

Symposium on the Labour Market

Union membership in Ireland since 2003

Frank Walsh

School of Economics, University College Dublin¹

(read before the Society, 19th February 2015)

Abstract: Using data from the Quarterly National Household Survey supplemented with some data from the European Social Survey we document a steady decline in union density in Ireland since 2003. While the great recession appeared to halt the decline this was temporary and density has continued to decline, indeed when changes in composition of worker and job attributes are accounted for there is a steady decline throughout the period. The analysis suggests that changes in the composition of job and worker characteristics during the deep recession between 2008 and 2011 served to offset the underlying decline in density. We also look respectively at the contributions of flows of workers into and out of union/non-union employment to the change in density. While the bulk of transitions into and out of union employment are associated with job changes, in fact the inflows and outflows cancel out for this category. The bulk of the change in membership came from changes in the net flow of workers who stayed in the same job into and out of union employment. We show that union members were much less likely to exit employment throughout the period compared to non-members. We present suggestive evidence from the European Social Survey that there is a substantial free rider effect associated with working in establishments where unions have influence without being a member. The paper concludes with a brief discussion of the possible implications of declining membership for labour market outcomes.

1. INTRODUCTION

The percentage of employees who are trade union members has been declining steadily over recent decades. Walsh (2009) documents a decline from 1994 to 2006 and in particular from 2001-2006 showing that changes in the composition of observed worker and job characteristics could only explain a very small part of this decline. Union density was 45.8% in 1994. Figure 1 below shows that by 2003 this had fallen to less than 38% and continued to decline to under 28% in 2014. There was some recovery in the period of deep recession which began in 2008. We see in Figure 1 that this was a temporary effect, the steady decline resumed from 2012 onwards. This decline in density is not unique to Ireland, there is an extensive literature documenting the decline in density across many countries [See Schnabel (2003) for a survey article]. The OECD publishes density figures for thirty two countries from 1999 to 2012. The average annual change in density was -0.29% per year across all of these countries between these two years (-0.18% for 2007 to 2012) while only four countries had an increase in density². In the long term Donado and Walde (2012) document an inverted U shape pattern using data from 1900 to 2008 across a range of countries with the size and timing of the peak differing substantially across countries.

Union density is not always a good indicator of union power. For example in a country like France the legal environment ensures that union and non-union workers are treated the same while collective bargaining is mandatory in large firms. This means union density which is low grossly understates union influence. Cahuc

¹ Email: frank.walsh@ucd.ie

² These were Belgium, Chile, Spain and Italy.

et al. (2014) draw on the ICTWSS database to document that while density has declined across a range of OECD countries, the percentage of workers covered by collective agreements has not. Unfortunately we do not have coverage figures for Ireland over time. Data from the 2009 National Employment Survey indicates that 48% of employees were covered by collective bargaining arrangements³. This is substantially higher than union density which Figure 1. Described in more detail below shows is just under 34% in 2009. Given this, the policy implications of a decline in density may be more to do with unions becoming less representative rather than a decline in union power.

2. TRENDS IN UNION DENSITY IN IRELAND

II.1 Data

We draw on two data sets to provide detailed empirical evidence. Our primary dataset is the Quarterly National Household Survey (QNHS) which is Ireland's labour force survey and is used to collect official rates of employment and unemployment. The survey interviewed up to 39,000 households each quarter with a wide range of questions related to labour market status as well as characteristics of the individuals and their employment characteristics. The data on union membership is available since 2004 on a continuous basis and is based on a question which asks respondents who are employees whether they are a member of a trade union or staff association. This question is only asked of employees so the data does not include any union members who are self-employed, unemployed or out of the labour force. Aggregate union membership can also be calculated from the returns of individual trade unions to the registrar of friendly societies or from the number of members of unions affiliated to the Irish Congress of Trade Unions which are reported in the ICTU report to the executive council. Unions affiliated to congress account for the bulk of members⁴. The number of members affiliated to congress typically exceeds the number of workers who say they are in a trade union in the QNHS data, by a substantial amount in recent years in particular and congress has raised some concern about this discrepancy [See ICTU (2013) p98 for example]⁵. The first two columns in Table 2 below give the number of members affiliated to ICTU in each year and the number reported in quarter two of the QNHS and column three gives the percentage difference which has grown substantially in recent years. There are a number of reasons why the two series would be expected to differ. Among these the notes attached to QNHS releases on union membership give the following reasons three reasons⁶:

1 *The QNHS union membership data does not include persons who are self-employed or unemployed at the time of the survey. Administrative sources may include self-employed members and members who have become unemployed but maintain their membership.*

2 *It is up to individual respondents to the QNHS to correctly identify themselves as trade union members for the purposes of the survey. As proxy interviews are included in the QNHS, these interviews rely on the proxy respondent's knowledge to correctly identify a union member. Administrative data is collected directly from subscription records and as such does not rely on individuals to self-report their membership.*

3 *It is possible that if one person is a member of two trade unions they would be counted twice in the administrative data but this would not arise in the QNHS as any given person can only be counted once.*

We will discuss these in turn and also note some other reasons that may explain the difference between the two series. While neither the QNHS data nor the ICTU membership data gives any information on what fraction of union members are in employment or what fraction of those in employment are employees, the European Social Survey (ESS) asks all respondents whether they are members of a Trade Union or similar body, irrespective of their employment status. The data is bi-annual and available from 2002-2012. Using this data we calculate the fraction of all respondents who report that they are in a trade Union who are also in employment and also the

³ Source: Data Base on Institutional Characteristics of Trade Unions, Wage Setting, State Intervention and Social Pacts, 1960-2011 (ICTWSS). This is based on information from the 2009 National Employment Survey which asks employers in relation to pay and a range of other conditions "Please indicate whether any of the following conditions of employment were re-negotiated on your behalf with employees/employee representatives in 2009?" This may well exclude many workers who were covered but where no renegotiation took place in 2009. On the other hand the National Employment Survey excludes very small firms (three or less people) which may be less likely to have coverage.

⁴ Roche et al (2000) compile detailed membership data from 1945-95 using data from the labour force survey, the registrar of friendly societies and Congress data. The database created by Roche et al has been updated to 2011 and is included along with a wealth of other information on industrial relations and labour market data at the *Database on Institutional Characteristics of Trade Unions, Wage Setting, State Intervention and Social Pacts in 34 countries between 1960 and 2012* (ICTWSS) which is available at <http://www.uva-aias.net/208>. See Roberts (1959) for an analysis of Trade Unions in Ireland before 1945 and up until the late 50's.

⁵ I am grateful to Paul Sweeney for raising this issue and providing written comments which were very useful in addressing it.

⁶ See <http://www.cso.ie/en/qnhs/releasesandpublications/qnhs-specialmodules/qnhs-unionmembershipq22004-q22012/>

fraction of those trade union members in employment that are employees. We see in Table 1 below that the fraction of union members who are not in employment has risen substantially over time according to this data. The fraction in self-employment stays fairly constant at around 6-7%⁷. It is worth noting that the ESS data suggests that the bulk of union members who are not employed are non-participants rather than unemployed. Point 2 above notes that the QNHS survey may have some measurement error. Given the size of the survey we would not expect this to be a major problem unless we think respondents were biased in reporting that householders either were or were not union members⁸. We do not have data on the number of workers who may be members of more than one union to address the third point. An additional point raised in ICTU (2013) is that the QNHS total number of union members implicitly assumes that the one or two percent of employees who did not answer the question on union membership in each quarter are implicitly assumed to be non-members. Presumably some of these non-respondents are union members. Point 3 above gives another reason that the QNHS data would tend to be lower than the ICTU data, but we have no data on multiple membership that I am aware of. An additional reason for some difference between the two series is that CSO releases on union membership are based on quarter two data which may differ from the time of year the ICTU data refers to. This on its own would be unlikely to lead to a major discrepancy, although union membership in quarter one of the QNHS data is typically higher than quarter two sometimes by more than 2% but usually by a small amount and in some years there is almost no variation. Finally we note that there are a number of substantial unions that are not included in the ICTU data which implies that the ICTU data understates membership.

As noted above the ESS data gives us data which can give a rough proxy for two of the reasons we would expect the ICTU and QNHS totals on union membership to differ. In Table 2 below we look at the percentage of union members in the ESS data who are employed and also the percentage of those employed who are employees. Using these percentages the final row of Table 2 calculates an adjustment term. We can increase the QNHS total in table 1 by the adjustment term in each year that the ESS data is available and calculate the percentage difference between the adjusted QNHS total and the total reported by ICTU. We see that the adjustment is increasing over time, primarily because the ESS data indicates an increase in the share of total union members who are not employed. Column four of Table 2 looks at the percentage difference between the ICTU total and the QNHS totals adjusted by the figures in row three of table 2. We see that the adjusted QNHS numbers are now larger than the ICTU as we might expect since there may be a substantial number of union members outside ICTU. This adjusted total is a rough approximation which is designed to show that given the differences in the samples that the two measures of union membership are based on we would expect a large discrepancy between the two numbers. The ESS data suggests that it is plausible that there have been changes in the composition of union members over time which would lead us to expect a substantial divergence between the QNHS and ICTU totals. Additionally there are other reasons that the two series would be expected to differ listed above but not adjusted for in Table 2.

Table 2: Number of Union Members from ICTU and the QNHS

Year	ICTU	QNHS Q2	% Difference	%Difference adjusted QNHS Q2
2003	564.9	553.1	-2.1%	
2004	560.8	538.0	-4.1%	6.4%
2005	571.4	541.6	-5.2%	
2006	591.0	550.0	-6.9%	6.4%
2007	598.0	557.5	-6.8%	
2008	602.0	566.2	-6.0%	16.6%
2009	570.0	536.8	-5.8%	
2010	596.7	511.0	-14.4%	8.3%
2011	579.6	504.2	-13.0%	
2012	568.9	475.8	-16.4%	3.8%
2013	566.3	456.8	-19.3%	
2014		428.7		

⁷ We should note that the ESS data has a much smaller sample than the QNHS and is primarily designed to elicit information on trend in attitudes and beliefs rather than measuring labour force statistics. Given the smaller sample there is undoubtedly sampling error in the estimates for any given year, but this is the best available information to my knowledge.

⁸ It should be noted that there may be some measurement in the ICTU data as well. Roche et al (2000) note in discussing this data for example: "Problematic is the tendency of some unions to overstate or underreport union membership according to financial constraints or considerations of voting power at congress. In several instances membership has been reported with the same rounded membership figures for several consecutive years."

*Notes: The Numbers from 2003-2011 for members affiliated to ICTU are taken from the ICTWSS data base while the numbers for 2012-13 are from ICTU (2013). Column two is the number of union members in the QNHS quarter two.

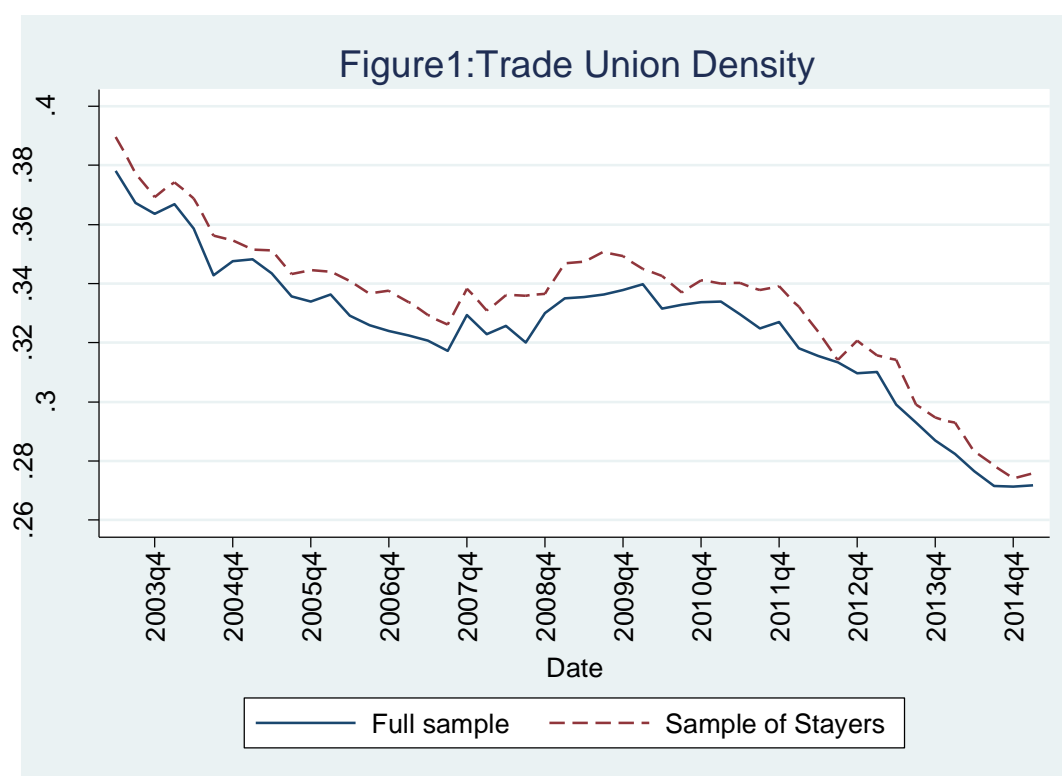
Table 1: Fraction of Union Members in employment and fraction in employment who are Employees (ESS Data)

Year	2002	2004	2006	2008	2010	2012
% Union members in Employment	95.8%	95.4%	93.7%	86.7%	86.6%	85.8%
% Employed Union members who are employees	93.6%	94.5%	93.3%	93.0%	91.3%	93.9%
Total adjustment	11.5%	10.9%	14.4%	24.0%	26.5%	24.1%
Number of observations	400	438	334	256	327	346

*Total adjustment is $(1/\% \text{members in employment}) * (1/\% \text{employed members who are employees}) - 1$

II.2: Trends in membership

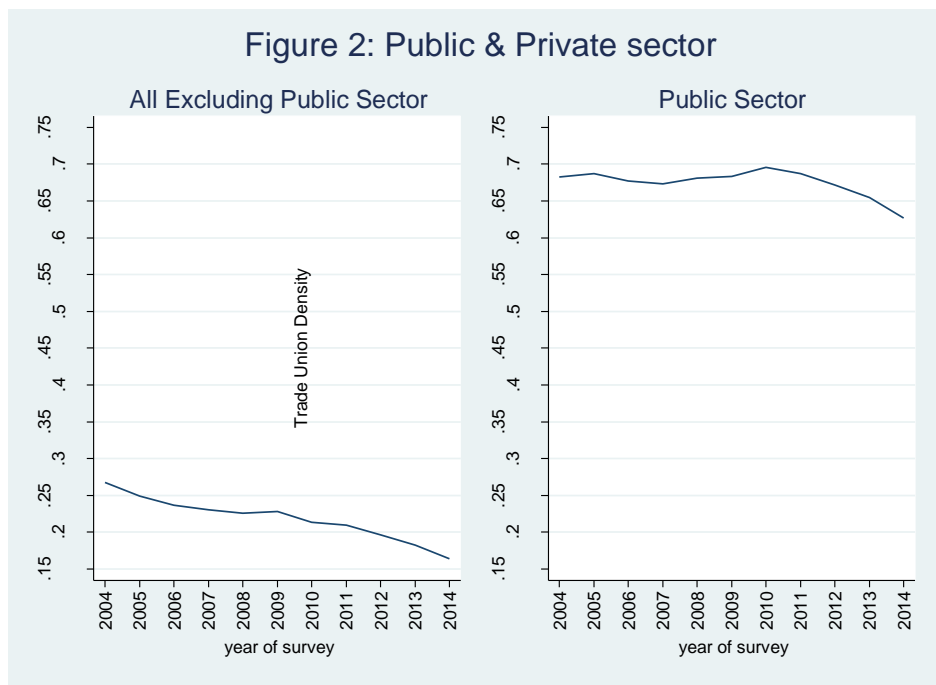
The remainder of the paper will analyse the trends in the QNHS data in detail and draw on some additional information from the ESS. Figure 1 calculates Trade union density (the percentage of employees by quarter from 2003Q2 to 2015Q1 for all quarters. The number of members ranged between a high of 557 thousand in 2007Q4 to a low of 427 in 2014Q3. Figure 1 Also looks at a sample of stayers, that is, the fraction of workers who stay in the QNHS sample for at least two periods. We will use this sample to calculate transition rates in and out of union employment. We see very similar patterns in density for the stayers, indicating that for the purposes of analysing trends in density that the sample is not very biased.



Source: Quarterly National Household Survey, author's calculations

We see from Figure 1 that in Q2 2003, the first quarter of data that just under 38% of employees were in Trade Unions. At the beginning of the recent recession towards the end of 2007 this had fallen to 32%. The recession prompted a recovery in membership and by 2010 membership was at 34%. This appears to have been a temporary change. Since 2011 membership has fallen from 33% to just above 27% at the beginning of 2015. While density varies widely by sector it declined in all sectors except education.

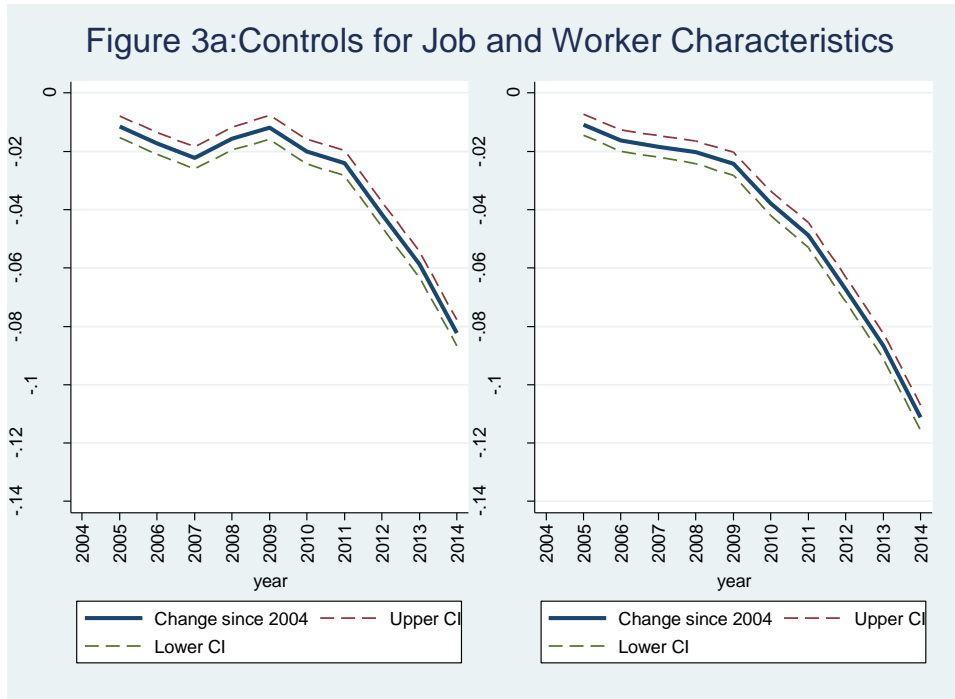
When we look at public service employees separately from other employees in Figure 2 we see some striking features in the membership trends, particularly in recent years⁹. Union density in the public sector is much higher throughout the period as we expect but a notable feature of the data is the substantial fall in union density in the public sector in recent years where density hovered between 67% and 70% between 2004-2011 but fell from 69.6% to 62.6% between 2011-2014. In the private sector density declined at a steady pace from 26.7% to 16.4% between 2004-2014. The share of public sector workers as defined here rose from 40% to 55% of all members between 2004-14.



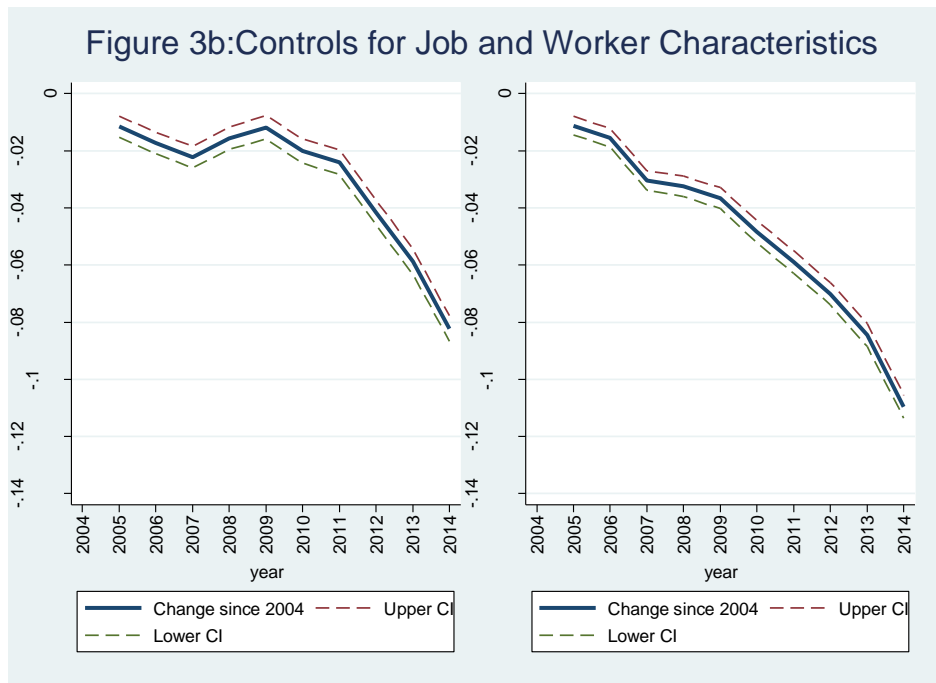
* Quarterly National Household Survey, author's calculations. Public sector means Public Administration, Education and Human health and Social Work Activities. Because sectoral analysis involves looking at a fraction of the total sample we looked at the data on an annual basis rather than quarterly to avoid small samples in any quarter.

Hirsch (2008) looks to three categories of reasons to explain changes in density: Structural, Competitive and Institutional. Structural factors include a change in the structure of employment by sector towards or against sectors that are more or less conducive to union membership or other changes in the structure of worker or job characteristics that may explain a change in density. Walsh (2009) finds that to the extent that we can control for such structural factors they play a small part in explaining the decline in membership between 2004 and 2007. We conduct a similar analysis here over the longer time period and with a range of different methodologies. Figures 3a and 3b below illustrate the results from using a linear probability model to estimate the probability that a worker will be a trade union member in any year using data from 2004Q1 to 2014Q4. We regress union membership on a range of worker and job characteristics to control for these. Initially we assume that the effect of these characteristics on membership is constant over time and include a dummy variable for each year to capture the change in probability of membership over time. The estimates in Figures 3a and 3b can be interpreted as the change in density from the first year of data (2004) to any other year. In both figures 3a and 3b the graph on the left hand side gives the results from a regression including only dummy variable for each year of data and quarter dummies to control for seasonal effects. We see for example from the graphs on the left hand side that by 2007Q4 the change in density since 2003Q4 is -.022 indicating that the proportion of employees in unions had fallen by 2.2 percentage points since 2004. By 2014 membership had fallen by about 8.2 percentage points compared to 2004. The graph on the right hand side in Figure 3a includes additional controls for age, education, region and worker nationality controls. When we include these controls for composition changes we see that the decline in membership is smoother and larger. There is no respite between 2007 and 2010 as is the case in the raw density numbers. The right hand panels of figures 3a and 3b suggest a fall in density of around 12 percentage points over the entire period when we control for worker and job characteristics. That is accounting for changes in the composition of workers and jobs in this way suggests an even larger decline in membership than the raw numbers.

⁹ Public Sector is all workers who work in Public Administration, Defence, Mandatory Social Security, Health or Education. The latter two categories include health and education workers who are in the private sector. If we take a narrower definition which excludes these two categories we get higher densities but a similar pattern over time.



*These are the results of a linear regression on union membership using QNHS data. The graph on the left includes a dummy for quarter and also a dummy variable for each year of the survey except 2004 which is the excluded category, using data from 2004Q1 to 2014Q4. Additionally the graph on the right includes controls for age and age squared, three education dummy variables, eight region dummies, a male dummy and seven dummies for nationality of the worker. The change since 2004 is the percentage difference of the year dummy from the base year which is 2004. We also report 95% confidence intervals.



*The graph on the left is the same as in Figure 3a, the graph on the right is the same as Figure 3a except that we also include twenty one sector dummies, four firm-size dummies and a dummy for tenure on the job.

A limitation of the regression results outlined in Figures 3a and 3b is the possibility that if the structure of the economy is changing the effect of any given characteristic on membership may be changing over time as well. For example the effect of being a worker in the manufacturing sector on being in a union may be different at the beginning of the period than at the end, are young workers more or less likely to join a union in 2014 relative to

2004? We can ask similar questions for all job and worker characteristics that we controls for. To account for this we run a separate linear probability models in different years which allows the coefficients on the control variables to change over time. If the number of union workers in any year i is U^i and the number of employees is E^i we can define density in year i as:

$$D^i = \frac{U^i}{E^i} \quad (1.1)$$

If we assume a linear probability model for union membership, the change in density between periods i and j can be written as follows using the Oaxaca Blinder decomposition:

$$\Delta D^j = \beta^j \bar{X}^j - \beta^i \bar{X}^i = \Delta \beta \bar{X}^j + \beta^j \Delta \bar{X} - \Delta \beta \Delta \bar{X} \quad (1.2)$$

The vector of regression coefficients in any period j is: β^j and the vector of average values for worker and job characteristics is: \bar{X}^j . Using OLS regression to estimate this model we estimate the two terms: $\Delta \hat{\beta} \bar{X}^j$ which is the part of the change in density that is accounted for by changes in the coefficients weighted by period j characteristics while the second term: $\beta^j \Delta \bar{X}$ is the part of the change in density that is explained by changes in characteristics weighted at period j coefficient values and again calculated using the OLS coefficients for the beta's. By writing the decomposition in this form we also have the interaction term: $\Delta \beta \Delta \bar{X}$ which accounts for the fact that we have fixed both the coefficient and characteristic weights to their period j values.

Table 3: Oaxaca Decomposition 2004-2009 and 2009-2014

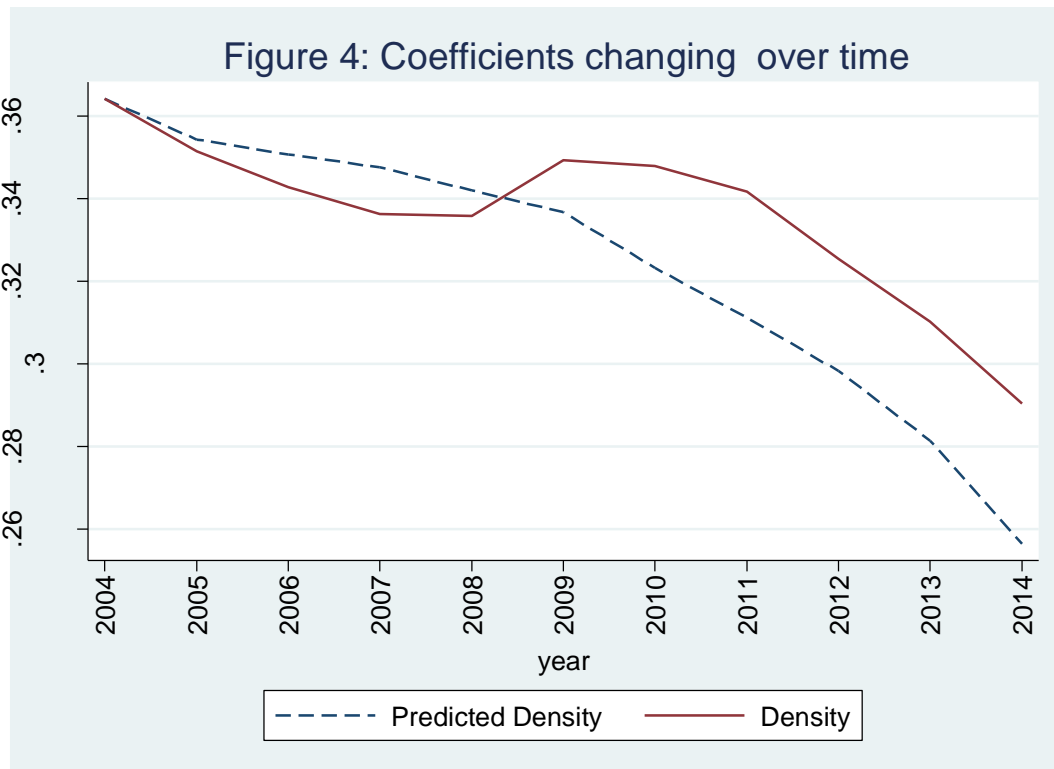
	Coefficient	P>z		Coefficient	P>z
Predicted Density			Decomposition		
2004	0.364	0.001	Characteristics	-0.001	0.001
2009	0.349	0.002	Coefficients	0.002	0.002
Difference	0.0149	0.002	Interaction	0.001	0.000
Observations	194,549				
Predicted Density			Decomposition		
2009	0.349	0.002	Characteristics	-0.019	0.001
2014	0.290	0.002	Coefficients	0.079	0.002
Difference	0.059	0.003	Interaction	-0.001	0.001
Observations	140,122				

The underlying regressions include observations for all quarters in 2004 and 2009 for the results in the top part of the table and observations for all quarters in 2009 and 2014 in the bottom part of the table. The regressions include controls for quarter, three education categories, age and age squared, eight regions, gender, seven country of birth categories, twenty one industry categories, four firm size categories and job tenure.

The results show clearly that the change in density in both sub-periods was more than entirely explained by changes in the coefficients. In fact in both periods changes in worker/job characteristics tended to slightly offset the decline in density, especially in the latter period. For example between 2009-2014 density declines by 5.9 percentage points. Changes in coefficients predict a decline of 7.9 percentage points but this is offset by a predicted increase in density of 1.9 percentage points associated with changes in the coefficients. The interaction terms are small in both periods and not statistically significant in the latter period.

Another way of illustrating the effect of changes in the coefficients on density over time is to run separate regressions in each period and use the coefficients from these regressions to calculate the predicted density, but holding worker characteristics fixed over time. We can think of this as taking a typical worker in a typical job in 2004 and asking how this workers probability of membership would change over time if the workers job and worker characteristics are held fixed but the probabilities associated with these characteristics are allowed to vary over time. This approach allows all of the coefficients to vary over time while the approach in figures 3a, 3b allowed only the constant to change. A feature of this approach relative to the Oaxaca decomposition is that we can see the change in the predicted probability of a typical 2004 worker being in a union for each year rather

than just at the beginning and end of the period under consideration. We see below that this feature presents some interesting results. Figure 4 plots the raw density against the predicted density in each year where worker characteristics are held fixed at the average value in 2004. The results are very similar to those in Figure 3a and 3b and also consistent with the results from the Oaxaca-Blinder decomposition in Table 3. For the predicted density we see a pattern of continuous decline over the period which seems to accelerate after 2009. In the period up to 2008 predicted density declined by less than the actual indicating that changes in composition did explain some of the change in density before 2008. Figure 4 suggests that in the period of deep recession between 2008 -2011 in particular, changes in composition were off-setting a decline in the underlying probability of being a union member.



*The actual line is union density by year using QNHS data, where a year includes quarter 4 of the previous calendar year and the first three quarters of the current calendar year. The predicted line is the predicted union density using the coefficients from a linear regression in each year but fixing worker/firm characteristics at their 2004 values where the list of control variables included in the regressions are the same as those listed under Figure 3b.

II.3: Inflows and outflows to membership

As noted earlier the union membership question is only asked of employees in the QNHS data. This means that while we can link workers from one quarter to the next and observe transitions in and out of employment as an employee by union status we do not know whether a worker who moves from non-employment into unionised employment was in a union before becoming employed. Similarly we can look at transitions out of employment by union status but cannot say whether a worker who leaves union employment retains their union membership when they move to not being an employee. Figure 2 above suggests that the fraction of non-employed who are union members is small but that it rose over the period between 2002-2012. Similarly the union question is not asked of self-employed workers so that a worker may transition from self-employment into union membership or from membership into self-employment and we do not know if they were union members in self-employment.

We observe all workers who are in any labour market state in period n but who are employees in period $n+1$. What is the probability they will move into a union job? We also observe workers who are employees in period n but may end up in any labour market state in period $n+1$. For simplicity we will think of workers who are employees and non-employees. Non-employees can be self-employed, unemployed or non-participating. We denote the stock of union members in period j as: U^j and the stock of employees as: E^j . Using this notation the relationship between trade union density and the inflows and outflows from Trade Union membership can be written as follows:

$$\Delta D = \frac{U^j}{E^j} - \frac{U^i}{E^i} = \frac{U^j}{E^j} - \frac{U^i}{E^j} + \frac{U^i}{E^j} - \frac{U^i}{E^i} = \frac{\Delta U}{E^j} + \frac{U^i}{E^j} \left(1 - \frac{E^j}{E^i}\right) = \frac{\Delta U}{E^j} - \frac{U^i}{E^j} \frac{\Delta E}{E^i} \quad (1.3)$$

$$\Delta D = \frac{U^i E^i}{E^j E^i} \left[\frac{\Delta U}{U^i} - \frac{\Delta E}{E^i} \right] = D^i \frac{E^i}{E^j} \left[\frac{\Delta U}{U^i} - \frac{\Delta E}{E^i} \right] \quad (1.4)$$

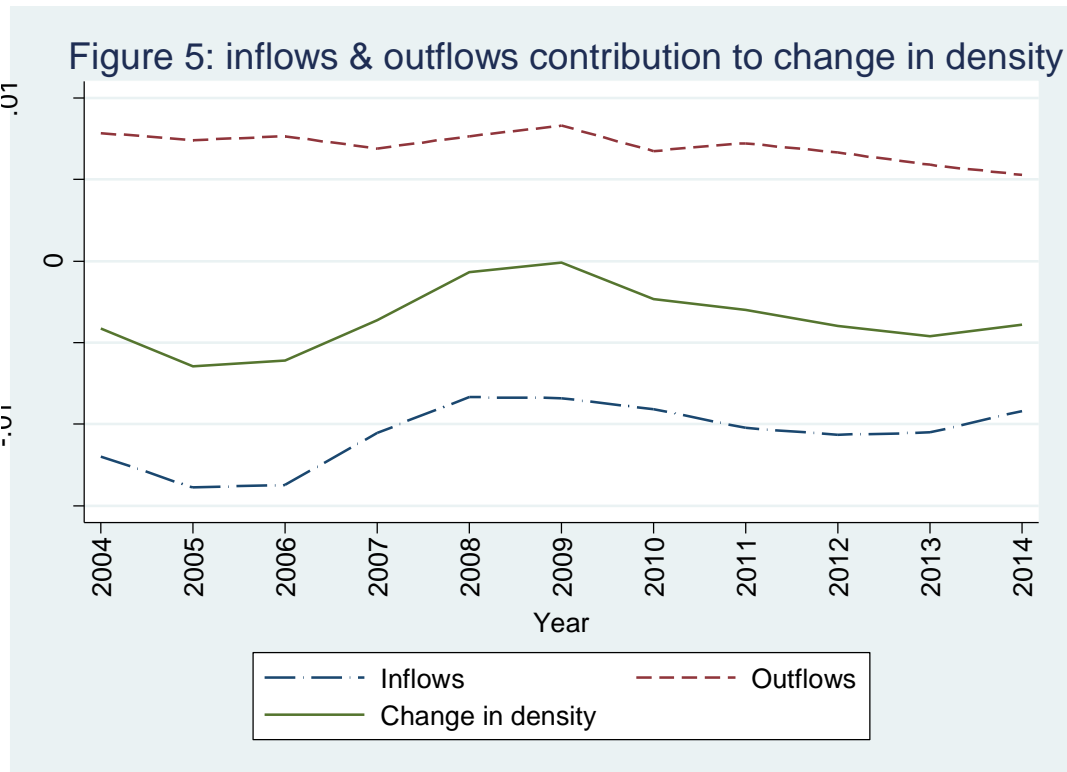
If we denote the number of inflows into union membership between periods i and j as: m^j , outflows from union membership as: l^j , total inflows into employment as: h^j and outflows as: s^j then from equation (1.4) the change in density can be rewritten as:

$$\Delta D = \left(\frac{m^j - D^i h^j}{E^j} \right) - \left(\frac{l^j - D^i s^j}{E^j} \right) \quad (1.5)$$

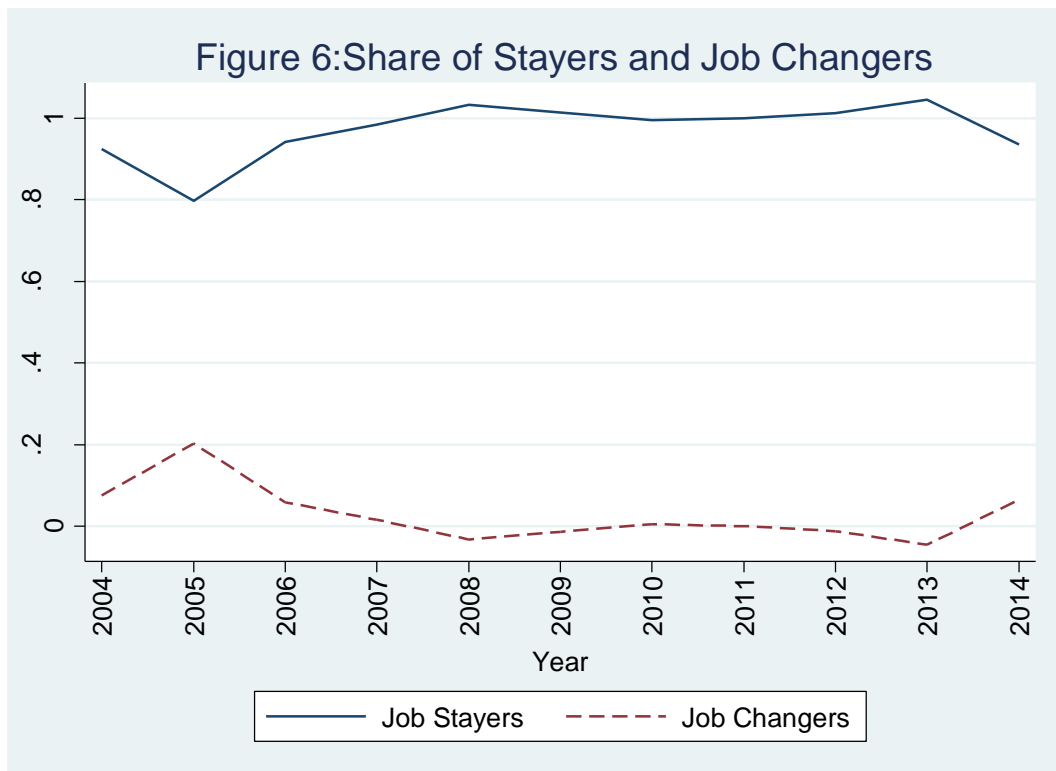
The first term tells us the contribution of inflows to the change in density and the second the contribution of outflows. For example the first expression implies that if density is 50% ($D^i = 0.5$) then one union contract needs to be created for every two new employment contracts created to keep density constant. If fewer than fifty percent of new employment contracts are union contracts then these new inflows into employment will reduce density. The same will be true for outflows, if s^j employment contracts are terminated then if more than $D^i s^j$ of these are union contracts then these outflows from employment will have a negative effect on union density. The contributions of these terms to the change in density over time are graphed in Figure 5 below. We note that the inflow term is negative indicating that the share of new workers joining unions is lower than the share needed for inflows of workers to maintain the density rate. The outflow term is positive indicating that separations are proportionately lower to the extent that separations contribute to an increase in density. The literature on union membership and the regression results underlying the earlier results in this paper suggest that tenure is an important predictor of membership. The fact that the share of new employment contracts that are unionised is less than the share that would be needed to maintain density levels according to equation (1.5) may partly reflect this, but the positive term for outflows in Figure 5 indicates that if the number of new jobs that are union contracts is less than what is needed to maintain density, this effect is substantially offset by the fact that union jobs are less likely to end than non-union jobs.

Figure 6 looks at transitions in and out of union employment for workers who are employees in both periods and whose job tenure indicates they did not change jobs between the periods (Job Stayers) and for workers who change employment between two periods (Job Changers)¹⁰. In particular Figure 6 looks at the share of the change in union membership accounted for by both categories in each year. We see that the bulk of the change in membership in any period is associated with changes in the number of employees who change union status without changing employment. This is interesting since throughout the period a large majority of the share of inflows into union membership and out of union membership is accounted for by job changers, but the inflows and outflows cancel out almost exactly in most years. The change in the number of union workers in each year is primarily driven by the difference between the much smaller inflows and outflows of workers who do not change employment but leave or join unions.

¹⁰ Job changers are all workers other than those who stay in the same employment so for outflows it may involve an employee moving to another job, self-employment or non-employment or for inflows else a worker beginning a new contract as an employee from any other category.



Inflows is the first term in equation (1.5): the effect on density of the percentage of new employment contracts which are union contracts being below the level needed to maintain density. *Outflows* is the second term in (1.5): the positive effect on density of the percentage of employee terminations which are union contracts being below the level which would reduce density. $Inflows + Outflows$ equal *Change in density*.



Job Stayers is the percentage of the change in the number of union members in any year which is accounted for by the net inflow of workers who were employees in both periods so they changed union status on the job. *Job Changers* is the percentage of the change in the number of union members in any year which is accounted for by

the net inflow of workers whose change in union status is associated with changing employment status. *Job Stayers + Job Changers* total to 100%.

II.4: Are Union members less likely to move into non-employment

The results in Figure 5 suggest that union members are less likely to be job changers than non-members. In this section we look at the likelihood that an employed worker will move into non-employment by union status. We use a linear probability model with a range of worker and job controls and look at the likelihood that a union worker will move from employment to non-employment and then do the same for non-union workers. The Oaxaca decomposition decomposes the difference in predicted probabilities between the two groups into the components explained by changes in characteristics (Endowments) and changes in the probability coefficients associated with these endowments. We see that in each of the three sub-periods union members are substantially less likely to move to non-employment. The decomposition does not give a clear picture in explaining this. In each period the probability of job loss in any quarter is about three percentage points higher for non-union employees and this is statistically significant. In each sub-period differences in characteristics between union and non-union workers (composition effects) are partly contributing to this higher probability but also about a quarter of the difference in probabilities in the first and last sub-period and a smaller amount in the middle period are explained by union workers with fixed characteristics having lower probability of job loss than non-union workers. While these two terms indicate that most of the lower probability of job loss is explained by composition effects (union workers have job and worker characteristics which are associated with lower probability of job loss even if they were not unionised) the results are inconclusive because about half of the higher difference in probability of job loss between union and non-union workers in each period is associated with the interaction term which we cannot clearly attribute to one or other category. All of these effects are statistically significant at the 1% or 5% level.

Table 4: Oaxaca decomposition of probability moving to non-employment by union status

	Coef.	P>z	Coef.	P>z	Coef.	P>z
	2004-2006		2007-2010		2011-14	
Probability Separation						
Non-Union Employee	0.050	0.000	0.054	0.000	0.041	0.000
Union Employee	0.017	0.000	0.021	0.000	0.014	0.000
Difference	0.033	0.000	0.033	0.000	0.027	0.000
Decomposition						
Endowments	0.009	0.000	0.012	0.000	0.006	0.000
Coefficients	0.008	0.000	0.004	0.000	0.007	0.000
Interaction	0.016	0.000	0.017	0.000	0.013	0.000

*We include controls for quarter, age, age squared, education, region gender and country of birth, sector, firm size and job tenure in the underlying regressions. These are OLS regressions on the probability an employee will be in non-employment in the subsequent quarter by union status in the initial period. Self-employed workers are excluded.

3. POLICY IMPLICATIONS AND DISCUSSION

The 2010 wave of the European Social Survey asks respondents a set of questions on their employment conditions. In addition to the question asking whether respondents are trade union members (this question appears in every year) the 2010 module also asks workers to rate the level of influence that trade unions have in their workplace with the options “No trade union/trade union members at workplace”, “Not much or no influence”, “Some influence”, “Quite a lot of influence” or “A great deal of influence”. A simple way to estimate potential free riding is to tabulate the amount of workers who are union members as the level of union activity at their workplace increases. Table 5 below cross tabulates answers to this question on union influence from the ESS data with union membership status. This gives a sense of what union density looks like across workplaces with varying degrees of union influence. We also conduct this cross-tabulation excluding managers who we might expect not to be in unions or managers and professional workers.

Table 5: How much influence trade unions have over decisions that affect working conditions

	Share	Density	Density No Managers	Density no Managers or Professionals
No trade unions/trade union members at workplace	17.9%	0.0%	0.0%	0.0%
Not much or no influence	31.3%	18.4%	18.9%	9.7%
Some influence	33.2%	58.9%	58.9%	53.5%
Quite a lot of influence	13.7%	51.7%	52.8%	37.1%
A great deal of influence	3.8%	66.0%	75.4%	64.9%
Number Observations		743	661	476

It is important to note that there is likely to be substantial selection problems associated with Table 5 and this is a fairly small sample. We see this as suggestive evidence. That said this sample of workers which if anything seems to over-represent union members suggests a substantial amount of free riding, that is that a substantial share of non managerial workers are not members even in workplaces where unions have a lot of influence. We see for example that in workplaces where unions have quite a lot of influence almost fifty percent of workers are non-members. In workplaces where unions have a great deal of influence one third of employees are non-members. That is the data suggests a substantial amount of free riding.

While some models depict unions as monopolies and a source of inefficiency in the labour market, a more benign view suggests that the impact of unions depends on the labour market depends on what unions bargain over and the extent to which they coordinate across sectors. There is also a strong positive correlation between membership and the extent to which unions or representative bodies are involved in regulation of the labour market (the social insurance system, setting sectoral minimum wages etc). Indeed Aghion et al (2011) provide a theoretical framewrk with supporting cross country evidence which suggests that labour relations are negatively related to centralised regulation of the labour market. That is the model suggests that labour relations will be better in countries where labour market regulation is decentralised through unions or representative bodies. Arguably we have moved more towards centralised regulation in Ireland. Many worker rights are enforced by central regulation and moving towards the types of models of union behaviour where unions have a benign effect on the labour market outcomes becomes more difficult to achieve if employee representative bodies become less representative within or across firms.

If we look at the three categories of reasons to explain changes in density: Structural, Competitive and Institutional mentioned earlier, the evidence presented here suggests that the structural change in worker and job characteristics is not an important determinant of the decline in density in Ireland. If anything the change in structure seems to have offset the decline in membership in some periods to some degree. It is more difficult to quantify the effects of competitive pressure or institutional change on membership. Walsh (2009) argued that for the earlier period from 2003 to 2007 that there were no obvious institutional changes that made the environment less favourable to trade unions. This is less clear in the period since 2007 with the collapse of national bargaining between employer and employee representatives and the government as well as other changes such as fairly dramatic changes in sectoral pay regulations such as the Joint Labour Committee and Registered Employment Agreement systems. It is easy to think of plausible arguments that the absence of such regulations and centralised bargaining would make workers more inclined to seek the protection of unions and also easy to think of reasons why it might lead to a decline in membership. A key objective of trade unions in recent times has been the introduction of collective bargaining rights and legislation in this area is in the process of being passed at the time of writing. It seems likely that this change will make unions more attractive by increasing the bargaining power of a union worker in firms that do not have collective agreements with their workers. Indeed looking at the evidence across countries it seems that a key determinant of trade union membership is the ability of trade unions to provide private goods to members through involvement in the social security system or the provision of other private goods. That is the evidence seems to support the importance of the free rider argument outlined by Olson (1965) many decades ago. The ability of unions to maintain levels of membership that ensure their ability to engage effectively in collective action depends on their ability to also provide private goods which members enjoy.

References

- Aghion, Philippe, Pierre Cahuc and Yann Elgan (2011) "Civil Society and the State: The Interplay Between Cooperation and Minimum Wage Regulation", *Journal of the European Economic Association* February 2011 9(1):3-42
- Cahuc, Pierre, and Stephane Carcillo and Andre Zylberberg (2014) *Labor Economics*, Princeton University Press
- Donado, Alejandro and Klaus Wälde (2012) "How Trade Unions Increase Welfare" *The Economic Journal*, 122(September), 990-1009
- Hirsch, Barry, T. (2008) "Sluggish Institutions in a Dynamic World: Can Unions and Industrial Competition Coexist?" *Journal of Economic Perspectives*, Volume 22, Number 1, Pages 153-176
- Irish Congress of Trade Unions (2013) "Report of the Executive Council 2011-2013"
- Roche, William K., Joe Larragy and Jacqueline Ashmore "Ireland", (2000) in *The Societies of Europe: Trade Unions in Western Europe Since 1945*, compiled by Bernard Ebbinghaus and Jelle Visser, edited by: Peter Flora, Franz Kraus and Franz Rothenbacher, Macmillan
- Roberts, R. (1959) "Trade union organisation in Ireland". - *Dublin: Journal of the Statistical and Social Inquiry Society of Ireland*, Vol. XX, Part II, pp93-111
- Schnabel, Claus, (2003). "Determinants of Trade Union Membership" in John T. Addison and Claus Schnabel (eds.), *The International Handbook of Trade Unions*, Edward Elgar
- Walsh, Frank (2009) "Recent Trends in Trade Union Membership in Ireland" *The Economic and Social Review*, Vol. 40, No. 1, Spring, pp. 117-138

DISCUSSION

Paul Sweeney: I agree with much of what John Martin says on the need for much greater Labour Market activation in Ireland, but I suggest that there would be better balance if there was an acknowledgement of the impact of demand on the labour market. Further, the level of unemployment at particular times has a major impact on activation and should be a consideration in analyses. I regret that I have to question Frank Walsh's use of CSO data on union density. There is a caveat on the CSO data, and there is a note to this effect in each such module of the QNHS for some years. There is considerable disagreement between Irish Congress of Trade Unions (Congress) and the CSO on this issue for good material reasons as I will demonstrate.

CSO figures are based on a survey and greatly understate actual membership of unions. Congress itself has considerably more actual members in its affiliates than CSO has estimated from its surveys for Ireland. In addition, there were also around 33,000 unionised workers in the guards, army and in the two trade unions outside Congress, the PNA and NBRU (in 2009). The difference between Congress membership and CSO data is a very large. For example, in 2009 the peak year of unionisation, the difference was 109,000. But by 2014, it had soared to 160,000. This is equivalent to 37% more than the CSO had found in its survey for that year.

I would argue that there is a great understatement by respondents in the Survey. However I do not understand the reasons. The difference is too big to be written off as those who forget they are members of trade unions, for the self-employed who are (eg SIPTU has many taxi drivers and some professionals) or those who are fearful of their employers finding out they are organised. This growing number of people who are afraid to admit they are in unions because anti-union sentiment has increased in Ireland's employers, with many firms spending hundreds of thousands in keeping out union organisers and intimidating their employees. This is particularly true of the tech firms, some of which are particularly exploitative of their workers and of their tax obligations. On the other hand, many large and excellent MNCs do recognise unions as do virtually all large Irish firms, with one or two aggressive exceptions like Ryanair and there are leading firms who keep out unions by treating employees well and paying them well, while investing in strong HR functions.

Collective bargaining is illegal in Ireland since the Ryanair Supreme Court Judgment a few years ago. This is an extraordinary situation where workers in a developed market economy are denied the civil right to organise collectively, a right originally won by unions back in Victorian times. A few weeks ago, this was illustrated by

the statement by Dunnes Stores, the Irish retailer controlled by a secretive family trust, whose 14,000 employees are denied the right to bargain collectively. Dunnes said in a letter published in Irish Times on 11 February 2015 that employees could join unions, but it would do them no good:- “This right is one that the company acknowledges is every employee’s right but in as much as the Constitution recognises that right; it also recognises that there is a right effectively of disassociation, namely that an employer is not obliged to nor must it talk or engage directly with trade unions.”

The letter said the [Supreme Court](#) had ruled in a case involving [Ryanair](#) and the trade union Impact and that that airline had a constitutional right not to engage with unions. The government recently published heads of a bill to restore collective bargaining rights to Irish workers and trade unions. However, until there is recognition of how inequality is undermining economic growth and the role of trade unions in acting as a bulwark to the abuse of corporate power, union density will continue to decline (though other factors are also at work in this). Unions have won a great legacy of employment laws, and it is worth remembering that trade unions are “*the folks who brought you the weekend.*”

I did the following calculation of trade union density for Irish Congress of Trade Unions back in 2010 for 2009, to illustrate how trade union density had *risen* as the numbers at work had *fallen* in the Great Recession, because union membership fell proportionally less, in these two years.

At end 2009	
Congress membership in ROI	613,000
Non affiliates in guards & army and 2 other unions	21,000 <u>12,000</u>
Total in trade unions	646,000
Total employees at work end 2009	1,629,000
Density 39.6%	

The peak was in 2009. CSO had a density of 33% and membership total of only 537,000, a difference of 109,000.

Trade Union Density 2014 is down again from that year and Congress membership was down to 563,853. Assuming a decline in non-Congress unions to 26,000, this gives a total union membership of 589,853 and a density of 37.5 per cent for 2014. This contrasts strongly with Frank Walsh’s quoted CSO figure of only 27 percent (a difference of 160,000 members) of total employees of 1,572,000. There is little incentive for unions to exaggerate their membership to Congress as it costs them in affiliation fees. Some may do so for an additional vote, but it would have a marginal impact on numbers. They also file individual returns with the Register of Friendly Societies which can be accessed. Interestingly, I am informed that membership is rising again, for the first time since the Crash of 2008 which impacted on employment which had peaked in 2007 and 2008.

Inequality is today’s biggest challenge in economics, in my view. It is worth noting a study of the causes of the rise in inequality and focus on the relationship between labour market institutions such as unions and union density and the distribution of incomes by IMF economists Florence Jaumotte and Carolina Osorio Buitron. <http://www.imf.org/external/pubs/ft/fandd/2015/03/jaumotte.htm>

They analyzed the experience of advanced economies since the early 1980s and “we find strong evidence that lower unionization is associated with an increase in top income shares in advanced economies during the period 1980–2010 thus challenging preconceptions about the channels through which union density affects income distribution. This is the most novel aspect of our analysis, which sets the stage for further research on the link between the erosion of unions and the rise of inequality at the top.”

In short “Lower union density can increase top income shares by reducing the bargaining power of workers.” This is a point I made in my Presidential Address to the Society in May 2013. I understand that the Irish Congress of Trade Unions is proposing to discuss with the CSO the wide difference between its survey data and the actual names which affiliated unions have of their members in their records, with a view to finally resolving the issue. This might be done perhaps by the CSO examining the administrative data in the Register of Friendly Societies and/or union records.

Robert Watt: Thank you to the three speakers for excellent presentations and very interesting papers. Regarding the first paper, there is a lot of misinformation and confusion about the effects of the Great Recession

on labour market outcomes and the extent to which different groups were disproportionately affected. This rigorous analysis should help this discussion by identifying the groups whose employment prospects have been most affected. I don't think the results are too surprising but I would encourage the authors to disseminate these results and conclusions to help this debate.

Regarding John Martin's paper on Active Labour Market Policies (ALMP), it was interesting to note the progress we have made in Ireland in developing out activation strategy. In recent years there has been a major reorganisation of Public Employment Services and a policy shift away from a passive approach. It is good to see this documented. Of course, the high unemployment rate, the low employment rate among certain groups and the large share of households without work pose a major challenge to policy-makers. It is important to identify the emerging policy priorities – for ALMP and other areas - given these challenges in the context of an improving labour market.

Felix Coleman: The CSO's annual release on Union membership numbers ("QNHS - Union Membership Q2 2005 - Q2 2014") states and provides in the footnotes explanations of the main differences between the survey results and alternative indicators of Union membership from administrative data. It would be unfair to describe the data as "dodgy".

John FitzGerald: These are three very interesting papers. I was particularly struck by the issue of the potential administrative problems, identified by John Martin, in implementing major reforms of employment services. It seems to me that that is a very important point. I have three questions on the paper by John Martin: With contracting out to a number of companies how can you prevent cherry-picking by competing companies – taking on those who are easy to place?; If you tackle the potential cherry-picking problem by, for example, allocating contracts on a regional basis how can you evaluate the performance of contractors who have varying case-mixes?; and, how do you marry activation policies where the target is immediate re-employment with providing appropriate incentives for people to improve an inadequate educational background?

Eithne FitzGerald: Thank you for a very interesting set of papers. John Martin's paper shows the difficulty that different countries have had in successfully activating people who have been long-term out of work due to illness or disability. The National Disability Authority is currently working with different Government Departments on finalising a comprehensive employment strategy for people with disabilities, recognising that the issues involved are complex and go beyond traditional active labour market programmes, and straddle a range of Departments - e.g. Health, Social Protection, Education and Skills, Transport. In particular, there is a focus in the strategy on how to prevent the drift into joblessness in the first instance, whether that be a young person with a disability leaving the education system, or a person acquiring a disability in adult life.

In Ireland, roughly a third of long-term disability absences from work are related to musculoskeletal difficulties, and roughly a third due to mental health difficulties. Watson and Maitre (2014) *Emotional, Psychological and Mental Health Disability*, which analysed the micro-data from the national Disability Survey, showed the strong overlap between physical and mental health disability. While that data is based on contemporaneous disability, and can't disentangle which came first, physical or mental health difficulties. The Fit for Work research by Bevan, Magee and Quadrello (2007) *Fit for Work? Musculoskeletal Disorders and the Irish Labour Market* (Work Foundation/Arthritis Ireland/Abbott) underscores the links between onset of musculoskeletal disability and depression, making return to work more complex and difficult to achieve. The FÁS-funded Midlands Pilot with under 25s in the early 2000s, and the later EU-funded Mullingar-based Disability Activation Project run by the Department of Social and Family Affairs in the mid-2000s also found that people who were long-term out of work on disability payments, whatever the original medical cause, generally now had multiple difficulties such as additional mental health and family problems, low levels of education and skills, and others, making re-entry to the labour market very difficult. So early intervention is a key before the journey back to employment becomes insurmountably difficult.

Noel O'Gorman: I thank John Martin for his most interesting presentation. I would ask John about his comment that benefit replacement rates in Ireland had declined since the onset of recession; how had that come about in the context of the policy of preserving mainstream social welfare benefits.