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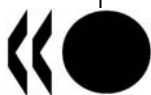
**THE IMPACT OF IRELAND'S RECESSION ON THE
LABOUR MARKET OUTCOMES OF ITS IMMIGRANTS**

**Paris - 10-11 June 2010 (OECD Conference Centre, Room CC1)
The meeting will begin at 15h00 on 10 June and finish at 17h00 the 11 June**

This document has been prepared by Alan Barrett and Elish Kelly (Economic and Social Research Institute, Dublin). The opinions expressed are those of the authors and do not commit either the Organisation or the national authorities concerned.

JT03284649

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SUMMARY

The purpose of this paper is to assess how the economic downturn has impacted upon Ireland's immigrants, with a particular focus on changes in the employment rates of non-nationals over the recession. Our findings show that Ireland's recession has impacted heavily on its immigrants in terms of reduced employment and increased unemployment. Our econometric analysis has shown as well that the employment probabilities of immigrants from the accession states were particularly badly hit between Q1 2008 and Q1 2009. However, there is only weak evidence that those earlier arrived immigrants from the accession states were more affected than those recently arrived. The labour market disadvantage which immigrants experienced in the boom, in terms of lower wages and occupational downgrading, manifested itself in rapid job losses in the recession. Preliminary findings seem to indicate that much of the reaction to job losses by immigrants has been to out-migrate.

THE IMPACT OF IRELAND'S RECESSION ON THE LABOUR MARKET OUTCOMES OF ITS IMMIGRANTS

¹
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1. Introduction

1. As with many of the world's economies, Ireland experienced an economic recession in 2008 and 2009. However, in the case of Ireland the recession has been more severe, and prolonged, relative to elsewhere. Gross national product fell by 2.8% in 2008 and by a further 11.3% in 2009. The economy is expected to stabilise in 2010 but the cumulative impact of the downturn will be around 14%. One of the main consequences of the recession has been a rapid rise in the rate of unemployment. In 2007, unemployment averaged 4.6%. By the end of 2008, unemployment had risen to 8.5%; by the end of 2009 it had risen to 13.2%.

2. In the years preceding the downturn, Ireland had experienced a long period of strong growth. Between 1990 and 2007, growth had averaged 5.7% per annum. In the latter part of this period, between 2003 and 2007, growth had averaged just over 5% per annum. Partly as a result of this growth, Ireland experienced a significant migratory inflow, especially in the period after May 2004 when the EU admitted ten new member states. Between the third quarter of 2004 and the third quarter of 2007, the number of non-nationals (aged 15 and over) grew by 85%. This meant that the proportion of the population aged 15 and over that was non-national grew from 7.7% to 13.1% over the same three-year period.

3. The purpose of this paper is to assess how the economic downturn has impacted upon Ireland's immigrants, with a particular focus on changes in the employment rates of non-nationals over the recession. We do this in two broad ways. First, we use published data from Ireland's Central Statistics Office to examine changes in the proportions of non-nationals who are employed, unemployed and in receipt of unemployment payments, relative to the Irish nationals. Second, we use micro-data again from the Central Statistics Office to assess how the employment of non-nationals has changed over the recession, using regression analysis where we control for other factors which would be associated with employment vulnerability such as age and education.

4. The paper is structured as follows. In the remainder of this introduction, we provide a brief review of what we had learned about the labour market outcomes for immigrants in Ireland prior to the recession as this provides context for changes during the recession. In Section 2, we look at the information on immigrants' labour market experiences over the recession that can be distilled from the published data. In Section 3, we move onto the econometric analysis of these experiences. In Section 4, we discuss the implications of our findings for migratory movements to, and from, Ireland in the coming years.

5. A number of papers on the labour market outcomes of immigrants in Ireland tended to show that they did less well relative to natives and that the apparent labour market disadvantages were particularly acute for immigrants from the EU's New Member States (NMS). Barrett and McCarthy (2007) showed that immigrants earned 18% less than comparable natives. However, the wage disadvantage was 45% for

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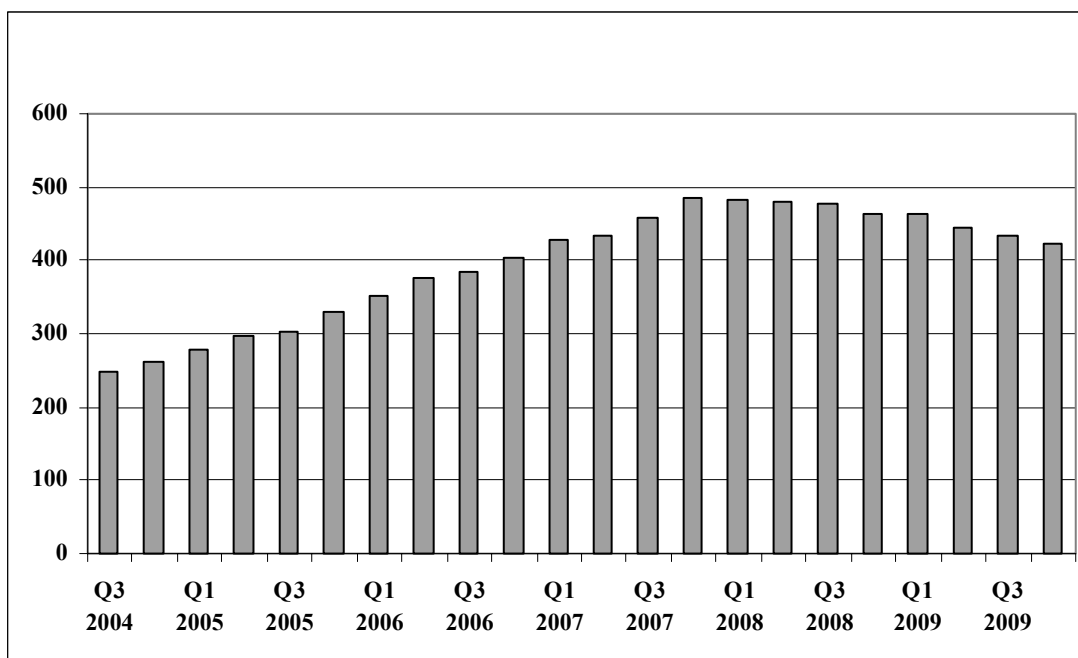
immigrants from the NMS. Barrett and Duffy (2008) showed that immigrants were less likely to be in higher level occupations, again taking account of differences in socio-economic characteristics between immigrants and natives. For immigrants from the NMS, there was a 20% gap in the probability of being in higher level occupations relative to comparable natives. Barrett and Duffy (2008) also showed that this occupational disadvantage did not appear to be lower for immigrants who had been in Ireland for longer. Hence, they failed to find evidence of integration over time. Barrett et al (2009) showed that immigrants were less likely to receive employer-provided training relative to natives.

6. These papers, and others, suggested that immigrants were in less favourable labour market situations in the period before the recession. As a result, it might have been expected that they would be particularly vulnerable to employment loss as a result of the recession. In what follows, we will explore if this turned out to be the case.

2. Immigrant employment outcomes over the recession: published data

7. Each quarter, Ireland's Central Statistics Office provides information on the numbers of non-nationals, aged over 15, who are employed, unemployed and inactive as part of their release on the Quarterly National Household Survey (QNHS). The QNHS is the official labour force survey and provides the official measure of unemployment. In the following figures which are derived from the QNHS, we trace the movement in the labour market from late 2004 through to the end of 2009. All data relates to the population aged over 15. It is important to stress at the outset that we the data are essentially repeated cross sections and not a panel. As a result, changes over time could be the result of a changing mix of individuals as opposed to changes in the circumstances of individuals.

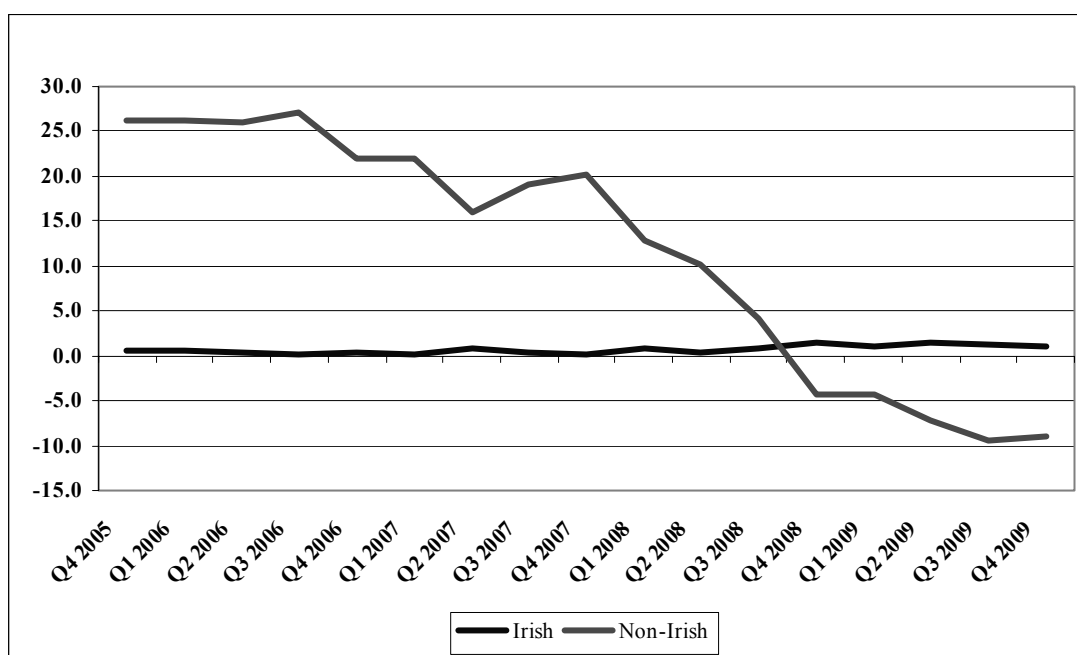
Figure 1: Number of Migrants Aged 15+ (Thousands)



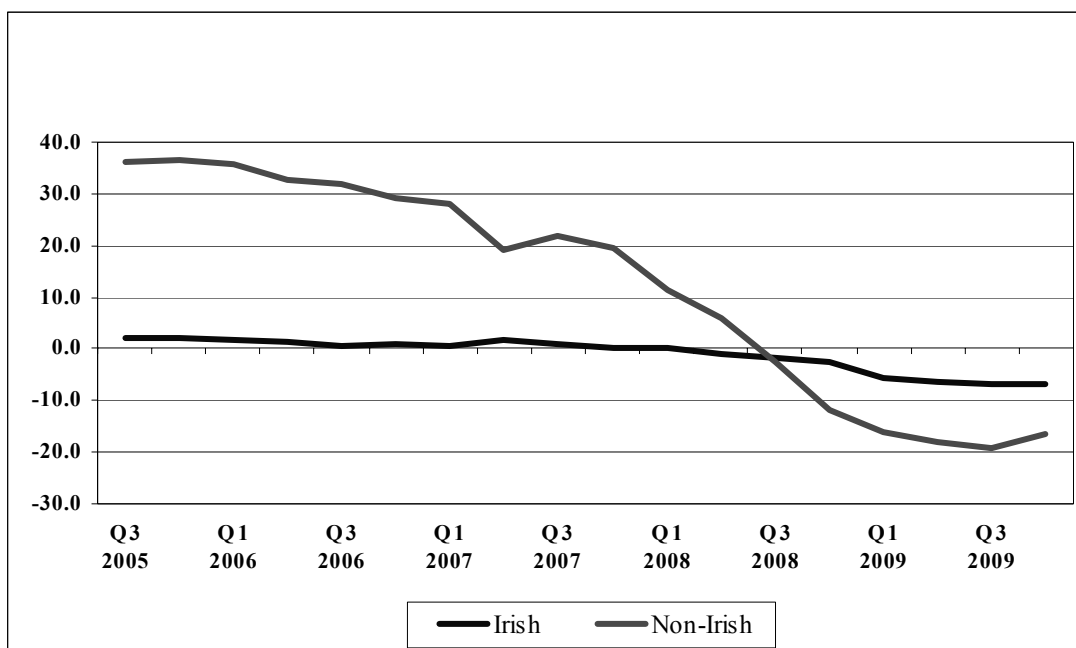
8. We begin with Figure 1 in which we show the number of non-national living in Ireland from the third quarter of 2004 through the fourth quarter of 2009. The population of non-nationals grew from just under 250,000 in Q3 2004 to a peak of 485,000 in Q4 2007 – this was an increase of almost 100%. Since then, the numbers have declined. The latest figures for Q4 2009 show that there were 423,000 non-nationals aged 15 and over in Ireland. This represents a fall of 62,000 from the peak, or almost 13%.

9. In Figure 2, we look at the population figures from a different angle and consider annual changes in the population of both non-nationals and nationals. As can be seen, the non-national population had been growing at a remarkable rate (on an annual basis) right up until the end of 2007, at which time the annual growth rate was 20%. The rate of growth then fell sharply and turned negative in Q4 2008. For Q3 and Q4 2009, the annual rate of decline in the non-national population has been close to 9%.

Figure 2: Percentage Change in Population Aged 15+ (Annual)



10. In Figure 3, we look at the trend in employment growth for nationals and non-nationals and striking differences are immediately apparent. In 2005 and 2006, the annual rate of growth in employment for non-nationals was 30% or higher. Although the pace of growth slowed in 2007, it was still running at 20% or higher. The rate of growth for non-nationals continued to decline through 2008 but one interesting point to note is that the annual rate of change in the numbers employed became negative for nationals before this occurred for non-nationals. In Q2 2008, the number of nationals employed fell by 1.1% relative to the same period one year earlier. The corresponding figure for non-nationals was still positive at this point. However, since Q3 2008 the annual rate of decline in the numbers of non-nationals employed has exceeded that on nationals. In Q3 2009, the rate had reached close on 20% for non-nationals, compared with a 7% fall for nationals. Just as the national/non-national comparison showed stark differences in the earlier period, the comparison is almost as stark in the period of the recession.

Figure 3: Percentage Change in Employment (Annual)

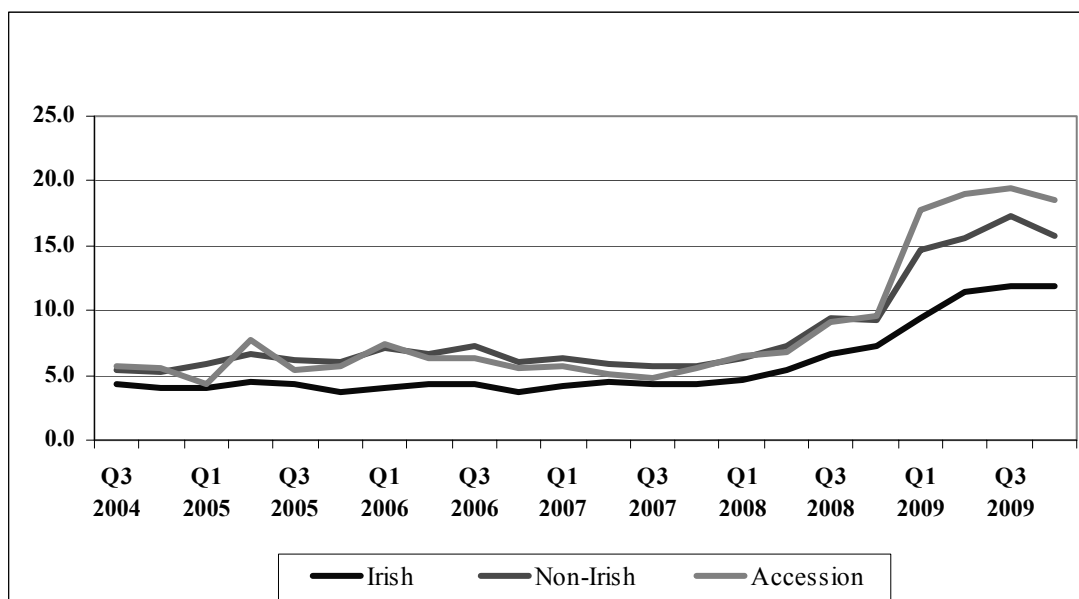
11. The employment falls among non-nationals which we see in Figure 3 were large and so we would expect them to be reflected in the unemployment rate of immigrants. In Figure 4, we track the unemployment rates of Irish nationals and non-national from 2004 to 2009. We also look at immigrants from the EU's accession states as a separate category, although they are included in the non-national category too.

12. For the period between 2004 to the end of 2007, the rate of unemployment for Irish nationals was largely unchanged and hovered just below 5%. For immigrants in total, there was a fall in the rate of unemployment between 2006 and 2007 and for immigrants from the accession states this was strongest. There appeared to be a convergence between their rate of unemployment and that of the native population. In Q3 2007, the gap between the unemployment rates of Irish nationals and accession state nationals was less than 0.5 of a percentage point (4.8% for the accession state immigrant versus 4.4% for the natives). In some senses, these figures on unemployment captured much that was viewed as positive about Ireland's experience of immigration. First, it was noteworthy that Ireland could experience such a huge population inflow without any impact on the rate of unemployment of natives². Second, the convergence of the unemployment rate of the accession state immigrants towards that of natives was consistent with a story of labour market integration³.

² Of course, it could have been the case that the rate of unemployment of natives would have been even lower in the absence of the large inflow. Nevertheless, the broad point appears to remain that Ireland's labour market absorbed the large inflow with limited evidence of displacement on average.

³ Care needs to be exercised when making any conclusions about integration based on repeated cross-sections. It could have been the case that the rates of unemployment converged because unemployed immigrants left Ireland. In this case, there would be no process of integration whereby unemployed immigrants found jobs.

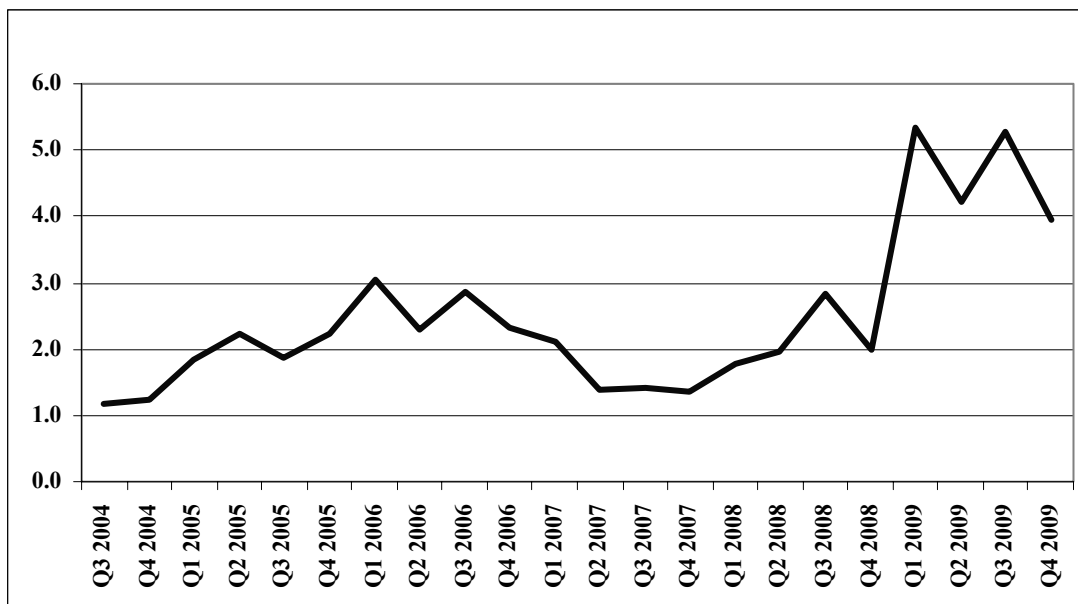
Figure 4: Unemployment Rates: 2004-2009



13. As shown in Figure 4, the relative rates of unemployment between immigrants and natives began to diverge with the onset of recession at the start of 2008. We will use Figure 5 to illustrate this point where we look at the gap between unemployment rates. Here we look at all immigrants but the point on converging unemployment rates between 2006 and 2007 is readily seen. However, the beginning of 2009 shows a rapid divergence once again in unemployment rates with the gap exceeding 5 percentage points in both Q1 and Q3 2009. Based on the different rates of employment losses shown in Figure 3, this is not surprising and the clear lesson is that the recession was severe for immigrants in terms of employment and unemployment⁴.

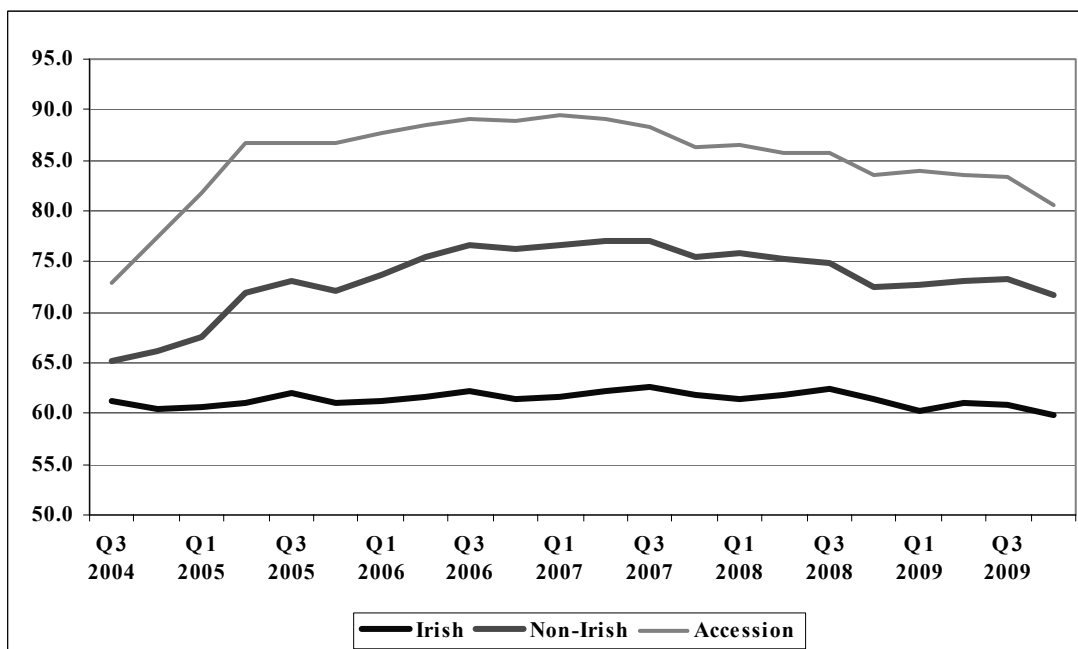
⁴ In the Appendix, we present a figure which is similar to Figure 4 but which is based on unemployment payment claims. A similar picture emerges.

Figure 5: Gap Between Irish and Non-Irish Unemployment Rates: 2004-2009



14. We look next at another dimension of labour market outcomes, inactivity. We repeat the approach used in Figures 4 and 5 by looking at the rates of participation across the groups (Figure 6) and then at the gap in those rates (Figure 7).

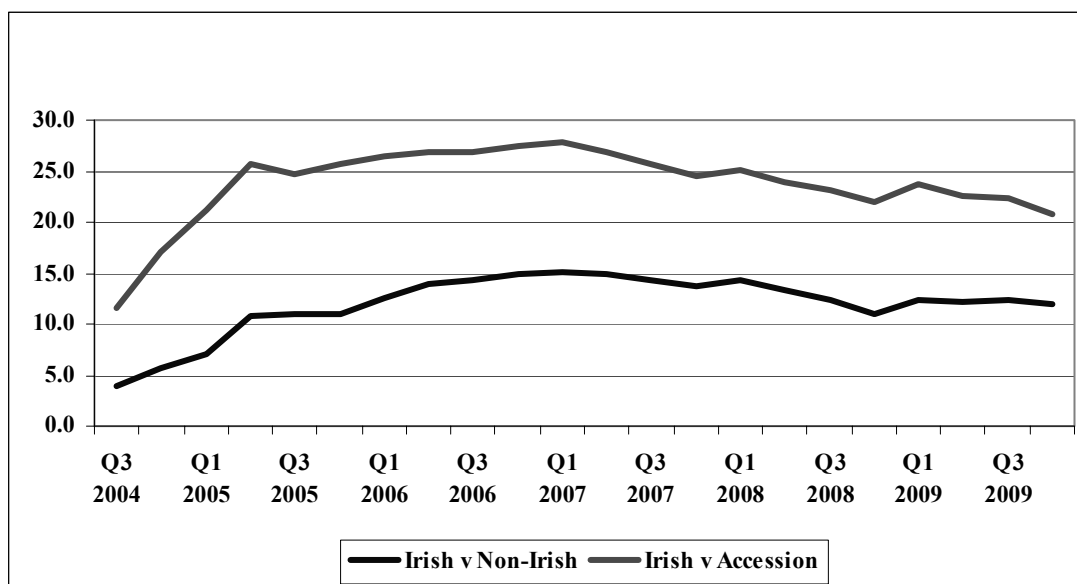
Figure 6: Participation Rates: 2004-2009



15. The first point to be taken from Figure 6 is the very high rate of participation among accession state immigrants in particular. At its peak, in Q1 2007, the participation rate of accession state immigrants was almost 90%. The rate has declined since then but this could be due to a range of factors including

reduced employment opportunities but could also be due to factors such as non-working spouses joining working spouses. Participation rates declined for both immigrants and natives in the middle of 2008. In order to get a clearer sense of whether there was a different rate of decline, we look in Figure 7 at the gaps between the native participation rate and those of all immigrants and accession state immigrants.

Figure 7: Gaps Between Participation Rates: 2004-2009

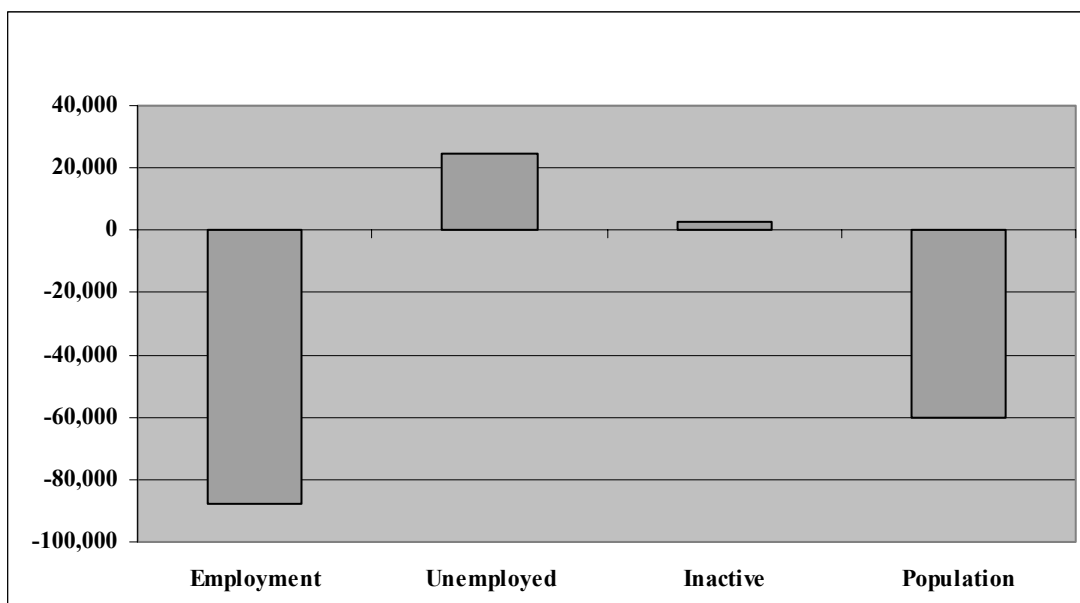


16. Figure 7 is unlike Figure 5 in that there does not appear to be a clear divergence in the experiences of immigrants and natives with respect to changing rates of participation as a result of the recession. This suggests that the different rates of employment loss did not translate into a fall in the participation rate of immigrants relative to natives. We already seen that the different rates of employment loss translated into a surge in unemployment among immigrants relative to natives but another potential channel of adjustment was out-migration. Figure 1 suggests that this was indeed a channel that has been taken by a proportion of immigrants. In Figure 8, we look at this in a slightly different way and consider how the fall in the number of immigrants employed between Q1 2008 and Q4 2009 was distributed across the three alternatives of becoming unemployed, inactive and leaving Ireland.

17. From Figure 8, we can see that the number of immigrants employed in Ireland fell by 87 500 over the period in question, a fall of 25%. The number unemployed grew by 24 500, an increase of over 100%. The increase in the number who declared themselves as being inactive grew by just 2 700; this was an increase of just over 2%. However, in absolute terms the biggest adjustment was in the number still in Ireland. It fell by 60 200 or 12%.

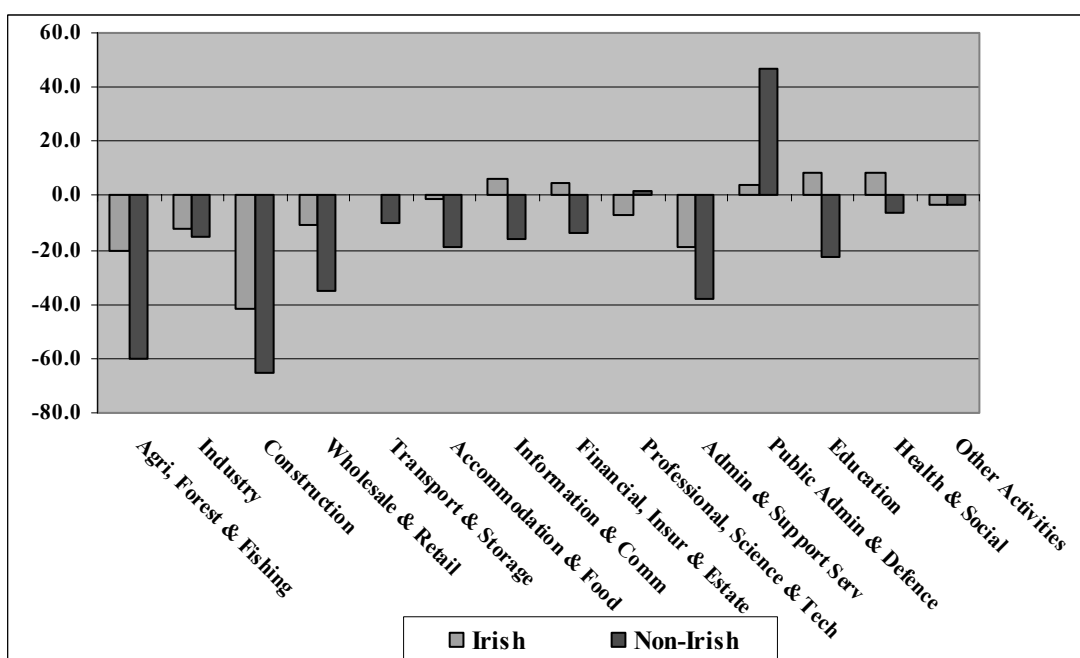
18. The discussion in the preceding paragraph could generate the impression that we are looking at the same people over time and assessing how those who lost their jobs reacted. As noted earlier in the paper, the data being used here are not from a panel and so we need to be careful in making interpretations. However, these data are certainly consistent with a tendency for employment losses to have resulted in outflows.

Figure 8: Changes in Employment Status of Non-Irish Nationals Between Q1 2008 and Q4 2009



19. As a final element in this part of our analysis, we will use Figure 9 to provide some insight into the following question. Was the high rate of employment loss among immigrants the result of them being heavily concentrated in contracting sectors or did they have higher rates of employment loss across sectors? In Figure 9, we show the percentage fall in employment for immigrants and natives across sectors over the two-year period 2008-2009. The general picture that emerges is that the rate of job loss in most sectors is higher for immigrants than for natives. This suggests that the large employment losses for immigrants were not solely the result of being in vulnerable sectors.

Figure 9: Rate of Employment Loss by Sector: Q1 2008 - Q4 2009



3. Immigrant employment outcomes over the recession: multivariate analysis of microdata

20. The analysis in Section 2 has used published data to assess how the recession has impacted upon immigrants in Ireland. A major limitation of this analysis is that it does not take account of other socioeconomic factors which would tend to make an individual more or less likely to a job loss during a recession. For example, younger workers tend to be in more precarious employment situations. To the extent that immigrants are also younger than the native population, on average, the large employment losses discussed above could have been the result of age as opposed to immigrant status per se. In this section, we aim to get a closer look at the employment experiences of immigrants during the recession by using multivariate analysis in which we control for these other socio-economic characteristics.

21. As with the analysis in Section 2, the data used come from the Quarterly National Household Survey (QNHS), which is a nationwide survey of households in Ireland that is carried out by the Central Statistics Office (CSO). The purpose of the QNHS is to provide quarterly labour force estimates. Information is collected continuously throughout the year, with 3 000 households surveyed each week to give a total sample of 39 000 households in each quarter. Households participate in the survey for five consecutive quarters.

22. The QNHS offers one of the few large-scale surveys of immigrants in Ireland. However, it is also known that the survey undercounts the number of immigrants. This undercount may cause concern of non-representativeness in using QNHS data to analyse immigration issues. Furthermore, as the survey is only administered in English, there might be an additional concern that low-skilled immigrants are disproportionately omitted from the QNHS. However, research by Barrett and Kelly (2008) shows that the QNHS provides a reliable profile of Ireland's immigrants.

23. For the purpose of this paper, data from Quarter 1 of the 2008 and 2009 Quarterly National Household Surveys were used: the 2008 data captures labour market conditions at the beginning of the recession, while the 2009 data depicts the situation in the middle of the downturn. To assess the impact of the recession on the employment prospects of immigrants, we merged the two QNHS datasets into one and introduced a series of 2009 year interaction terms into our employment probability specifications. An alternative strategy would have been to estimate separate models for each year and then test for between model differences in the variable of interest, in this case immigrant status. However, it is more efficient to combine the two QNHS datasets and include year interaction terms.

24. The merged QNHS dataset consists of 143 168 individuals. After restricting our sample to the working age employee population⁵, and eliminating individuals that had missing information on key variables⁶, the final sample used in the paper consisted of 70 651 individuals⁷.

25. As well as including information on a person's economic status - employed, unemployed or economically inactive, the QNHS also contains information on a range of demographic factors (e.g. gender, age, nationality, country of birth, marital status, year of residence in Ireland, educational attainment, geographic location, etc.), job characteristics (e.g. occupation, industry, job-type, trade union

⁵ Self-employed individuals are excluded from the analysis, and working age is defined as being aged between 20 and 64.

⁶ Specifically, individuals for which country of birth, nationality and/or year of taking up residence in Ireland information was missing were excluded.

⁷ We also eliminated individuals from the analysis whose country of birth did not match their nationality e.g. person with an Irish nationality that was not born in Ireland. Furthermore, American citizens were omitted due to small numbers.

membership, working patterns, etc.) and unemployment information (e.g. month last worked, job search methods, etc.).

26. In terms of methodology, we estimated binary probit regression models where the dependent variable equalled 1 if the person was employed and zero if non-employed (i.e. unemployed or economically inactive)⁸. The following variables were included in our specifications to explain an individual's employment probability: gender, age, education, geographic location within Ireland, immigrant status or nationality and year (2009)⁹. We define immigrants as individuals that describe their nationality as being non-Irish and were not born in Ireland. This group is then compared with individuals that describe themselves as Irish nationals that say that they were born in Ireland. In the specifications in which we include nationality, immigrants are divided into four regional categories: i) UK, ii) EU-13¹⁰, iii) EU-New Member States (i.e. the accession states) and iv) Other Countries. Descriptive information on the variables included in the paper is presented in Table A1 in the Appendix.

27. We estimated four sets of specifications to assess the impact of the recession on immigrants' employment propensities compared to natives. In the first set, we used a dichotomous immigrant dummy variable equalling 1 if non-Irish and zero if native. In the second set of models, immigrants were divided into the four nationality categories outlined above. In order to identify if recently arrived immigrants are more likely to experiencing negative employment prospects during the recession, we included a 'recently arrived' and an 'earlier arrived' immigrant dummy variable in our third set of specifications. The year of arrival information that is contained in the QNHS was used to create these two dummy variables, with recently arrived defined as immigrants that have been in the country for a maximum of two years. In our final set of models, we broke out the four nationality groups into recently arrived and earlier arrived immigrants. As mentioned previously, we interacted our various immigrant variables (i to iv above) with the 2009 year variable to identify the impact of the recession on immigrants in Ireland.

28. The results from our four sets of specifications are presented in Tables 1 to 4. As indicated earlier, our dependent variable equals 1 if employed and zero otherwise. Only the results on our variables of interest are presented in the tables. Specifically, for each variable we present the coefficient estimates and also the marginal effects on an individual's likelihood of being employed. The results on the other covariates that we included in our models are in line with expectations and are presented in Tables A2 to A5 in the Appendix¹¹. Overall, we found that an individual's likelihood of being employed decreases with age, if female and/or live in the Border/Midland/Western region of the county, while a person's probability of being employed increases with education level and if married.

29. The coefficient estimate on our immigrant dummy variable in Model 1 (Table 1) tells us that, controlling for factors such as age, education, gender, etc., immigrants are less likely to be employed compared to natives. The marginal effect, which gives us a sense of the size of this result, tells us that immigrants are almost 2 per cent less likely to be employed compared to natives. In relation to the impact

⁸ The QNHS contains two economic status variables: the first is based on the International Labour Office (ILO) classification and the second captures an individual's own perception of their economic status (principal economic status variable). The ILO variable was used in this paper to create our dependent variable.

⁹ We also include a student control in our models. This is because there are a small number of individuals in our dataset that view their main economic status as being a student (identified by the principal economic status variable) but are employed according to the ILO definition.

¹⁰ EU-15 less Ireland and the UK.

¹¹ Only the coefficient results are presented in the appendix tables. The marginal effects are available from the authors on request.

of the recession on immigrants' employment prospects, the coefficient estimate on the immigrant*Year2009 interaction term (Model 2), being negative and statistically significant, tells us that the recession has been damaging to the employment prospects of immigrants.

Table 1. Probit Model of Employment for Immigrants and Natives

Model		Coefficient	Standard Error	Marginal Effect	Standard Error
1	Immigrant	-0.047***	(0.017)	-0.017***	(0.006)
2.	Immigrant*Year2009	-0.133***	(0.032)	-0.049***	(0.012)

Note: Standard errors in parentheses.

* significant at 10%; ** significant at 5%; *** significant at 1%

30. In Table 2, we show the results from our second set of models in which immigrants are divided into four nationality groupings: UK, EU-13, EU-New Member States (EU-NMS) and Other Countries. The results from Model 1 indicate that immigrants from the EU-NMS are the only immigrant group that are more likely to be employed compared to natives (7.7 per cent), whereas those from the UK and Other Countries are significantly less likely to be employed (12.4 and 8.7% respectively). Apart from the EU-13 and EU-NMS coefficients, t-tests indicate that all the other nationality grouping coefficients are statistically different from each other¹². Interestingly, when we investigated the impact that the recession has had on immigrants from different locations (Model 2), we found that the employment prospects of immigrants from the EU-NMS are the only group that has been negatively affected by the downturn.

Table 2: Probit Model of Employment for Immigrants by Nationality and All Natives

Model:		Coefficient	Standard Error	Marginal Effect	Standard Error
1	UK	-0.327***	(0.035)	-0.124***	(0.014)
	EU-13	-0.033	(0.051)	-0.012	(0.018)
	EU-NMS	0.227***	(0.025)	0.077***	(0.008)
	Other	-0.231***	(0.028)	-0.087***	(0.011)
2	UK*Year	0.057	(0.070)	0.020	(0.025)
	EU-13*Year	0.046	(0.101)	0.016	(0.035)
	EU-NMS*Year	-0.324***	(0.050)	-0.123***	(0.020)
	Other*Year	-0.081	(0.055)	-0.030	(0.020)

Note: Standard errors in parentheses.

* significant at 10%; ** significant at 5%; *** significant at 1%

¹² These t-test results, and the results for the other t-tests conducted in the paper, are available from the authors on request.

31. One might expect that immigrants that have been in Ireland for a long period of time would be more integrated and, hence, would be less exposed to the recession compared to those that arrived in the country in the last couple of years. To investigate this hypothesis, our third set of specifications include a recently arrived immigrant dummy variable, defined here as immigrants that have been in the country for a maximum of two years, and an earlier arrived immigrant dummy variable. Interestingly, the results from our base model (Model 1) indicate that there is no difference in the employment propensities of recently arrived immigrants and natives, whereas earlier arrived immigrants are 2.6% less likely to be employed compared to natives¹³. However, based on the results in Model 2, both earlier arrived and recently arrived immigrants are, compared to natives, significantly less likely to be employed in Quarter 1 2009. While the findings seem to suggest that the recession has had a bigger negative impact on recently arrived immigrants, a t-test shows that there is no statistical difference between the more recently arrived and earlier arrived immigrant coefficients.

Table 3: Probit Model of Employment for Recently Arrived and Earlier arrived Immigrants and All Natives

Model:	Coefficient	Standard Error	Marginal Effect	Standard Error	
1	Recently Arrived Immigrant	0.010	(0.028)	0.004	(0.010)
	Earlier arrived Immigrant	-0.071***	(0.019)	-0.026***	(0.007)
2	Recently Arrived Immigrant*Year	-0.167***	(0.056)	-0.062***	(0.021)
	Earlier arrived Immigrant*Year	-0.107***	(0.038)	-0.039***	(0.014)

Note: Standard errors in parentheses.

* significant at 10%; ** significant at 5%; *** significant at 1%

32. In our final set of specifications (Table 4), we examined whether or not recently arrived immigrants from certain locations are more exposed to the downturn compared to their earlier arrived counterparts. The first point to note from Table 4 relates to Model 1. The results from this model indicate that both recently arrived and earlier arrived immigrants from EU-NMS are more likely to be employed compared to natives. The positive effect for the most recent arrivals from EU-NMS is largest, and this coefficient is statistically different to the coefficient for the earlier arrived EU-NMS immigrants. Apart from earlier arrived immigrants from the EU-13, all other immigrant groupings are less likely to be employed compared to natives, with the marginal effects indicating that the impact is bigger for more recently arrived immigrants. However, the difference between the Other Countries recently arrived and earlier arrived immigrant coefficients are not statistically significant. Moving on to the impact of the recession, we saw earlier (Table 2, Model 2) that the employment prospects of EU-NMS immigrants were the only nationally grouping that was negatively affected by the downturn. The results in Table 4 (Model 2) suggest that it is the employment outlook of earlier arrived EU-NMS immigrants that has been more negatively affected by the recession. However, the difference between the EU-NMS recently arrived and earlier arrived immigrant coefficients are only statistically significant at 10 per cent; thus, this is relatively weak evidence that earlier arrived immigrants from EU-NMS are facing a tougher labour market compared to their more recently arrived counterparts.

¹³ The earlier arrived immigrant coefficient is significantly different to the coefficient for the more recent arrivals.

Table 4: Probit Model of Employment for Recently Arrived and Earlier arrived Immigrants by Nationality and All Natives

Model:		Coefficient	Standard Error	Marginal Effect	Standard Error
1	UK Recently Arrived	-0.650***	(0.090)	-0.253***	(0.035)
	EU-13 Recently Arrived	-0.154*	(0.082)	-0.057*	(0.031)
	EU-NMS Recently Arrived	0.348***	(0.041)	0.114***	(0.012)
	Other Recently Arrived	-0.303***	(0.052)	-0.115***	(0.021)
	UK Earlier arrived Immigrants	-0.270***	(0.038)	-0.102***	(0.015)
	EU-13 Earlier arrived Immigrants	0.039	(0.064)	0.014	(0.023)
	EU-NMS Earlier arrived Immigrants	0.153***	(0.031)	0.053***	(0.010)
	Other Earlier arrived Immigrants	-0.207***	(0.032)	-0.077***	(0.012)
2	UK Recently Arrived*Year	-0.149	(0.182)	-0.055	(0.069)
	EU-13 Recently Arrived*Year	0.213	(0.163)	0.072	(0.052)
	EU-NMS Recently Arrived*Year	-0.179**	(0.082)	-0.067**	(0.031)
	Other Recently Arrived*Year	-0.133	(0.104)	-0.049	(0.039)
	UK Earlier arrived Immigrants*Year	0.084	(0.076)	0.029	(0.026)
	EU-13 Earlier arrived Immigrants*Year	-0.067	(0.129)	-0.025	(0.048)
	EU-NMS Earlier arrived Immigrants*Year	-0.368***	(0.065)	-0.140***	(0.026)
	Other Earlier arrived Immigrants*Year	-0.074	(0.064)	-0.027	(0.024)

Note: Standard errors in parentheses.

* significant at 10%; ** significant at 5%; *** significant at 1%

4. Conclusion

33. The analysis presented in this paper shows that Ireland's recession has impacted heavily on its immigrants in terms of reduced employment and increased unemployment. Significant outflows also appear to be happening, based on the information provided in the Quarterly National Household Survey¹⁴.

¹⁴ The Central Statistics Office produces a release annually on *Population and Migration Estimates*. The most recent version was published in September 2009 and relates to the year ending April 2009. Under normal circumstances, this time lag is not a problem but in the current context, the existing information from that source is dated

As shown in Figure 2, in the year ending Q4 2009, the population of non-nationals fell by 8.9%, or 41 500. This rate of net outflow is as high as at any time during the current crisis so there is no sign as yet of a levelling off in the outflow. In spite of this, it should also be noted that there was still well over 400 000 non-nationals living in Ireland (aged 15 and over) towards the end of 2009 and this represented 12% of the population. Even if outflows persist at their current for another year or two, Ireland will retain a significant non-national population and so issues of integration will remain.

34. Our econometric analysis has shown that the employment probabilities of immigrants from the accession states were particularly badly hit between Q1 2008 and Q1 2009. In this context, it is interesting to note that the rate of outflow for accession state immigrants was also higher than for other immigrant groups between these two dates. Over this period, the population of all non-nationals fell by 4.3% but the fall for immigrants from the accession states was 9.2%. In the most recent period, the rate of net outflow have become more similar across groups – the average in the year ended Q4 2009 was a net outflow of 8.9%, with the figure for accession state immigrants being 9.2%.

35. The latest forecasts for the Irish economy¹⁵ suggest that employment will remain unchanged between 2010 and 2011. As a result of the anticipated failure for employment growth to re-emerge in the short-term, a net outflow of 60 000 is estimated to have occurred in the year ending April 2010 and a further net outflow of 40 000 is forecast for the year ending April 2011. These forecasts do not contain a nationality breakdown of the net outflow but the anticipated scale is such that both Irish nationals and non-nationals are likely to be included. In this way, Ireland is expected to resume its historical pattern of being a country of emigration, at least temporarily.

36. Ireland's experience of immigration during its boom provided a new context in which to study immigration. Similarly, its recession has provided insights into the situation of migrants during a rapid downturn. The lessons appear to be that the labour market disadvantage which immigrants experienced in the boom, in terms of lower wages and occupational downgrading, manifested itself in rapid job losses in the recession. Figure 8 is consistent with a story in which much of the reaction to job losses by immigrants has been to out-migrate but we need to be careful on this due to the point made earlier about the fact that cross sectional data is being used and not a panel.

¹⁵ Barrett et al (2010)

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APPENDIX

Figure A1: Numbers on the Live Register as a Percentage of the Labour Force: July 2004 to December 2009

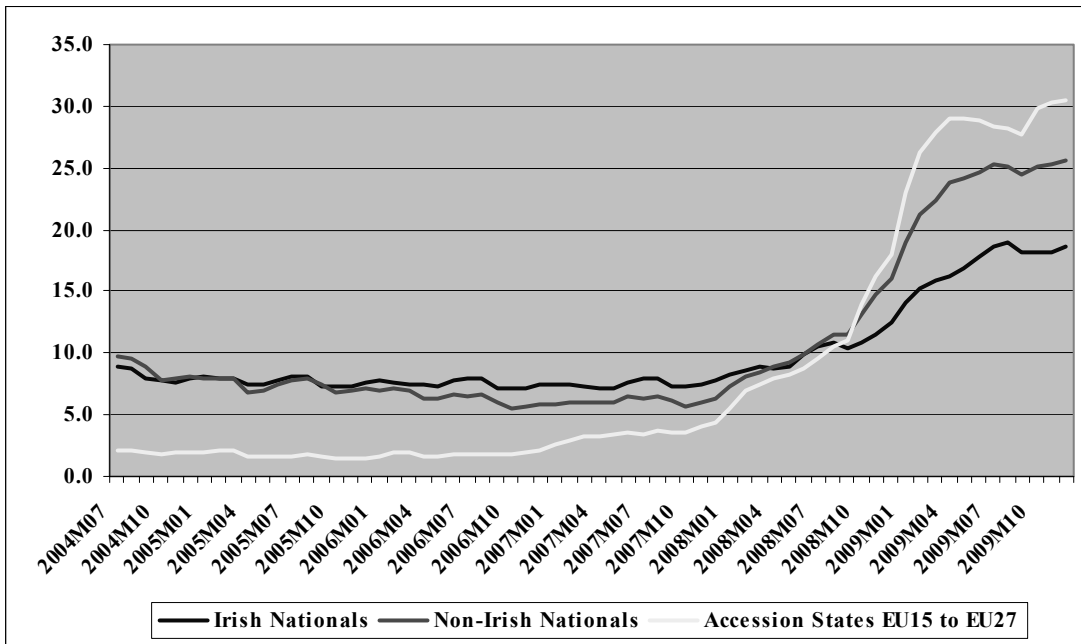


Table A1: Descriptive Statistics on Merged 2008 and 2009 (Q1) QNHS Variables

	All		Natives		Immigrants	
	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.
Employed	65.7	0.475	65.3	0.476	68.5	0.464
Unemployed	5.9	0.236	5.5	0.227	9.2	0.290
Economically Inactive	28.4	0.451	29.2	0.455	22.2	0.416
Female	55.0	0.498	55.8	0.497	48.8	0.500
Age 25-34	24.6	0.430	22.0	0.414	43.4	0.496
Age 35-44	23.0	0.421	22.9	0.420	23.7	0.426
Age 45-54	21.1	0.408	22.4	0.417	11.7	0.321
Age 55-59	9.4	0.292	10.3	0.304	3.0	0.170
Age 60-64	8.7	0.282	9.5	0.293	2.7	0.163
Married	54.2	0.498	54.6	0.498	51.3	0.500
Widowed	1.9	0.135	2.0	0.140	0.8	0.091
Divorced	4.9	0.216	4.9	0.215	5.0	0.218
Secondary	43.9	0.496	45.3	0.498	33.6	0.472
Post-Secondary	9.4	0.292	9.6	0.294	8.1	0.273
Third-Level Non Degree	11.0	0.312	11.0	0.313	10.4	0.305
Third-Level Degree and Higher	19.4	0.395	18.5	0.389	25.7	0.437
Student	5.1	0.220	4.9	0.217	6.1	0.239
Border/Midland/Western Region	23.7	0.425	24.0	0.427	21.4	0.410
Immigrant	12.0	0.325	-	-	-	-
UK	2.1	0.142	-	-	17.3	0.378
EU-13	1.2	0.108	-	-	9.8	0.297
EU-NMS	5.1	0.221	-	-	42.8	0.495
Other Countries	3.6	0.187	-	-	30.2	0.459
Recently Arrived Immigrant	3.7	0.190	-	-	31.2	0.464
Older Immigrant	8.2	0.275	-	-	68.8	0.464
Observations	70,651		62,182		8,469	

Note: Std. Dev. is abbreviation for standard deviation.

Table A2: Probit Model of Employment for All Immigrants and All Natives

	Model 1		Model 2	
	Coefficient	Standard Error	Coefficient	Standard Error
Constant	0.477***	(0.022)	0.468***	(0.022)
Female	-0.366***	(0.011)	-0.366***	(0.011)
Age 25-34	-0.040**	(0.020)	-0.039*	(0.020)
Age 35-44	-0.201***	(0.022)	-0.199***	(0.022)
Age 45-54	-0.203***	(0.023)	-0.202***	(0.023)
Age 55-59	-0.545***	(0.026)	-0.544***	(0.026)
Age 60-64	-0.970***	(0.027)	-0.969***	(0.027)
Married	0.058***	(0.014)	0.058***	(0.014)
Widowed	0.030	(0.039)	0.029	(0.039)
Divorced	-0.047*	(0.026)	-0.046*	(0.026)
Secondary	0.447***	(0.015)	0.446***	(0.015)
Post-Secondary	0.582***	(0.021)	0.582***	(0.021)
Third-Level Non Degree	0.879***	(0.021)	0.879***	(0.021)
Third-Level Degree and Higher	1.076***	(0.019)	1.076***	(0.019)
Student	-1.425***	(0.026)	-1.425***	(0.026)
Border/Midland/Western Region	-0.064***	(0.012)	-0.064***	(0.012)
Immigrant	-0.047***	(0.017)	0.024	(0.024)
Year 2009	-0.156***	(0.010)	-0.140***	(0.011)
Immigrant*Year2009	-	-	-0.133***	(0.032)
Observations	70,651		70,651	
Pseudo R2	0.1370		0.1372	

Note: Standard errors in parentheses.

* significant at 10%; ** significant at 5%; *** significant at 1%

Table A3: Probit Model of Employment for Immigrants by Nationality and All Natives

	Model 1		Model 2	
	Coefficient	Standard Error	Coefficient	Standard Error
Constant	0.438***	(0.023)	0.427***	(0.023)
Female	-0.366***	(0.011)	-0.366***	(0.011)
Age 25-34	-0.033	(0.020)	-0.030	(0.020)
Age 35-44	-0.170***	(0.022)	-0.168***	(0.022)
Age 45-54	-0.176***	(0.023)	-0.174***	(0.023)
Age 55-59	-0.513***	(0.026)	-0.510***	(0.026)
Age 60-64	-0.936***	(0.027)	-0.933***	(0.027)
Married	0.059***	(0.014)	0.059***	(0.014)
Widowed	0.034	(0.039)	0.034	(0.039)
Divorced	-0.045*	(0.026)	-0.044*	(0.026)
Secondary	0.460***	(0.015)	0.461***	(0.015)
Post-Secondary	0.594***	(0.021)	0.596***	(0.021)
Third-Level Non Degree	0.899***	(0.021)	0.901***	(0.021)
Third-Level Degree and Higher	1.105***	(0.019)	1.106***	(0.019)
Student	-1.389***	(0.026)	-1.387***	(0.026)
Border/Midland/Western Region	-0.062***	(0.012)	-0.061***	(0.012)
UK	-0.327***	(0.035)	-0.355***	(0.049)
EU-13	-0.033	(0.051)	-0.058	(0.074)
EU-NMS	0.227***	(0.025)	0.405***	(0.038)
Other Countries	-0.231***	(0.028)	-0.187***	(0.041)
Year 2009	-0.156***	(0.010)	-0.140***	(0.011)
UK*Year2009	-	-	0.057	(0.070)
EU-13*Year2009	-	-	0.046	(0.101)
EU-NMS*Year2009	-	-	-0.324***	(0.050)
Other Countries*Year2009	-	-	-0.081	(0.055)
Observations	70,651		70,651	
Pseudo R2	0.1396		0.1401	

Note: Standard errors in parentheses.

* significant at 10%; ** significant at 5%; *** significant at 1%

Table A4: Probit Model of Employment for Recently Arrived and Older Immigrants and All Natives

	Model 1		Model 2	
	Coefficient	Standard Error	Coefficient	Standard Error
Constant	0.473***	(0.022)	0.465***	(0.023)
Female	-0.366***	(0.011)	-0.366***	(0.011)
Age 25-34	-0.038*	(0.020)	-0.037*	(0.020)
Age 35-44	-0.197***	(0.022)	-0.197***	(0.022)
Age 45-54	-0.200***	(0.023)	-0.199***	(0.023)
Age 55-59	-0.542***	(0.026)	-0.541***	(0.026)
Age 60-64	-0.967***	(0.027)	-0.966***	(0.027)
Married	0.058***	(0.014)	0.058***	(0.014)
Widowed	0.030	(0.039)	0.030	(0.039)
Divorced	-0.045*	(0.026)	-0.045*	(0.026)
Secondary	0.447***	(0.015)	0.447***	(0.015)
Post-Secondary	0.583***	(0.021)	0.583***	(0.021)
Third-Level Non Degree	0.880***	(0.021)	0.880***	(0.021)
Third-Level Degree and Higher	1.077***	(0.019)	1.077***	(0.019)
Student	-1.424***	(0.026)	-1.423***	(0.026)
Border/Midland/Western Region	-0.064***	(0.012)	-0.064***	(0.012)
Recently Arrived Immigrant	0.010	(0.028)	0.084**	(0.038)
Older Immigrant	-0.071***	(0.019)	-0.167	(0.056)
Year 2009	-0.155***	(0.010)	-0.140***	(0.011)
Recently Arrived Immigrant*Year	-	-	-0.011***	(0.029)
Older Immigrant*Year	-	-	-0.107***	(0.038)
Observations	70,651		70,651	
Pseudo R2	0.1371		0.1373	

Note: Standard errors in parentheses.

* significant at 10%; ** significant at 5%; *** significant at 1%

Table A5: Probit Model of Employment for Recently Arrived and Older Immigrants by Nationality and All Natives

	Model 1		Model 2	
	Coefficient	Standard Error	Coefficient	Standard Error
Constant	0.437***	(0.023)	0.428***	(0.023)
Female	-0.367***	(0.011)	-0.367***	(0.011)
Age 25-34	-0.031	(0.020)	-0.030	(0.020)
Age 35-44	-0.170***	(0.022)	-0.169***	(0.022)
Age 45-54	-0.176***	(0.023)	-0.175***	(0.023)
Age 55-59	-0.513***	(0.026)	-0.511***	(0.026)
Age 60-64	-0.936***	(0.027)	-0.934***	(0.027)
Married	0.059***	(0.014)	0.059***	(0.014)
Widowed	0.034	(0.039)	0.033	(0.039)
Divorced	-0.044*	(0.026)	-0.044*	(0.026)
Secondary	0.460***	(0.015)	0.461***	(0.015)
Post-Secondary	0.594***	(0.021)	0.596***	(0.021)
Third-Level Non Degree	0.899***	(0.021)	0.900***	(0.021)
Third-Level Degree and Higher	1.106***	(0.019)	1.107***	(0.019)
Student	-1.386***	(0.026)	-1.386***	(0.026)
Border/Midland/Western Region	-0.061***	(0.012)	-0.061***	(0.012)
UK Recently Arrived	-0.650***	(0.090)	-0.583***	(0.121)
EU-13 Recently Arrived	-0.154*	(0.082)	-0.262**	(0.116)
EU-NMS Recently Arrived	0.348***	(0.041)	0.421***	(0.053)
Other Recently Arrived	-0.303***	(0.052)	-0.240***	(0.072)
UK Older Immigrants	-0.270***	(0.038)	-0.311***	(0.054)
EU-13 Older Immigrants	0.039	(0.064)	0.075	(0.097)
EU-NMS Older Immigrants	0.153***	(0.031)	0.386***	(0.053)
Other Older Immigrants	-0.207***	(0.032)	-0.164***	(0.050)
Year 2009	-0.155***	(0.010)	-0.140***	(0.011)
UK Recently Arrived*Year	-	-	-0.149	(0.182)
EU-13 Recently Arrived*Year	-	-	0.213	(0.163)
EU-NMS Recently Arrived*Year	-	-	-0.179**	(0.082)
Other Recently Arrived*Year	-	-	-0.133	(0.104)
UK Older Immigrants*Year	-	-	0.084	(0.076)
EU-13 Older Immigrants*Year	-	-	-0.067	(0.129)
EU-NMS Older Immigrants*Year	-	-	-0.368***	(0.065)
Other Older Immigrants*Year	-	-	-0.074	(0.064)
Observations	70,651		70,651	
Pseudo R2	0.1400		0.1405	

Note: Standard errors in parentheses.

* significant at 10%; ** significant at 5%; *** significant at 1%