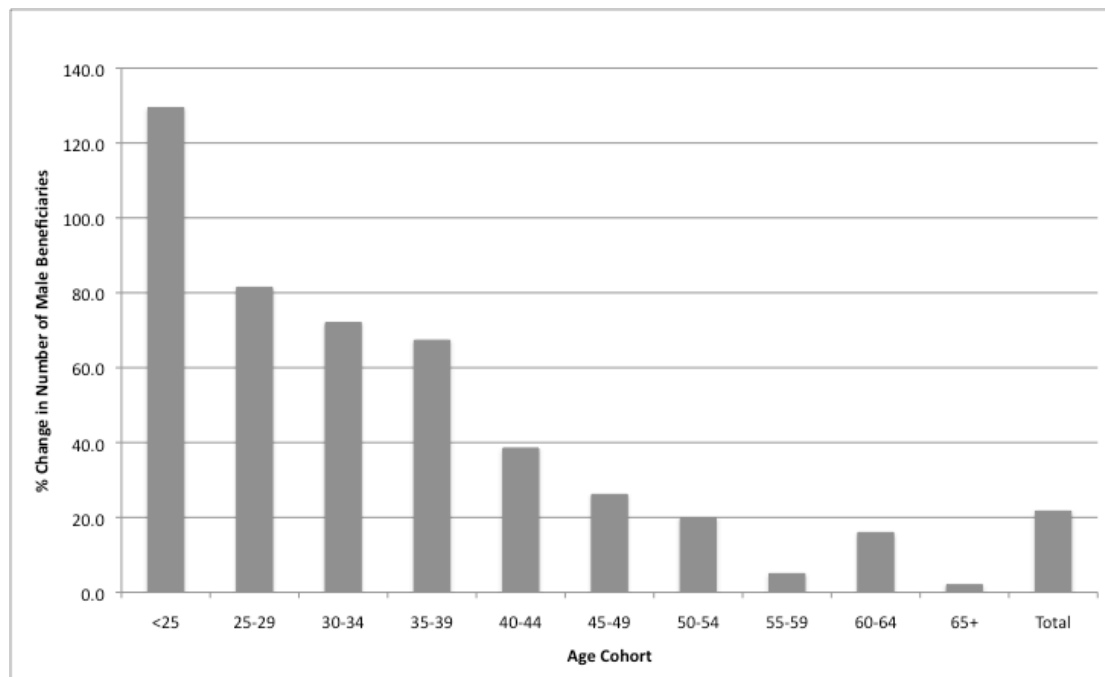
availing of Farm Assist. Similar to Job Seekers Allowance, this is a social assistance means-tested income support scheme for farmers in the Republic of Ireland. Farmers, farming land in the Republic of Ireland between 18 and 66 years that satisfy a means test are eligible for this support. The maximum weekly personal rate, in 2010, was €196. The means test, reflecting the multiplicity of farm income sources, including rental income, returns from EU and exchequer farm support schemes and off-farm employment, takes into account virtually every form of income but assesses it in different ways and disregards various amounts. Unlike those in receipt of Jobseekers Benefit, farmers claiming this payment do not need to be available for work outside of the farm in order to qualify for the payment. The support was introduced in 1999 replacing the Smallholders Unemployment Assistance Scheme. The objective of the payment is to support farmers on low incomes. Analysis of changes in the number and demographics of those receiving Farm Assist highlights the effects of, initially increasing off-farm employment amongst, male, farmers and, more recently increased unemployment.

Change in Number of Beneficiaries

On commencement of the support, 7,874 farmers benefited from Farm Assist payments. Most of these had previously availed of Smallholders Unemployment Assistance. Between 1999 and 2003 the number of farmers supported by Farm Assist increased by 11% to 8,707. However, as the economy expanded the number of farmers in receipt of these supports declined to a low of 7,376 in 2007. Since 2007 the number of beneficiaries has grown by 22% to 8,972 (2009). A detailed evaluation of the age structure of those availing of Farm Assist indicates that the largest increases occur amongst younger, male, cohorts (Figure 4). Comparing 2007 to 2009 figures, one finds the number of farmers under 25 benefiting from these payments increase, albeit from a low base, by over 120%. There has been substantial, greater than 20%, increase in the numbers of males aged 25 – 54 claiming Farm Assist payments. The greatest increases are amongst those farmers

under 35 years of age. This finding lends some support to anecdotal information suggesting that as younger males lost off-farm employment they returned to farming. The analysis suggests, however, that the income from some of these farms is very low; hence the need for Farm Assist.

Figure 4 Change (%) in Demographic Profile of Male Beneficiaries of Farm Assist 2007 - 2009



Source: Authors calculations derived from Dept. of Social Protection statistical data

Conclusions and Future Research

The analysis presented in this paper points to significant and rapid economic change in Ireland and the impacts of these developments on farmers dependent on off-farm employment. Whilst the declines in off-farm employment recorded in the QNHS are unsurprising given the rapid deterioration of the Irish economy over the course of the period Q2-2008 – Q2-2009 they are of significant concern given the extent to which off-farm income supports the economic viability of many farm households. Recent developments restricting the availability of off-farm employment

are likely to have resulted in substantial changes to the composition of farm household income, namely a decline in wages / salaries, and relative increases in the proportion of income accounted for by farm and government transfers. Given the likely difficulty for many farmers who depended on off-farm employment to secure new employment there is a clear need for a strategy to develop the rural economy, thereby creating employment opportunities, through the development of the enterprise potential within rural areas. Parallel to this process is the need to further develop the existing, formal and informal, skills of farmers to enable them to participate in the development of the rural economy.

The analysis presented in this paper highlights the need to develop a greater understanding of a number of issues concerning the factors influencing contemporary employment trends in the agriculture sector. Detailed analysis is also required to assess what employment – unemployment transitions are taking place within farm households to establish whether those losing off-farm employment are reclassifying themselves as farmers or, alternatively, as unemployed. Within this analysis there is also a need to establish whether individuals with higher levels of training and education are less likely to lose their jobs and, should they do so, do they secure new employment quicker than those with fewer skills or lower levels of education as would be expected the case for the broader workforce.

Acknowledgements

The author would like to thank Tara Davies from the CSO QNHS for providing the data that made this research possible. I am also very grateful to Kieran Walsh, Senior Statistician – Labour Market and Earnings, for taking the time to discuss the validation of QNHS data.

I would also like to acknowledge the comments and suggestions made by Dr. Kevin Heanue and Dr. Maeve Henchion on an early draft of this paper.

References

Behan, J. and O'Brien, M. 2008. Assessing the availability of off-farm employment and farmers' training needs. In O'Brien, M. and Hennessy, T. (Eds) *An Examination of the contribution of off-farm income to the viability and sustainability of farm households and the productivity of farm businesses*. Teagasc: Athenry.

Connolly, L., Kinseella, A, Quinlan, G. and Moran, B. 2009. *National Farm Survey 2008*. Teagasc: Athenry.

Connolly, L., Kinseella, A, Quinlan, G. and Moran, B. 2010. *National Farm Survey 2009*. Teagasc: Athenry.

CSO. 2010. *Population and Migration Estimates April 2010*. CSO: Dublin.

Department of Social and Family Affairs. 2007. *Statistical Information on Social Welfare Services 2007*. Accessed online at: <http://www.welfare.ie/en/Policy/ResearchSurveysAndStatistics/Documents/2007s tats.pdf>

Department of Social Protection. 2009. *Statistical Information on Social Welfare Services 2009*. Accessed online at: <http://www.welfare.ie/en/Policy/ResearchSurveysAndStatistics/Documents/2009s tats.pdf>

Dillon, E., Hennessy, T. Behan, J and Meredith, D. 2009. *An analysis of the rural labour market in Ireland*. Teagasc: Athenry.

Meredith, D. 2009. *Understanding the Socio-Economic Structure of Ireland's Rural Economy*. Presentation given at the Irish Rural Studies Symposium 2009, Athenry, Co. Galway.

Morgenroth, E. 2008. *Exploring the Economic Geography of Ireland*. Working Paper No. 271. Dublin: ESRI.

O'Brien, M. and Hennessy, T. 2008. (Eds) *An Examination of the contribution of off-farm income to the viability and sustainability of farm households and the productivity of farm businesses*. Teagasc: Athenry.

Russell, H., McGinnity, F., Callan, T. and Keane, C. 2009. *A Woman's Place. Female Participation in the Irish Labour Market*. Equality Research Series. The Equality Authority: Dublin.

Walsh, J. and Manion, J. 2005. *Rural Ireland 2025: Foresight Perspectives*. UCD and NUI Maynooth: Dublin.

Notes

¹ The sharp fall in agricultural employment since the end of 2008 recorded in the data prompted an assessment of the QNHS by the CSO. Discussions with the CSO established that they are concerned by the rate of decline represented in the agriculture sector data and have undertaken a detailed review to establish whether technical issues, e.g. changes in the composition of the sample of households that comprise the basis of the QNHS, are influencing contemporary trends. This review found that the sampling issue was not a factor and other possible explanations, including the impact of retirement amongst sampled farmers, the cessation of schemes and the knock on impact on farm viability, do not, individually, account for the substantial decline evident in these data.