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Labour Market Trends in the Republic of Ireland

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Labour Market Trends in the Republic of Ireland*

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Abstract

In this paper, we present an overview of medium-term developments in the Republic of Ireland labour market. We describe how conditions in the Irish labour market had still not fully recovered in 2017, from the impact of the 2007-08 financial crisis using Central Statistics Office (CSO) data for a selection of indicators related to employment, unemployment and wages. The data suggest there was a degree of slack in the Irish labour market in 2017. Unemployment and underemployment were still higher than a decade previously, while Irish employment and participation rates were significantly behind the best performers in Europe. In addition, real wage growth had been very weak since the onset of the economic recovery in 2012, while job vacancy rates were low by European standards. Overall, there was little evidence of the labour market overheating in 2017. The data also suggest that younger cohorts have borne a disproportionate share of the burden of labour market adjustment post 2007-08 and, as a group, have lower employment rates, higher unemployment levels, and a higher likelihood of experiencing precarious work. Finally, we show that while the gap has been gradually narrowing in employment outcomes for women and men, Ireland still lags behind its Western European counterparts in terms of labour market outcomes for women. The relatively low employment rate for women brings down the overall rate to a level where it lags significantly behind top performing countries. In this context, policies that reduce labour market barriers for women could meaningfully improve Ireland's overall employment rate. The excessive cost of childcare compared to other European countries is one such barrier and measures to reduce childcare costs would likely increase labour force participation rates for women.

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Labour Market Performance in the Republic of Ireland

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1. INTRODUCTION

The Irish labour market was still underperforming in 2017 on most indicators relative to the period leading up to the economic crisis in 2007/8. The recession seems to have brought about some fundamental structural changes in the labour market whilst accelerating other trends that pre-date the financial crisis. Unemployment rates were still higher than rates prevailing in the years leading up to the crash. Employment rates are still well down for men compared to the decade preceding the crash while employment rates for women are marginally down on peak rates. There are significant regional disparities with the *Midlands* in particular lagging behind the rest in unemployment and participation rates. In 2017, there were almost twice as many people on the live register for a year or more as there had been a decade earlier in 2007.

Many of the labour market indicators looked at in this paper support the contention that younger generations have been disproportionately affected by the economic crisis. Unemployment rates have a strong negative relationship with age cohort, with the rate for 20-24-year olds twice the national average in 2017. The proportion of young workers in precarious working arrangements is also disproportionately high and higher than it was in the years preceding the crisis. Employment and participation rates have also fallen for under-25s and the gap between young and old has widened since 2007. For the most part, older cohorts have seen their participation rates rise since 2012. These intergenerational trends apply for both men and women. Employment rates follow participation rates in that there has been a significant decline for younger people whilst older cohorts have for the most part recovered to 2007/8 levels. This again applies for both men and women. In addition, part-time employment as a proportion of those identifying as at work remains well above pre-crisis rates. The rate for under-30s was in 2017 more than double what it was in 2007. Though labour force participation for women is up over the past two decades, the figure has not recovered from its pre-crisis peak and was more than 13 percentage points below the rate for men in 2017.

Employment in generally high paying sectors such as *Human health, Education* and *Professional activities* has been on a generally upward trajectory, even during the financial crisis, as has employment in low paid sectors such as *Accommodation and food*. Employment in *Construction* fell dramatically in 2008/09 and has been slow to recover, while employment in *Industry* fell consistently between 2001 and 2012, with a slight resurgence since then. There is some evidence of a structural shift in the labour market with increases in some of the higher skilled occupational categories such as *Managers, directors and senior officials, Professional occupations* and *Associate professional and technical* as well as a comparable fall in the mid-skilled occupations such as *Admin and secretarial, Skilled trades* and *Sales and customer service*. While there has been some recovery since 2012, there are still far fewer employed in 2017 in the *Elementary* professions than there were in 2007. Average hourly earnings increased 4.4 per cent between the third quarter of 2008 and the third quarter of 2017. However, average hourly earnings fell in the economic sectors dominated by public sector employment including Education, Human health and *Public administration*.

Ireland is a middle ranking EU country in terms of employment, unemployment and labour force participation outcomes. However, Ireland has larger gender gaps than the EU average in terms of employment outcomes - Irish men fare better than average, whilst Irish women fare worse. While Ireland now has a lower than average unemployment rate the job vacancy rate is one of the lowest in Europe suggesting there may be significant remaining slack in the Irish labour market. Ireland has had the slowest nominal wage growth since 2004 of all EU 15 countries bar Greece, while Ireland also has the lowest adjusted wage share within that group whether measured in terms of GDP or in terms of modified GNI (GNI*).

The paper proceeds as follows. Section 2 discusses the performance of the Irish labour market since 1998 in terms of employment; employment rates; unemployment; long-term unemployment, labour force participation and job vacancies. Performance is considered across a number of dimensions including economic sector; geographic region; gender; educational attainment, type of work and age. Section 3 looks at changes in nominal and real weekly and hourly wage rates in the Irish economy since 2008. In Section 4 we compare Ireland's recent labour market performance to that of other European Union economies. Finally, in Section 5 we briefly touch upon potential policy reforms and conclude.

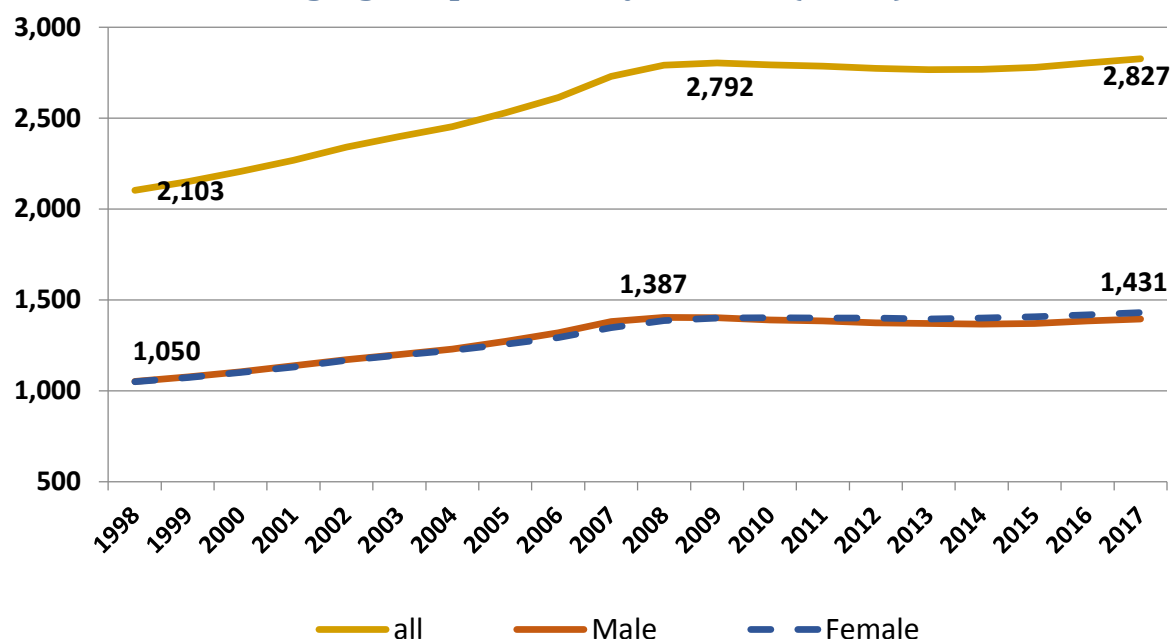
2. LABOUR MARKET PERFORMANCE SINCE 1998

This section of the paper provides an overview of participation, employment and unemployment trends in the Republic of Ireland. Unless otherwise stated the data in this section is taken from the Central Statistics Office's Labour Force Survey (CSO, 2018a).

2.1 Employment and labour force participation trends

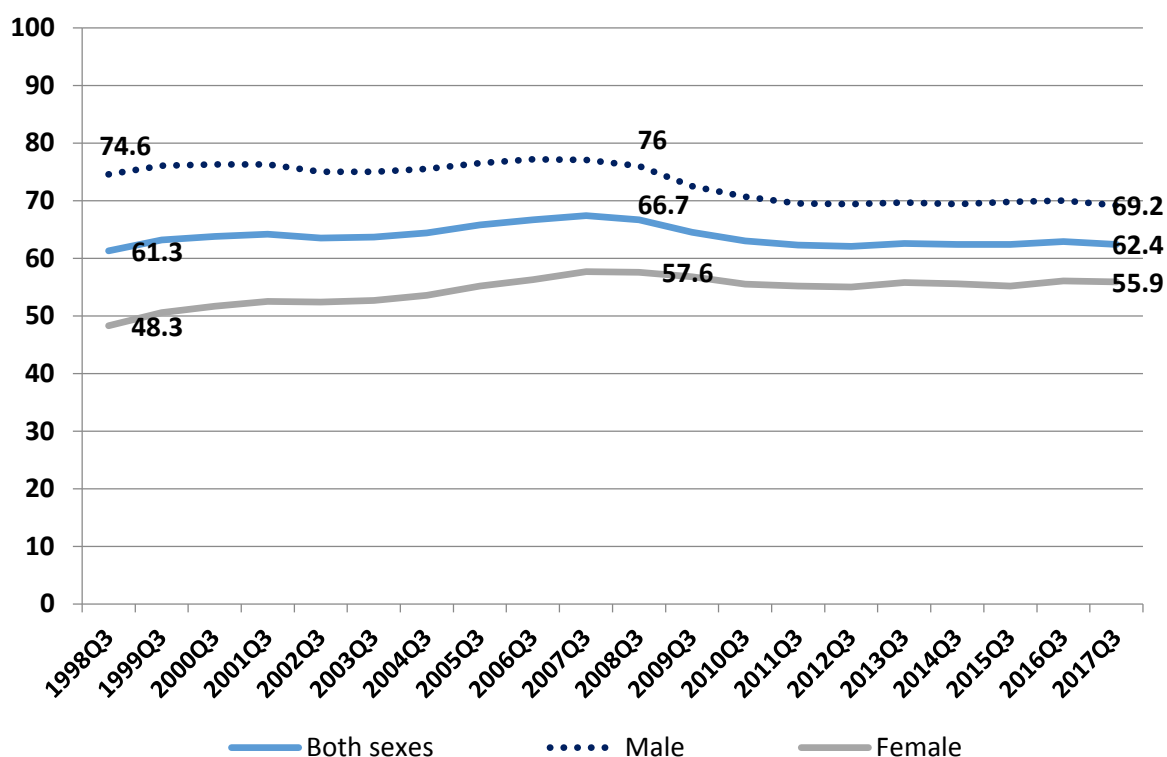
The working age population (20-64) increased by 34.4 per cent between the third quarter (Q3) of 1998 and Q3 of 2017 (see Chart 2.1 – data is from the 2016 Census of Population). This represents an increase of 724,000 people. Between Q3 2006 and Q3 2017 the population over the age of 15 increased by 384,000. Just over 100,000 of this growth was made up of non-Irish individuals, who now account for approximately 505,000 people aged 15 and over, or 13.3 per cent of the total. This was driven in the main part by an increase of 75,000 people from the EU15-EU28 category, which is made up predominantly of nationalities from Central and Eastern Europe. The number of non-EU persons aged 15 and over in 2017 (138,800) is virtually equal to the figure in 2006 (139,600) and down significantly on the peak in 2009 (162,200).

Chart 2.1 Working Age Population by Gender (000's), ROI, 1998-2017



Source: CSO (2018b) PEA01: Population Estimates (Persons in April) by Age Group, Sex and Year
Note: Working age population (20-64)

Chart 2.2 Labour Force Participation (LFP) Rates (ILO) by Gender, ROI, 1998-2017



Source: CSO (2018a) Labour Force Survey – Table QLF 28

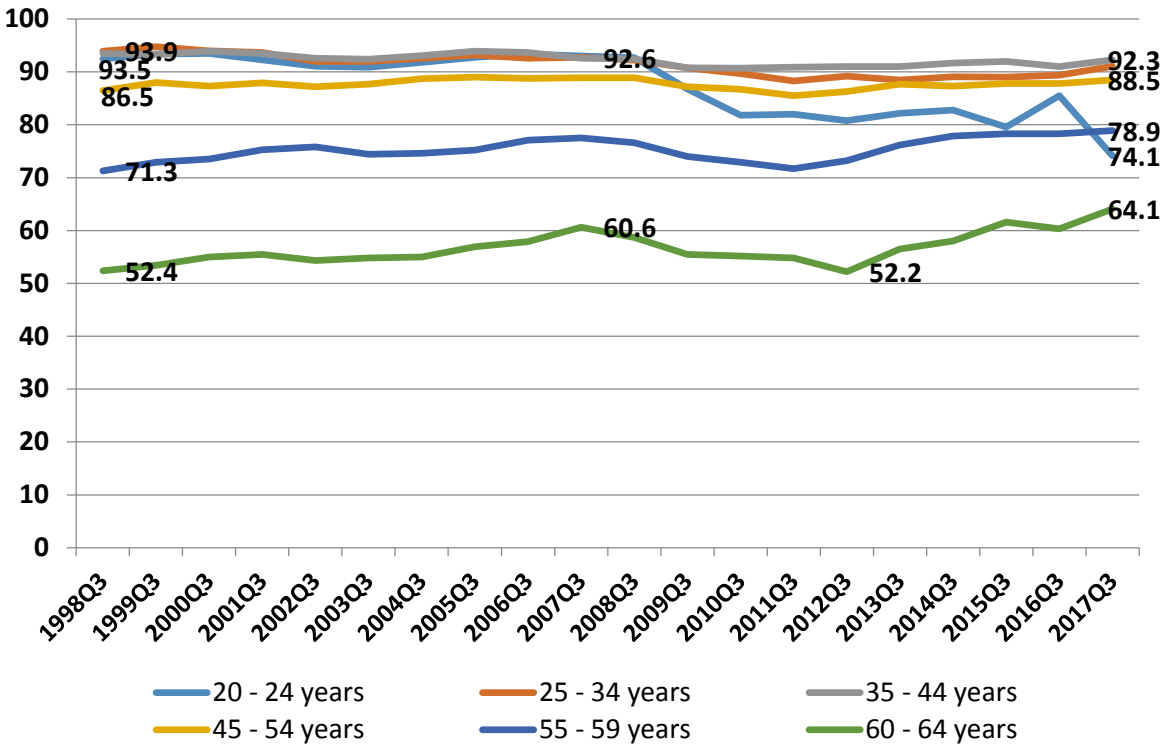
Note: Age 15 and over

The labour force participation rate was 62.4 per cent in Q3 2017 (see Chart 2.2). This indicator measures those in employment and those seeking employment as a proportion of the working age population. The 2017 rate was just one percentage point above the 1998 level and over four percentage points below the pre-crisis peak in 2007-08. The participation rate gap between men and women has narrowed since 1998 with women entering the workforce at higher rates. Even so, the gender gap remained substantial in 2017 at 13.3 percentage points. In addition, the narrowing of the gap partially reflects declining male labour force participation. Male participation fell from 74.6 per cent in Q3 1998 to 69.2 per cent in Q3 2017. Ireland's participation rate lagged marginally behind the EU average in 2016 and well behind the top performing countries. Irish underperformance is driven by Ireland's relatively poor outcomes as regards women.

Participation rates for men aged 55 and over increased from 71.3 per cent in 1998 to 78.9 per cent in 2017 despite a decline during the height of the crash between 2008 and 2012 (see Chart 2.3). The relative increase has been even larger for the 60-64 year old cohort, rising from 52.4 per cent to 64.1 per cent between 1998 and 2017. A somewhat worrying trend has

been the ongoing decline in the participation rates of 20-24 year olds, though this may partially reflect greater participation in full-time higher education. The labour force participation rate for 20-24 year olds is almost 20 percentage points less than it was at the end of the twentieth century. Turning to female labour force participation (Chart 2.4) we can see that the general trend has been upward with the exception of the 20-24 years cohort. The labour force participation rate for 55-59 year olds has doubled from 30 per cent to 60 per cent since 1998, and almost trebled for 60-64 year olds rising from 16.6 per cent to 43.8 per cent. The sharp increase in female labour force participation represents a remarkable transformation given the shortness of the time period.

Chart 2.3 Male LFP Rates by Age, ROI, 1998-2017



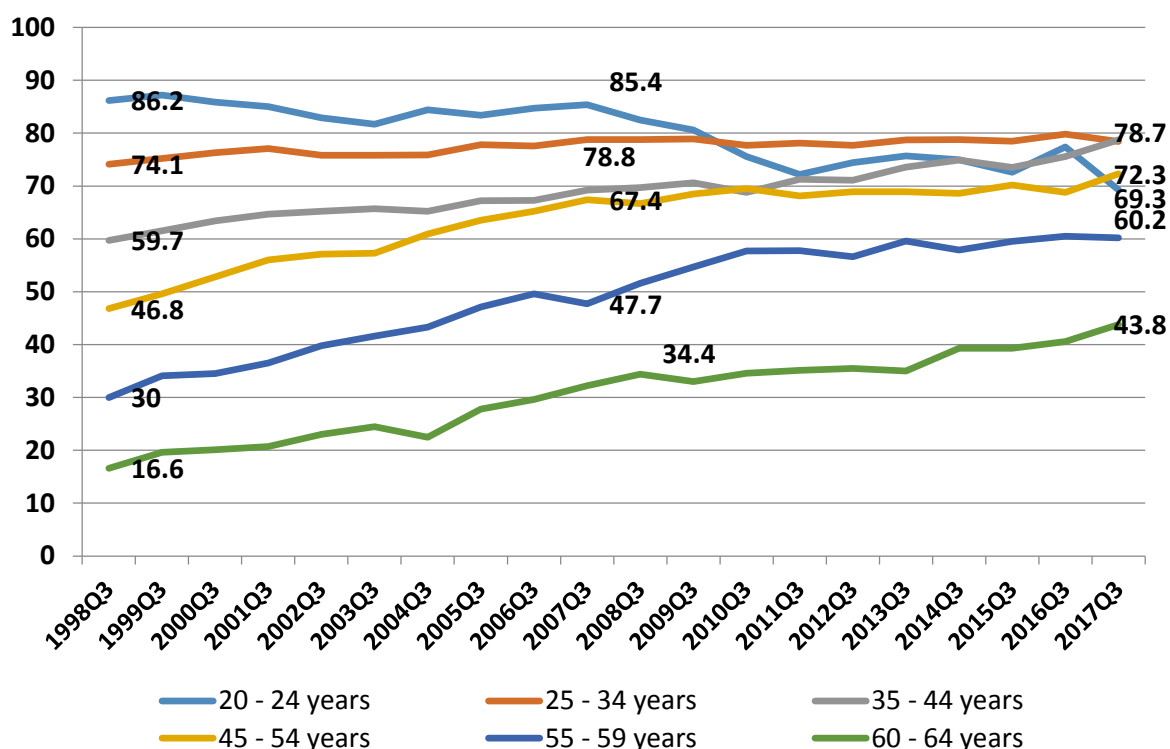
Source: CSO (2018a) Labour Force Survey -Table QLF 28

Participation rates in all eight geographic regions were still below their respective 2008 peaks in the third quarter of 2017 (see Charts 2.5 and 2.5.1). In *Dublin* and the *Mid-East*, the participation rates were even below the level recorded in 1998. They were, however, still the two regions with the highest participation rates in 2017. The rate in the Mid-East (Kildare, Meath and Wicklow) has been increasing since 2015 and is now at 63.6 per cent compared to a peak of 71.2 in 2008 and a rate of 64.8 in 1998. Dublin, the *South-East* and *South-West* experienced falling participation rates between 2016 and 2017, but Dublin and the South-

East have recovered somewhat post-2012. The *Border* counties have seen continued growth since 2012 though the *Midlands*, having experienced a modest level of growth in participation between 2012 and 2015, experienced a decline in 2016/17. The Midlands region is now the worst regional performer and its participation rate of 57.4 only marginally above its 1998 rate of 57.1. The Border region was the worst performing region from 1998 to 2016 but jumped to fifth place in 2017. The trend for the *West* and for the *Mid-West* has been generally downward since 2008 with relative stagnation since 2014.

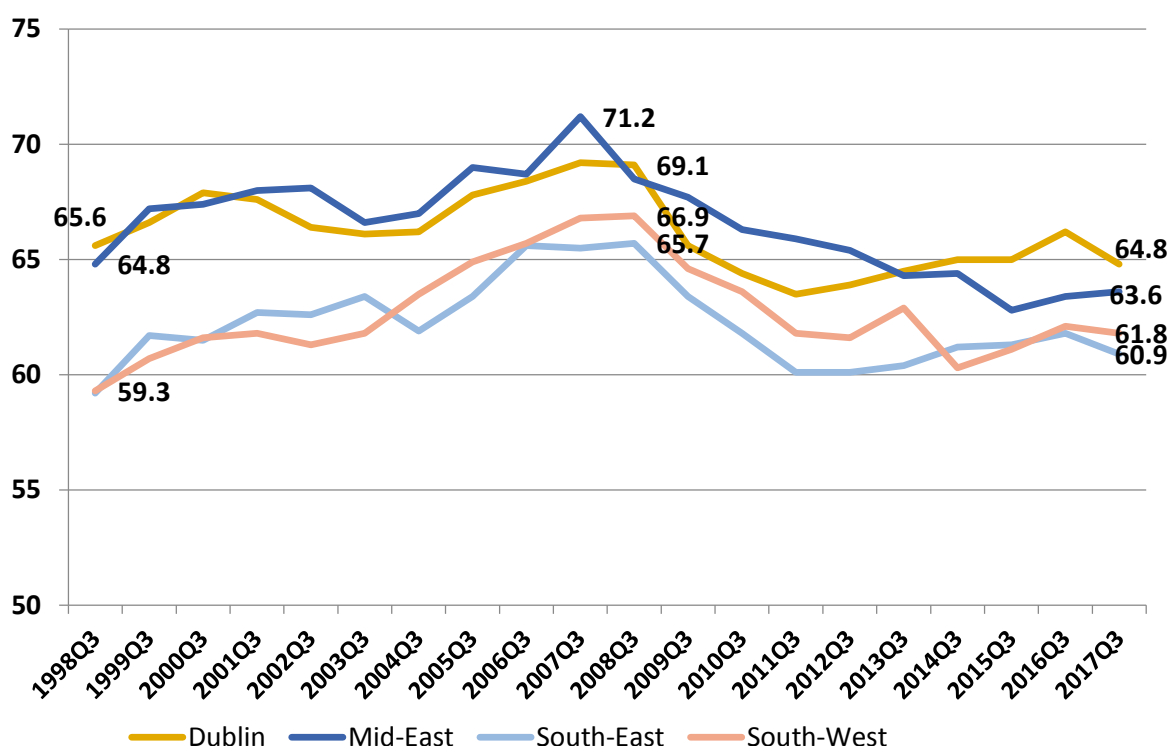
There were just over 2.2 million people employed in the Republic of Ireland as of Q3 2017, 1.01 million of which were women. The ratio of women to men grew steadily up until the economic crisis in 2007/08 and then took a significant leap as a result of the collapse of the predominantly male construction sector in 2008-09. The female share of employment peaked in 2012 at 47 per cent and has subsequently declined marginally. According to the CSO, there are still an estimated 45,000 fewer in employment in Ireland in Q3 2017 than there were in 2008 with 40,000 more women in employment and approximately 85,000 fewer men.

Chart 2.4 Female LFP Rates by Age, ROI, 1998-2017



Source: CSO (2018a) Labour Force Survey -Table QLF 28

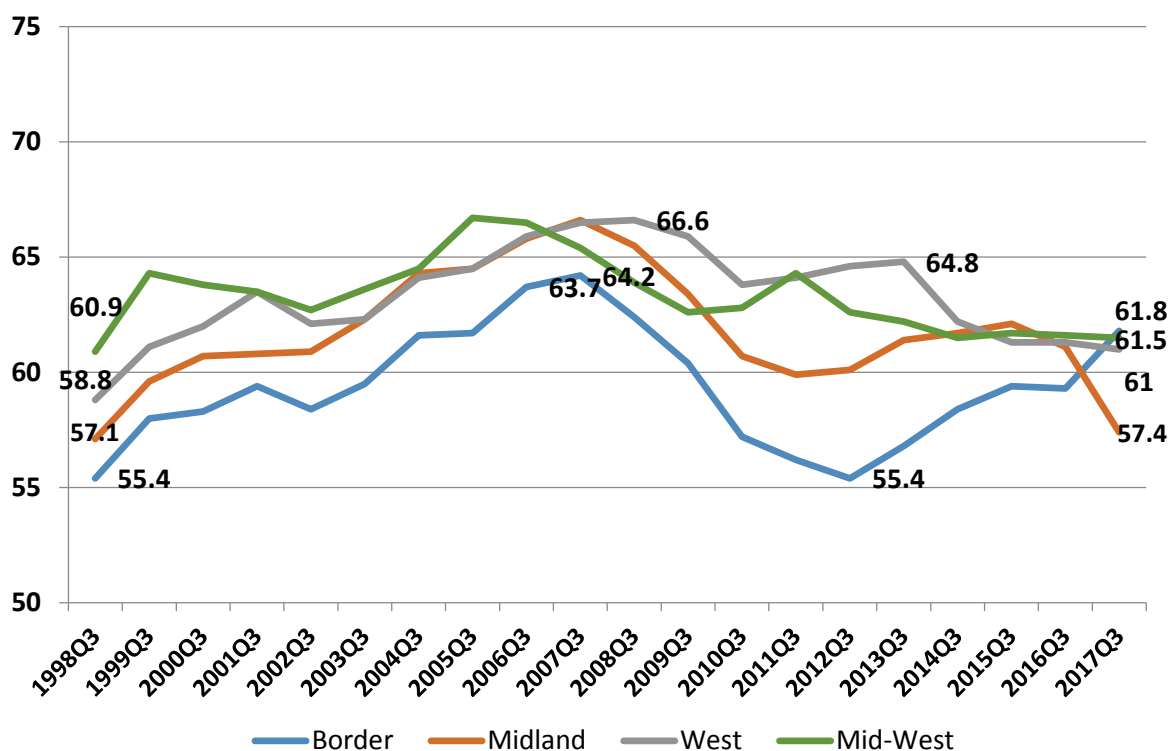
Chart 2.5 LFP Rates by Selected Region, ROI, 1998-2017



Source: CSO (2018a) Labour Force Survey -Table QLF 15

Note: Age 15 and over

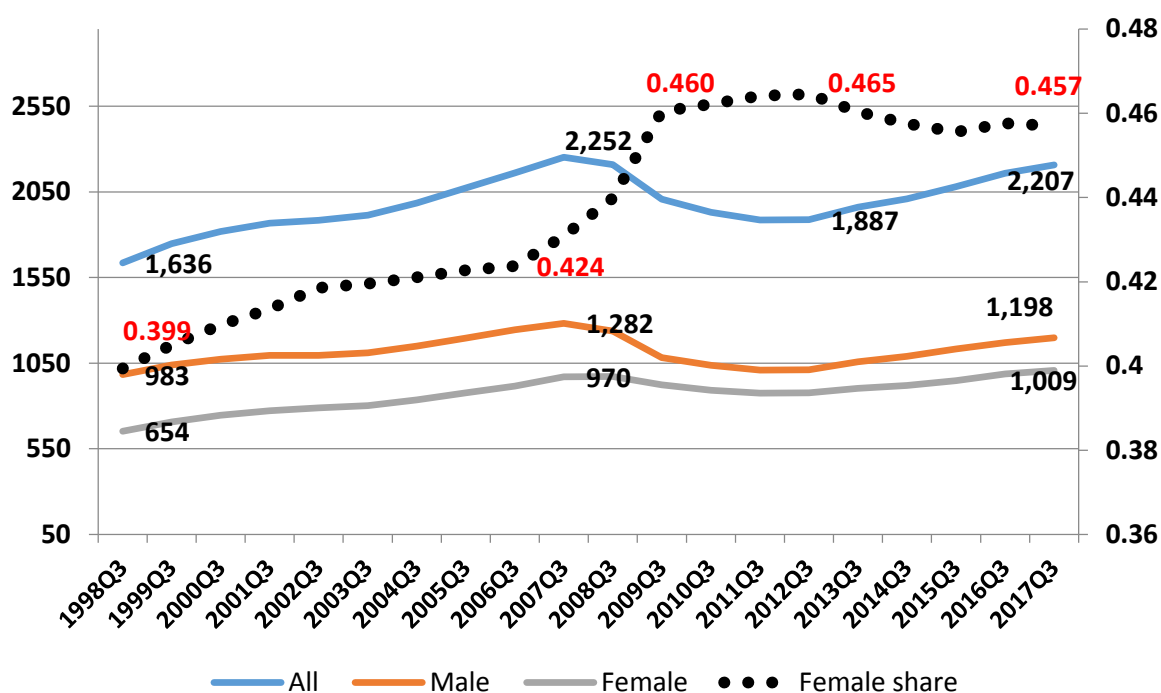
Chart 2.5.1 LFP Rates by Selected Region, ROI, 1998-2017



Source: CSO (2018a) Labour Force Survey -Table QLF 15

Notes: Age 15 and over

Chart 2.6 Total Employment, ROI, 1998-2017



Source: CSO (2018a) Labour Force Survey -Table QLF 15

Notes: Age 15 and over. Female share (RHS) is the female percentage of total employment.

Table 2.1 Composition of Employment by Employment Status, ROI, %

Type	1998	2002	2007	2012	2017	PP shift 1998 to 2017
Self-employed (paid employees)	5.5	5.2	5.4	4.4	4.6	-0.9
Self-employed (no paid employees)	11.4	10.5	10.0	10.9	10.1	-1.3
Employees	81.6	83.1	83.7	83.7	84.7	+3.1
Assisting Relative	1.5	1.1	0.9	1.0	0.6	-0.9

Source: CSO (2018a) Labour Force Survey – Table QLF 17

Notes: All data is for Q3. PP means percentage point.

Table 2.1 shows the changing composition of employment by employment status. The proportion of workers categorized as employees increased gradually over the period rising from 81.6 per cent in 1998 to 84.7 percent in 2017. The proportion of self-employed fell from 16.9 per cent to 14.7 per cent, including a decline in *self-employed with paid employees* from 5.5 per cent to 4.6 per cent, and a decline in *self-employed with no paid employees* from 11.4 per cent to 10.1 per cent. However, in absolute terms the number of self-employed actually increased by 26.7 per cent over the period amounting to 68,500 new employments. There was a decline in the proportion of workers *assisting relatives* from 1.5 per cent to 0.6 per cent and in this case, it does reflect a decline in absolute terms. The number of persons assisting a relative fell from 25,300 in 1998 to just 13,200 in 2017. Over a fifth of males with jobs (20.9 per cent) were self-employed in Q3 2017, whereas just 7.3 per cent of females with jobs were self-employed.

Table 2.2 Composition of Population Aged 15 Years and over by Principal Economic Status, ROI, %

Type	1998	2002	2007	2012	2017	PP shift 1998 to 2017
At work	52.7	56.6	60.0	49.9	55.5	+2.8
Unemployed	5.3	4.1	3.7	10.7	5.5	+0.2
Student	9.9	9.9	9.1	10.6	10.3	+0.4
Engaged on home duties	20.3	17.8	14.9	14.0	8.9	-11.4
Retired	8.9	8.5	8.7	10.8	14.7	+5.8
Other	2.9	3.1	3.6	4.0	5.1	+2.2

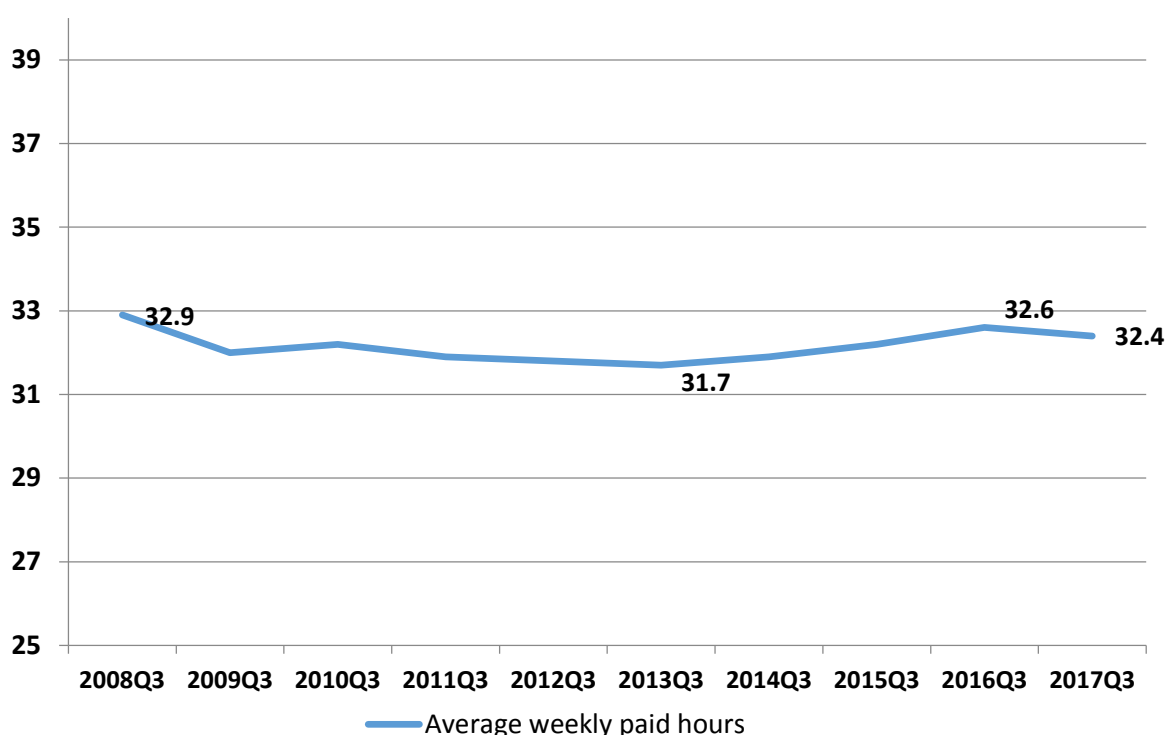
Source: CSO (2018a) Labour Force Survey – Table QLF 19

Notes: All data is for Q3. PP means percentage point.

Table 2.2 shows the changing composition of the population aged 15 years and over in terms of their principal economic status (PES). The most significant shift is the shift away from ‘home duties’. The proportion engaged in home duties in Q3 2017 was 8.9 per cent (16.4 per cent for females and 1.0 per cent for males). This was less than half of the 20.3 per cent engaged in home duties in 1998 (39.7 per cent for females and 0.2 per cent for males). The substantial shift away from home duties means that all other categories have increased in compositional terms. The proportion ‘at work’ increased from 52.7 per cent in 1998 to 55.5 percent in 2017 although this masks some sharps fluctuations in the interim. The proportion at work was 60 per cent in each of the last three quarters of 2007 but had fallen below 50 per cent in each of the first three quarters of 2012. The ‘retired from employment’ group experienced the largest compositional increase over the period increasing from 8.9 per cent to 14.7 per cent.

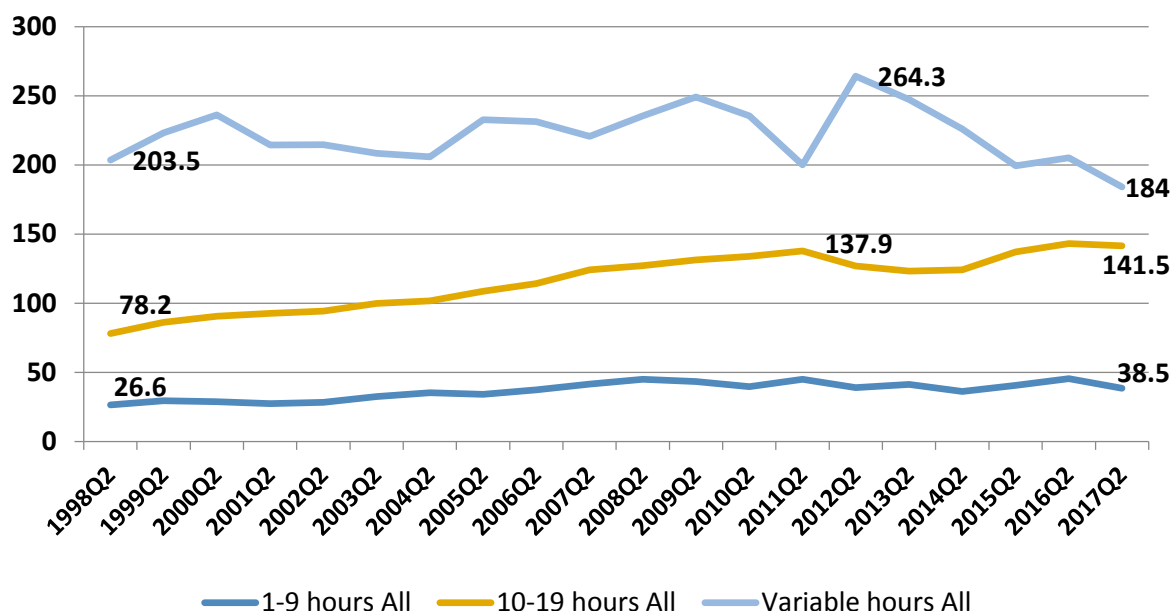
Chart 2.7 shows average hours per employment per week from 2008 to 2017. Data is taken from the CSO’s Earnings, Hours and Labour Costs release (CSO, 2018c). The average weekly paid hours in 2017 was 32.4. While this is down compared to the 32.9 hours in 2008, it marks an improvement on the low-point of 31.7 hours in 2013. With total employment of 2.2 million in Q3 2008 effectively equal to total employment in Q3 2017, the decline in hours worked since 2008 translates to around 1.1 million less paid hours per week. The absolute number of workers working nine hours or less increased gradually from 1998 to 2008 and has since levelled out at just under 40,000 persons (Chart 2.8). Overall, in 2017 there were almost 50 per cent more people working nine hours or less compared to 1998. The trend for those in the 10 to 19 hour bracket having continuously increased from 1998 to 2011, dipped between 2011 and 2014, and has subsequently surpassed peak levels. There are now 60,000 extra people working 10 to 19 hours than there were in 1998. On the other hand, since 2012 there has been a drop in the number of people reporting variable hours of 80,000. The number of people on variable hours is now lower than at any point since at least 1998.

Chart 2.7 Average Hours per Employment per Week, ROI, 1998-2017



Source: CSO (2018b) Earnings, Hours and Employment Costs – Table EHQ 03

Chart 2.8 Low and Variable Hours, ROI, 1998-2017

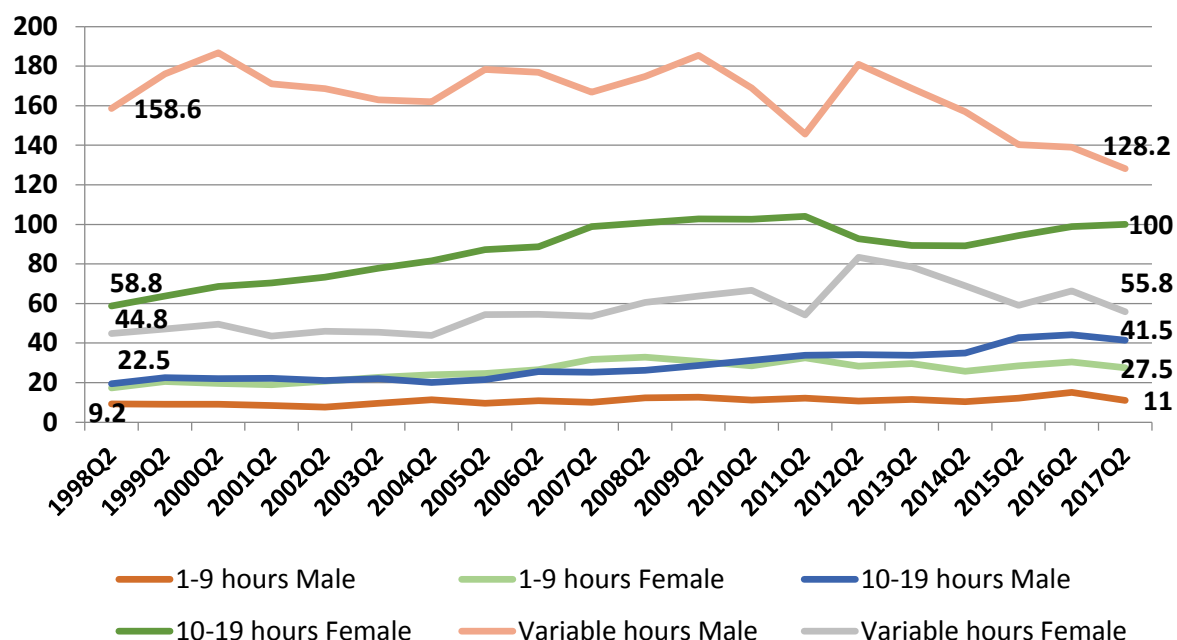


Source: CSO (2018a) Labour Force Survey – Table QLF 20

There were more than 50,000 extra women in marginal part-time employment (defined as less than 20 hours a week) in 2017 compared to 1998, notwithstanding a drop in 2016/17

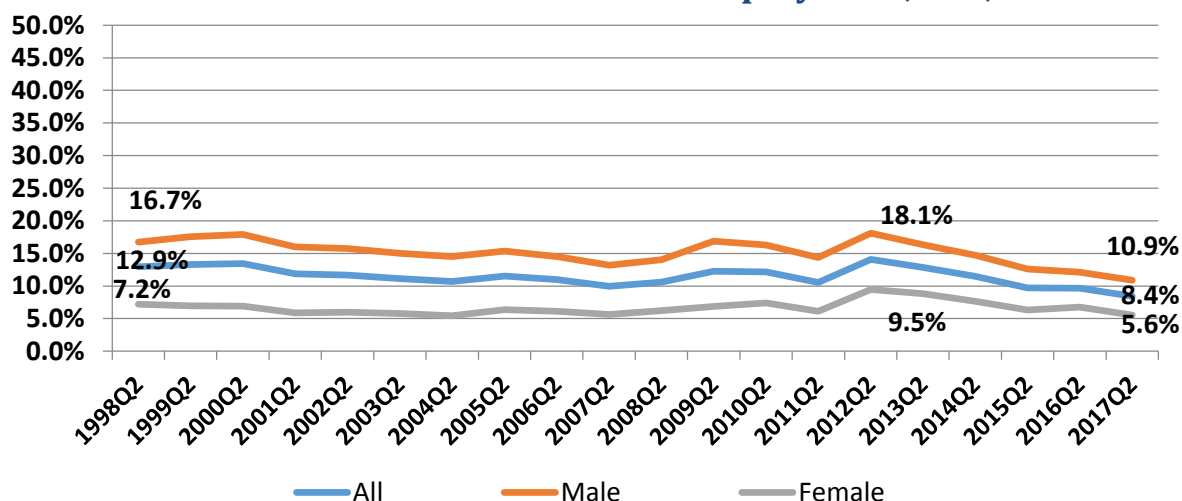
(Chart 2.8.1). There are more than twice as many women on 19 hours or less than there are men on 19 hours or less. At the same time, there are more than twice as many men on variable hours as there are women.

Chart 2.8.1 Low and Variable Hours by Gender, ROI, 1998-2017



Source: CSO (2018a) Labour Force Survey – Table QLF 20

Chart 2.8.2 Variable Hours as a Share of Employment, ROI, 1998-2017

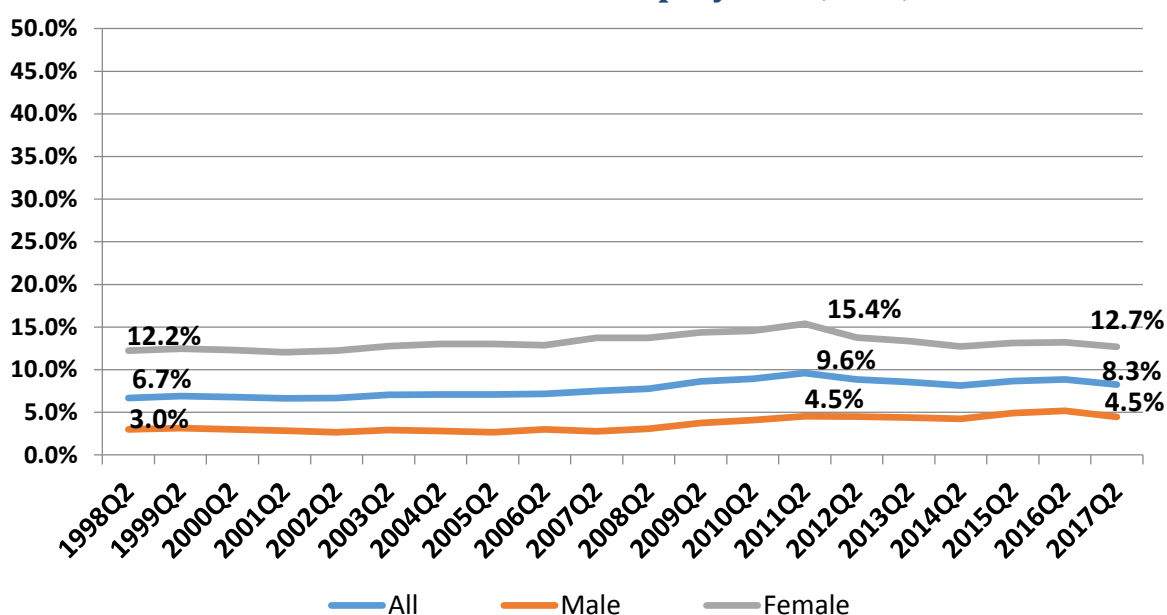


Source: CSO (2018a) Labour Force Survey – Table QLF 20

Chart 2.8.2 shows variable hours as a share of employment. The overall share remained relatively static between 2001 and 2011 before increasing in 2012. The share of workers on

variable hours has been falling since 2012 and was 8.4 per cent as of Q2 2017. As a share of all employment, marginal part-time work peaked in 2011 (Chart 2.8.3) and was about a quarter higher in Q2 2017 compared to Q2 1998 (8.3 per cent compared to 6.7 per cent). Women in employment are over two and a half times as likely as men to be in marginal part-time employment.

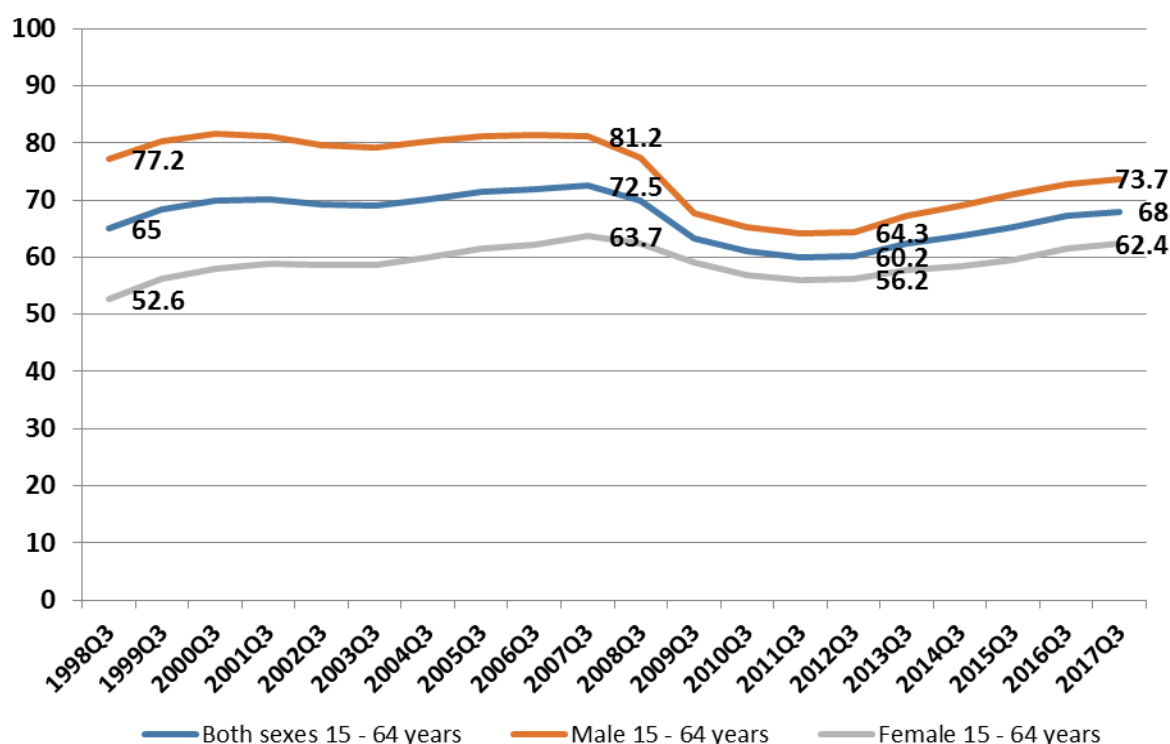
Chart 2.8.3 Low Hours as a Share of Employment, ROI, 1998-2017



Source: CSO (2018a) Labour Force Survey – Table QLF 20

Ireland's employment rate for persons aged 15-64 increased from 65 per cent in Q3 1998 to 68 per cent in Q3 2017 (Chart 2.9). However, and despite a steady increase from 2013 to 2017, the employment rate is down 4.5 percentage points from the pre-crisis peak of 72.5 per cent. The fall in the employment rate is mostly accounted for by the drop in the male employment rate from 81.2 to 73.7, although the female rate is also down compared to its pre-crisis peak. The overall increase in the employment rate since 1998 is entirely due to the increase in the female employment rate as the male employment rate actually fell over the period. Even so, there is still a gap of over 11 percentage points between male and female employment rates, although the gender gap has narrowed significantly since 1998 when it was almost 25 percentage points. As will be shown in section four, Ireland's employment rate significantly underperforms the best performing countries in Europe.

Chart 2.9 Employment Rate (15-64), ROI, 1998-2017

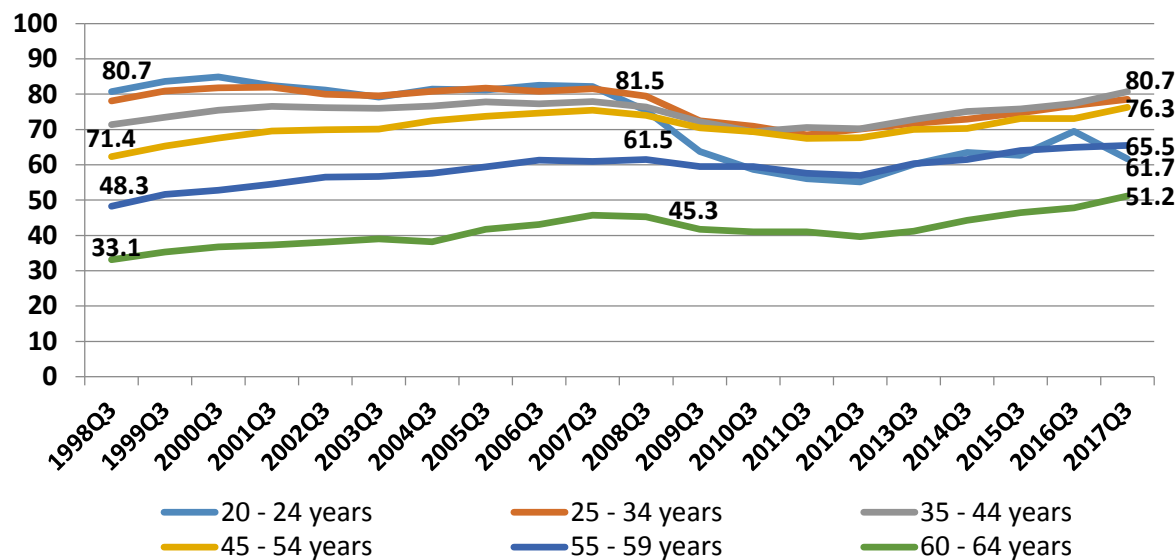


Source: CSO (2018a) Labour Force Survey – Table QLF 20

Chart 2.10 shows employment rates by age. As might be expected the core 25 to 54 year old age groups have higher than average employment rates while the 20-24 year olds and those aged 55 or older have lower than average employment rates. The main changes since 1998 are the sharp fall in the employment rate for the 20-24 year old cohort, along with the gradual rise in the employment rates for the 55-59 and the 60-64 cohorts. The employment rate for 20-24 year olds fell 19 percentage points between 1998 and 2017. The 20-24 employment rate was broadly steady between 1998 and 2007 before falling sharply between 2007 and 2012. The youngest working age cohort can be seen to have, in relative terms, been the group most significantly affected by the collapse in employment post-2007. Every other age group has managed to recover to their 2008 levels, with particularly strong growth for the two eldest cohorts. The employment rate for 60-64 year olds is the lowest amongst the working age cohorts at 51.2 per cent although this represents an increase on 2008 (45.3 per cent) and 1998 (33.1 per cent). Chart 2.10.1 and Chart 2.10.2 show male and female employment rates for the different age cohorts. For males, we can see similar trends to Chart 2.10 with the 20-24 year olds experiencing by far the largest fall in its employment rate since 2007-08. The 20-24 year olds and 60-64 year olds have the lowest employment rates at close to 60 per cent while the core 25-54 age groups all have employment rates in excess of 80 per cent. For females we can see that in 1998 the probability of being in employment varied dramatically

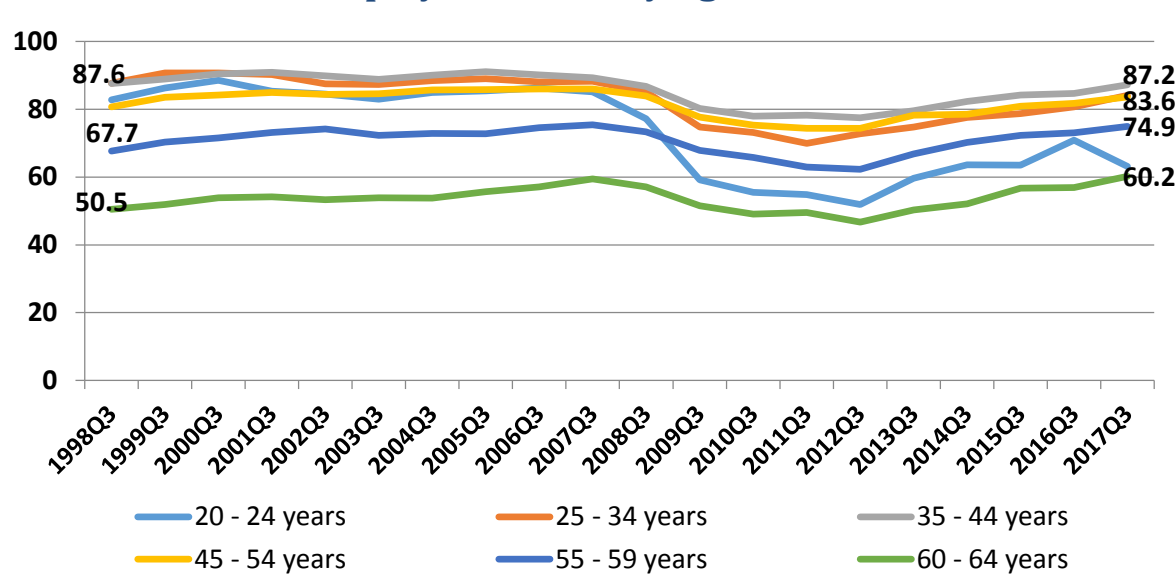
depending on age with those aged 20-24 having an employment rate of close to 80 per cent while those aged 60-64 had an employment rate of less than 20 per cent. Age dependent variation has decreased since 1998 with the employment rate increasing for all groups other than those aged 20-24. Since 1998 females aged 60-64 have seen their probability of being in employment more than double to over 40 per cent, while the employment rates for 45-54 year olds and for 55-59 year olds are up over 25 and 27 percentage points respectively over the period.

Chart 2.10 Employment Rate by Age Cohort, ROI, 1998-2017



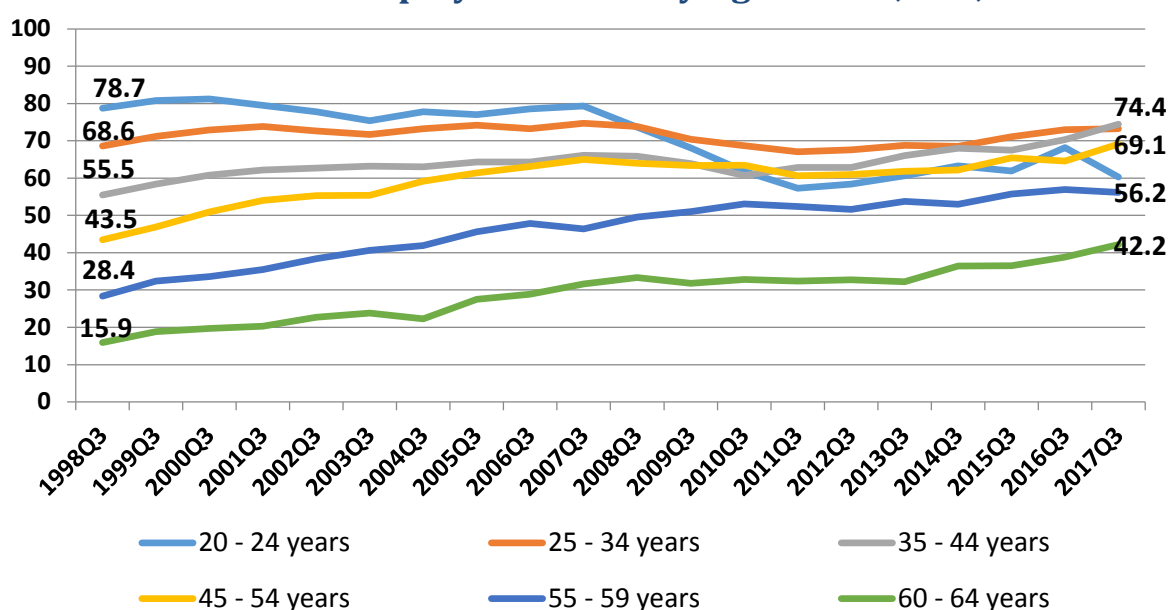
Source: CSO (2018a) Labour Force Survey – Table QLF 18

Chart 2.10.1 Male Employment Rate by Age Cohort, ROI, 1998-2017



Source: CSO (2018a) Labour Force Survey – Table QLF 18

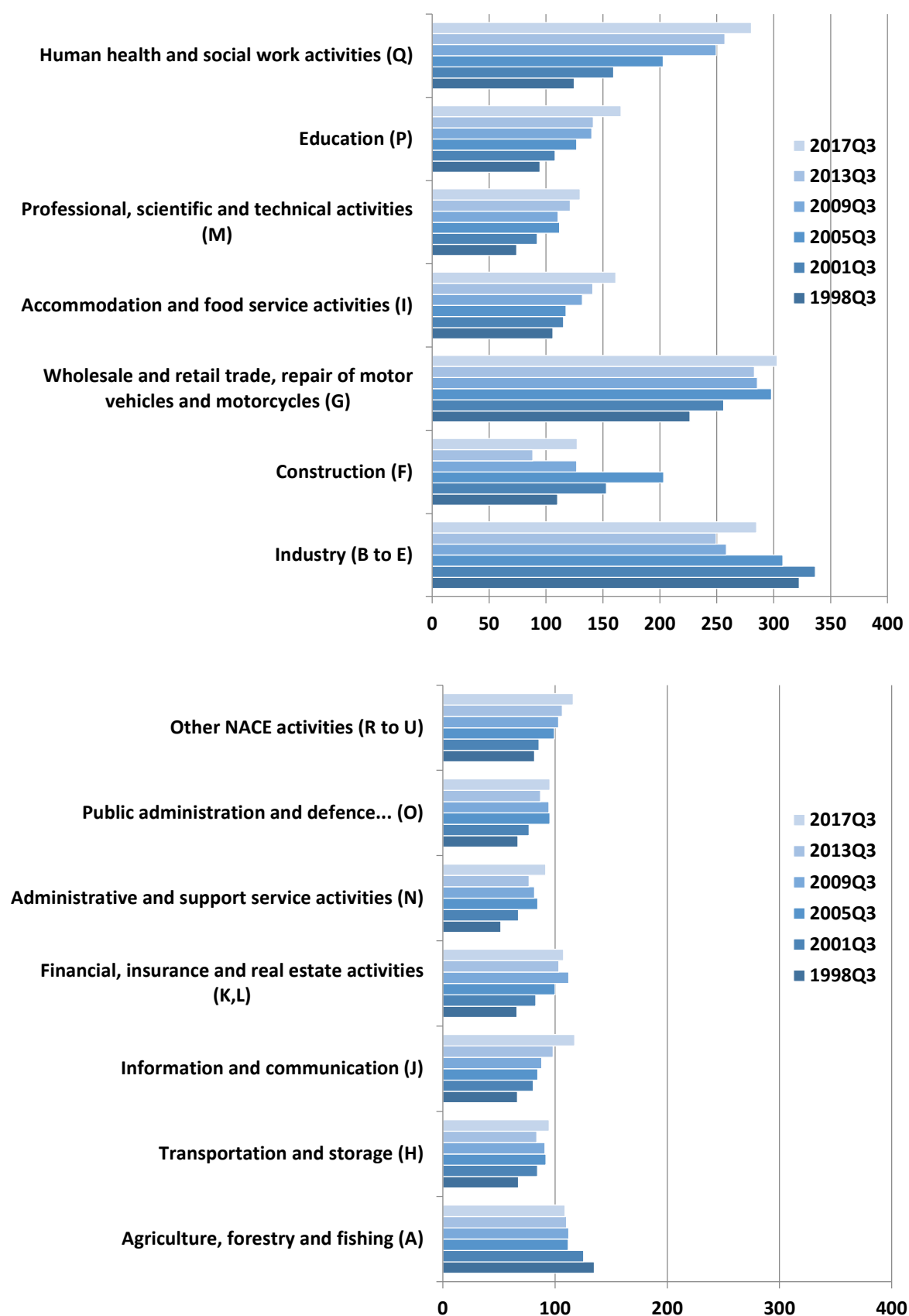
Chart 2.10.2 Female Employment Rate by Age Cohort, ROI, 1998-2017



Source: CSO (2018a) Labour Force Survey – Table QLF 18

Chart 2.11 shows sectoral employment at different time periods. The biggest change has been in *human health and social work activities* where employment has grown by close to 160,000 since 1998, standing at 280,000 in Q3 2017. This represents about 25 per cent of all employment growth since 1998. The number working in *education* almost doubled in the same period to 165,000. Employment in *professional, scientific and technical activities* has also almost doubled, in this case to around 130,000, having dipped slightly during the economic crisis and subsequent recession. Jobs in the lowest paid sectors have grown since 1998, by 55,000, or close to a half in the case of *accommodation & food*, and by 80,000, or over a third in the case of *wholesale & retail*. However, employment in *construction* and in *industry* are significantly down on peak levels. Though employment in industry had been trending downward since the turn of the century, a slight rise in recent years has seen it recuperate many of the net jobs lost in the wake of the economic crash. On the other hand, employment in construction is still not much more than half its 2007 peak. The smaller sectors have all grown since 1998, with the sole exception of *agriculture, forestry and fishing* which has been slowly declining. Even so, employment growth has not been consistent for most sectors, with a slowdown visible in the years following the crash. Employment in *financial, insurance & real estate activities* is still below its peak pre-crisis levels. Finally, employment growth has been consistently strong in the relatively well-paid and productive *information & communication* sector.

Chart 2.11 Sectoral Employment, ROI, 1998-2017



Source: CSO (2018a) Labour Force Survey – Table QLF 03

Table 2.3 shows the changing composition of employment by economic sector. The general trend has been for an increase in the proportion of jobs in services along with relative declines in agriculture and industry. Employment in *industry* saw the largest proportional decline over the period, losing around one third of its share. Industry has since the economic crash been replaced by *wholesale & retail* as the largest source of employment in Ireland. This is a concern as the industry sector tends to have well paid jobs and to generate a higher than average level of productivity growth (see Chang, 2011 for a discussion). A permanent shift away from industry is likely to be associated with lower long-term economic growth. The trend has also been downward for *agriculture, forestry & fishing* – while agriculture’s share did increase temporarily between 2007 and 2012, this reflects the more generalized collapse in employment post-2007, which impacted on agriculture disproportionately less than most other sectors.

Table 2.3 Composition of Employment by Economic Sector, Seasonally Adjusted, ROI, %

Type	1998	2002	2007	2012	2017	PP shift 1998 to 2017
Agriculture, forestry, fishing	8.4	6.5	5.0	5.8	5.0	-3.4
Industry	20.1	17.5	14.3	12.4	13.0	-7.1
Construction	6.9	8.5	10.5	4.4	5.8	-1.1
Wholesale & Retail/Motor Vehicles	14.1	14.3	14.6	14.7	13.8	-0.3
Transportation & Storage	4.2	4.7	4.0	4.4	4.3	+0.1
Accommodation & Food Services	6.6	6.1	6.4	6.6	7.4	+0.8
Information & Communication	4.1	4.3	3.7	4.9	5.4	+1.3
Financial, Insurance & Real Estate	4.1	4.5	5.0	5.5	4.9	+0.8
Professional, Scientific & Technical	4.6	5.0	5.7	5.7	5.9	+1.3
Administrative & Support Services	3.2	3.6	4.5	4.1	4.2	+1.0
Public Administration & Defence	4.2	4.5	4.5	4.7	4.4	+0.2
Education	5.9	6.0	6.2	7.4	7.6	+1.7
Human Health & Social Work	7.8	9.3	10.6	13.7	12.8	+5.0
Other NACE	5.1	4.8	4.7	5.7	5.3	+0.2
Not Stated	...	...	...	...	...	...

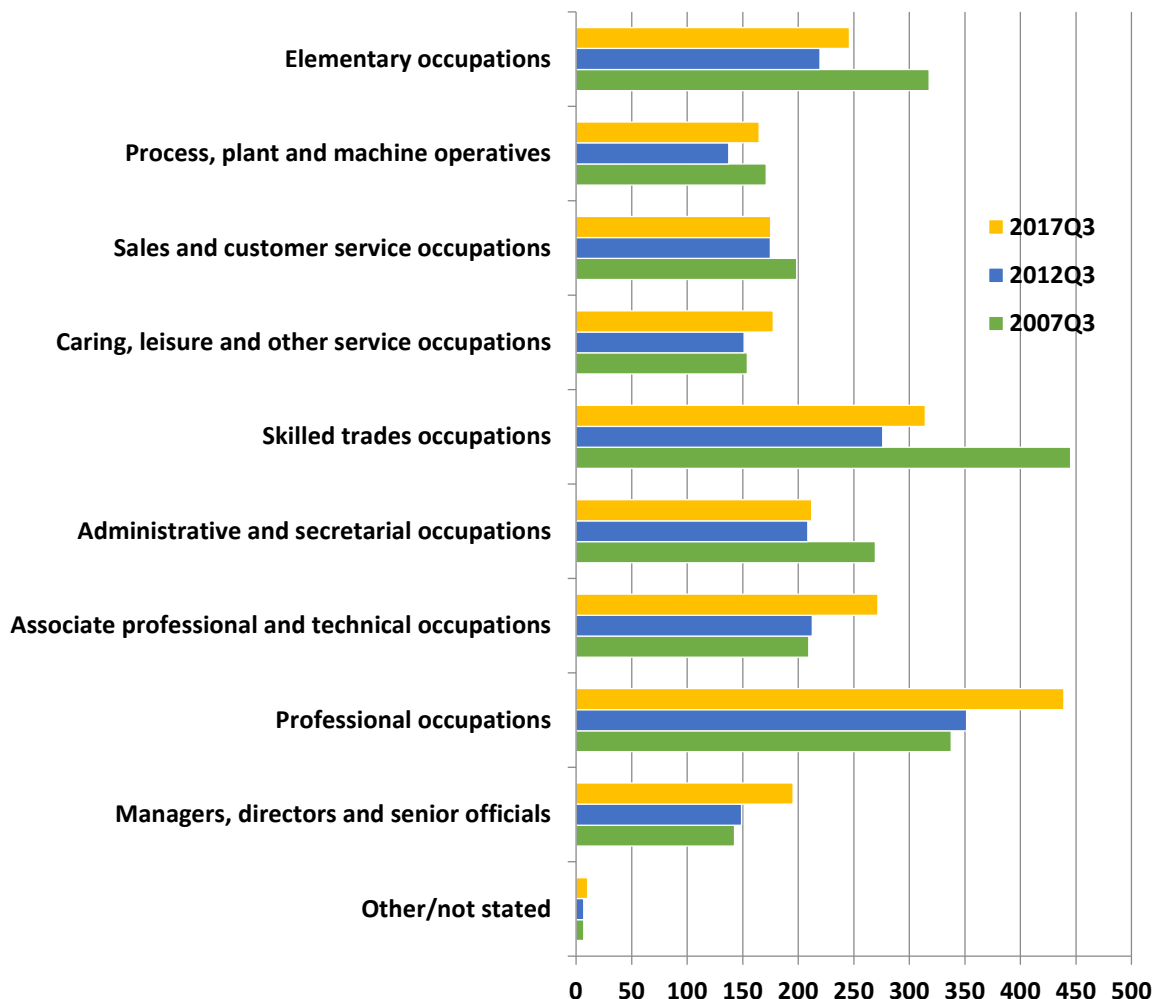
Source: CSO (2018a) Labour Force Survey – Table QLF 03

Notes: All data is for Q3. PP means percentage point. Rounding affects totals.

Employment in *construction* has unsurprisingly been the most volatile of any sector over the period. Construction’s share of employment was 6.7 per cent at the start of 1998, before rising to peak at 11 per cent close to the height of the economic boom in late 2006, and then plummeting post-crash to just 4.2 per cent in early 2013. The largest positive compositional shift in employment over the two decades has been in *human health & social work*, where the share increased from 7.8 per cent to 12.8 per cent. However, the share of employment in the health & social work sector has generally been in decline since 2012. The *education* sector has had the second largest positive shift since 1998, which with the exception of change in human health and social work represents the largest percentage point increase. Overall,

there have been increases in high paid 'knowledge economy' sectors with *information & communication* rising from 4.1 per cent to 5.4 per cent and *professional, scientific & technical* rising from 4.6 per cent to 5.9 per cent.

Chart 2.12 Occupational Employment, ROI, 2007-2017



Source: CSO (2018a) Labour Force Survey – Table QLF 29

Notes: Occupational Classification is SOC2010

Chart 2.12 shows the changes in employment by occupation over the past decade. *Professional occupations* have replaced *skilled trades occupations* as the largest occupational category, increasing its proportion of total employment from 15 per cent to almost 20 per cent and accounting for about 100,000 additional workers over that period. Table 2.4 shows the changing composition of employment by occupational group. The impact of the property crash can be seen in the sharp decline in the share of employment in *skilled trades*, especially between 2007 and 2012 when close to 160,000 net jobs of this type were lost. Over the last decade, the relative shift in employment has been away from low skilled occupations such as

administrative & secretarial and *elementary*, in favour of more high-skilled occupational groups such as professional occupations, *associate professional* occupations and *managerial* occupations.

Table 2.4 Composition of Employment by Occupational Group, ROI, %

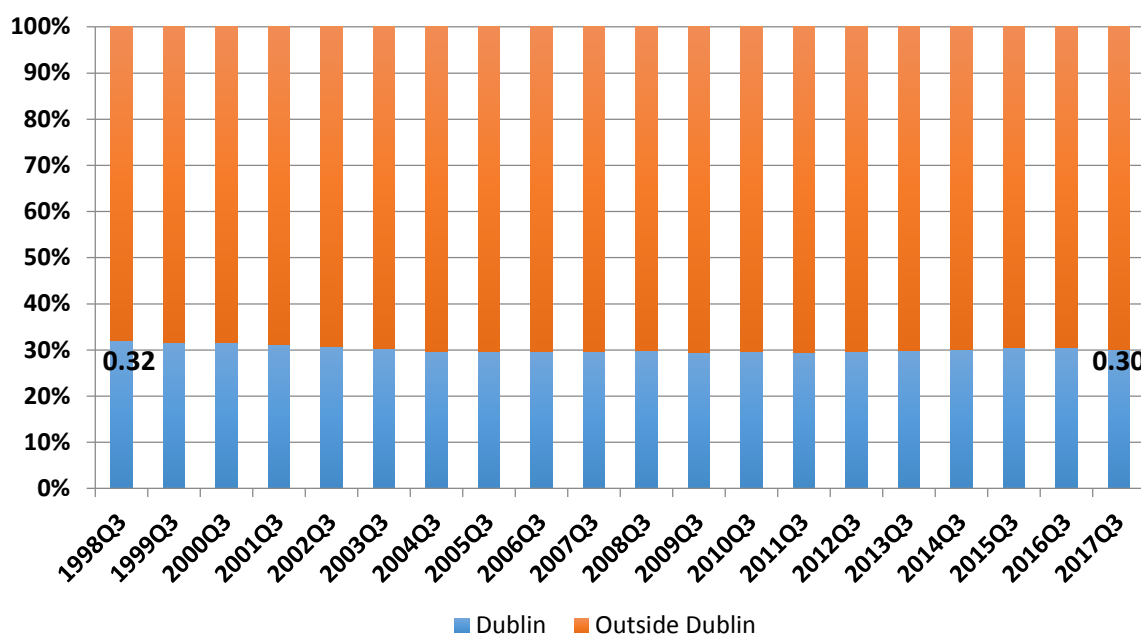
Type	2007	2012	2017	PP shift 2007 to 2017
Managers/Directors/Senior Officials	6.3	7.9	8.8	+2.5
Professional	15.0	18.7	19.9	+4.9
Associate Professional & Technical	9.3	11.3	12.3	+3.0
Administrative & Secretarial	12.0	11.0	9.6	-2.4
Skilled Trades	19.8	14.6	14.2	-5.6
Caring, Leisure & Other Services	6.8	8.0	8.0	+1.2
Sales and Customer Services	8.8	9.3	7.9	-0.9
Process, Plant & Machine Operatives	7.6	7.3	7.5	-0.1
Elementary	14.1	11.6	11.1	-3.0
Other/Not Stated	0.3	0.4	0.5	+0.2

Source: CSO (2018a) Labour Force Survey – Table QLF 29

Notes: All data is for Q3. PP means percentage point. Rounding affects totals.

Chart 2.13 compares total employment in Dublin with total employment in the rest of the country. Contrary to the narrative that Dublin has benefited disproportionately in recent years we can see that the proportion of employment in Co. Dublin relative to the rest of the country has changed

Chart 2.13 Proportion of Employment, Dublin and outside Dublin, ROI, 1998-2017, %

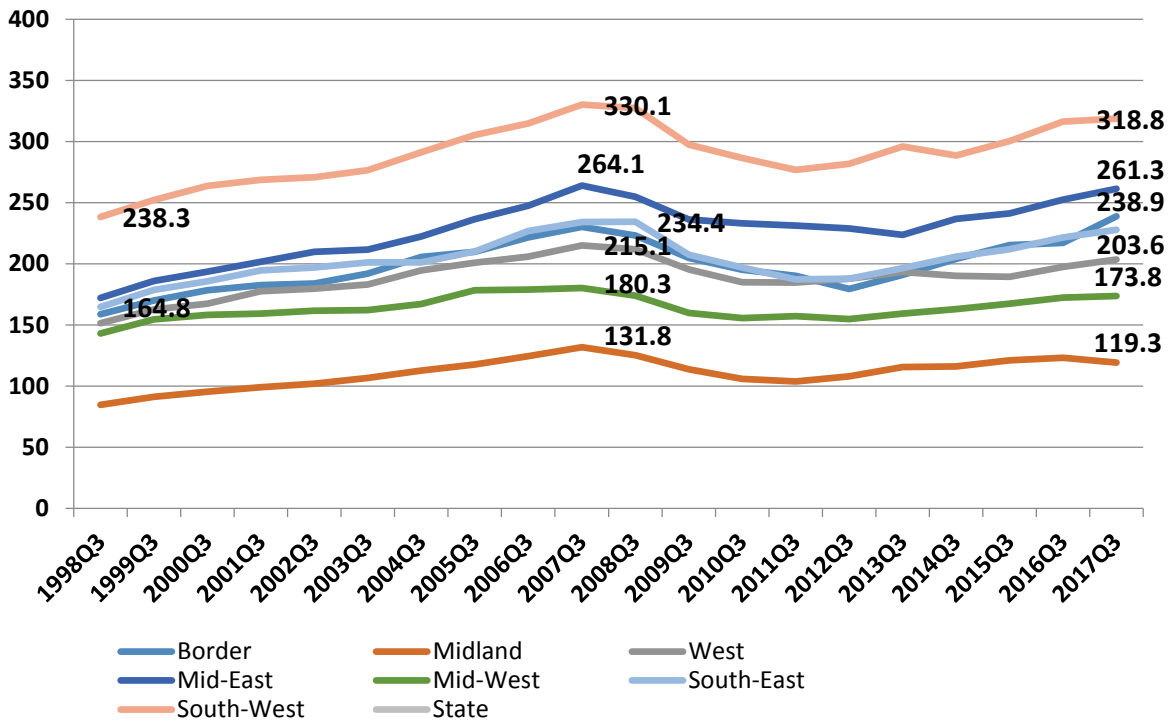


Source: CSO (2018a) Labour Force Survey – Table QLF 15

very little over the past two decades, and in fact the proportion has fallen marginally. Chart

2.14 shows total employment outside Dublin since 1998. The general trend is similar for all regions with steady employment growth continuing until 2007. Employment then declined in all regions until 2011-12. A general employment recovery began in 2012, albeit with employment only surpassing the pre-crisis peak by 2017 in the *Border* region.

Chart 2.14 Total Employment outside Dublin by Region, ROI, 1998-2017



Source: CSO (2018a) Labour Force Survey – Table QLF 15

Table 2.5 shows the changing composition of employment by geographic region. Somewhat surprisingly, the four regions with the largest cities (in order of size - Dublin, Cork, Limerick and Galway) were also the four regions to experience a declining share of employment between 1998 and 2017. This seems to run against the prevailing narrative of jobs being ‘sucked’ into the cities at the expense of the less urbanized regions and also runs against the expectation that more urban regions will experience faster relative employment growth over the long-term. The *Dublin* region experienced by far the largest decline in employment share over the nineteen year period and was the only region to experience a drop of more than one percentage point. Even so, the Dublin region is more than double the size of the next largest region (*South-West*) in terms of employment share. The *Mid-East* region (Kildare, Meath and Wicklow), much of which is arguably part of a larger ‘greater Dublin area’, had the largest increase in employment share between 1998 and 2017, rising from 10.5 per cent to 11.8 per

cent. Even so, the combined share for the greater Dublin area has declined since 1998. The *Border* region, which also includes Louth (arguably part of the greater Dublin economic region), had the second largest increase in employment share.

Table 2.5 Composition of Employment by Region, ROI, %

Type	1998	2002	2007	2012	2017	PP shift 1998 to 2017
Border	9.7	9.8	10.2	9.5	10.8	+1.1
Midland	5.2	5.4	5.9	5.7	5.4	+0.2
West	9.3	9.5	9.6	10.0	9.2	-0.1
Dublin	32.0	30.7	29.6	29.6	30.1	+1.9
Mid-East	10.5	11.1	11.7	12.1	11.8	+1.3
Mid-West	8.7	8.6	8.0	8.2	7.9	-0.8
South-East	10.1	10.5	10.4	10.0	10.3	+0.2
South-West	14.6	14.4	14.7	14.9	14.4	-0.2

Source: CSO (2018a) Labour Force Survey – Table QLF 15

Notes: All data is for Q3. PP means percentage point. Rounding affects totals.

However, if we consider only the period encompassing the economic crash and subsequent partial recovery, then we find that Dublin *did* increase its share of employment, although the increase has been fairly modest going from 29.6 per cent to 30.1 per cent (0.5 percentage points). The Border region had the largest increase in employment share over this decade but even this was just 0.6 percentage points. The *Midlands* region has experienced the most substantial decline in employment share since 2007 falling from 5.9 per cent to 5.4 per cent. If we narrow our focus even further to the approximate period of partial recovery (2012 to 2017) then we find the largest increases in employment share in the Border region at 1.3 percentage points, followed by the Dublin region at 0.5 percentage points. The *West* region made up of Galway, Mayo and Roscommon has fared worst in terms of employment share since 2012 (falling from 10 per cent to 9.2 per cent), suggesting that this is where the economy recovery has been slowest to take hold in recent years. The South-West region (Cork and Kerry) saw its employment share fall by 0.5 percentage points since 2012.

Table 2.6 shows the probability of being employed, unemployed, or outside the labour force for people of a given '*highest level of education*' achieved. Data from Q1 2014 is not directly comparable with previous quarters so our focus here is on the situation in Q3 2017. As expected the probability of being employed increases for each additional level of education achieved. Similarly, the probability of being outside the labour force declines for each level of education achieved (Chart 2.15). Just under two thirds of people aged 15-64 with only a *primary* education achieved were outside the labour force in 2017. On the other hand, almost nine out of ten people with a *third level honours degree or higher* achieved and of working age were in the labour force.

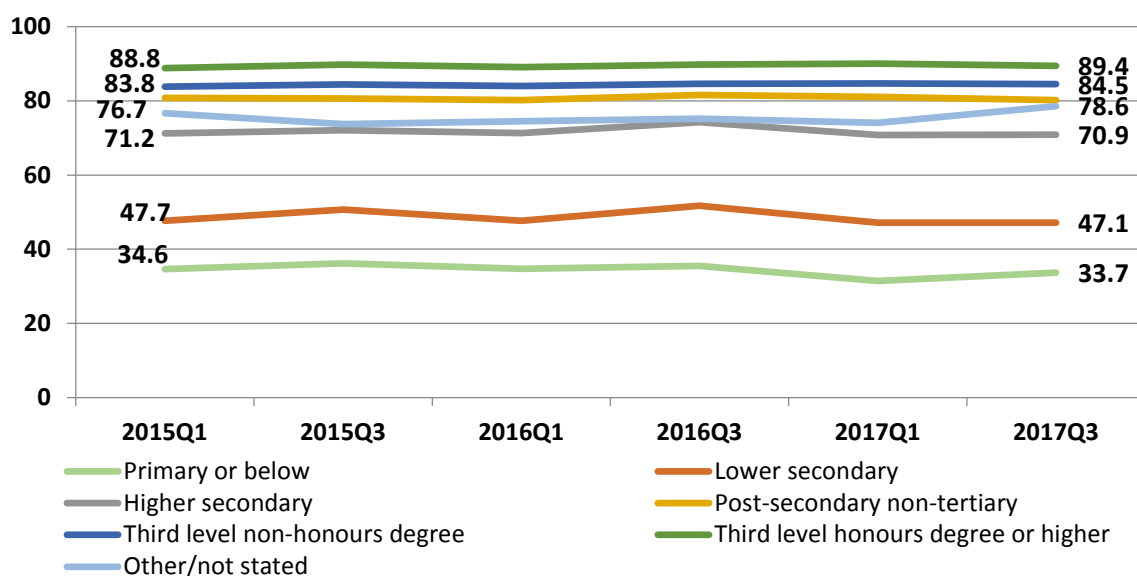
Table 2.6 Breakdown of Economic Status by Highest Level of Education, ROI, %, Q3 2017 (ages 15-64)

Highest Level of Education	Numbers	Employed %	Unemployed %	Not in Labour force %
Primary	187,000	28.7	5.0	66.4
Lower Secondary	481,900	42.3	4.9	52.9
Higher Secondary	746,500	64.9	6.0	29.1
Post Secondary, Non-Tertiary	401,000	73.0	7.2	19.8
3rd Level, Non-honours degree	313,300	78.6	6.0	15.5
3rd Level, Honours degree or above	907,700	85.8	3.6	10.6
Other/Not stated	105,200	74.2	4.4	21.4

Source: CSO (2018a) Labour Force Survey: Supplementary Tables – Table S8C

Notes: All data is for Q3. Rounding affects totals.

Chart 2.15 LFP Rate by Education Level, %, ROI, 1998-2017 (ages 15-64)

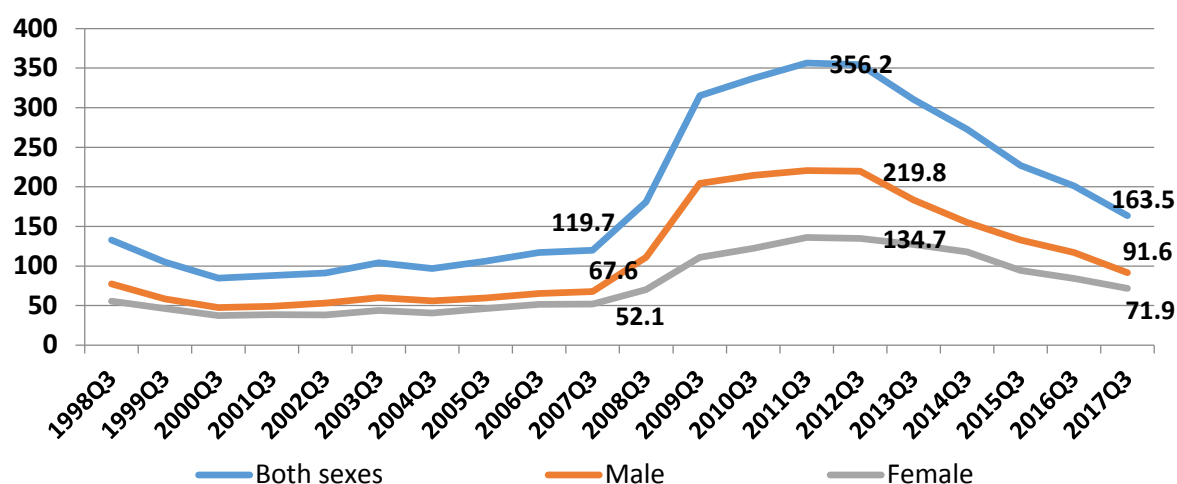


Source: CSO (2018a) Labour Force Survey – Table QLF 24

2.2 Unemployment and job vacancy trends

The number unemployed in Q3 2017 was 163,500 (Chart 2.16). This was almost 45,000 more than in 2008. On the other hand, unemployment has more than halved compared to the 2012 peak of 356,200. There is a significant unemployment gap between the genders with 92,000 men unemployed compared to 72,000 women.

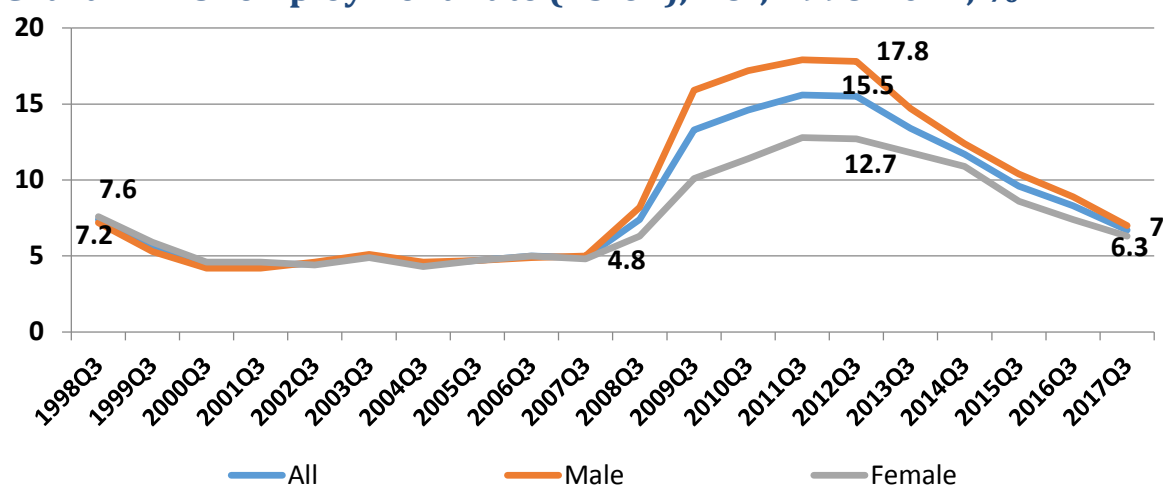
Chart 2.16 Total Unemployment (000's), ROI, 1998-2017



Source: CSO (2018a) Labour Force Survey – Table QLF 01

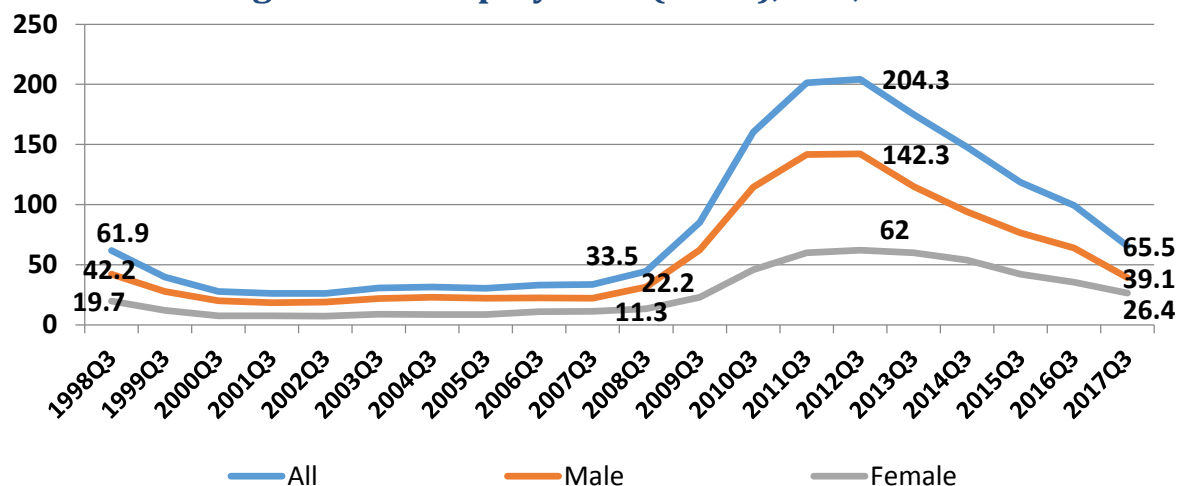
The unemployment rate was 6.7 per cent in Q3 2017 (Chart 2.17). The gender breakdown was 6.3 per cent for women and 7 per cent for men. The rate is lower in 2017 than it was in 1998 (7.4 per cent) and significantly below that of the latter stages of the recession - the rate surged into double digits by the first quarter of 2009 and had reached 15.1 per cent by the end of 2010 before ultimately peaking at 15.9 per cent. Even so, the unemployment rate remains above the rates prevailing between Q1 2000 and Q4 2007 when it ranged in a relatively narrow band between 3.8 per cent and 5.2 per cent. The divergence between men and women after 2007 was due to the implosion of the predominantly male construction industry. The gender gap has been closing steadily since 2012.

Chart 2.17 Unemployment Rate (15-64), ROI, 1998-2017, %



Source: CSO (2018a) Labour Force Survey – Table QLF 01

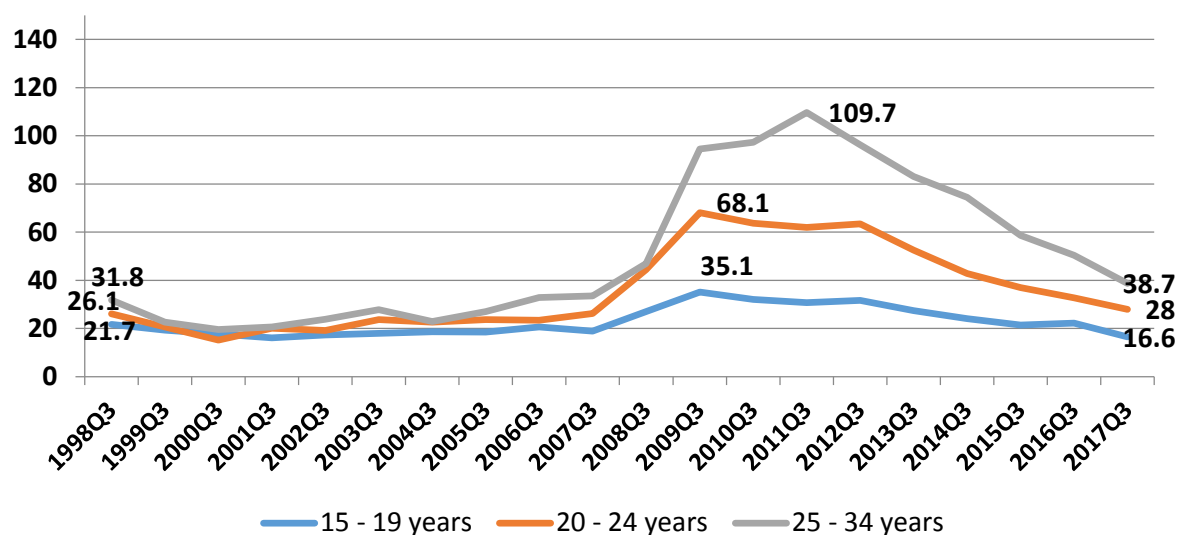
Chart 2.18 Long-term Unemployment (000's), ROI, 1998-2017



Source: CSO (2018a) Labour Force Survey – Table QLF 22

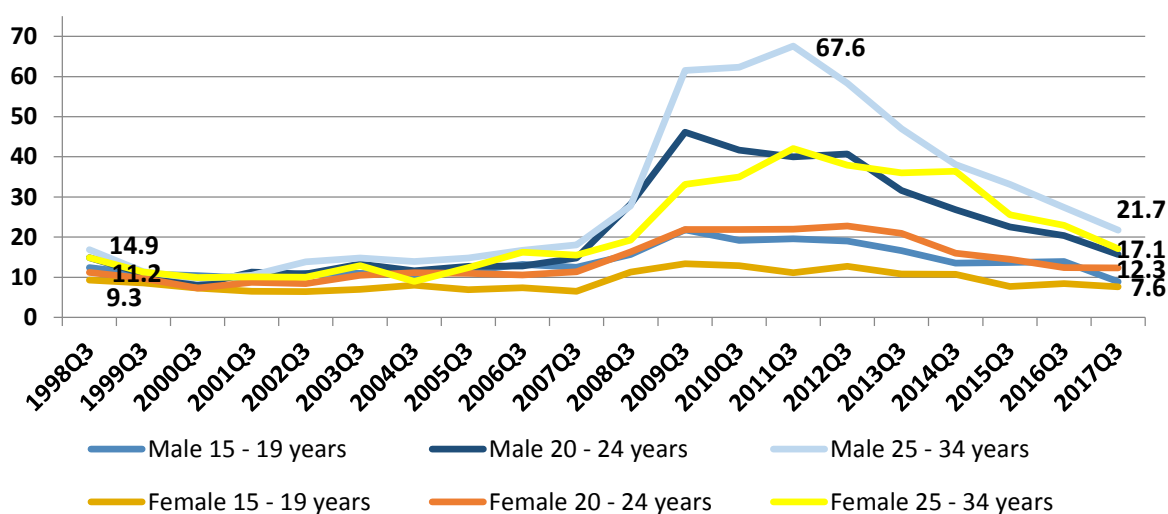
The total number of long-term unemployed was 65,500 in Q3 2017, just shy of double the total prior to the economic crash (it was 33,500 in 2007) and slightly more than the total in 1998 (Chart 2.18). The number of long-term unemployed has tended to be higher for men with the gap widening after 2007, in large part due to the disproportionate impact on construction relative to other sectors along with the weak transferability of skills between construction and other sectors.

Chart 2.19 Youth Unemployment (000's), ROI, 1998-2017



Source: CSO (2018a) Labour Force Survey – Table QLF 18

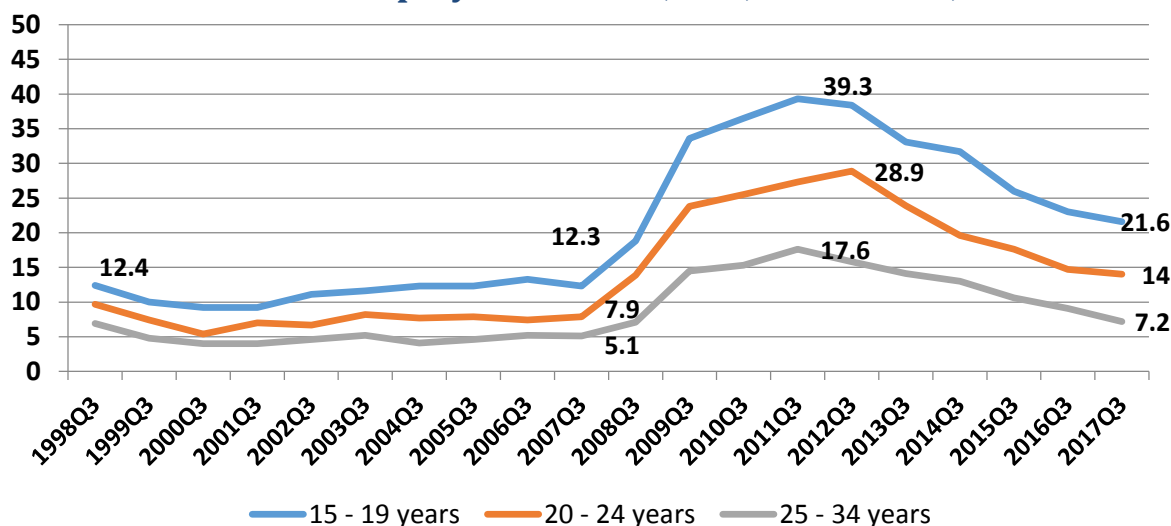
Chart 2.19.1 Youth Unemployment by Gender (000's), ROI, 1998-2017



Source: CSO (2018a) Labour Force Survey – Table QLF 18

Of the 163,500 unemployed in Q3 2017, just over half or 83,300 were between 15 and 34 and almost a quarter or 38,700 were between 25 and 34 years old. The impact of the crisis on the younger cohorts can be seen by the spike in youth unemployment between 2007 and 2009 (Chart 2.19 and Chart 2.19.1).

Chart 2.20 Youth Unemployment Rates, ROI, 1998-2017, %

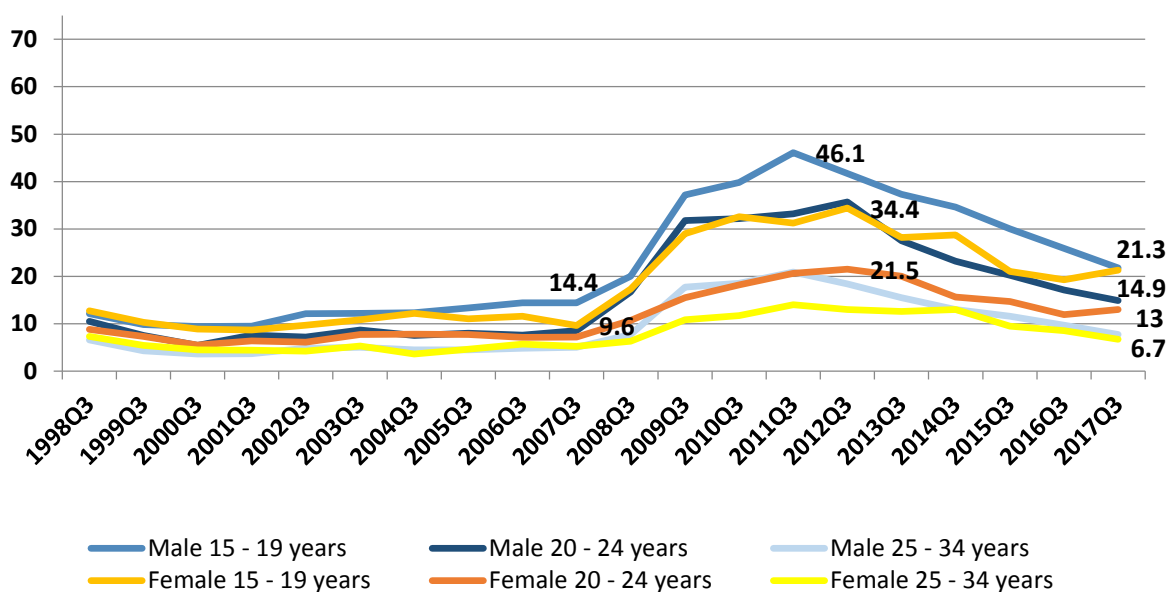


Source: CSO (2018a) Labour Force Survey – Table QLF 18

Fourteen per cent of 20-24 year olds were unemployed in Q3 2017. While this was down from almost 29 per cent in 2012, it was over six percentage points higher than in 2007 (Chart 2.20). The Q3 2017 rate is more than double the rate for the economy as a whole and a

potential cause for concern given international evidence that youth unemployment has a permanent scarring effect on lifetime job prospects. Chart 2.20.1 shows the gender breakdown. There is little gender difference in unemployment rates for the younger working age cohorts. While men are more likely than women to be unemployed between 20 and 24 years they have similar rates in the 25-34 year cohort.

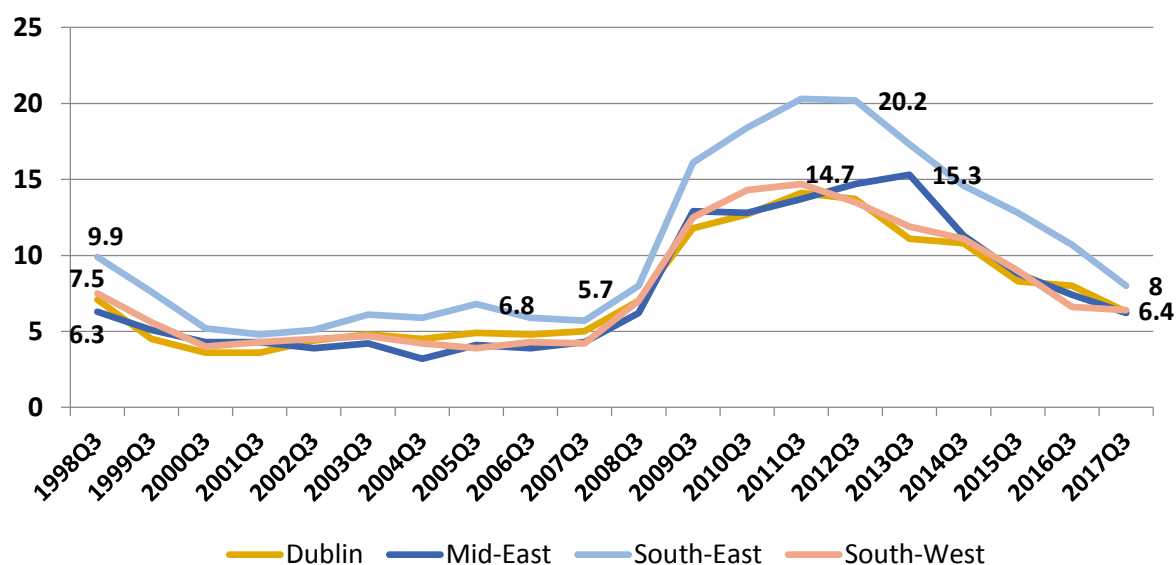
Chart 2.20.1 Youth Unemployment Rates by Gender, ROI, 1998-2017, %



Source: CSO (2018a) Labour Force Survey – Table QLF 18

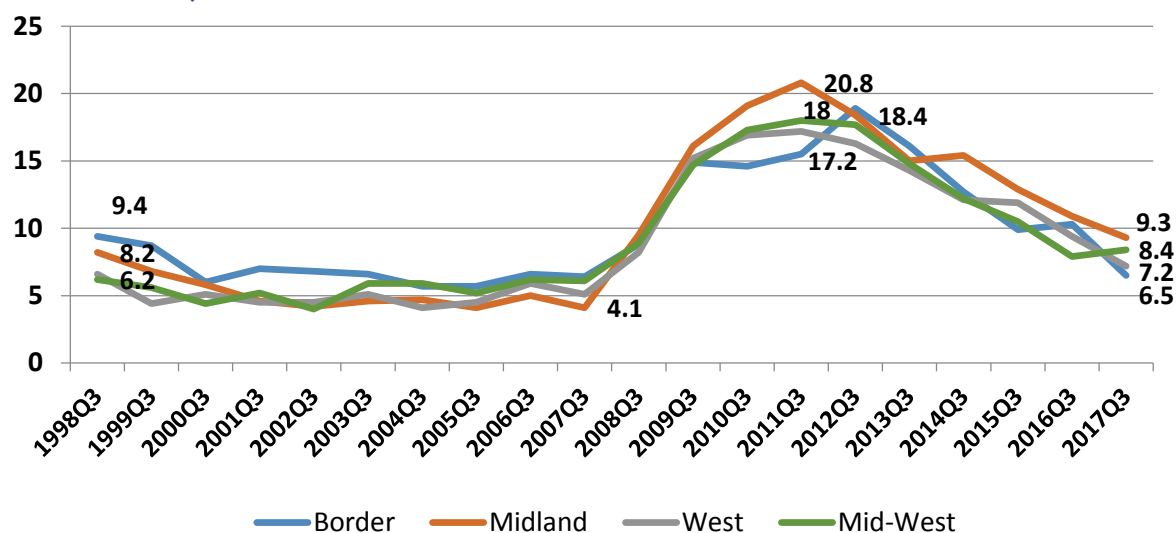
Unemployment by region is shown in Chart 2.21 and 2.21.1. There are notable regional disparities and as of Q3 2017 the highest unemployment rate was in the *Midlands* region at 9.3 per cent, while the *Mid-East* region and *Dublin* had the lowest unemployment rates at 6.2 per cent and 6.3 per cent respectively. The unemployment rate is higher in every region than it was a decade earlier in Q3 2007, albeit marginally in the case of the *Border* region. The largest increase over the decade has been in the Midlands region, which went from the lowest unemployment rate just prior to the economic crash (4.1 per cent) to now having the highest unemployment rate. The unemployment rate in the *state* rose from 5.1 per cent in Q3 2007 to 15.9 per cent in 2012 with the highest rate reached in the state in the *South-East* region (20.2 per cent) in the first quarter of 2012 and the Midlands region (20.8 per cent) in the third quarter of 2011. The Dublin region had the lowest ‘peak’ unemployment rate reaching 14.1 per cent in Q3 2011. The lowest recorded unemployment rate since 1998 was also in the Dublin region where the rate fell to 2.7 per cent in Q4 2000 and Q1 2001. This may have been the lowest regional unemployment rate in the history of the

Chart 2.21 Unemployment Rate by Selected Region (15-74), ROI, 1998-2017, %



Source: CSO (2018a) Labour Force Survey – Table QLF 15

Chart 2.21.1 Unemployment Rate by Selected Region (15-74), ROI, 1998-2017, %



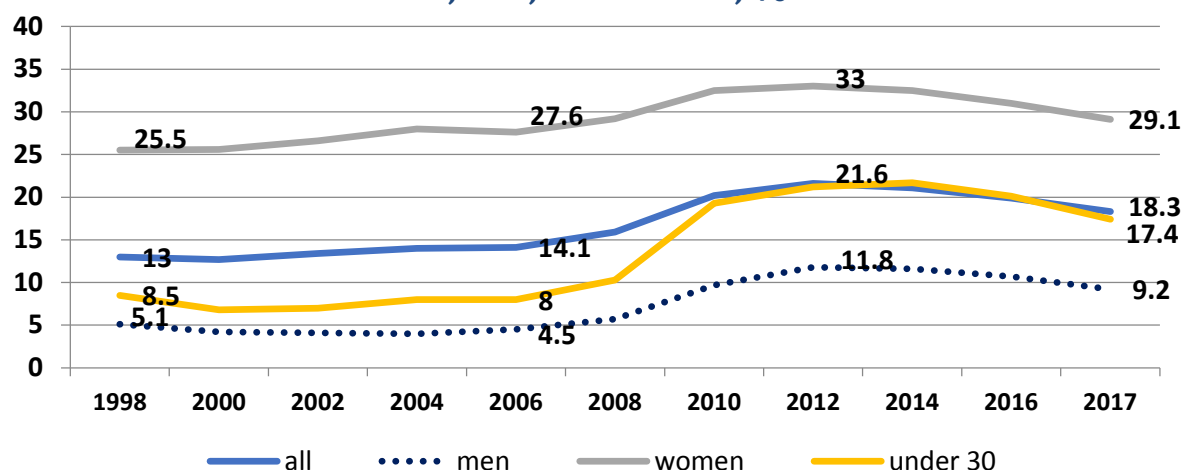
Source: CSO (2018a) Labour Force Survey – Table QLF 15

state and is particularly remarkable given the unemployment rate in Dublin had been 8.0 per cent as recently as 1998. At various points during the first few years of the 21st century the unemployment rate fell below 4 per cent in each of the Dublin, *Mid-East*, *Mid-West* and *South-*

West regions, and below 5 per cent in every single region with the sole exception of the Border region.

Chart 2.22 shows a rise in part-time work as a proportion of those ‘at work’¹ since 1998, with a decline in the part-time rate since 2012. The proportion of women working part-time is over three times the rate for men at 29.1 per cent and 9.2 per cent respectively. The largest relative increase since 1998 in the probability of being part-time is for workers aged below thirty. For this group the probability of having part-time work is now almost two and a half times the rate prevailing in 2002 (7 per cent compared to 17.4 per cent). The part-time rate in 2017 is over twice as high for men as it was just prior to the economic crash.

Chart 2.22 Part-time rates, ROI, 1998-2017, %



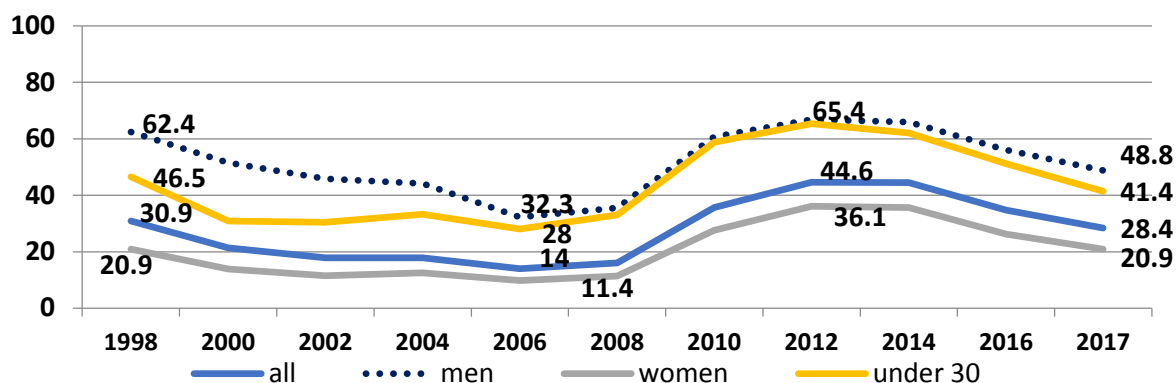
Source: CSO (2018a) Labour Force Survey and authors calculations

Notes: Rates are for those who identify as ‘at work’ as their principal status and ‘could not find a full-time job’.

Chart 2.22.1 shows rates for those part-time workers who would rather be in a full-time job but cannot find one and are therefore considered involuntarily underemployed. The underemployed rate doubled between 2006 and 2017 from 14 per cent to 28.4 per cent. The rate was highest for men at 48.8 per cent, followed by younger workers under thirty at 41.4 per cent. Note that for young workers this indicator includes only those who self-identify as primarily ‘at work’. Though these individuals identify first and foremost as workers (and does not include those who identify as students) another 29.7 per cent of under-30’s ‘at work’ responded that they were part-time due to the fact that they are ‘undergoing school education or training’ compared to just 1.4 per cent of those over 30. The lower rate for women reflects the higher proportion likely to answer that they

¹ This figure does not include those who identify as anything other than ‘at work’ such as students, many of whom are likely to be working part-time. The part-time rate for the entire workforce is 21.2 per cent.

Chart 2.22.1 Underemployed (% of part-time workers), ROI, 1998-2017, %

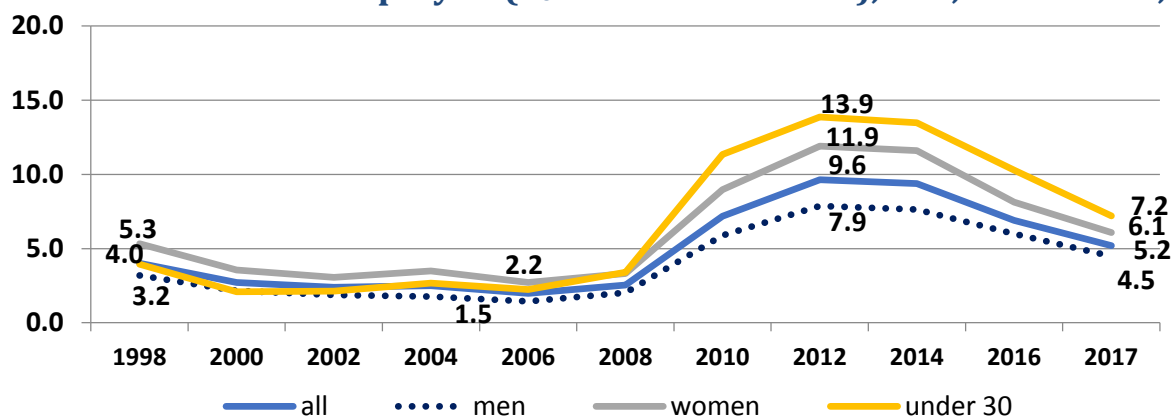


Source: CSO (2018a) Labour Force Survey and authors calculations

Notes: Rates are for those who identify as 'at work' as their principal status and 'could not find a full-time job'.

are part-time workers because they are '*looking after children or incapacitated adults*'.² This translates to an involuntary underemployment rate of 5.2 per cent in 2017 including 7.2 per cent for young workers under thirty (Chart 2.22.2). The aggregate rate is over two and a half times its lowest point in 2006, translating to an increase of approximately 69,000 over that period comparing Q3 data.

Chart 2.22.2 Underemployed (% of those 'at work'), ROI, 1998-2017, %



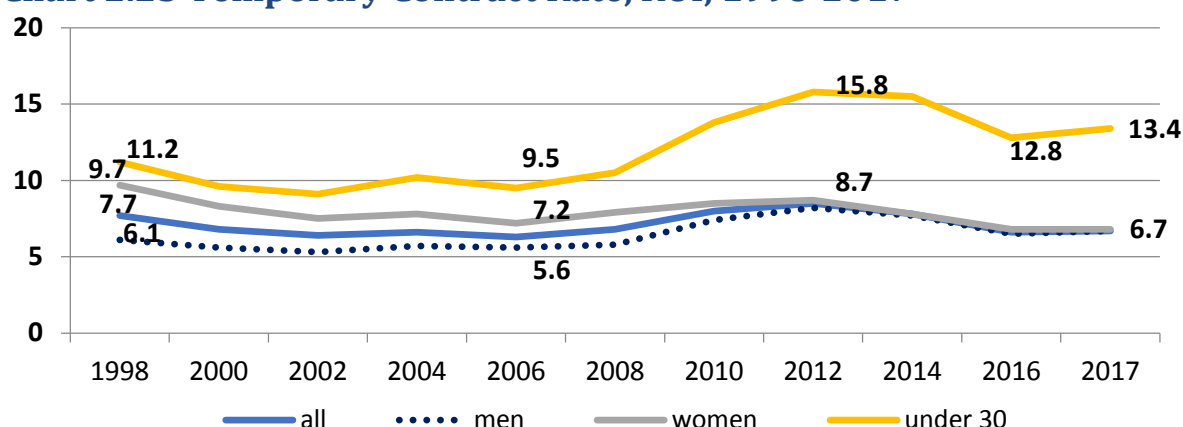
Source: CSO (2018) Labour Force Survey and authors calculations

Notes: Rates are for those who identify as 'at work' as their principal status and 'could not find a full-time job'.

² The framing of the possible survey responses to this question might downplay the proportion of women who would like to be in full-time work and are forced by the prohibitive costs of private childcare and care of elderly/ill relatives into part-time work.

Temporary contracts peaked in 2012 at over 8 per cent of those identifying as ‘at work’ (Chart 2.23) and was 6.7 per cent in Q3 2017³. The prevalence of temporary employment is now virtually equal for both genders. For those at work and under 30 we can see a sharp rise in temporary jobs as a proportion of working contracts in the wake of the economic crash. Though there has been some drop off in recent years, an increase was actually recorded between 2016 and 2017 and the rate (13.4 per cent) is still over 4 percentage points higher than the lowest point recorded in 2002 (9.1 per cent).

Chart 2.23 Temporary Contract Rate, ROI, 1998-2017



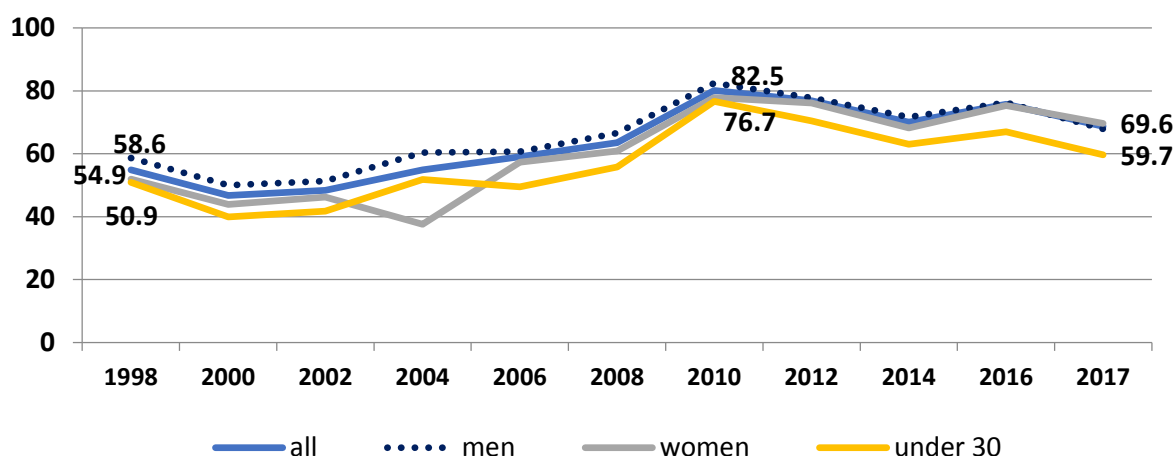
Source: CSO (2018a) Labour Force Survey and authors calculations

Notes: Rates are for those who identify as ‘at work’ as their principal economic status.

Chart 2.24 shows that of those working temporary contracts, a much smaller proportion do so out of choice than in 1998. On aggregate, the rate of involuntary temporary employment among temporary employees has increased by over 10 percentage points during this period and as of 2017 more than two-thirds of temporary employees would rather have a more secure contract. On the other hand, this figure has come down from close to five-in-six temporary workers since the end of the crisis period. Chart 2.24.1 shows the proportion of those at work who are involuntarily on precarious work contracts of limited duration. The rate in 2017 was 4.6 per cent of all of those at work compared to 3.1 per cent at the lowest point in 2002. The proportion of involuntary temporary employment in 2017 was twice the rate for workers under 30 than it was in 2002.

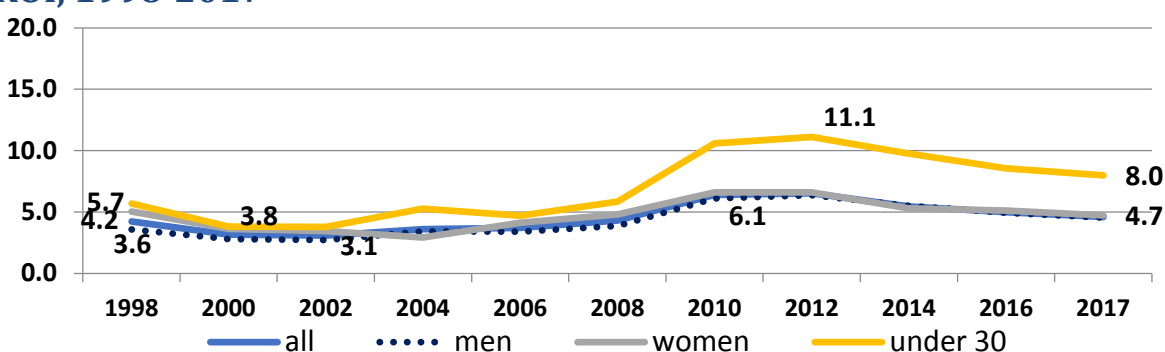
³ Compared to the Survey on Income and Living Conditions (SILC) the LFS estimates are lower for temporary contracts (6.6% compared to 9.9% in 2016 with a bigger difference in estimates for workers under 30). A recent RedC poll estimated a much higher prevalence again. See www.nerinstitute.net/blog/2018/04/30/temporary-contracts-what-we-might-not-know-from-su/ for a discussion on the possible reasons for this.

Chart 2.24 Involuntary Temporary Contract (% of temporary workers), ROI, 1998-2017



Source: CSO (2018a) Labour Force Survey and authors calculations

Chart 2.24.1 Involuntary Temporary Contracts (% of those at work), ROI, 1998-2017



Source: CSO (2018) Labour Force Survey and authors calculations

Notes: Rates are for those who identify as 'at work' as their PES and as on a 'temporary- contract'.⁴

Finally, Table 2.7 shows job vacancy rates (JVR) by economic sector. The JVR was 1.0 per cent in Q4 2017, and while the JVR has been gradually improving, it remains well below rates prevailing in the best performing European countries (it was 4.1 in the Czech Republic) and well below the EU average of 2.0 per cent. This suggests that there may be significant remaining slack in the Irish labour market. The JVR has improved in all economic sectors

⁴ The rate refers to those who answered 2) 'could not find a permanent job' to 'Reason for having a temporary job/work contract of limited duration'. Revisions have been made to the set of possible answers. From 1998-2012 the other options were 1) 'it is a job covering a period of training (apprentices, trainees, research assistants etc)' and 3) 'did not want a permanent job'. In 2012, 'it is a contract for a probationary period' was added to the options. In 2016, option one was separated into two different options, one for apprentices and the other for other forms of training.

since Q4 2008 (the immediate aftermath of the Irish government's bank guarantee), with the exception of *public administration & defence*.

Table 2.7 Job Vacancy Rate by Economic Sector, ROI, 2008-2017

	2008Q 4	2011Q 4	2014Q 4	2017Q 4	Change 08- 17
Construction	0.2	0.7	0.3	0.5	+0.3
Wholesale and retail trade, repair of motor vehicles	0.4	0.3	0.6	0.7	+0.3
Transportation and storage	0.2	0.2	0.9	0.5	+0.3
Accommodation and food service activities	0.2	0.2	0.4	0.6	+0.4
Information and communication	0.9	1.7	1.8	1.5	+0.6
Professional, scientific and technical activities	0.3	0.9	0.9	2.9	+2.6
Administrative and support service activities	0.6	0.3	0.7	0.7	+0.1
Public administration and defence	1.1	0.4	0.7	1.0	-0.1
Education	0.3	0.3	0.3	1.0	+0.7
Human health and social work activities	0.6	0.3	0.6	1.2	+0.6
Industry	0.3	0.5	0.6	0.5	+0.2
Financial, insurance and real estate	0.7	1.7	1.8	2.4	+1.7
Arts, entertainment, recreation, other service activities	0.4	0.3	0.6	0.8	+0.4
All NACE economic sectors	0.5	0.5	0.7	1.0	+0.5

Source: CSO (2018c) EHECS Earnings Hours and Employment Costs – EHQ 16

Notes: JVR = number of job vacancies/(number of occupied posts + number of job vacancies)*100

However, the headline figure masks some significant sectoral heterogeneity and there is evidence of tightness in the *professional, scientific & technical* sector (JVR of 2.9), as well as in the *financial, insurance & retail* sector where the JVR is 2.4. Nine of the thirteen sectors have JVRs below, or at, 1.0, while just three sectors have JVRs of 1.5 or higher. *Construction*, *industry* and *transportation & storage* have the lowest JVRs (all are at 0.5) suggesting particularly high degrees of slack in those sectors of the economy. One caveat is that there may be inherent sectoral differences in JVRs, with some sectors more likely to advertise jobs. If so, this would mean that levels of slack cannot be compared across sectors although within-sector comparisons across time would still be relevant. The total number of job vacancies in the economy was 18,300 in the third quarter of 2017, modestly above the 17,600 vacancies in the third quarter of 2016. The total number of job vacancies reached a low-point of 5,200 in the fourth quarter of 2009.

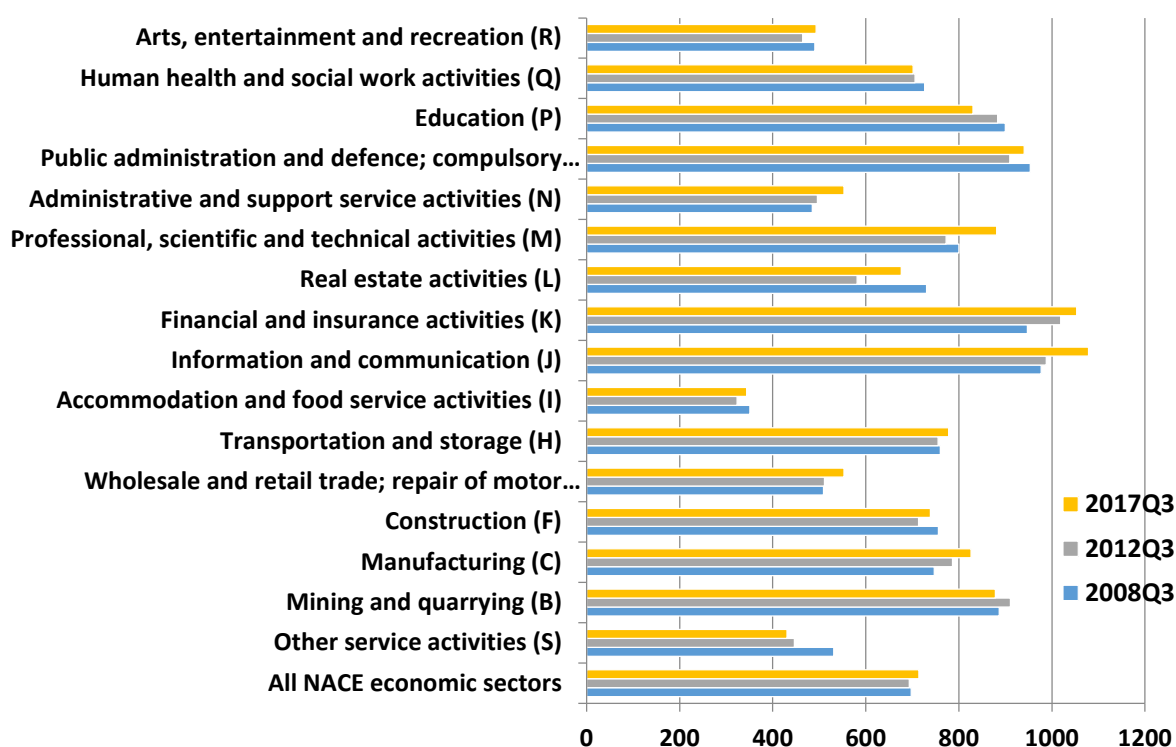
3. REAL AND NOMINAL WAGES SINCE 2008

This section examines wage trends since 2008. Unless otherwise noted the relevant dataset is the CSO's Earnings, Hours Worked, Employment and Labour Costs survey (CSO, 2018c).

3.1 Nominal wage growth

Nominal average weekly earnings were €717.57 in Q3 2017 (Chart 3.1). This represents a 2.8 per cent increase on Q3 2008 and a 5.2 per cent increase on Q3 2013. It's notable that the aggregate figure masks substantial sectoral differences. Nominal weekly earnings were lower in 2017 compared to 2008 in half of the 16 reporting economic sectors. The eight sectors were *Construction; Accommodation & Food Services; Real Estate Activities; Public Administration; Education; Human Health & Social Work, Mining & Quarrying* and *Other Services*. Nominal average earnings exceed €1,000 in the *Information & Communications* sector and in the *Financial & Insurance Activities* sector. Sectoral averages in Q3 2017 ranged from a low of €343.18 in Accommodation and Food Services sector to a high of €1,081.61 in the Information and Communication sector.

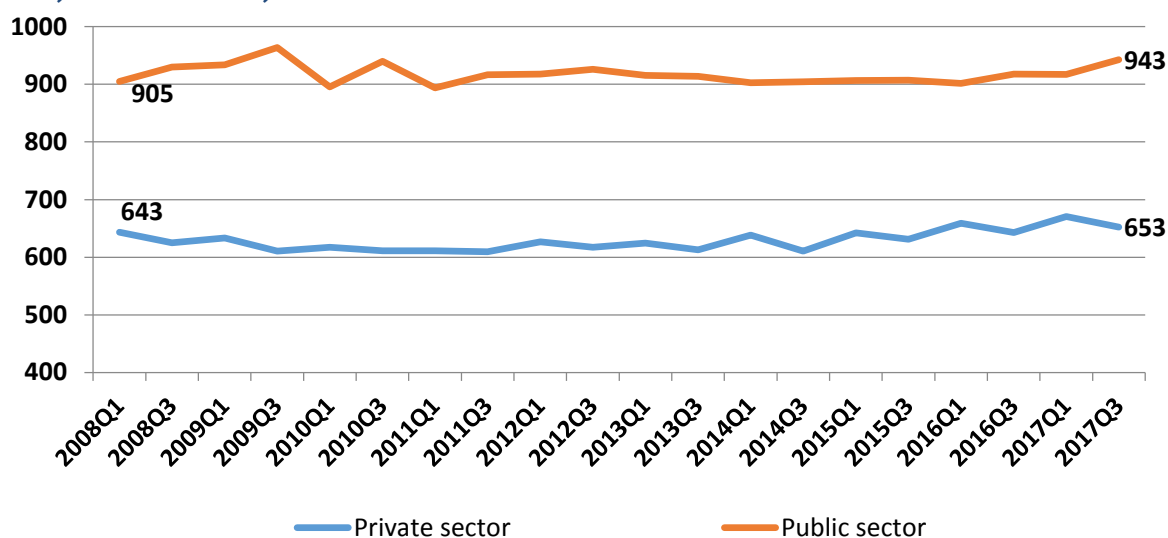
Chart 3.1 Average Weekly Earnings by Sector, ROI, 2008-2017, €



Source: CSO (2018c) Earnings, Hours, Employment Costs – Table EHQ 03

Nominal average weekly public sector wages were €943.33 in Q3 2017 representing a 1.4 per cent increase since the Q3 2008 (Chart 3.2). Average private sector wages, at €654.45, had grown 4.7 per cent since Q3 2008, but were just 69.4 per cent of average public sector wages in Q3 2017. It is important to note however, that direct comparison of the averages is somewhat misleading as the skill profiles of workers in the two sectors differ markedly. The share of those with undergraduate-level education or higher is substantially higher in the public sector (Mac Flynn, 2017).

Chart 3.2 Average Weekly Earnings in the Public and Private Sectors, ROI, 2008-2017, €



Source: CSO (2018c) Earnings, Hours, Employment Costs – Table EHQ 08

Table 3.1 shows the average weekly earnings for the public sector sub-sectors. The *Garda Síochána* are the highest earning sector at €1,322.32, while earnings are lowest in the *regional bodies* at €819.44. Average weekly earnings exceed €1,000 for the *Garda Síochána* and for workers in the *semi-states*. The *Garda Síochána* is also the sub-sector with the fastest earnings increase since 2008. The increase of 16.3 per cent over nine years was more than double that of any other sub-sector in relative and absolute terms. On the other hand, workers in the *civil service*, *regional bodies* and *non-commercial semi-states* have all experienced declining average weekly earnings since 2008. Average weekly earnings fell by 11.8 per cent over the nine years for workers in *regional bodies*.

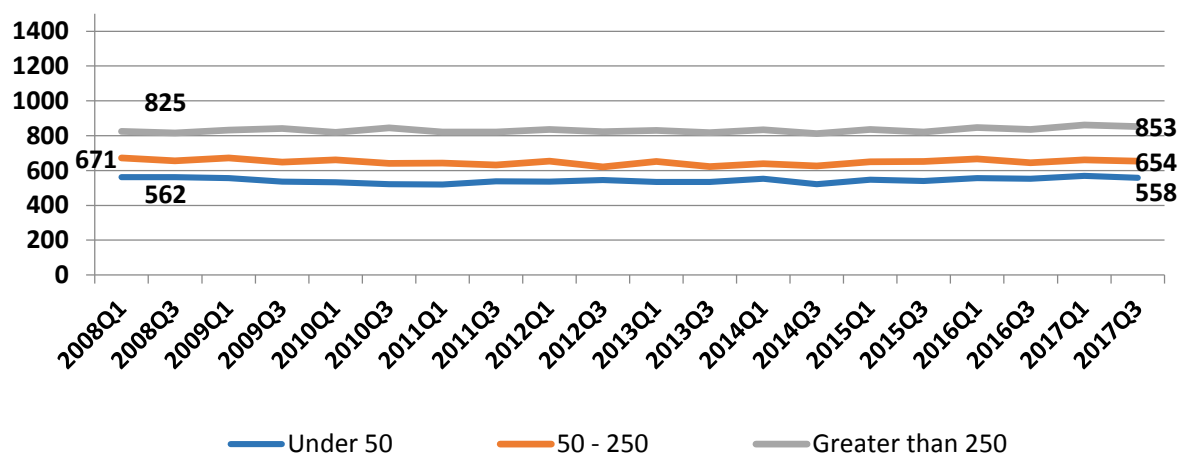
As one might expect, average weekly earnings tend to increase as company size increases. Nominal average weekly earnings were €854.33 in 'large' enterprises with greater than 250 employees in Q3 2017 (Chart 3.3). In comparison, earnings were €575.89 for enterprises

Table 3.1 Average Weekly Earnings for Public Sector Sub-sectors, €

	Q3 2008	Q3 2017	Change %
Civil service	918.71	899.84	-2.1
Defence	890.25	900.01	1.1
Garda Siochana	1136.65	1322.32	16.3
Education	961.88	964.4	0.3
Regional bodies	929.34	819.44	-11.8
Health	855.18	888.94	3.9
Semi-State companies	1003.58	1037.03	3.3
Commercial Semi-State companies	996.53	1057.65	6.1
Non-commercial Semi-State companies	1027.14	976.8	-4.9
Total Public Sector including Semi State bodies	930.15	942.55	1.3
Total Public Sector excluding Semi State bodies	918.13	927.26	1.0

Source: CSO (2018c) Earnings, Hours, Employment Costs – Table EHQ 10

with under 50 employees (65.3 per cent that of large enterprises) and €658.61 for enterprises with 50-250 employees (77.1 per cent that of large enterprises). Average weekly earnings have declined by 0.7 per cent in enterprises with under 50 employees since Q3 2008. Over the same period, average weekly earnings growth has been fastest (4.7 per cent) in the largest enterprises with 250 or more employees.

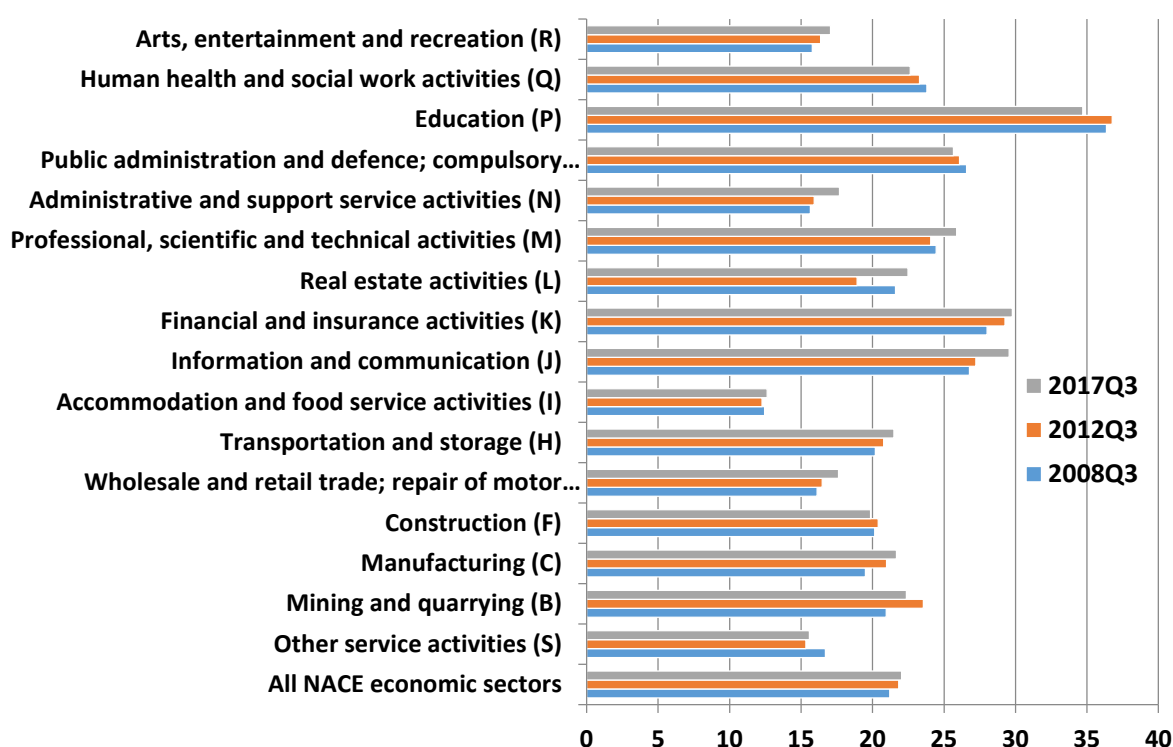
Chart 3.3 Average Weekly Earnings by Size of Establishment, ROI, 2008-2017, €

Source: CSO (2018c) Earnings, Hours, Employment Costs – Table EHQ 04

Chart 3.4 shows nominal average hourly earnings by economic sector and Table 3.2 shows sectoral wage growth since 2008. Hourly wages grew by 4.4 per cent between Q3 2008 and Q3 2017. This is close to 0.5 per cent per annum. Hourly wages in Q3 2017 were highest in

the *education* sector at €34.92⁵ (157.7 per cent of economy-wide average hourly earnings) and lowest in the *accommodation & food services* sector at €12.55 (56.7 per cent of economy-wide average). Hourly wages in accommodation & food services have also lost ground relative to the economy-wide average since 2008. The Living Wage Technical Group (Living Wage, 2017), estimate that the national living wage in 2017 was €11.68 for a single person. However, they also estimate that the living wage in Dublin was €13.85. This is a reflection of the higher cost of living in Dublin, which in turn is primarily a function of more expensive housing costs. Ostensibly this suggests that the average hourly wage in the accommodation & food services sector is below the living wage in Dublin. However, it is likely to be the case that average hourly earnings in the sector are somewhat higher in Dublin than they are in the rest of the country.

Chart 3.4 Average Hourly Earnings by Economic Sector, ROI, 2008-2017, €



Source: CSO (2018c) Earnings, Hours, Employment Costs – Table EHQ 03

Hourly wage growth has averaged less than 1.5 per cent per annum in every single sector

⁵ It is worth noting that paid hours underestimate actual hours worked in many sectors, particularly in education where lesson planning, corrections, administration and parent teacher meetings are not counted in the hourly rate. A recent survey by the Association of Secondary Schools of Ireland of 2,341 teachers found that a typical teacher spends an added 20 hours a week on duties outside their assigned classroom hours (Red C, 2018).

since 2008 while hourly wages have fallen in five of the sectors over that time. If we exclude the small *other services* sector we find that the largest declines in relative terms have been in the two biggest public sector areas, with hourly wages in *health & social work* falling 5 per cent over the nine year period and wages in *education* falling 4 per cent. Hourly wages also fell over this period in *public administration and defence* (3.5 per cent) and in *construction*. *Mining and quarrying, manufacturing, administration and support services* and *information and communication* are the only sectors where average annual nominal wage growth has averaged in excess of 1 per cent per annum since 2008.

Table 3.2 Average Hourly Earnings by Sector Relative to Average Hourly Earnings in the Economy, ROI

Economic Sector	Q3 2008 earnings (€)	Q3 2017 earnings (€)	Nine year earnings growth, %	Hourly earnings as % of average: Q3 2008	Hourly earnings as % of average: Q3 2017
All NACE Sectors	21.21	22.15	4.4	100.0	100.0
Mining & quarrying	20.95	23.60	12.6	98.8	106.5
Manufacturing	19.50	21.80	11.8	91.9	98.4
Electricity, water supply & waste	29.25	29.64	1.3	137.9	133.8
Construction	20.15	19.86	-1.4	95.0	89.7
Wholesale & retail, repair of motor vehicles	16.13	17.64	9.4	76.0	79.6
Transportation & storage	20.20	21.30	5.4	95.2	96.2
Accommodation & food services	12.45	12.55	0.8	58.7	56.7
Information & communication	26.77	29.76	11.2	126.2	134.4
Financial & insurance	28.00	29.93	6.9	132.0	135.1
Real estate	21.61	23.61	9.3	101.9	106.6
Professional, scientific & technical	24.46	25.93	6.0	115.3	117.1
Administrative & support services	15.66	17.50	11.7	73.8	79.0
Public admin & defence	26.57	25.64	-3.5	125.3	115.8
Education	36.36	34.92	-4.0	171.4	157.7
Health & social work	23.81	22.63	-5.0	112.3	102.2
Arts, entertainment & recreation	15.78	17.14	8.6	74.4	77.4
Other service activities	16.70	15.56	-6.8	78.7	70.2

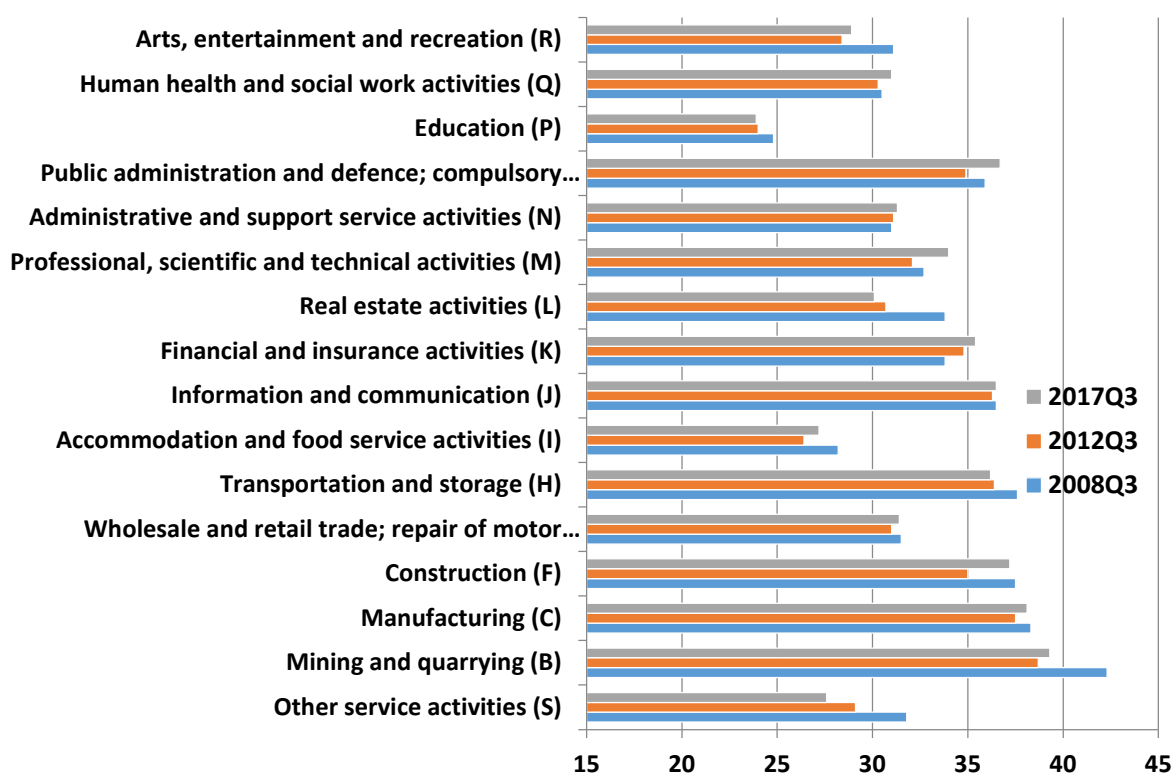
Source: CSO (2018c) Earnings and Labour Costs Quarterly – Table 2

Notes: Rounding affects totals.

Hourly labour costs increased from €24.63 to €25.63 (4.1 per cent) between Q3 2008 and Q3 2017. Hourly labour costs are highest in *education* at an average of €38.69 and lowest in *accommodation and food services* at an average of just €13.90.

Chart 3.5 shows average weekly paid hours by economic sector. Average weekly paid hours declined from 32.7 in Q3 2008 to 32.3 in Q3 2017. Average paid hours have, however, been gradually increasing since 2012 when the average stood at 31.5. Paid hours are longest in *mining & quarrying* (38.7), *manufacturing* (38.2) and *electricity, water supply & waste management* (38.0), and are shortest in *education* (23.7),⁶ and *accommodation & food services* (26.6). Weekly paid hours are down or almost unchanged in most sectors since 2008. Two exceptions are *financial & insurance activities* (up 1.7 hours or 5.1 per cent) and *professional, scientific & technical activities* (up 1.3 hours or 4 per cent). Decreased hours have been most pronounced over this period in *real estate* (down 3.7 hours or 10.9 per cent) and mining & quarrying (down 3.1 hours or 7.4 per cent).

Chart 3.5 Average Weekly Paid Hours by Economic Sector, ROI, 2008-2017



Source: CSO (2018c) Earnings, Hours, Employment Costs – Table EHQ 03

Table 3.3 shows average earnings by type of employee. There is substantial earnings inequality between the main groups. The *managers, professionals & associated professionals*

⁶ Paid hours in the education sector, driven in large part by primary and secondary school teachers, may well understate actual hours worked, for example, lesson planning, correcting and parent teacher meetings that occur outside school hours. If so, it implies the average hourly wage in education is somewhat lower in reality than the level reported in Table 3.2.

group had average weekly earnings of €1,238.36 in Q3 2017 which equates to a 15.4 per cent increase on Q3 2010. Earnings for this group in 2017 were 2.4 times that of average weekly earnings for *production, transport, craft & other manual workers* and 2.5 times that of average weekly earnings for *clerical, sales & service employees*. Between-group inequality has also increased since 2010 when the ratios were 2.1 and 2.3 respectively.

Table 3.3 Estimates of Average Earnings by Type of Employee and Economic Sector, ROI, €

Economic Sector	Q3 2010	Q3 2013	Q3 2017	Change Q3'10 - Q3'17 %
Managers, professionals & associated professionals	1,073.48	1,152.51	1,238.36	15.4
Clerical, sales & service employees	476.48	467.56	494.12	3.7
Production, transport, craft & other manual workers	500.80	485.39	521.08	4.0

Source: CSO (2018c) Earnings and Labour Costs Quarterly – EHQ13

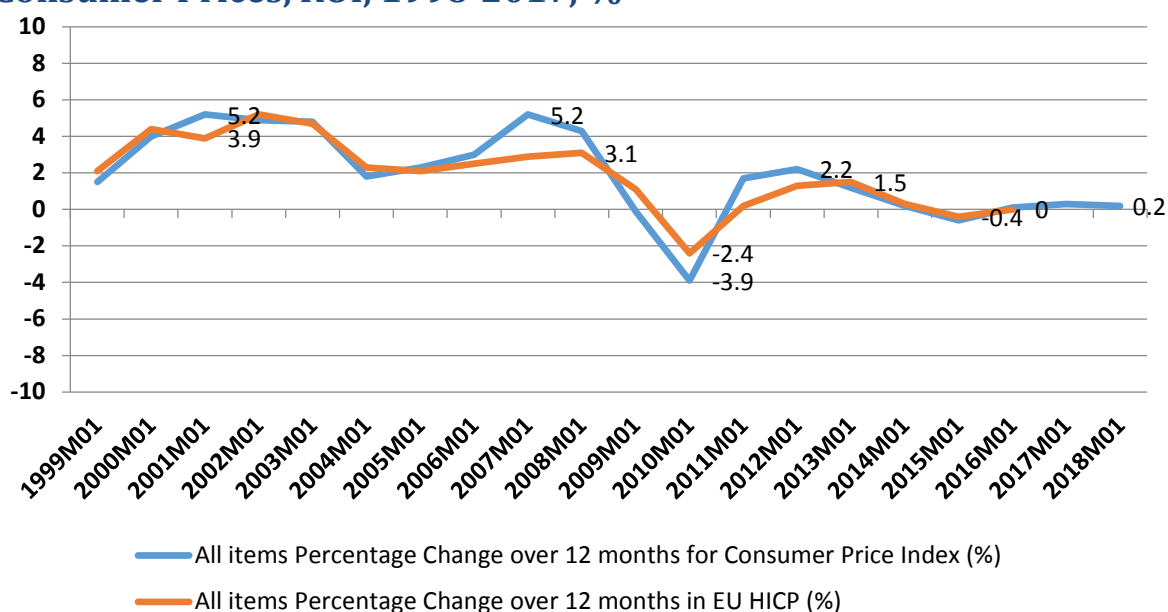
Notes: All NACE economic sectors excluding activities A, T and U

3.2 Prices and real wage growth

Chart 3.6 and Chart 3.7 show Consumer Price Inflation (CPI) since 1998 and 1922 respectively. The CPI has averaged 2 per cent since 1998, which is in line with the European Central Bank's target for the euro area. Even so, there has been significant volatility in the CPI with it reaching an inflationary high of 7 per cent year-on-year in November 2000 and a deflationary low of 6.6 per cent year-on-year (i.e. a decline in prices) in October 2009. The annual average for the CPI has been below 2 per cent since 2011 and below 1 per cent since 2012 including price deflation of 0.3 per cent in 2015 and a stagnant 0 per cent in 2016. The annual change in the Harmonised Index of Consumer Prices has been below 2 per cent since October 2012 and below 1 per cent since February 2013. There have been 18 annualised months of falling prices (HICP) since late-2013.

Taking a longer-term view we can see that the recent period of very low inflation is something of an historical outlier. The average annual change in consumer prices since 1923 is 4.4 per cent with a peak of 20.9 per cent in 1975 occurring during a prolonged period of relatively high rates of inflation in the 1970s associated with the twin oil crises that characterised that period. In fact, between 1969 and 1984 the annual rate never fell below 7 per cent. The lowest annual rate recorded for the CPI was in 1931 when prices fell by 6.4 per cent compared to the previous year.

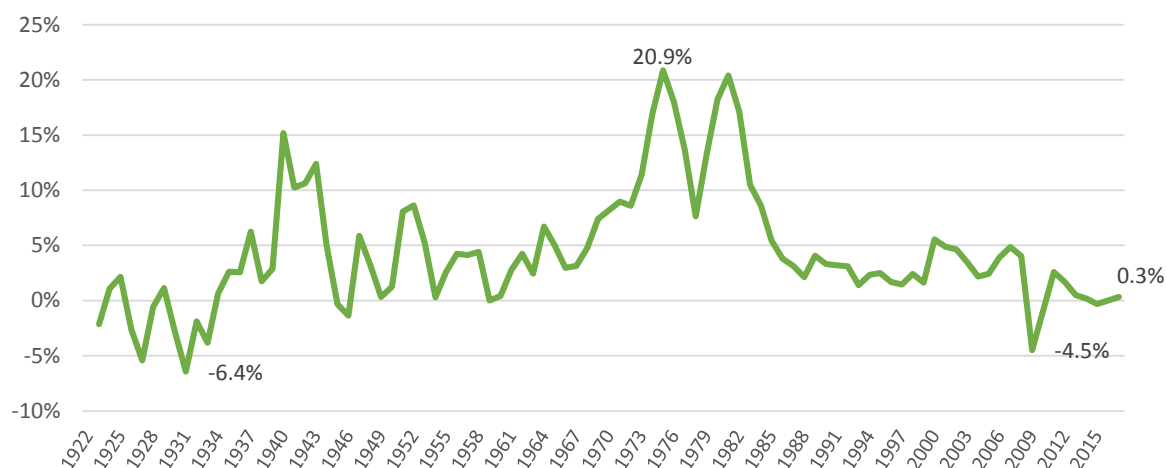
Chart 3.6 The Consumer Price Index and the Harmonised Index of Consumer Prices, ROI, 1998-2017, %



Source: CSO (2018d) Consumer Prices Monthly Series – Table CPM 01, CPM 05

Notes: Figures compare to 12 months previous e.g. 1999M01 compares January 1999 with January 1998.

Chart 3.7 The Consumer Price Index and the Harmonised Index of Consumer Prices, ROI, 1922-2017, %



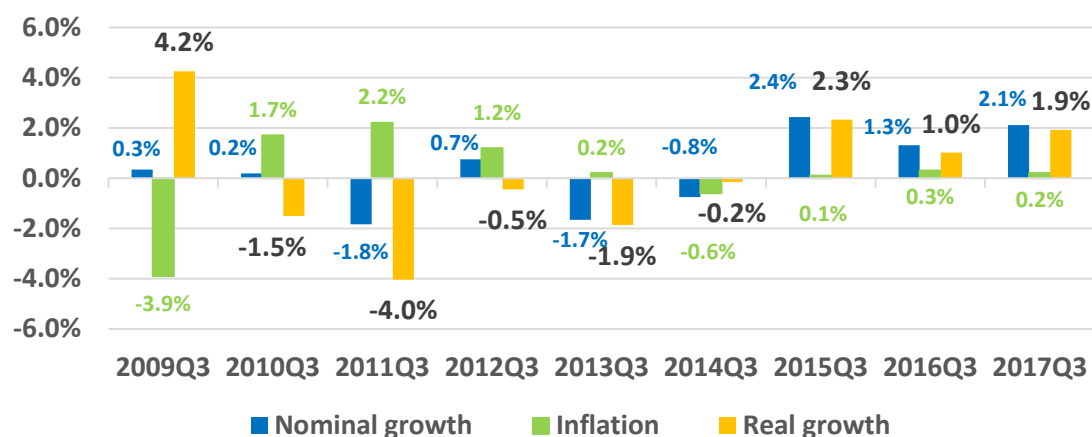
Source: CSO (2018d) Consumer Price Index- Table CPA04

Notes: Annual Inflation measured for 12 months up to January using CPI- Table CPM 01

Real average weekly earnings in the current very low inflation environment rose by 1.9 per cent in the year up to Q3 2017, having increased by 2.3 per cent and 1 per cent in 2015 and 2016 respectively (comparing Q3-to-Q3 on an annualised basis). However, this followed five years of decreasing real average weekly wages on a Q3-to-Q3 basis from 2010 to 2014

inclusive (Chart 3.8) with the biggest single drop of 4 per cent between Q3 2010 and Q3 2011. There was a 4.2 per cent annualised increase up to Q3 2009 which was primarily driven by a 3.9 per cent price deflation over the period. Nominal wages remained relatively sticky in 2009 despite the severe recession taking place that had taken hold at that time.

Chart 3.8 Real Average Weekly Earnings, 2008-2017

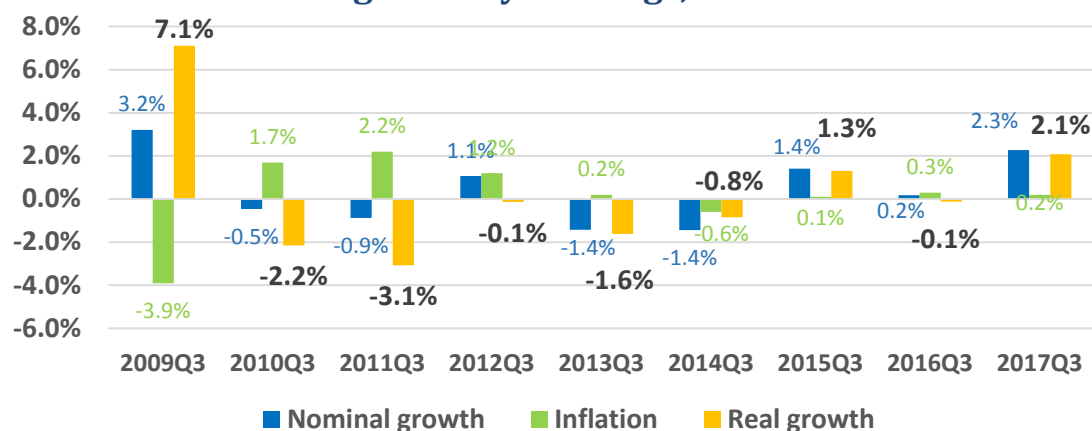


Source: CSO (2018c) Earnings, Hours and Employment Costs- Table EH Q03

Notes: Annual Inflation measured for 12 months up to January using CPI- Table CPM 01

Chart 3.9 shows the trends for real average hourly wages during this period. There was a very slight drop in real average hourly wages in the year up to Q3 2016 and indeed annualised real average hourly wages (Q3-to-Q3 basis) increased in just one year (2015) out of seven between 2010 and 2016 with the largest fall between 2010 and 2011. A nominal average hourly wage increase in the year-to-Q3 2017 translated into a 2.1 per cent real hourly wage increase due to the very low level of inflation.

Chart 3.9 Real Average Hourly Earnings, 2008-2017



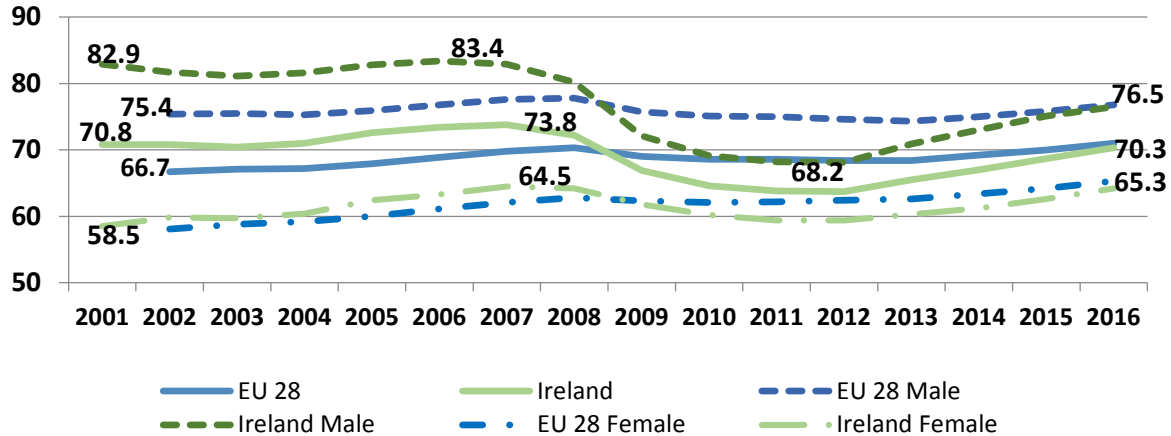
Source: CSO (2018c) Earnings, Hours and Employment Costs- Table EH Q03

Notes: Annual Inflation measured for 12 months up to January using CPI- Table CPM 01

4. COMPARATIVE PERFORMANCE

It is useful to understand labour market trends in Ireland within the broader context of developments in the wider European Union. This helps give us a sense of the relative performance of the Irish labour market and evolution of labour market conditions.

Chart 4.1 Employment Rate (20-64), ROI and EU, 2001-2017



Source: Eurostat (2018a) Labour Force Survey – Table lfsa_emp_a

Notes: Breaks in series noted for Ireland in 2007

Chart 4.1 shows Ireland's relative employment rate performance for 20-64 year olds. From 2001 until 2008 Ireland performed better than average relative to what is now the EU 28 as a whole and peaked at 75.1 per cent in 2007. The positive gap between Ireland and the EU 28 reached its widest at 6.2 percentage points in 2005. The positive gap was driven mainly by Irish outperformance in terms of male employment rates which averaged 83.1 per cent between 2000 and 2008 versus an EU average of 75.6. On the other hand, the female employment rate was much closer to, albeit slightly above, the EU average during this period at 62.7 per cent versus 60 per cent. Ireland dropped below the EU's average employment rate from 2009 to 2015 reflecting the particular severity of the economic crisis in Ireland. As it happened, the Irish employment rate fell by a dramatic 10.7 percentage points between 2007 and 2012 versus 1.2 percentage points in the EU, while the male employment rate fell by an enormous 15.5 per cent in Ireland over the same period versus 2.4 per cent in the EU. By contrast, the female employment rate fell by 5.6 per cent in Ireland and actually increased marginally in the EU. By 2012 the EU's employment rate, at 68.4 per cent, was well above the 64.4 per cent rate in Ireland. Since 2012, Ireland's employment rate has recovered to the extent that by 2016 it marginally exceeded the EU average both in total and also for both genders. Ireland's male employment rate of 77.5 was 0.6 percentage points above the EU

average in 2016 while the female employment rate of 65.4 was 0.1 percentage points above the EU average.

Table 4.1 Employment Rates (20-64), ROI and Selected Countries, %

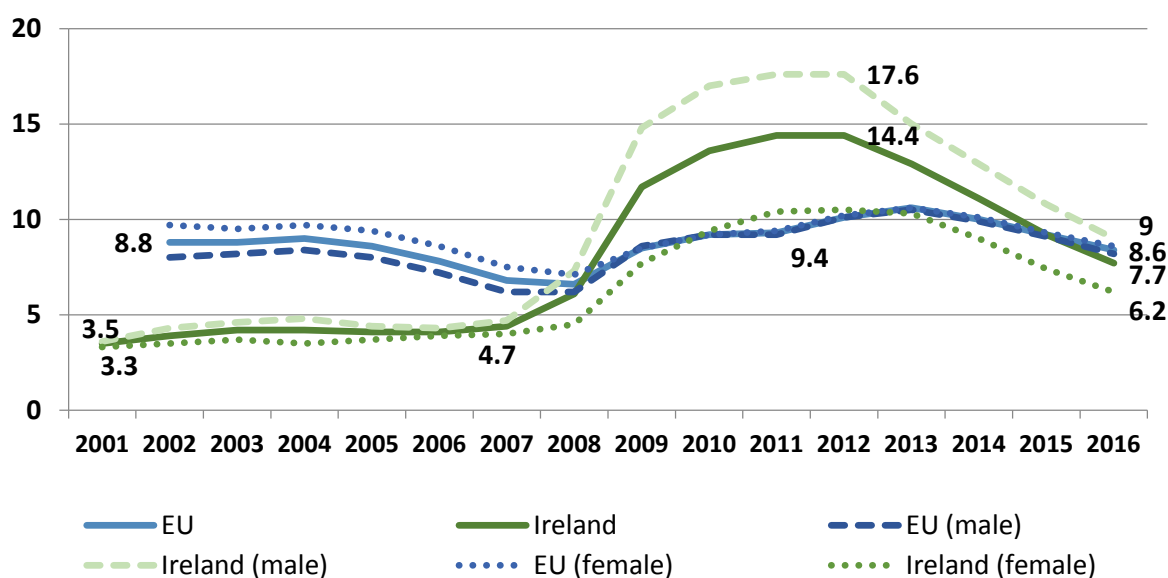
	2008	2012	2016
Iceland	85.3	81.8	87.8
Sweden	80.4	79.4	81.2
Germany	74.0	76.9	78.6
United Kingdom	75.2	74.1	77.5
Netherlands	79.7	75.4	77.1
Ireland	73.5	64.4	71.4
Poland	65.0	64.7	69.3
Spain	68.5	59.6	63.9
Italy	62.9	60.9	61.6
Greece	66.3	55.0	56.2
European Union (28)	70.3	68.4	71.1

Source: Eurostat (2018a) Labour Force Survey- Employment and activity by age – annual data – Table lfsi_emp_a

Ireland is very much an average performing EU country in terms of its employment rate and ranked 13 out of 28 EU countries in 2016. Table 4.1 shows the large gap that exists between different EU countries with Sweden's employment rate of 81.2 per cent almost 25 percentage points higher than Greece's 56.2 per cent employment rate. Ireland has generally underperformed relative to the higher income economies of Northern and Western Europe but has generally performed much better than most of the Southern and Eastern European countries. Iceland's employment rate of 87.8 per cent was the highest in Europe in 2016 – and over 16 percentage points higher than Ireland.

Ireland consistently maintained one of the highest unemployment rates in the old EU15 in the period leading up to the late 1990s. However, the employment boom of the Celtic Tiger meant steady labour market improvement so that by 2001 Ireland, at 3.5 per cent, had the third lowest unemployment rate in the EU15 after Luxembourg and the Netherlands. Ireland's unemployment rate was less than half the EU average from 2000 through to 2005 and remained below the EU average until 2009 when Ireland's unemployment rate almost doubled in that single year (Chart 4.2). From 2009 to 2014 Ireland's unemployment rate remained above the average rate in the bloc as a whole but as of 2016 Ireland was performing slightly better than the average. Male unemployment rates outstripped female unemployment rates during Ireland's economic crisis, reflecting the collapse of the

Chart 4.2 Unemployment Rate (20-64), ROI and EU, 2001-2017



Source: Eurostat (2018a) Labour Force Survey – Table lfsa_urgan

Table 4.2 Unemployment Rates (20-64), ROI and Selected Countries, %

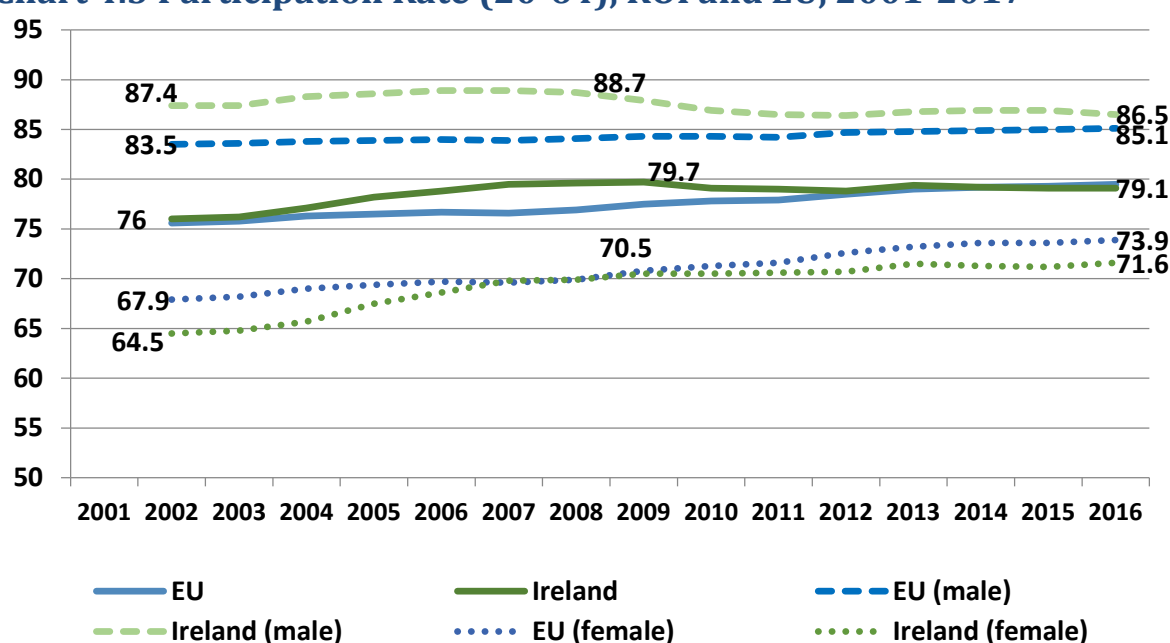
	2008	2012	2016
Iceland	2.2	5.3	2.8
Germany	7.5	5.4	4.1
United Kingdom	4.8	6.9	4.3
Netherland	2.4	5.2	5.5
Poland	7.0	10.0	6.1
Sweden	5.1	7.1	6.3
Ireland	6.1	14.4	7.7
Italy	6.4	10.3	11.5
Spain	10.6	24.3	19.3
Greece	7.7	24.3	23.5
European Union (28)	6.6	10.1	8.4

Source: Eurostat (2018a) Labour Force Survey - Unemployment rates – annual data – Table lfsi_urgan

predominantly male construction sector, and peaked at 17.6 per cent in 2012. Once again, we can see from Table 4.2 that the Irish economy was generally underperforming much of Northern and Western Europe in 2016 but significantly outperforming southern Europe. As of January 2018, Ireland's seasonally adjusted unemployment rate of 6.1 per cent was below the EU average of 7.3 per cent and ranked a middling 13th out of 28 EU countries.

Irish labour force participation rates were close to, albeit slightly below, the EU average of 79.5 per cent in 2016 (Chart 4.3). However, Ireland has a larger gap between the genders. While the male participation rate is higher than the EU average (86.5 per cent compared to 85.1 per cent, Ireland underperforms the EU average in terms of female participation (71.6 per cent compared to 73.9 per cent). The Irish male participation rate was lower in 2017 than it was in 2002, whereas the EU average for male participation increased modestly in the same period. The gap between male and female participation rates has been gradually narrowing over time in Ireland and in the EU, with female participations rates steadily trending upwards.

Chart 4.3 Participation Rate (20-64), ROI and EU, 2001-2017



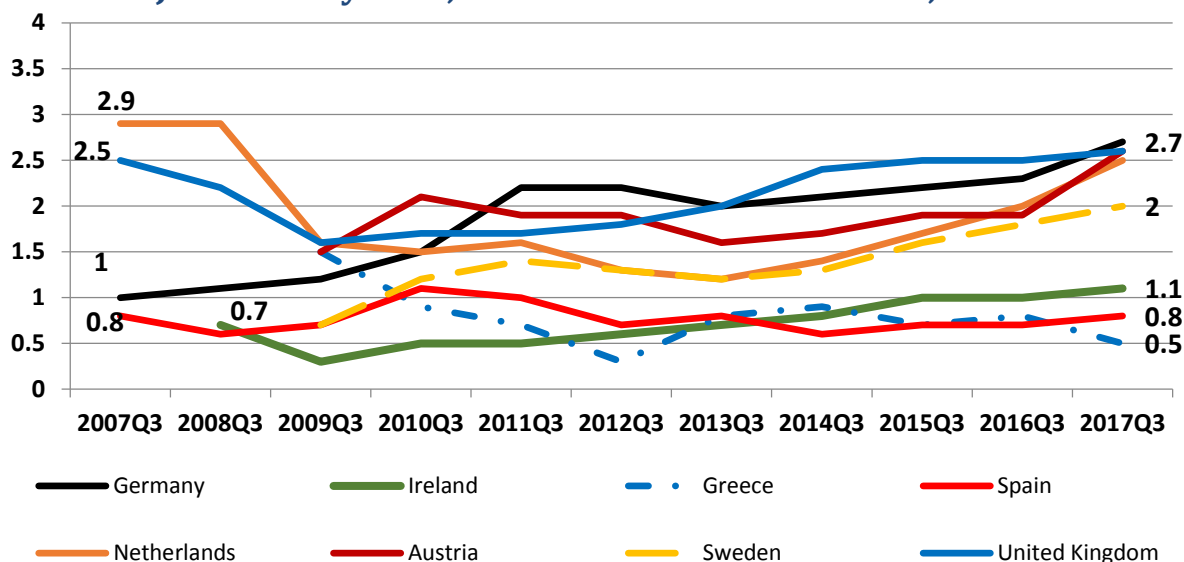
Source: Eurostat (2018a) Labour Force Survey - Employment and Unemployment rates – Tables lfsa_emp_a & lfsl_urban

Job vacancy rates (JVR)⁷ are indicators of labour supply and demand dynamics as well as of the general health of a national or sectoral labour market. Ireland's vacancy rate has improved slowly since 2009 (Chart 4.4) when it stood at just 0.3. Even so, Ireland has significantly lower vacancy rates than many of our European counterparts. The Q4 2017 vacancy rate of 1.0 was well below that of the Czech Republic (4.4), Belgium (3.4), Germany (2.8), and the UK (2.6), and is comparable to Poland (1.0), Portugal (0.8) and Spain (0.7). The

⁷ The job vacancy rate (JVR) measures the proportion of total posts that are vacant, expressed as a percentage: $JVR = \frac{\text{number of job vacancies}}{\text{number of occupied posts} + \text{number of job vacancies}}$.

EU average is 2.0 and of the 28 EU countries Ireland ranks joint 21st. This suggests there may have been significant remaining slack in the Irish labour market in late 2017.

Chart 4.4 Job Vacancy Rate, ROI and Selected Countries, 2007-2017



Source: Eurostat (2018a) Labour Force Survey – Table jvs_a_rate_r2

Table 4.3 Nominal Wage Trends, ROI and Selected Countries, €

	2004	2008	2012	2013	2014	2015	2016	Change: 2004-16, %
Denmark	26.5	30.3	34.2	34.6	35.0	35.5	36.2	36.6
Luxembourg	25.5	26.6	29.3	30.3	31.2	31.4	31.7	24.3
Belgium	20.6	23.9	27.4	28.0	28.2	28.2	28.4	37.9
Ireland	22.2	24.8	25.8	25.7	25.7	25.9	26.2	18.0
Netherlands	20.8	22.9	24.7	25.1	25.1	25.9	26.2	26.0
Finland	19.1	20.9	24.4	24.9	25.3	25.7	25.9	35.6
Sweden	19.4	21.2	25.4	26.2	25.5	25.4	25.7	32.5
Germany	20.3	21.8	23.7	24.1	24.4	25.0	25.6	26.1
Austria	18.5	19.5	21.9	22.5	23.1	23.9	24.1	30.3
France	18.8	20.9	22.4	22.8	23.1	23.4	23.8	26.6
United Kingdom	17.7	17.7	20.9	20.2	21.5	24.7	22.3	26.0
Italy	15.6	18.2	19.9	20.2	20.3	20.3	20.2	29.5
European Union	14.9	16.4	18.1	18.3	18.6	19.0	19.3	29.5
Spain	12.2	14.3	15.7	15.6	15.7	15.8	15.9	30.3
Portugal	9.0	9.9	10.7	10.6	10.5	10.6	10.9	21.1
Greece	11.4	13.5	12.2	10.8	10.8	10.7	10.8	-5.3

Source: Eurostat (2018b) Labour Cost Survey – Table lc_lci_lev

Notes: Results show nominal total average hourly wages for Industry, construction and services (except public administration, defense, compulsory social security)

At €26.20 per hour, Irish nominal average wages in the *industry, construction & services* sectors that make up the bulk of the economy were higher in 2016 than the EU average of €19.30, as well as the euro area average of €22.10, and were joint 4th highest amongst EU countries. However, if one considers only the 11 countries with a GDP per capita greater than €30,000, then wages in these sectors in Ireland were only slightly higher (1.2 per cent) than the median average of €25.90. Denmark has the highest hourly wage rate in these sectors at €36.20 while Bulgaria has the lowest at €3.70. Hourly wage growth in these sectors since 2004 has been slower in Ireland than it has been in the EU as a whole. Average wages in these sectors grew 18 per cent in Ireland between 2004 and 2016 and by 29.5 per cent in the EU. Greece was the only EU country where wages fell over the period. Wage growth has been sluggish in recent years with growth of 6.6 per cent in the EU between 2012 and 2016 and growth of just 1.6 per cent in Ireland.

Table 4.4 Nominal Labour Cost Trends, ROI and Selected Countries, €

	2000	2004	2008	2012	2013	2014	2015	2016
Denmark	27.0	29.6	34.6	39.4	39.9	40.6	41.2	42.0
Belgium	27.0	29.2	32.9	38.0	38.8	39.0	39.1	39.2
Sweden		29.0	31.6	37.3	38.2	37.3	37.4	38.0
Luxembourg	23.1	30.3	31.0	33.9	35.1	36.2	36.3	36.6
France		28.2	31.2	34.3	34.4	34.7	35.1	35.6
Netherlands	23.0	27.3	29.8	32.5	33.2	33.7	34.0	34.3
Finland	22.1	24.4	27.1	31.3	32.0	32.5	33.0	33.2
Germany	24.6	26.8	27.9	30.5	30.9	31.4	32.2	33.0
Austria		25.2	26.4	29.7	30.6	31.4	32.4	32.7
Ireland	19.7	25.5	28.9	29.8	29.8	29.8	30.0	30.4
Italy	19.7	22.4	25.2	27.7	28.1	28.3	28.1	27.8
United Kingdom	19.7	21.5	20.9	25.0	24.1	25.8	29.7	26.7
European Union	16.7	19.8	21.5	23.9	24.2	24.5	25.0	25.4
Spain	14.3	16.5	19.4	21.1	21.2	21.1	21.2	21.3
Greece	11.7	15.3	16.7	15.7	14.5	14.5	14.1	14.2
Portugal	11.1	11.3	12.2	13.3	13.3	13.2	13.4	13.7

Source: Eurostat (2018a) Labour Force Survey – [lc_lci_lev]

Notes: Results show nominal total average hourly labour costs for Industry, construction and services (except public administration, defense, compulsory social security)

Ireland is also more expensive than the EU average in terms of total average hourly labour costs in these sectors (Table 4.4). Labour costs in Ireland were €30.40 in 2016 compared to €25.40 for the EU as a whole. However, while nominal wages are 35.8 per cent higher in Ireland, labour costs are just 19.7 per cent higher. This mainly reflects the much lower than average social contributions from employers in Ireland. As such, while Ireland ranks joint 4th for nominal wages it ranks just 10th in the EU in terms of labour costs.

Table 4.5 Real Wage Trends, ROI and Selected Countries, 2005-2016

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
UK	1.4	3.1	3.4	-3.4	1.4	1.4	-2.6	-0.4	0.4	-1.4	0.5	1.7
EU-28	0.6	0.6	1.0	-0.1	2.0	1.0	-0.6	-0.1	0.5	0.4	1.0	1.2
Germany	-1.3	-0.1	-0.7	0.4	0.6	0.6	0.9	1.0	0.8	1.8	2.0	1.6
Ireland	4.2	2.3	3.2	2.7	6.1	-1.0	-0.1	-1.3	-1.5	0.6	1.7	1.2

Source: European Commission (2017) Statistical Annex of European Economy

Notes: Results show annual changes in real compensation per employee, with private consumption deflator for the total economy. The EU figures are weighted in common currency.

Real wages returned to positive growth in 2014 in Ireland after four consecutive years of declining wages. Real wage growth in Ireland was lower than real wage growth in Germany for seven consecutive years between 2010 and 2016 (Table 4.5). Real wage growth was at the EU average in 2016.

Table 4.6 Adjusted Wage Share, ROI and EU 15 Countries, 1981-2016

	1981	1986	1991	1996	2001	2006	2011	2016
France	75.3	69.7	66.6	65.8	64.0	64.4	66.0	66.7
UK	66.2	63.2	64.1	58.5	65.7	65.1	67.3	66.5
Belgium	72.1	68.5	68.9	68.8	68.8	65.5	66.6	66.0
Denmark	70.3	67.3	66.0	63.4	64.0	63.9	65.1	65.2
Netherlands	72.4	69.2	68.4	67.6	65.7	62.8	65.0	65.1
Austria	73.2	68.9	67.7	66.5	63.5	60.2	61.8	63.2
Finland	71.3	70.6	74.1	63.4	59.2	60.4	63.6	63.2
Germany	70.6	66.6	64.6	64.3	63.8	60.4	61.7	62.6
Sweden	67.2	61.9	64.7	60.4	62.3	58.9	61.2	61.8
Spain	72.2	65.5	67.1	65.0	63.9	62.3	62.4	61.2
Italy	67.0	63.2	64.0	59.6	58.3	60.2	61.3	60.6
Portugal	71.0	62.7	65	67.7	68.3	66	63.2	60.1
Greece	59.7	57.7	55.8	53.6	54.9	58.1	60.0	58.8
Luxembourg	63.4	57.2	55.7	56.2	59.7	56.7	57.9	58.7
Ireland	73.4	68.2	64.3	59.8	51.7	53.0	53.0	38.1

Source: European Commission (2017) Statistical Annex of European Economy

Notes: Total economy; as percentage of GDP at current factor cost

Ireland is very much an outlier amongst EU15 countries in terms of its adjusted wage share. In 2016 the wage share was over 20 percentage points behind the next lowest country (Table 4.6). However, Ireland's national accounts are heavily polluted by the tax planning activities of a small number of very large multinationals. If we use the CSO's alternative modified GNI metric (GNI*) instead of GDP as the denominator for Ireland then we find that the wage share is still the lowest in the EU15 in 2016 at close to 57 per cent, albeit now less than 2 percentage points below the second lowest country. France had the highest wage share at 66.7 per cent

and the EU15 median was 62.6 per cent. Ireland had the second highest wage share in the group in 1981 but its wage share declined rapidly over the subsequent twenty years and by 2001 was the lowest in the EU 15. Over this period the wage share declined by an average of more than 1 percentage point per year. The UK was the only EU 15 country to have a higher wage share in 2016 than it had in 1981.

5. CONCLUDING THOUGHTS

Conditions in the Irish labour market in 2017 had still not fully recovered from the impact of the 2007-08 economic crisis. The data suggest there was a degree of slack in the Irish labour market in 2017. Unemployment and underemployment were still higher than a decade previously, while Irish employment and participation rates were significantly behind the best performers in Europe. In addition, real wage growth had been very weak since the onset of the economic recovery in 2012, while job vacancy rates were low by European standards. Overall, there was little evidence of the labour market overheating.

Ireland's employment rate had by 2016 recovered from its post-crisis decline to marginally exceed the EU average, while the unemployment rate fell below the EU average in the same year. Even so, Ireland can be characterised as a middle ranking EU country in terms of employment and unemployment outcomes with outcomes significantly worse than the best performing economies in the EU. In addition, Ireland has historically underperformed in terms of female labour force participation rates particularly compared to other western and northern European countries. This suggests there may be some barrier to female labour force participation that is particular to Ireland. If so, policies that reduce labour market barriers for women could structurally improve Ireland's overall employment and labour force participation rates over the long-term. The excessive cost of childcare compared to other European countries is likely to be one such barrier and therefore measures to reduce childcare costs and/or measures to increase the financial benefits of entering the workforce offer potential to improve Ireland's labour market performance and retain human capital within the labour force.

REFERENCES

- Central Statistics Office, 2018a, [Labour Force Survey](#). Dublin: CSO.
- Central Statistics Office, 2018b, [Annual Population Estimates](#). Dublin: CSO.
- Central Statistics Office, 2018c, [Earnings, Hours and Employment Costs](#). Dublin: CSO.
- Central Statistics Office, 2018d, [Consumer Price Index](#). Dublin: CSO
- Chang, H-J. 2011, [23 Things they don't tell you about Capitalism](#). London: Penguin.
- European Commission, 2017, [Statistical Annex of European Economy Spring 2017](#). Brussels: European Commission.
- Eurostat, 2018a, [Labour Force Survey](#). Luxembourg: Eurostat.
- Eurostat, 2018b, [Labour Cost Index](#). Luxembourg: Eurostat.
- Living Wage Technical Group, 2017, [Annual Paper 2017](#). Dublin: LWTG.
- Mac Flynn, P. 2017, [A Low Skills Equilibrium in Northern Ireland](#). *NERI Working Paper No 49*. Dublin: NERI.
- Red C, 2018, [Teachers' Work: Work Demands and Work Intensity](#). Dublin: Red C.

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