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Labour Market Trends in the Republic of Ireland (2019)

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Labour Market Trends in the Republic of Ireland 2019

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Abstract

This paper presents an overview of developments in the labour market in the Republic of Ireland, tracking a selection of indicators related to employment, unemployment and wages. In many respects, the labour market had still not fully recovered in 2018 from the impact of the 2007-08 financial crisis. The data suggest there was a degree of slack in the Irish labour market in 2018 with little evidence of overheating. Unemployment and underemployment were still higher than a decade previously, while Irish employment and participation rates remained down over the same period. Irish employment and participation rates are significantly behind the best performers in Europe as is the job vacancy rate, a key indicator of labour market vibrancy. Following years of stagnant average real wage growth, 2018 saw significant gains. However, this growth was concentrated in a handful of sectors, all of which also experienced strong employment growth: *Administrative and support service activities*, *Transport and storage*, *Education* and *Construction.* The data show that the financial crisis disproportionately affected labour market conditions for younger cohorts. In addition, improvements in conditions for younger workers have been much slower in recovery, leading to higher intergenerational inequalities in many indicators than existed pre-crisis: younger workers have lower employment rates, higher unemployment and are more likely to be precarious workers. Finally, the data show a narrowing gap in employment rates between women and men. This is due to both an increasing rate for women but also a lower rate for men over a decade, which has not recovered from the property crash. Ireland still lags behind in the participation rate of women, negatively affecting our overall performance relative to top performing countries. Policies that reduce labour market barriers for women, such as reducing the cost of childcare, could meaningfully improve Ireland's overall participation and employment rates.

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Labour Market Performance in the Republic of Ireland

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1 . INTRODUCTION

The latest figures show that according to several of the most important indicators, the Irish labour market has still not fully recovered from the economic crisis in 2007/8. After seven years of uninterrupted growth, evidence suggests that the recession may have brought about some structural changes to the Irish labour market. Incremental improvements in several indicators for 2012 on have stalled over the past two to three years, evidence perhaps of a new normal in the Irish labour market with inferior conditions relative to 2007/08.

The unemployment rate is still higher than in the five or so years leading up to 2007. In 2018, there were 36,000 more people unemployed and 23,000 more long-term unemployed in Ireland than in 2005. The employment rate is still far from recovering from the impact of the financial crisis. This is due, for the most part, to the collapse of employment for younger cohorts, young men in particular. Inactivity rates remain high relative to pre-crisis levels and relative to comparable EU members. Underperformance in female participation in Ireland relative to the top performing economies in Europe is likely driven by the excessive cost of childcare. Regional disparities remain with the Midlands, Mid-West, South-East and Border regions underperforming in many key indicators. Both unemployment and inactivity rates correlate strongly with education/skills level with the highest unemployment and inactivity rates for those with the least training.

The disproportionate burden of the financial crisis and austerity on younger Irish citizens is still being borne out with the latest figures. Positive downward trends in several indicators related to precarious employment recorded in the first years of the labour market recovery post-2012 have stabilised more recently, especially for younger workers. Part-time employment and underemployment is still much higher than in 2007, particularly for this group. Unemployment rates have a strong negative relationship with age cohort, with the rate for 20-24-year olds four percentage points higher than the national average in 2018. Unemployment actually rose for this group between January 2018 and 2019. Although participation rates in 2018 have exceeded levels recorded pre-crisis for every cohort over 35 years, for those under 35, this is not the case and for those under 25 inactivity still significantly exceeds Celtic Tiger levels. This widening gap between younger and older

cohorts is particularly pronounced among males. Employment rates by cohort and gender show similar trends.

Over the past twenty years, there have been some notable shifts in the sectoral composition of employment in the Irish economy. The share of employment in *Industry* has taken the largest hit of any sector followed by *Agriculture, Forestry and Fishing*. Employment in *Construction* remains considerably below the Celtic Tiger era. The most significant growth has been in *Human Health and Social Activities,* which continued upwards, even during the recession. There has been strong growth in *Accommodation and Food* over the past ten years also. This sector has the lowest average weekly earnings out of 13 (35 per cent lower on average than the next sector, *Wholesale/Retail*). The sector also employs 27.8 per cent of all workers on the minimum wage or less in Ireland and has the highest share of workers on or below minimum wage of any sector (26.6 per cent).

Growth in the top three occupational categories (ranked by years of skills/training) as a share of employment might suggest a positive structural shift in the Irish labour market. *Managers, directors and senior officials*, *Professional occupations* and *Associate professional and technical* occupations have all seen significant growth in their shares over the past two decades whilst the share of lowest skilled category, Elementary Professions, has shrunk. The largest decline has been in the share of those in the *Skilled Trades Occupations* from the collapse of the construction sector, which is on a positive trend upwards in recent years.

Mean weekly and hourly earnings were both up 4.7% in real terms over ten years, from the last quarter of 2008 to 2018. In the year up to the last quarter of 2018 average weekly and hourly earnings increased 3.5% and 3.2% in real terms. Although this might suggest a tightening labour market, specific sectors are driving this growth. Employment growth in *Administrative and support service activities* and *Construction* represent almost 45 per cent of the growth in employment in the past year. Average earnings grew 10.5 per cent and 8.0 per cent year-on-year in these sectors respectively. *Education,* one of the biggest sectors and one of the better paid represented just over 20 per cent of employment growth between Q4 2017 and Q4 2018, and estimated average earnings growth was 2.6 per cent. The *Information and Communication*, *Financial and Insurance Activities*, *Real Estate Activities* and *Industry* sectors recorded positive gains over the decade while earnings in sectors dominated by public sector workers such as *Public Administration* and *Human Health and Social Activities* were still lower on average than before the financial crisis.

The most recent comparative data shows that Ireland scores about average in EU terms when it comes to the employment rate and has recently dropped below the average EU unemployment rate. This follows years of underperformance beginning with the financial crisis which itself followed years of relatively impressive figures. Judged against some of the top performing countries in 2017 such as Sweden or Germany, Ireland is still a way behind in employment and unemployment rates. Though the level of female engagement with the labour market is about the EU average, Ireland lags significantly behind the top performers in this area.

The Job Vacancy Rate remains low relative to our European counterparts and has not improved for the past three years suggesting that significant slack remains in the Irish labour market. Although wage growth has been strong in the last year in European terms, growth is confined to certain sectors that have had a disproportionate impact on the national figure. The share of wages in terms of GDP in Ireland continues to fall and is the lowest in the EU by quite a margin.

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. Section 4 compares 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.

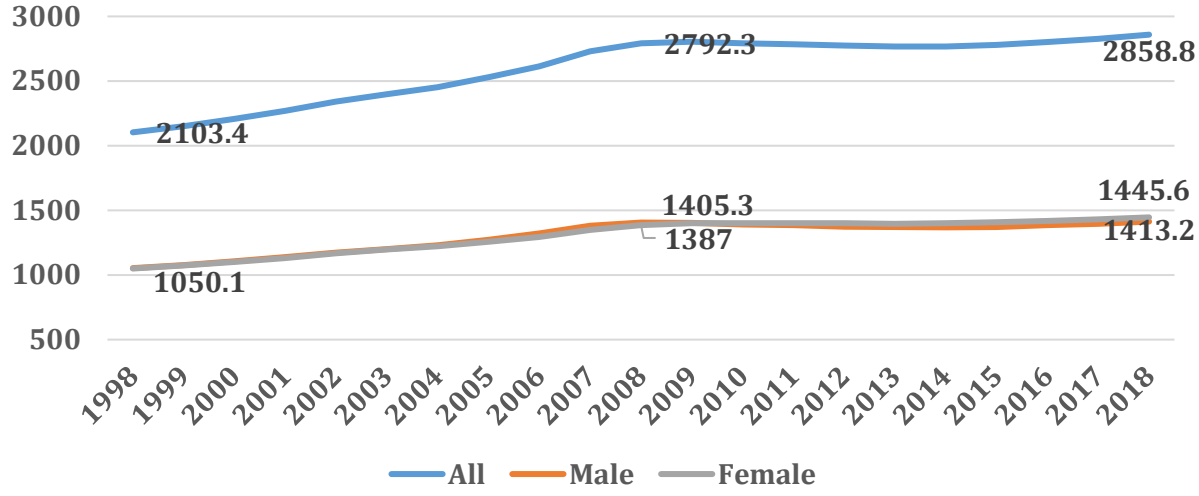
2. LABOUR MARKET PERFORMANCE SINCE 1998

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 are taken from the Central Statistics Office's Labour Force Survey (CSO, 2019a).

2.1 Employment and labour force participation trends

The working age population (20-64) increased by 35.9 per cent (or 755,400 people) in two decades up to Q4 of 2018 (see Chart 2.1). Most of this growth occurred in the decade up to

Chart 2.1 Working Age Population by Gender (000's), 1998-2018

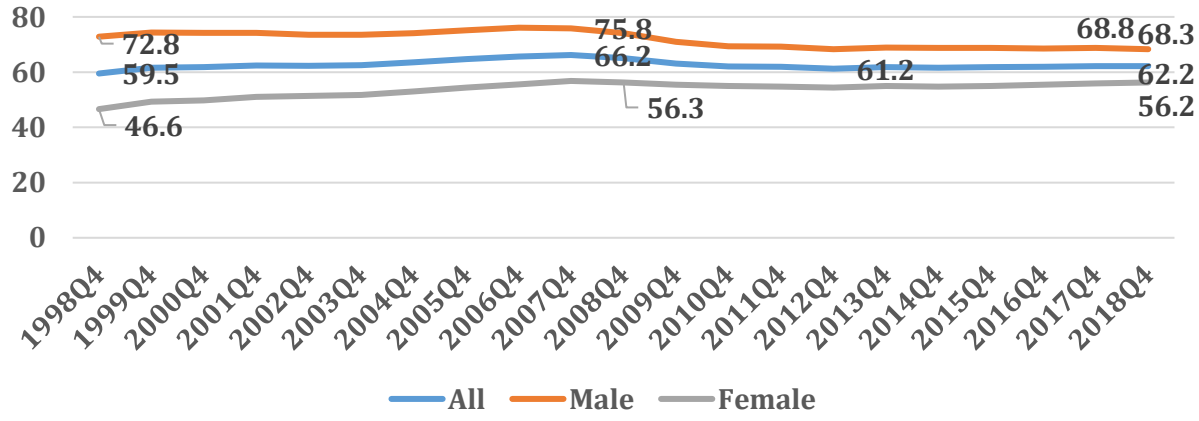


Source: CSO (2019b), Population Estimates (Persons in April) by Age Group, Sex and Year -PEA01
Note: Working age population (20-64)

the financial crisis in 2008 (689,000).

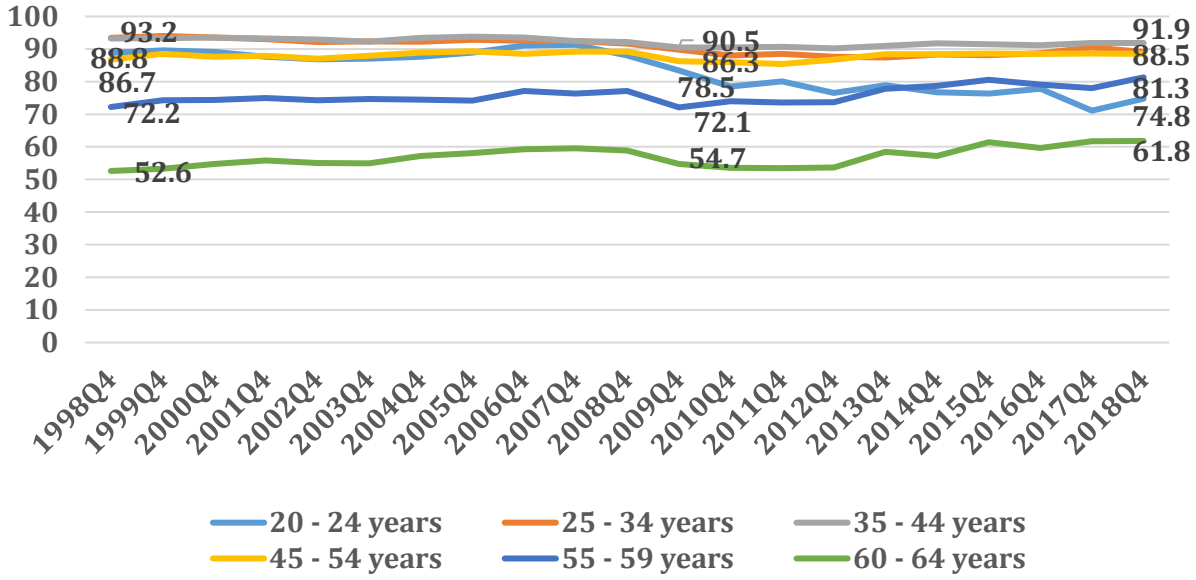
The labour force participation rate (15 and over) was 62.4 per cent in Q4 2018 (see Chart 2.2). This is one percentage point higher than in 2012 after six years of strong economic growth and still four points below 2007. This indicator measures those in employment and those seeking employment as a proportion of the working age population. Those not in or seeking employment are classified as economically inactive. The participation rate gap between men and women narrowed substantially between 1998 and 2008 (from a difference of 26.2 pp to 19.5pp). In the first decade, this was due to increased participation of women in the labour market. This rate however has still not recovered from the great recession.

Chart 2.2 Labour Force Participation (LFP) Rates (ILO) by Gender, 1998-2018



Source: CSO (2019a) Labour Force Survey – ILO Participation Rates (%) -Table QLF 18
Note: Age 15 and over

Chart 2.3 Male LFP Rates by Age, 1998-2018



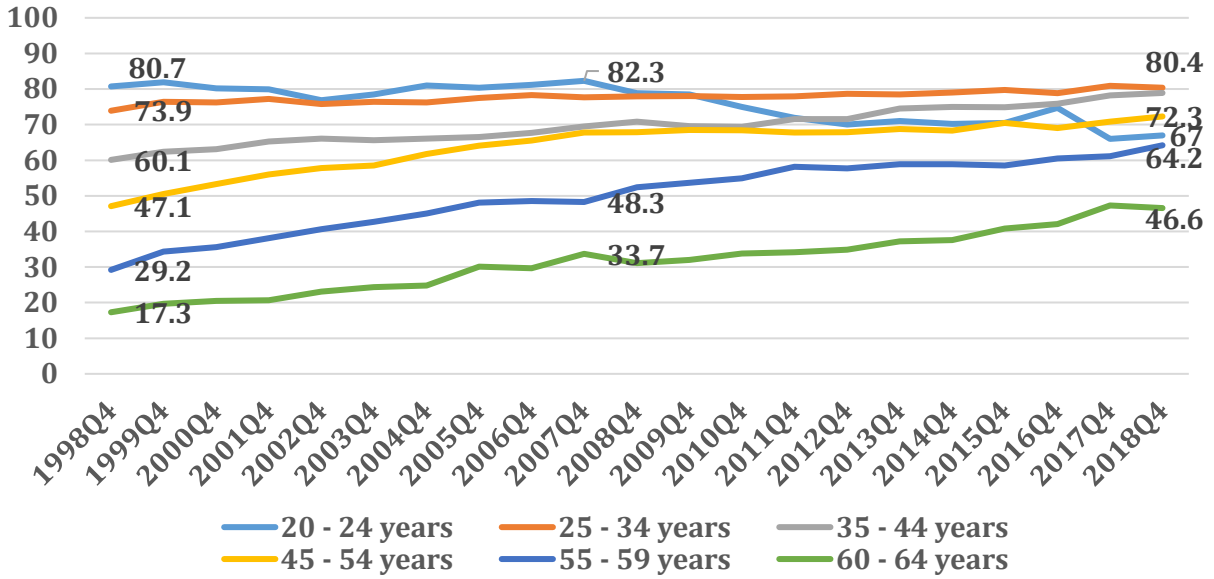
Source: CSO (2019a) Labour Force Survey- ILO Participation Rates (%) -Table QLF 18

In the second decade, the further narrowing of this gap came about due to the collapse in male participation. Male participation was seven and a half percentage points lower in Q4 2018 (68.3 per cent) than it was in Q4 2007 (75.8 per cent). This figure actually dropped by half a point in the year up to Q4 2018. Even so, the gender gap remained substantial in the last quarter of 2018 at 12.1 percentage points.

The CSO provide data on participation by marital status. The drop in participation for both single men and single women far exceed the headline figures for each gender. The participation rate for single men dropped from 77.2 in 2007 to 65.7 per cent in 2018 and from 68.0 and 61.7 per cent for single women, reflecting again the disproportionate impact on younger age groups of the financial crisis (99.5 per cent of under 25's were single in 2017 compared to 29.8 per cent of those 25 and over). In the same period, the participation rate for married women increased by 3.8 percentage points.

Participation rates for men aged 55-59 and 60-64 steadily increased between 1998 and 2018 from 72.2 to 81.3 per cent and 52.6 to 61.8 other than a brief interruption in the years of the financial crisis (see Chart 2.3). A worrying trend is the ongoing decline in the participation rates of 20-24 year olds. The labour force participation rate for 20-24 year olds is 14 points less than in 1998 with an even bigger gap relative to the years leading up to 2008. The employment rate for this group has seen a similar decline (see Chart 2.10).

Chart 2.4 Female LFP Rates by Age, 1998-2018



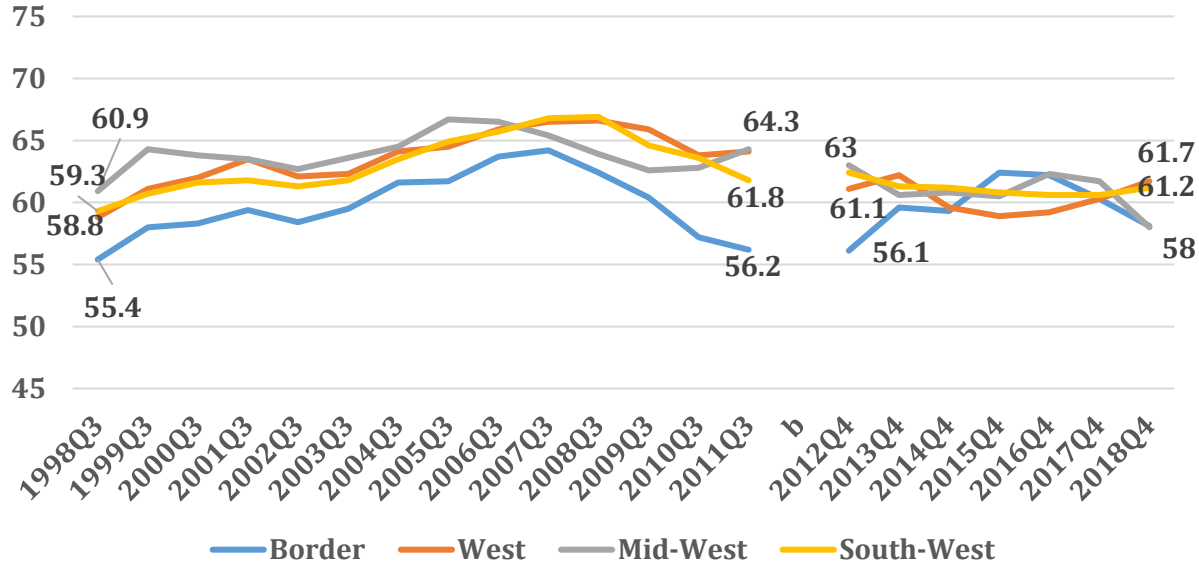
Source: CSO (2019a) Labour Force Survey - ILO Participation Rates (%) -Table QLF 18

For women, other than the 20-24 year old cohort, labour force participation has been climbing steadily over twenty years (Chart 2.4). The labour force participation rate for 55-59 year olds has doubled from 39.2 to 64.2 per cent since 1998, and almost trebled for 60-64 year olds rising from 17.3 per cent to 46.6 per cent. The sharp increase in female labour force participation represents a remarkable transformation over just two decades.

With the switch from the Quarterly National Household Survey to the Labour Force Survey in 2017, there are some issues with comparability of time-series data. The data presented in Charts 2.5 and 2.5.1 should be interpreted with care. Estimates up to 2012 and estimates post-2012 were calculated using different models with the newer time-series from 2012-2018 more reliable. Nonetheless, both are presented here. Estimates for participation rates in all eight geographic regions were still below their respective 2008 peaks in the final quarter of 2018 (see Charts 2.5 and 2.5.1).[1] In the *Mid-East,* the participation rate in 2018 was below 1998 with only a marginal improvement in Dublin over the same period. They were, however, still the two regions with the highest participation rates in 2018 and Dublin has been the best performer since the beginning of the Irish recovery in 2012 with a fall in inactivity of 3.6 points. Improvements in participation have been slow in most regions however, even through six years of uninterrupted economic growth. The Border and Mid-West regions have actually seen inactivity rates rise in the past two

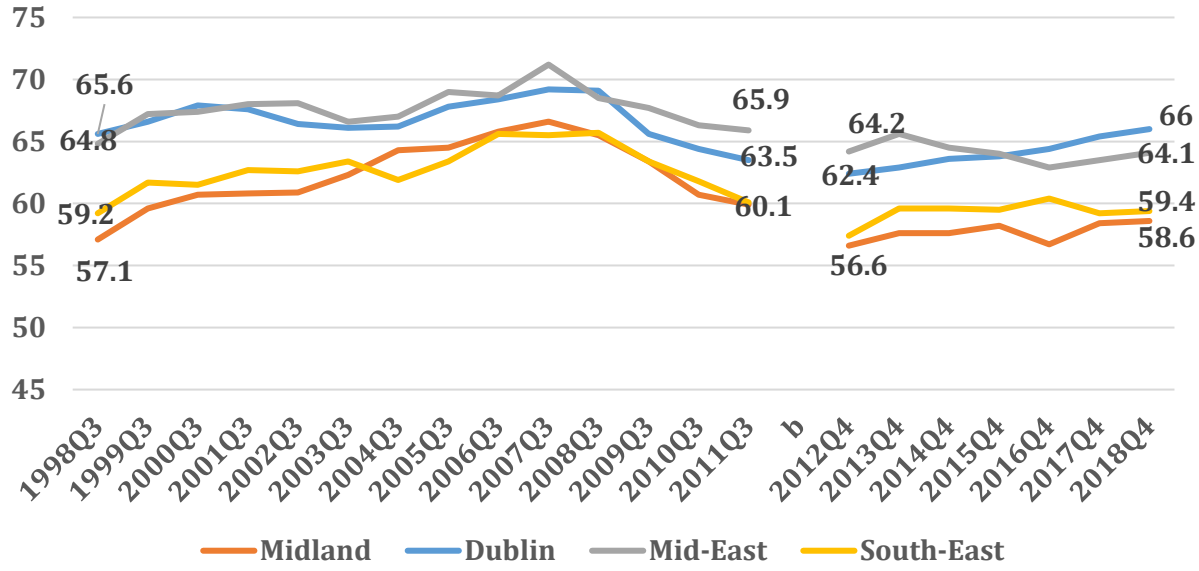
[1] This data has a break in series in 2012. Interpret time-series with care. Data for 1998Q3-2011Q3 was accessed on the CSO website in March 2018.

Chart 2.5 LFP Rates by Selected Region, 1998-2018



Source: CSO (2019a) Labour Force Survey- ILO Participation Rate (15+) (%) by Region, Quarter-Table QLF 08
Note: Age 15 and over, b=break in series

Chart 2.5.1 LFP Rates by Selected Region, 1998-2018

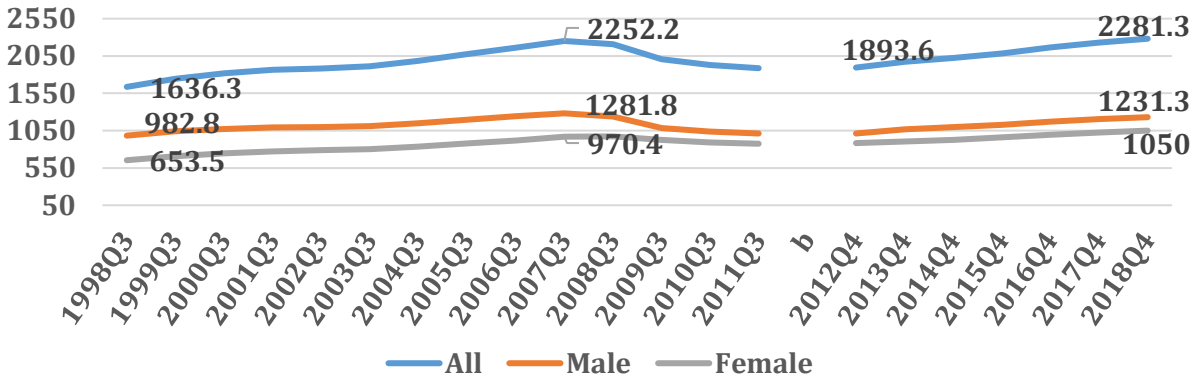


Source: CSO (2019a) Labour Force Survey - ILO Participation Rate (15+) (%) by Region, Quarter-Table QLF 08
Notes: Age 15 and over, b=break in series

years. Although the Border region (Cavan, Donegal, Leitrim, Monaghan and Sligo) is performing slightly better than in 2012,the Mid-West (Limerick, Clare and Tipperary), South-East (Carlow, Kilkenny, Wexford, Waterford) and Mid-East (Kildare, Meath, Wicklow, Louth) regions have recorded stagnant or even slightly increasing inactivity rates since 2012.

There were 2,281,300 people employed in the Republic of Ireland as of Q4 2018 of whom

Chart 2.6 Total Employment, 000's, 1998-2018



Source: CSO (2019a) Labour Force Survey –15+ in Employment- Table QLF 07

1,050,000 were women (Chart 2.6). 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. According to the CSO, there were an estimated 29,000 more in employment in Ireland in Q4 2018 than in 2008; approximately 80,000 more women and 50,000 fewer men.

Table 2.1 shows the changing composition of employment by employment status from 1998 to 2018. Employees as a share of those employed increased by 4.2 percentage points (81.3 to 85.5 per cent) during this period with most of this growth in the past five years. The proportion of self-employed fell from 17.3 per cent to 14.0 per cent, including a decline in *self-employed with paid employees* from 5.5 to 4.2 per cent, and a decline in *self-employed with no paid employees* from 11.8 to 9.8 per cent. There was a decline in the proportion of workers *assisting relatives* from 1.4 to 0.5 per cent. Just under one fifth of males in employment (19.9 per cent) were self-employed in Q4 2018 compared to 7.1 per cent of females.

Table 2.1 Composition of Employment by Employment Status, %

	1998Q4	2003Q4	2008Q4	2013Q4	2018Q4	1998-18 Δ
Self-employed with employees	**5.5**	**5.5**	**5.6**	**4.7**	**4.2**	**-1.3pp**
Self-employed no employees	**11.8**	**10.7**	**11.0**	**11.8**	**9.8**	**-2.0pp**
Employee (including schemes)	**81.3**	**82.9**	**82.6**	**82.8**	**85.5**	**4.2pp**
Assisting relative	**1.4**	**0.8**	**0.7**	**0.8**	**0.5**	**-0.9pp**

Source: CSO (2019a) Labour Force Survey –15+ in Employment by Employment Status, Sex - Table QLF 17
Notes: PP-> percentage point.

Table 2.2 Composition of Population Aged 15+ by Principal Economic Status, %

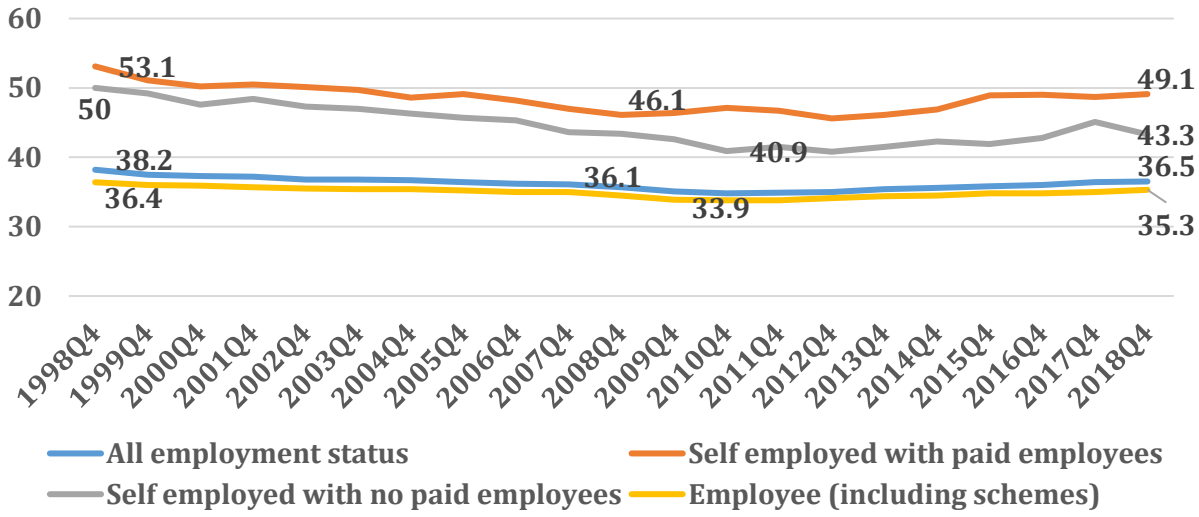
	1998Q4	2003Q4	2008Q4	2013Q4	2018Q4	98-2018Δ
At work	52.9	56.8	57.4	52.1	55.7	2.8pp
Unemployed	4.8	3.7	6.0	8.7	4.3	-0.5pp
Student	10.3	10.2	9.5	11.0	11.1	0.84pp
Engaged on home duties	20.3	17.5	15.0	12.8	8.7	-11.5pp
Retired	8.7	8.5	8.7	11.3	14.8	6.1pp
Other	3.0	3.3	3.5	4.1	5.3	2.3pp

Source: CSO (2019a) Labour Force Survey –15+ by Principal Economic Status, Sex - Table QLF 19
Notes: PP-> 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 collapse of the share of Irish adults on '*home duties'* is the most significant change over the past two decades. The proportion fell from 20.3 per cent in 1998 (39.7 per cent for females and 0.2 per cent for males) to 8.7 per cent in 2018. The size of this shift has resulted in all other categories increasing their share. The proportion '*at work*' increased from 52.7 per cent in 1998 to 55.7 per cent in 2018 but remains lower than in the lead up to the crash. The proportion at work was over 60 per cent in each of the last three quarters of 2007, falling below 50 per cent for each of the first three quarters of 2012.

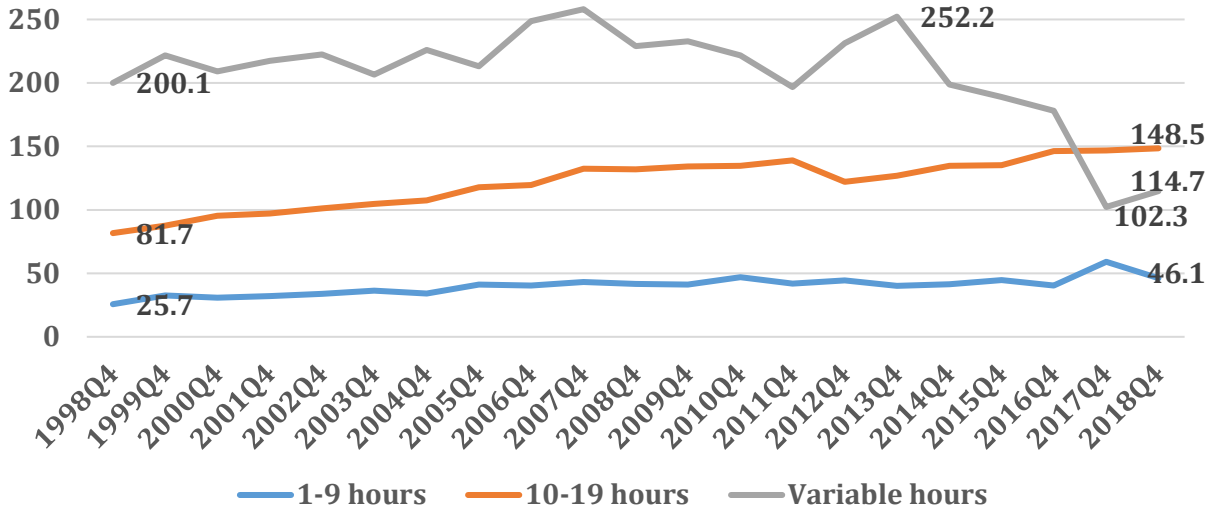
The '*retired from employment*' group experienced the largest compositional increase over the period (8.7 to 14.8 per cent). The proportion of adults reporting as students has not increased markedly, and the figures do little to explain the drastic drop in participation for younger cohorts.

Chart 2.7 Average Usual Hours Worked per Week, 1998-2018



Source: CSO (2019b) Average Usual Hours Worked per Week, 15+ in Employment (ILO) by Employment Status-Table QES10

Chart 2.8 Low and Variable Hours, 1998-2018



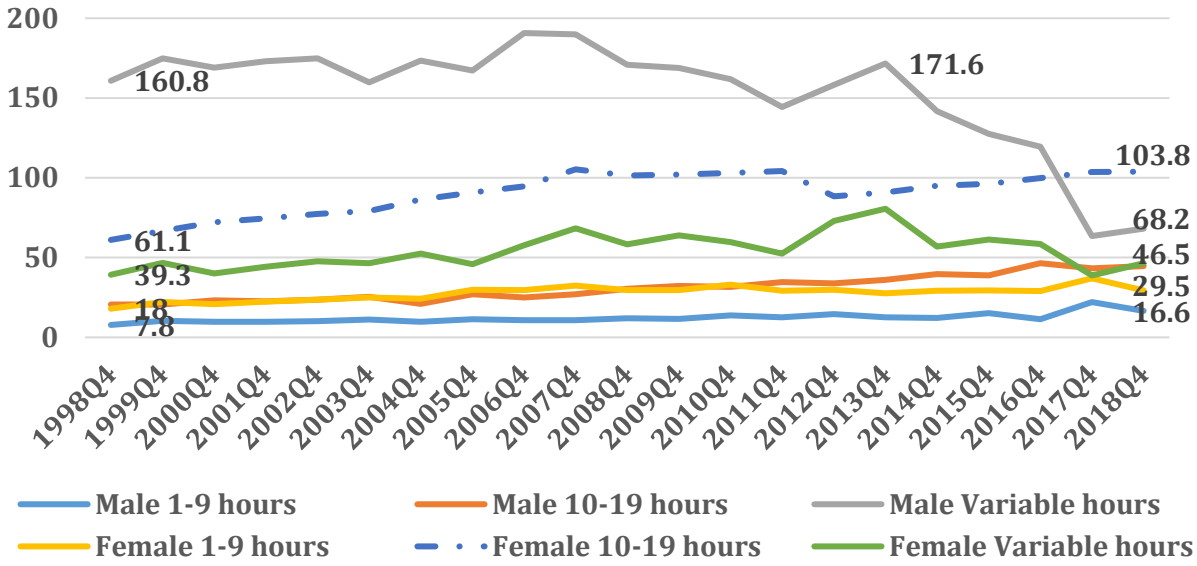
Source: CSO (2019a) Labour Force Survey –15+ in Employment by Sex, Usual Hours Worked-Table QLF 20

Chart 2.7 shows the average hours per employment per week from 2008 to 2018 from the CSO's Earnings, Hours and Labour Costs release (CSO, 2019c). Average weekly paid hours in 2018 was 36.5. This figure has been trending upwards for five years and is higher than the average seen in the years leading up to the banking crisis. However, with the growth in part-time work as a share of employment, the figure is still considerably less than in 1998 (38.2).

The absolute number of workers working nine hours or less per week increased gradually from 1998 to 2018. Latest figures show that just under 46,100 persons work less than nine hours (Chart 2.8), or 79.3 per cent more than in 1998. The share of workers in the 10 to 19 hour bracket has trended upwards from 1998 on, other than a brief dip during the recession. There are now 148,000 working 10 to 19 hours, 67,000 more than there were in 1998, an increase of 81.7 per cent. Combined, the figures show that 194,000 Irish workers (or 8.5 per cent) are marginal part-time (work less than 20 hours), a particularly precarious type of employment characterised by high deprivation rates and insecurity (Broughton et al 2016).

Figures show that 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 (114,700) is now lower than at any point since at least 1998 though between 2017 and 2018 there was an estimated increase of 12,000 workers. A significant share of the fall in this number occurred at a break in series in Q3 2017. This time-series data should be interpreted carefully. Individuals for whom no usual hours are available are included in the variable category. Extra verification questions in the new LFS series provide a more accurate estimate. Since the break in series,

Chart 2.8.1 Low and Variable Hours by Gender, 1998-2018



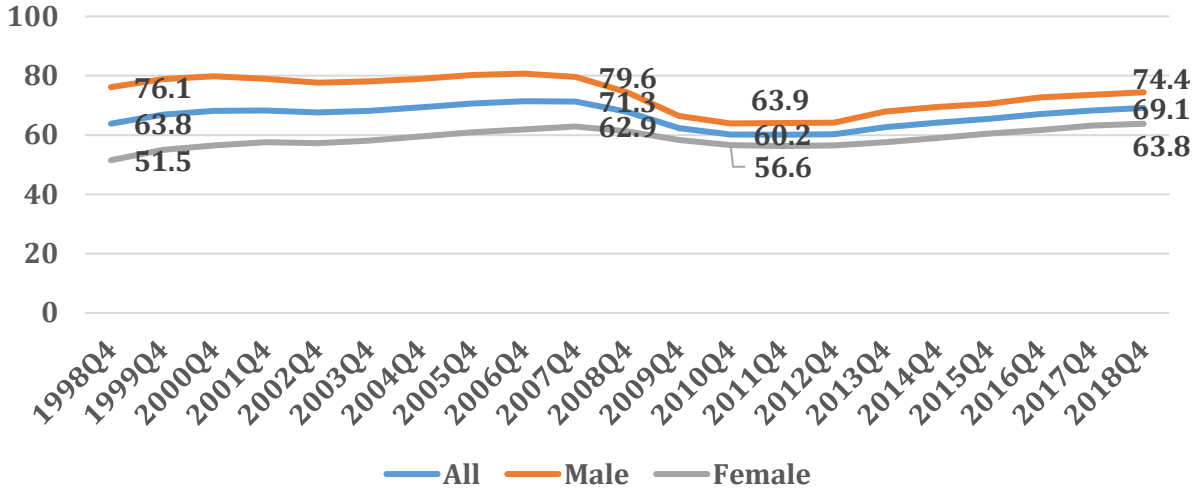
Source: CSO (2019a) Labour Force Survey – 15+ in Employment by Sex, Usual Hours Worked-Table QLF 20

there was an estimated increase of 12,000 workers on variable hours in the year up to Q4 2018 to 114,700. This amounts to 5.0 per cent of employment in 2018.

There were more than 53,000 extra women in marginal part-time employment (less than 20 hours a week) in the final quarter of 2018 compared to two decades earlier, an increase from 12.1 to 12.6 per cent (Chart 2.8.1). There are more than twice as many women working 19 hours or less than there are men. At the same time, LFS data show there are more than twice as many men on variable hours as there are women.

The employment rate is the ratio of those who have worked at least one hour in gainful employment in the past week to the working age population. Ireland's employment rate for persons aged 15-64 was 63.8 per cent in Q4 1998 (Chart 2.9) and climbed to and peaked at 71.3 per cent in Q4 2007. The rate then fell over 11 points up until the economy turned a corner in 2012. Despite a steady increase from 2013 to 2018, the employment rate is still 3.4 percentage points down on the pre-crisis peak of 72.5 per cent (2007 Q3). The male employment rate (five points lower in 2018 than in 2007) is driving this difference, with growth slowing in recent years. The female employment rate has fully recovered from the financial crisis and in 2018 is almost a full point above that observed in 2007 (63.8 to 62.9 per cent). The overall increase in the employment rate since 1998 is entirely due to the increase in female employment. The male employment rate is lower (2018) than at any stage

Chart 2.9 Employment Rate (15-64), 1998-2018



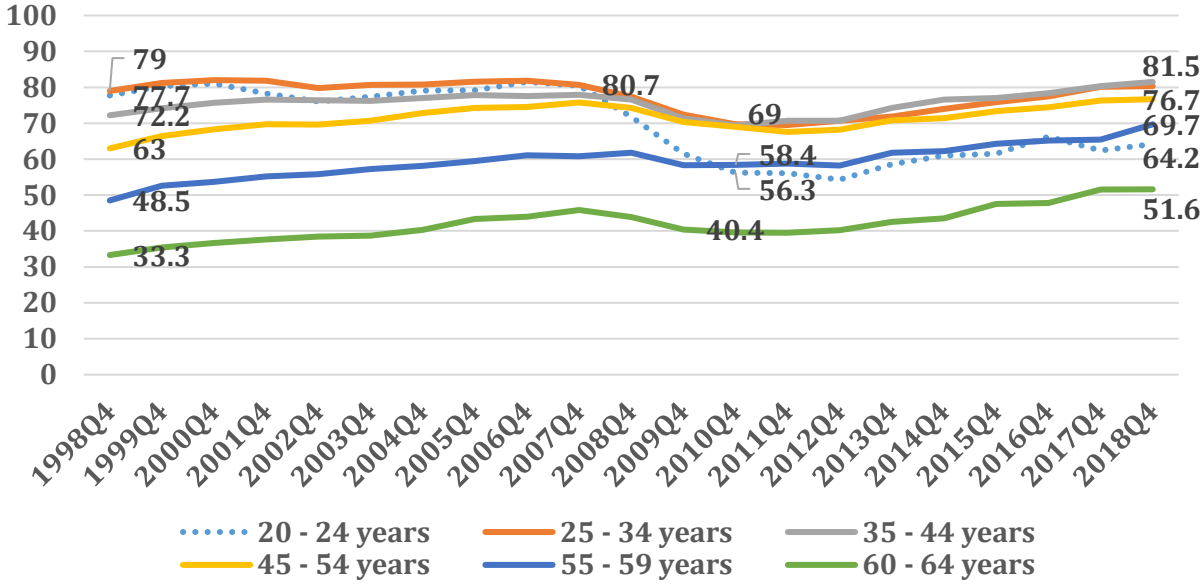
Source: CSO (2019a) Labour Force Survey – ILO Participation, Employment and Unemployment Characteristics by Age Group, Sex, Quarter and Statistic- Table QLF 18

in the decade leading up to the crisis. A gap of over 10 percentage points remains between male and female employment rates, having narrowed significantly over twenty years from almost 25 percentage points. As will be shown in section four, Ireland's employment rate significantly underperforms the best performing countries in Europe.

Chart 2.10 shows employment rates by age. The biggest change since 1998 is the sharp fall in the employment rate for the 20-24 year old cohort. There has also been a steady rise in the employment rates for the 55-59 and the 60-64 cohorts. The employment rate for 20-24 year olds fell 23 percentage points between 2007 and 2012, the largest decline of any group. Recovery has also been slowest for this group, even from a low base. It remains 15.8 percentage points below its peak pre-crisis. Every other age group has managed to recover and even exceed pre-crisis 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 51.6 per cent, almost 6 points higher than in 2007 (45.8 per cent) and up 18.3 points over twenty years.

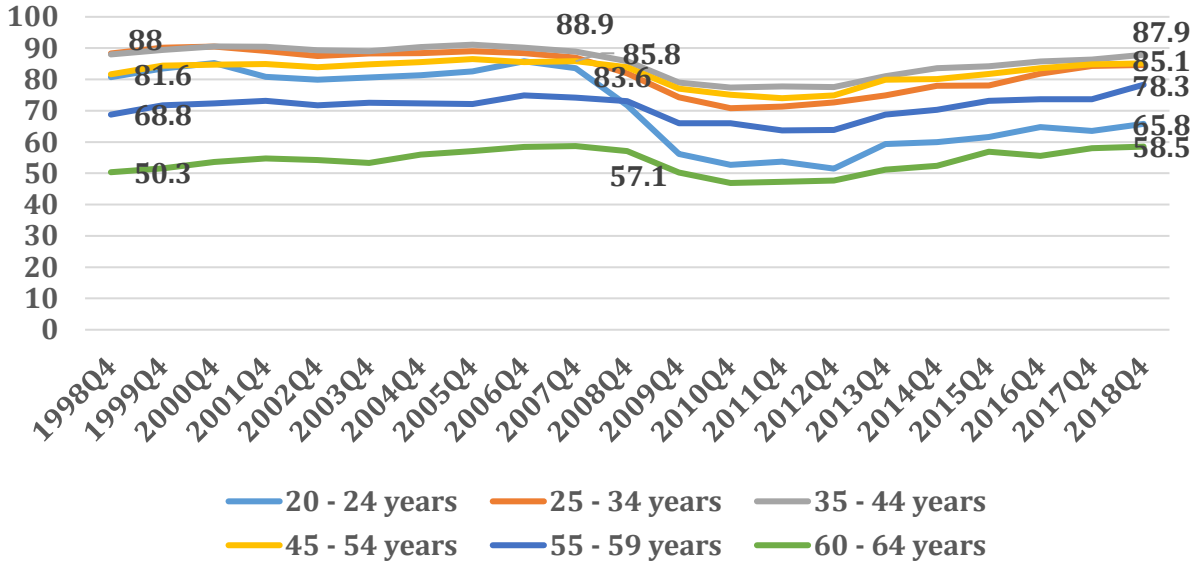
Chart 2.10.1 and Chart 2.10.2 show male and female employment rates by cohort. For males, we can see similar trends to Chart 2.10 with the 20-24 cohort experiencing the largest fall after 2007-08 by quite a margin. The same group is also furthest from its pre-crisis peak (85.6 compared to 65.8 per cent; a difference of 17.8pp) and has only improved by a single percentage point in the past two years. The 20-24 year old group comes second only to the eldest cohort, 60-64 year olds. The most recent data show this group to have an employment

Chart 2.10 Employment Rate by Age Cohort, 1998-2018



Source: CSO (2019a) Labour Force Survey – ILO Participation, Employment and Unemployment Characteristics by Age Group, Sex, Quarter and Statistic- Table QLF 18

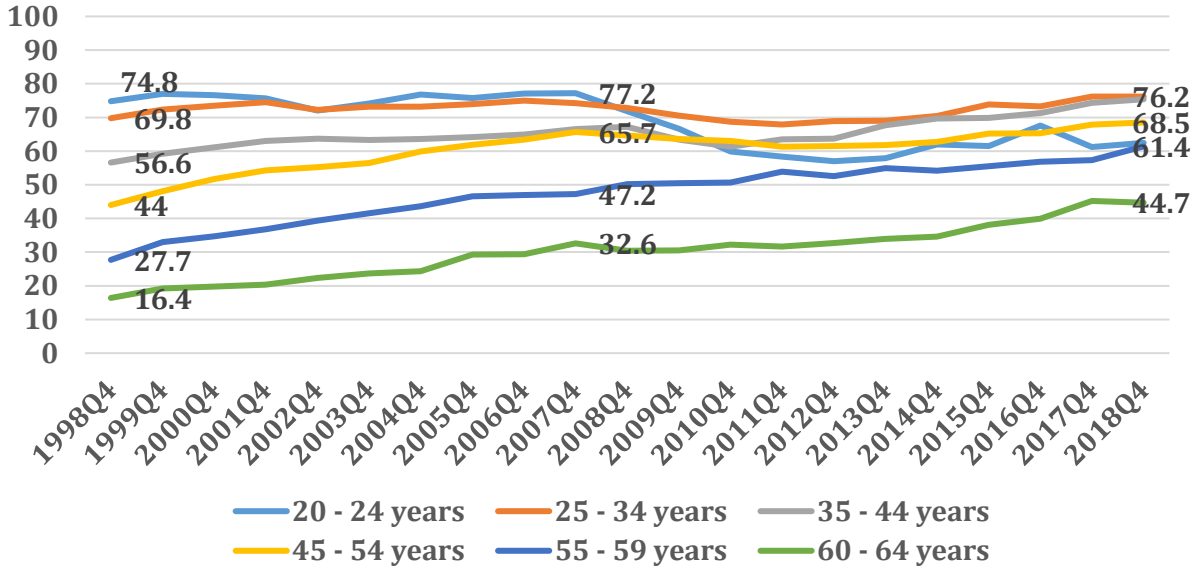
Chart 2.10.1 Male Employment Rate by Age Cohort, 1998-2018



Source: CSO (2019a) Labour Force Survey – ILO Participation, Employment and Unemployment Characteristics by Age Group, Sex, Quarter and Statistic- Table QLF 18

rate of 58.5 per cent, surpassing the peak pre-crisis of 57.1 per cent and a marked improvement on 1998 (50.3 per cent). The core 25-54 age groups all have employment rates in excess of 80 per cent, though none have recovered fully from the financial crisis as of Q4 2018.

Chart 2.10.2 Female Employment Rate by Age Cohort, 1998-2018



Source: CSO (2019a) Labour Force Survey – ILO Participation, Employment and Unemployment Characteristics by Age Group, Sex, Quarter and Statistic- Table QLF 18

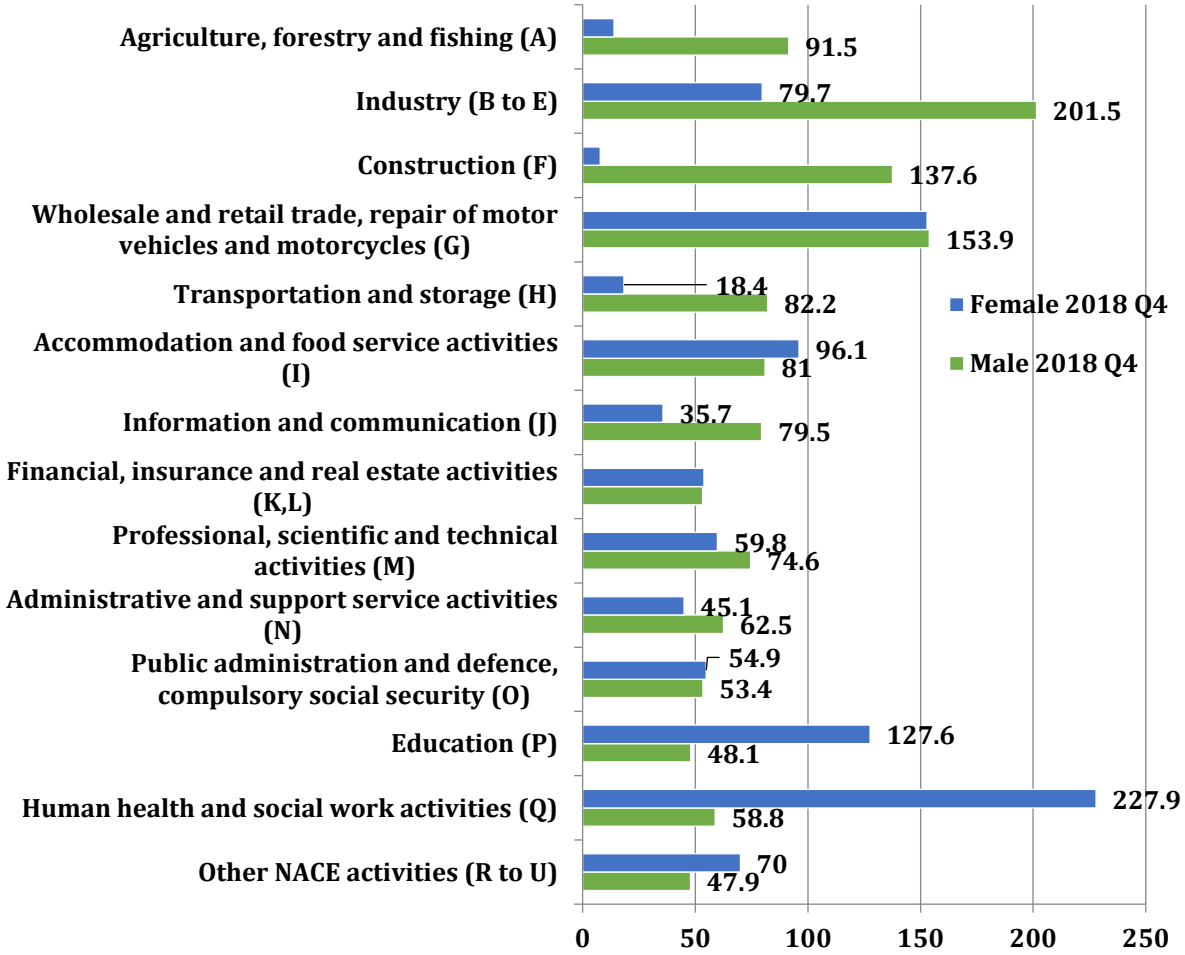
For females we can see that in 1998 the probability of being in employment varied dramatically depending on age with an employment rate for the 20-24 cohort of 74.8 per cent and falling for each older cohort. Those aged 60-64 had an employment rate just 16.4 per cent. The employment rate for every female cohort improved over the next decade, with the two eldest cohorts showing the biggest gains. For those 60-64, the employment rate almost doubled (16.4-32.6 per cent) and for 55-59 year olds, the rate increased almost 20 percentage points. As is the case for men, the youngest cohort is the only one that has not recovered from the financial crisis (still 14.7 percentage points below the pre-crisis peak). For 35-44 year olds and 60-64 year olds there have been marked improvements since the financial crisis (8.2 and 12.1 percentage points respectively).

Chart 2.11 shows Irish employment by broad sector and by gender. *Wholesale/Retail* (305,600), *Human Health and Social Work* (286,400) and *Industry* (281,000) are the biggest sectors. The three largest sectors for men are *Industry* (201,500), *Wholesale/Retail* (153,900) and *Construction* (137,000). For women, the biggest sectors are *Human Health and Social Work* (227,900), *Wholesale/Retail* (152,900) and *Education* (127,600).

Table 2.3 shows the compositional changes to Irish employment by sector over the past two decades. The general trend has been an increasing share of employment in services along with relative declines in agriculture and industry. The most notable changes in this period have been the decline of *Industry* from about 1 in 5 workers in 1998, to 1 in 8 in 2018. There

are 41,300 less jobs in this sector than in 1998, a decline of 7.5 percentage points as a share of total employment. Though the absolute number of jobs in *Industry* has increased since the turnaround, the rate has not kept up with growth in other sectors and *Industry*'s share of employment continues to fall. This should be of concern as these jobs pay relatively high wages. This sector also disproportionately contributes to productivity in the wider economy and has an indirect positive impact on aggregate growth (Chang 2011). Employment has fallen steadily in *Agriculture, Forestry and Fishing* (137,200-105,600 between 1998 and 2018; a drop of 3.8 percentage points. As a share of employment, *Construction* is also down 2.4 percentage points on its pre-crisis peak and has 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 plummeting to just 4.2 per cent in early 2013. Employment growth has been strongest in *Human Health and Social Activities* with 162,900 more jobs over twenty years.

Chart 2.11 Sectoral Employment by Gender, 2018



Source: CSO (2019a) Labour Force Survey –15+ in Employment by Sex, NACE Rev 2 Sector -Table QLF 03
Notes: PP-> percentage point. Seasonally adjusted.

Although the share of employment fell over the past five years, this amounts to a positive increase of 5.0 percentage points over twenty years and 12.6 per cent of all employment in 2018. The share of employment in *Education* and *Administration and Support Service Activities* have also grown by 1.8pp and 1.5pp. There has been significant growth in the lowest paid sector *Accommodation and Food* in the past decade (47,300) as well as in some of the higher paid, 'knowledge economy' sectors. Employment in *Information and Communication* and *Professional Scientific and Technical Activities* has grown by 29,900 and 11,200 since 2008.

Chart 2.12 shows the changes in employment by broad occupational category over the past eleven years. The categories are loosely based on the skill level or educational attainment required to work in these roles. Employment in the top three categories, *Managers, directors*

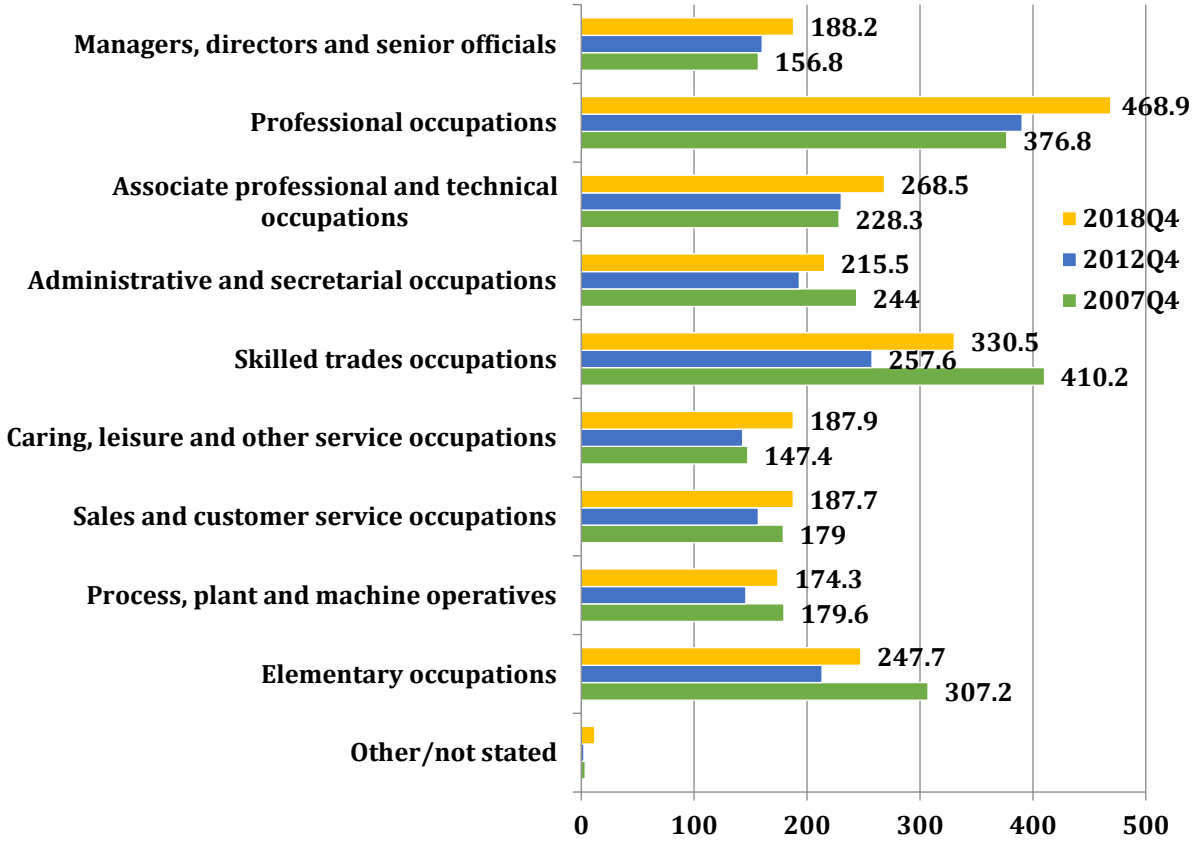
Table 2.3 Sectoral Employment, 000's and Composition (%),1998-2018

	1998Q4	2003Q4	2008Q4	2013Q4	2018Q4	1998-18 Δ
Agriculture, forestry and fishing (A)	137.2	121.5	117.3	117.2	105.6	**-31.6**
	8.5%	6.4%	5.5%	6.0%	4.6%	**-3.8pp**
Industry (B to E)	322.3	310.2	291.7	250.4	281	**-41.3**
	19.9%	16.3%	13.6%	12.7%	12.4%	**-7.5pp**
Construction (F)	115.2	164.3	190.1	87.9	145.5	**30.3**
	7.1%	8.6%	8.8%	4.5%	6.4%	**-0.7pp**
Wholesale and retail trade, repair of motor vehic... (G)	229.5	273.6	313.3	281.1	305.6	**76.1**
	14.1%	14.3%	14.6%	14.3%	13.4%	**-0.7pp**
Transportation and storage (H)	70.6	87.5	88.6	84.9	100.8	**30.2**
	4.3%	4.6%	4.1%	4.3%	4.4%	**0.1pp**
Accommodation and food service activities (I)	106.9	121.3	127.8	142.3	175.1	**68.2**
	6.6%	6.4%	5.9%	7.2%	7.7%	**1.1pp**
Information and communication (J)	67.2	77.2	85.2	97.7	115.1	**47.9**
	4.1%	4.0%	4.0%	5.0%	5.1%	**0.9pp**
Financial, insurance and real estate activities (K,L)	67.8	90.6	113.7	100.7	107	**39.2**
	4.2%	4.8%	5.3%	5.1%	4.7%	**0.5pp**
Professional, scientific and technical activities (M)	75.8	99.6	123.5	124.3	134.7	**58.9**
	4.7%	5.2%	5.7%	6.3%	5.9%	**1.3pp**
Admin and support service activities (N)	53.2	67.5	86.7	79.5	108	**54.8**
	3.3%	3.5%	4.0%	4.0%	4.8%	**1.5pp**
Public administration and defence, compulsory s... (O)	66.6	83.5	98.5	88	108.4	**41.8**
	4.1%	4.4%	4.6%	4.5%	4.8%	**0.7pp**
Education (P)	96.3	118.5	148	141.1	175.3	**79**
	5.9%	6.2%	6.9%	7.2%	7.7%	**1.8pp**
Human health and social work activities (Q)	123.5	188.4	247.6	263.2	286.4	**162.9**
	7.6%	9.9%	11.5%	13.4%	12.6%	**5.0pp**
Other NACE activities (R to U)	79.5	94.1	109.1	107.3	117.7	**38.2**
	4.9%	4.9%	5.1%	5.5%	5.2%	**0.3pp**

Source: CSO (2019a) Labour Force Survey –15+ in Employment by Sex, NACE Rev 2 Sector -Table QLF 03
Notes: PP-> percentage point. Seasonally adjusted

and senior officials, *Professional occupations* and *Associate professional and technical occupations* have all grown strongly both in absolute terms and in their shares of employment (Table 2.4). This is a positive development. The combined growth of the share of employment in these categories since 2007 is 6.4 percentage points. *Professional occupations* have replaced *Skilled trades occupations* as the largest occupational category, increasing from 16.9 per cent to 20.6 per cent and accounting for about 92,000 additional workers over that period. The impact of the property crash is clear in the sharp decline in the share of employment in *Skilled trades;* especially between 2007 and 2012, when close to 160,000 jobs were lost. Sixty-two percent of employees in Construction were in Skilled Trades compared to 20.6 per cent of the economy as a whole. In 2018, there remained 80,000 fewer skilled trades' jobs in Ireland than in 2007. This is a concern, considering recruitment problems in the sector in the context of an ever-deteriorating housing crisis.[2] The share of the lowest skill category, *Elementary professions*, has also fallen by 2.9 percentage points over eleven years.

Chart 2.12 Occupational Employment (SOC 2010), 000's, 2007-2018



Source: CSO (2018a) Labour Force Survey –15+ in Employment by Sex, UK SOC2010 -Table QLF 29

[2]https://www.irishbuildingmagazine.ie/2019/02/15/construction-companies-experiencing-severe-difficulties-in-sourcing-workers/

Table 2.4 Composition of Employment by Occupational Group, %

	2007 Q4	2018 Q4	2007-18 Δ
Managers, directors and senior officials	7.0	8.2	1.2pp
Professional occupations	16.9	20.6	3.7pp
Associate professional and technical occupations	10.2	11.8	1.5pp
Administrative and secretarial occupations	10.9	9.4	-1.5pp
Skilled trades occupations	18.4	14.5	-3.9pp
Caring, leisure and other service occupations	6.6	8.2	1.6pp
Sales and customer service occupations	8.0	8.2	0.2pp
Process, plant and machine operatives	8.0	7.6	-0.4pp
Elementary occupations	13.8	10.9	-2.9pp
Other/not stated	0.2	0.5	0.4pp

Source: CSO (2019a) Labour Force Survey –15+ in Employment by Sex, UK SOC2010 -Table QLF 29
Notes: PP-> percentage point.

Unsurprisingly, the share of *skilled trade* jobs in male employment is still down significantly on 2007 (5.8pp). The share of men in *Elementary professions* also fell significantly lower than the headline figure (4.2 pp). For women, the biggest change came in *Administrative and Secretarial occupations*. This category fell by 4.3pp's in women's share of employment to 16.0%, driving the decline in the national figure. This category is particularly at risk to automation (Doyle & Jacobs 2018). Although the share of female employment in *Sales and Customer Service* fell during this time (1.6 pp), it increased for men (1.4 pp). The share of female employment in these occupations is still much higher (11.2% compared to 5.7%). Although the share in the top three categories increased for both men and women since 2007, growth in the share for men was the more significant.

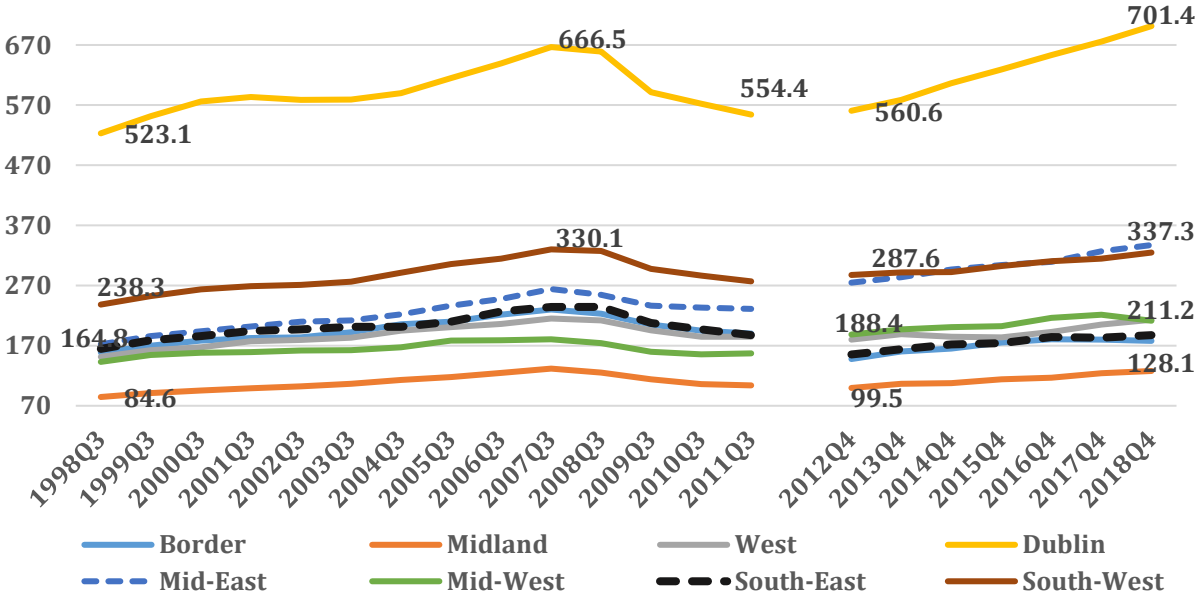
Table 2.4.1 Changes to the Composition of Irish Employment by Occupational Group and Gender, %

	Male 2007 Q4	2018 Q4	07-2018 Δ	Female 2007 Q4	2018 Q4	07-2018 Δ
Managers, directors, senior off's	8.3	9.8	1.5pp	5.3	6.4	1.1pp
Professional occupations	12.9	17.1	4.2pp	22.1	24.6	2.5pp
Associate prof and technical	11.2	12.5	1.3pp	8.9	10.9	2.0pp
Administrative and secretarial	3.8	3.9	0.1pp	20.3	16.0	-4.3pp
Skilled trades occupations	29.9	24.1	-5.8pp	3.3	3.2	-0.1pp
Caring, leisure and other service	1.7	3.2	1.5pp	13.1	14.2	1.1pp
Sales and customer service	4.3	5.7	1.4pp	12.9	11.2	-1.6pp
Process, plant, machine operatives	12.4	12.0	-0.4pp	2.3	2.5	0.2pp
Elementary occupations	15.3	11.1	-4.2pp	11.8	10.5	-1.2pp
Other/not stated	0.2	0.6	0.4pp	0.1	0.4	0.3pp

Source: CSO (2019a) Labour Force Survey –15+ in Employment by Sex, UK SOC2010 -Table QLF 29
Notes: PP-> percentage point.

Chart 2.13 shows total employment outside Dublin since 1998. Unfortunately, due to the change from the old Quarterly National Household Survey to the Labour Force Survey there have been some issues with comparability over time. For a handful of the next indicators, back casting with the new survey data is only available as far as 2012. Every region has had steady employment growth continuing since 2012, the turning point of the crisis. A large share of the employment growth overall occurred in Dublin (36.3%). Having been particularly impacted by the recession and from a low base, the Midlands witnessed the highest proportional growth in employment since 2012 (28.7%), followed by Dublin (25.1%).

Chart 2.13 Total Employment outside Dublin by Region, 1998-2017



Source: CSO (2019a) Labour Force Survey – Persons aged 15 years and over in Employment by Sex, NACE Rev 2 Economic Sector, Region and Quarter-Table QLF 07, CSO (2018a) Labour Force Survey-Table QLF 15

Table 2.5 and table 2.5.1 show labour market outcomes for individuals given the '*highest level of education*' achieved and the share of the six groups in the economy. Unfortunately the data are only available from 2014. Small, incremental improvements in most of the indicators in this time might however be illuminating, suggesting improvements in the Irish labour market have slowed considerably and even plateaued in recent years.

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 with the opposite true of unemployment. Inactivity in Ireland continues to be a huge problem and strongly correlated with educational attainment.

Table 2.5 Breakdown of Economic Status by Highest Level of Education, (ages 15-64)

Highest Education	(%)	2014 Q4	2015 Q4	2016 Q4	2017 Q4	2018 Q4
Primary or below	ILO Unemployment	21.8	19	17.1	13.2	12.2
	ILO Participation Rate	33.7	35.2	32.9	33.1	29.7
Lower secondary	ILO Unemployment	19.8	15.9	13.1	11.3	9.4
	ILO Participation Rate	48.8	47.3	47.5	46.3	45.7
Higher secondary	ILO Unemployment	12	11.8	9.5	7.6	6.8
	ILO Participation Rate	70.8	70.6	71.4	70.1	70.5
Post-secondary non-tertiary	ILO Unemployment	14.2	11.7	8	8.1	5.8
	ILO Participation Rate	79.9	79.4	79.8	80.2	81.9
3rd level non-honours degree	ILO Unemployment	7.3	6.8	5.7	5.3	4.3
	ILO Participation Rate	83.5	84.1	83.6	84.8	84.9
3rd level honours degree +	ILO Unemployment	5.3	4.5	3.8	3.1	3.5
	ILO Participation Rate	87.6	88.2	88.2	89.2	88.8

Source: CSO (2019a) Labour Force Survey, Persons aged 15 to 64 years by Sex, Level of Education, Quarter and Statistic-Table QLF 24

Table 2.5.1 Breakdown of Economic Status by Highest Level of Education, 000s, 15-64

		2014 Q4	2015 Q4	2016 Q4	2017 Q4	2018 Q4
Primary or below	Persons in Employment	54.2	57	51.1	51.5	49.7
	Unemployed Persons	15.1	13.4	10.6	7.8	6.9
	Persons not in Labour Force	136.5	129.5	125.8	120.2	134.3
Lower secondary	Persons in Employment	194.2	193.2	201.9	192.9	191.5
	Unemployed Persons	48	36.6	30.5	24.6	20
	Persons not in Labour Force	253.9	255.9	256.9	252	250.9
Higher secondary	Persons in Employment	468.5	469.5	480.6	504.8	502.8
	Unemployed Persons	64.2	62.7	50.5	41.6	36.8
	Persons not in Labour Force	219.6	221.4	213.3	232.6	226.1
Post-secondary non-tertiary	Persons in Employment	256.6	255.6	286.8	302.2	325.6
	Unemployed Persons	42.3	34	25	26.7	20
	Persons not in Labour Force	75.1	75.1	79.1	81.3	76.6
Third level non-honours degree	Persons in Employment	242.2	250.9	250.9	246.5	252
	Unemployed Persons	19.1	18.3	15.1	13.7	11.2
	Persons not in Labour Force	51.4	51	52.1	46.7	46.7
Third level honours degree +	Persons in Employment	685.9	729.5	753.3	796.1	825.1
	Unemployed Persons	38.5	34.5	29.7	25.5	29.9
	Persons not in Labour Force	102.9	102.2	105.1	99.5	107.5

Source: CSO (2019a) Labour Force Survey, Persons aged 15 to 64 years by Sex, Level of Education, Quarter and Statistic-Table QLF 24

The bottom three education categories make up over two thirds of all inactive individuals in Ireland but only account for 44% of the working age population.

The participation rate actually fell for each of the three groups in the bottom half of the education distribution (*primary to higher secondary*) over the past four years. The participation rate for those with only a *primary education* is less than 1 in 3 and fell from 33.7% to 29.7% from 2014 to 2018 and for those with *lower secondary education*, from 48.8% to 45.7%. There are 85,000 more people with a *primary education or below* inactive than in employment (134,300 compared to 49,700) and a difference of almost 60,000 for those with a *lower secondary* education (250,900 compared to 191,500).

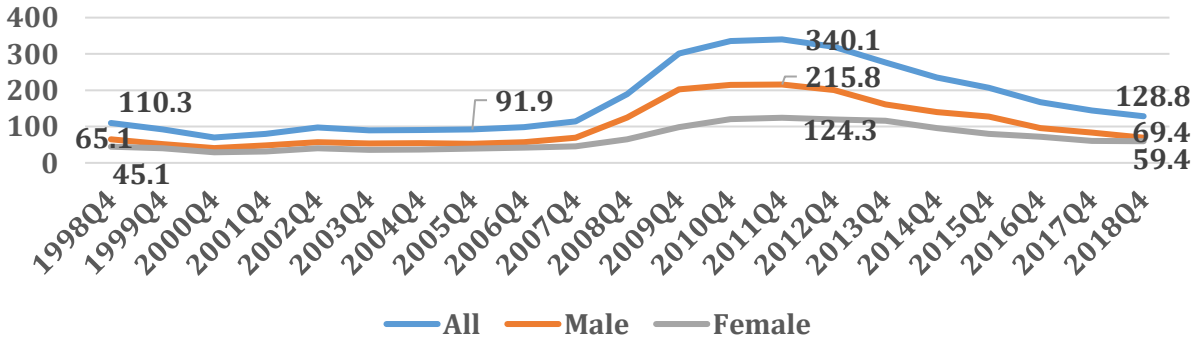
In addition, there has been very little growth in this period in the participation rates for the three categories in the top half of the distribution. In four years, the rate improved just two percentage points for those in *post-secondary non-tertiary education* (79.9-81.9%). Almost nine out of ten (88.8%) people with a *third level honours degree or higher* of working age are participating in the labour force and 30,000 are unemployed.

There are 230,000 individuals of working age in Ireland with *post-secondary education or higher* who are inactive compared to 611,000 in the lower half of the education spectrum. One hundred and seven thousand of these have a *third level honours degree or higher*.

2.2 Unemployment and job vacancy trends

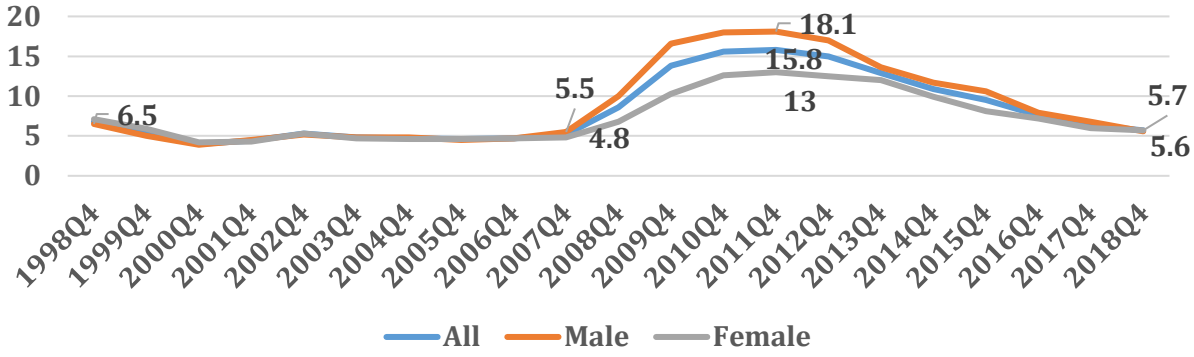
The latest data (Q4 2018) show there are 128,000 people unemployed in Ireland; 69,000 men, 59,000 women and 14,000 more in absolute terms than in the final quarter of 2007 (Chart 2.16). This is 211,000 less than the same quarter in 2011 (340,100).

Chart 2.16 Total Unemployment (000s), 1998-2018



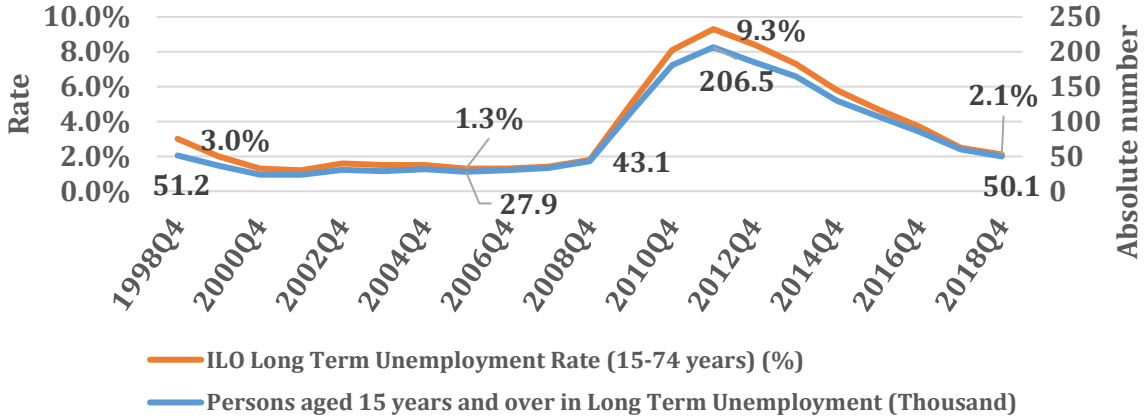
Source: CSO (2019a) Labour Force Survey – Persons aged 15 years and over in Employment by Sex, ILO Economic Status and Quarter-Table QLF 01

Chart 2.17 ILO Unemployment Rate (15-74), 1998-2018, (%)



Source: CSO (2019a) Labour Force Survey, ILO Unemployment Rates (15 - 74) (Seasonally Adjusted) (%) by Sex-Table QLF 02

Chart 2.18 Long-term Unemployment, 000s, (%), 1998-2018



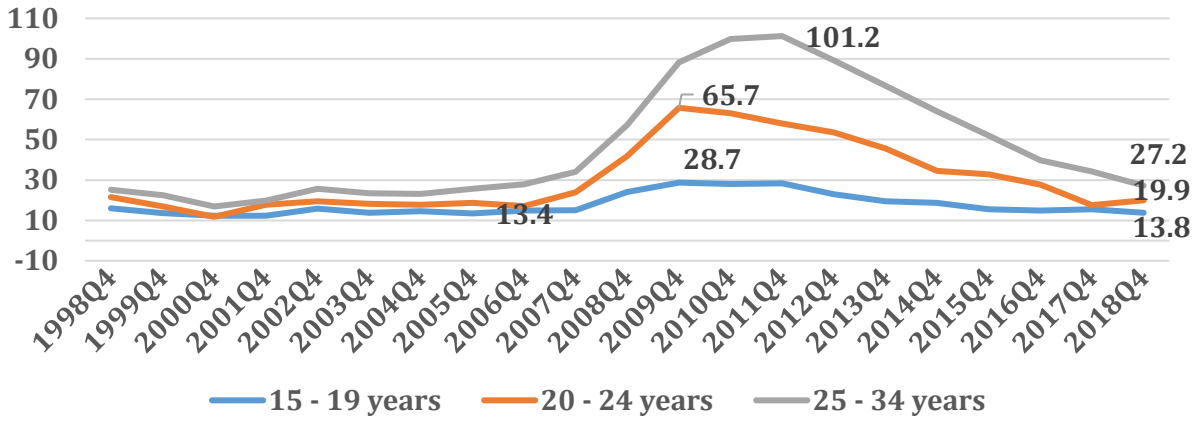
Source: CSO (2019a) Labour Force Survey – Persons aged 15 years and over by State, statistical indicator -Table QLF 31

The unemployment rate remains higher than any year between 1999 and the financial crisis, at 5.7 per cent in Q4 2018, down from 6.4 per cent in a year (Chart 2.17). This is a vast improvement on the unemployment rate in the latter stages of the recession, which reached 15.8 per cent by the end of 2011 before ultimately peaking at 15.9 per cent (Q3 2012). 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. Latest figures show male unemployment now to be just 0.1% lower than female.

The total number of long-term unemployed was 50,100 in Q4 2018 (a rate of 2.1%), just over 20,000 more than the same quarter in 2006 (1.3%). This was almost identical to the absolute figure in Q4 1998 (50,200), although the rate was higher (3.0 per cent) (Chart 2.18).

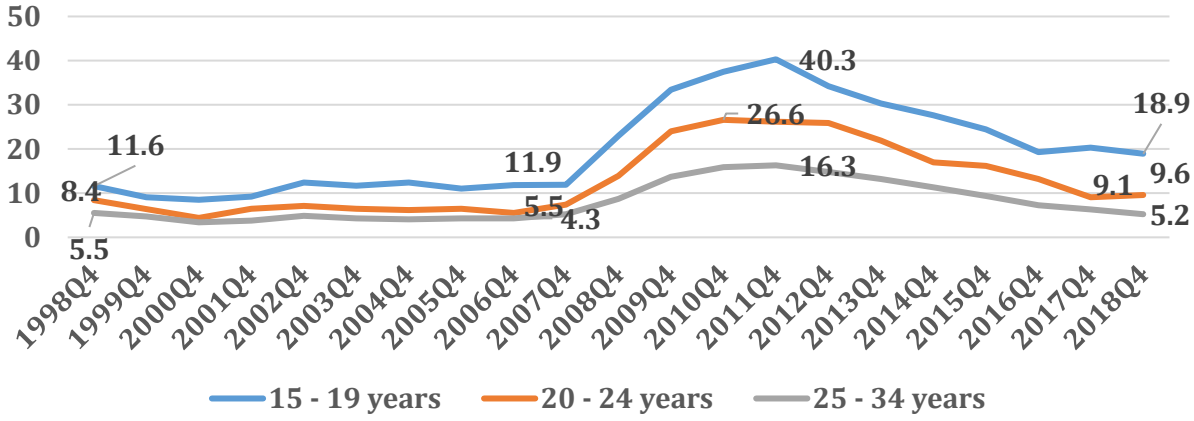
Of the 128,800 unemployed in Q4 2018, just under half or 60,900 were under 35 and almost a quarter or 27,200 were between 25 and 34, although the overall rate for this group has

Chart 2.19 ILO Unemployment by Cohort, 000, 1998-2018



Source: CSO (2019a) Labour Force Survey – ILO Participation, Employment and Unemployment Characteristics- Table QLF 18

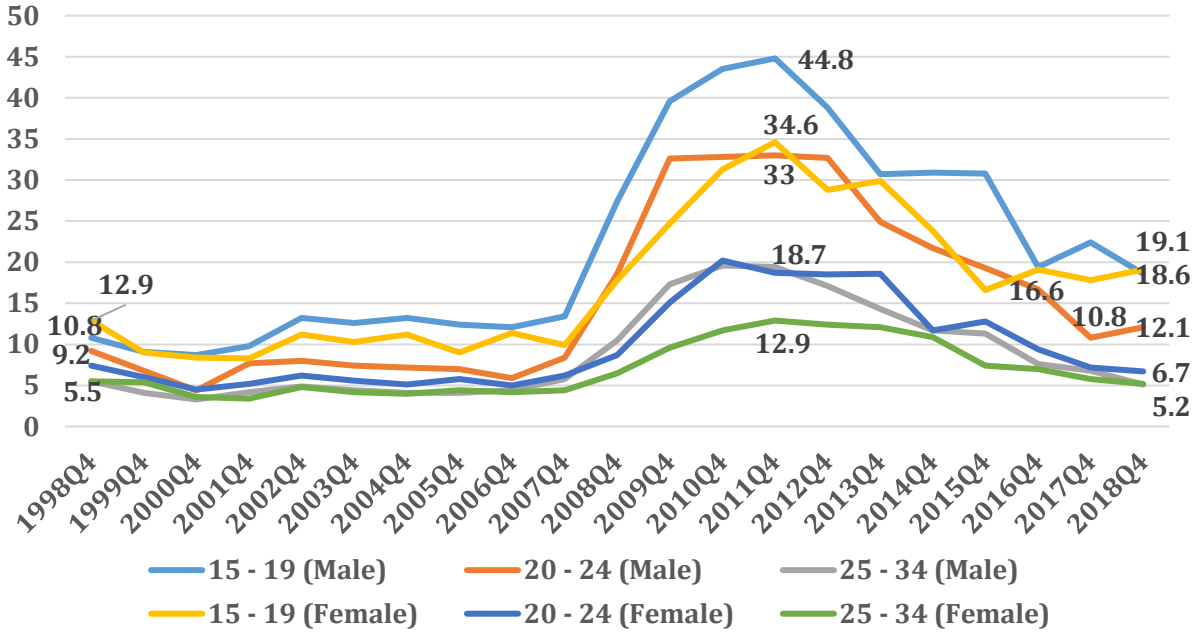
Chart 2.19.1 ILO Unemployment by Cohort, %, 1998-2018



Source: CSO (2019a) Labour Force Survey – ILO Participation, Employment and Unemployment Characteristics-Table QLF 18

come down now below average. The disproportionate impact of the crisis on younger cohorts is clear in the spike in youth unemployment between 2007 and 2009 (Chart 2.19 and Chart 2.19.1). Although the absolute numbers of unemployed, as well as the unemployment rates specific to each cohort have been steadily declining since 2011/12, unemployment has still not recovered from the crisis. For 15 to 19 year olds the unemployment rate remains seven points higher in 2018 than in 2007 (18.9 compared to 11.9%) and over three times the national average. For 20-24 year olds, unemployment is more than four points higher than in 2007 (9.6 and 5.5 per cent) and higher than any year from 1998 up to the financial crisis. The unemployment rate for this group actually increased over the past year (9.1-9.6 per cent). These figures are a continued cause for concern given international evidence that youth unemployment has a permanent scarring effect on lifetime job prospects (Gregg & Tominey 2005). For the next cohort (25-34), the unemployment rate has almost fully

Chart 2.20 ILO Unemployment by Cohort & Gender, %, 1998-2018



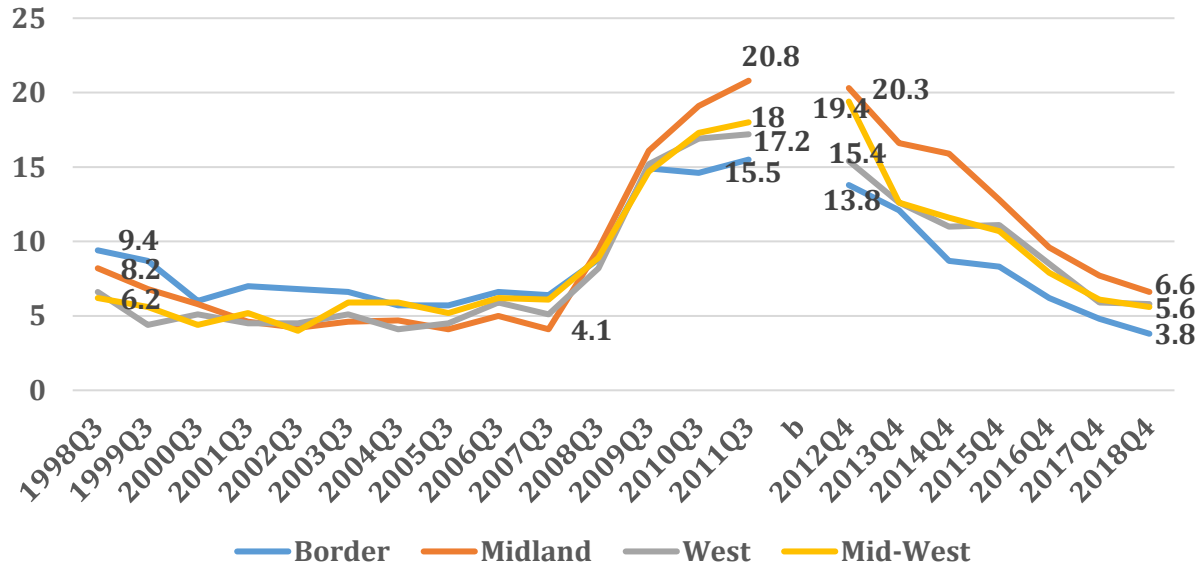
Source: CSO (2019a) Labour Force Survey –ILO Participation, Employment and Unemployment Characteristics- Table QLF 18

recovered and is below the national average, at 5.2 per cent it remains higher than any year from 1999 and 2006.

Chart 2.20.1 shows the gender breakdown by cohort. For the 20-24 year old group, there is more than a five-point gap in unemployment, with males (12.1 per cent) more likely to be looking for a job than females (6.7 per cent). The gap also increased by over one and a half points in the past year. Little gender difference exists in unemployment rates for the other two cohorts though the figures have been inching upwards for females aged 15-19 over the past three years (16.6-18.8 per cent).

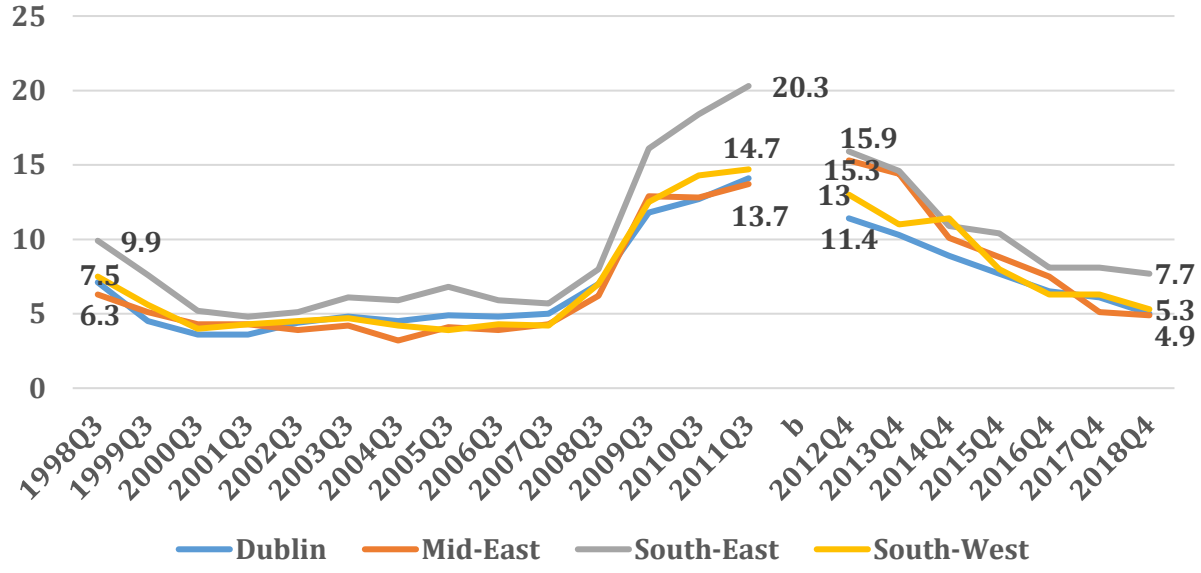
Notable regional disparities in unemployment rates persist (Chart 2.21 and 2.21.1). Unfortunately, for comparability over time, the figures are only available as far back as the very end of the recession. The latest estimates from the new Labour Force Survey paint a slightly different picture of the regions from the previous survey. They show the South-East to have the highest regional unemployment (7.7%), followed by the Midlands (6.6%) and the West (5.8%). The Border region has the most favourable rate at 3.8 per cent. Every region has seen a vast improvement on 2012 and regional rates have been steadily decreasing up to 2018. Other than in the Border region, the West and Dublin, the unemployment rate has still to recover from the financial crisis.

Chart 2.21 Unemployment Rate by Selected Region (15-74), 1998-2018, (%)



Source: CSO (2019a) Labour Force Survey –15+ by Region, Quarter and Statistic (2012-2018)- Table QLF 08, CSO (2018a) Labour Force Survey –15+ and over by Region, Quarter and Statistic (1998-2012)- Table QLF 15

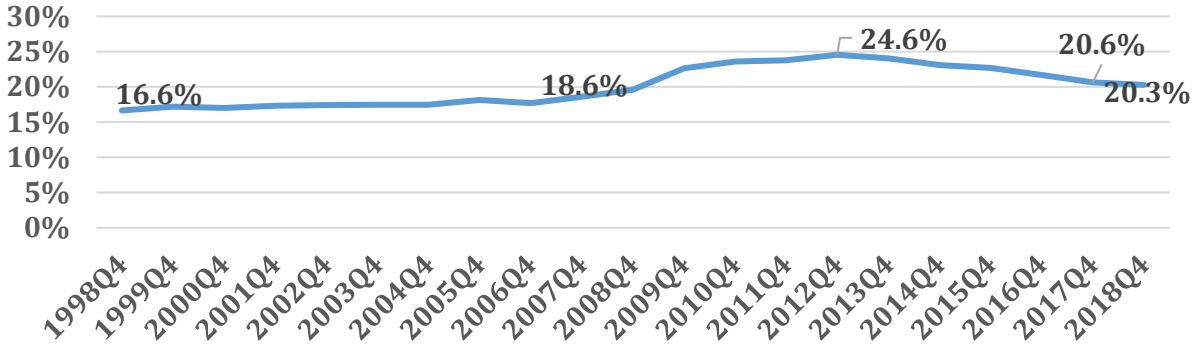
Chart 2.21.1 Unemployment Rate by Selected Region (15-74), 1998-2018, (%)



Source: CSO (2019a) Labour Force Survey –15+ by Region, Quarter and Statistic (2012-2018)- Table QLF 08, CSO (2018a) Labour Force Survey –15+ and over by Region, Quarter and Statistic (1998-2012)- Table QLF 15

The share of part-time work in employment has trended upwards for the past two decades, accelerating during the early years of the crisis and declining again since 2012 (chart 2.22).Between 2017 and 2018 however, the trend downward was marginal (20.6-20.3 per cent). Access to microdata allows researchers to control for certain demographics. Chart 2.23

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



Source: CSO (2019a) Labour Force Survey – 15+ in Employment by Sex, ILO Economic Status- Table QLF01

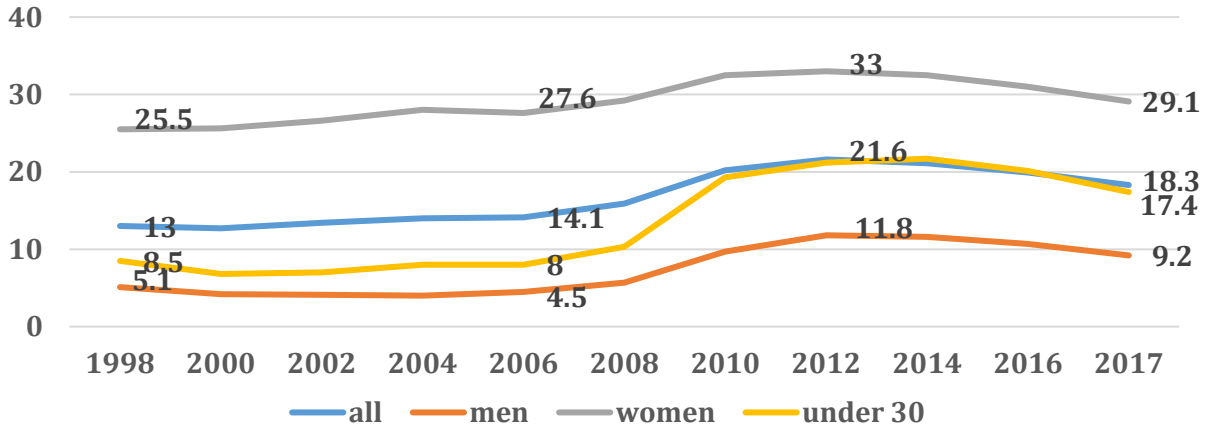
shows estimates of the shares of part-time work for younger workers and by gender as a proportion of those 'at work' since 1998.[3]

This is a particularly important control for younger workers to discount students. Labour Force data show a rise in part-time work for each demographic which accelerated during the crisis and dropped again after 2012. The share of part-time work for each group however is still higher (2017) than in 1998 and 2008. The share 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 for any of the groups since 1998 in the share of part-time employment is for workers under thirty with the lion's share of this growth occurring between 2008 and 2010. According to the latest figures, the share of part-time work for this group is almost two and a half times the rate in 2002 (7 per cent compared to 17.4 per cent in 2017). In addition, the part-time rate in 2017 is over twice as high for men as it was just prior to the economic crash.

Chart 2.23.1 shows rates for those part-time workers who would rather be in a full-time job but cannot find one; the involuntarily underemployed. Note that this indicator includes only those who self-identify as primarily 'at work'. The proportion of part-timers seeking full-time employment but unable to find it doubled between 2006 and 2017 from 14 per cent to 28.4 per cent. This was highest for men at 48.8 per cent, followed by younger workers under thirty at 41.4 per cent. 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

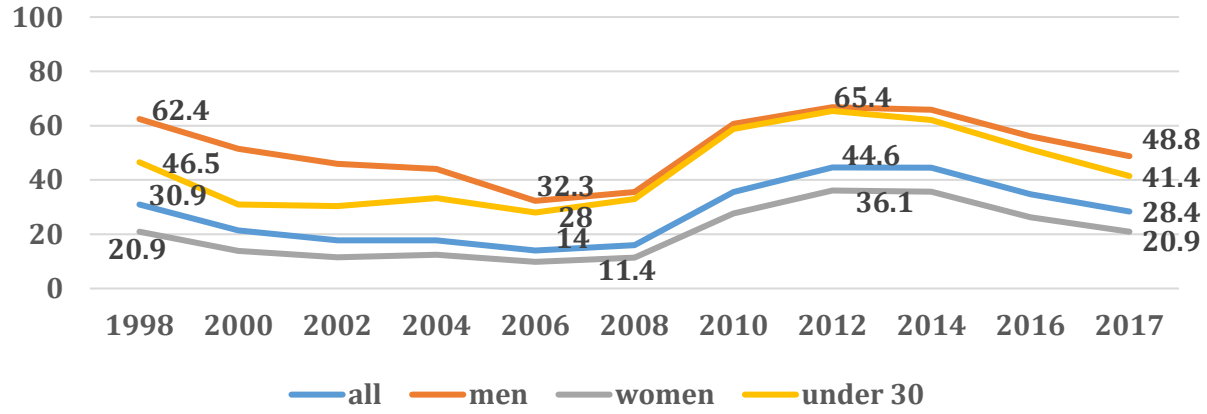
[3] This figure does not include those who identify as anything other than 'at work' such as students, many of whom are likely to be working part-time, those on home duties, retirees and others.

Chart 2.23 Part-time rates, 1998-2017, %



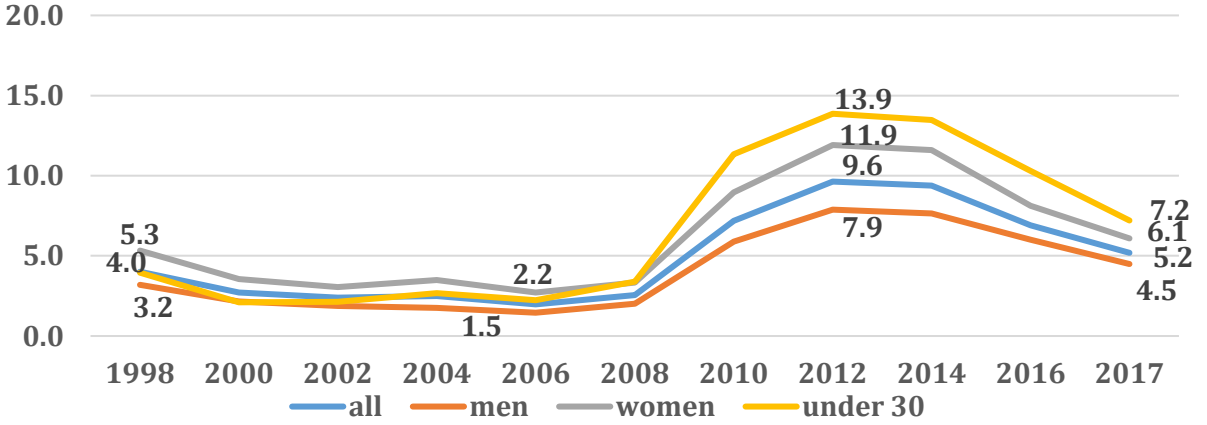
Source: CSO (2018a) Labour Force Survey and authors calculations
Notes: Rates are for those who identify as 'at work' as their principal status

Chart 2.23.1 Underemployed (% of part-time workers), 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 2.23.2 Underemployed (% of those 'at work'), 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'.

women reflects the higher proportion likely to answer that they are part-time workers because they are '*looking after children or incapacitated adults*'.[4]

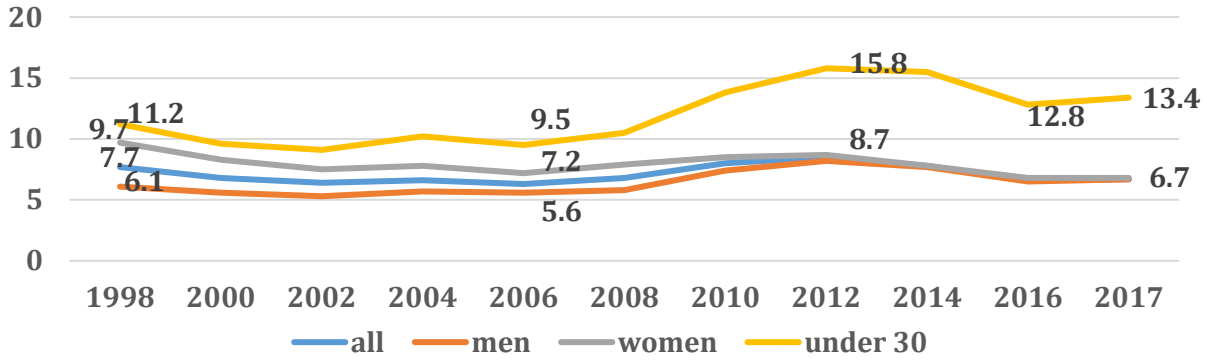
This translates to an involuntary underemployment rate of 5.2 per cent in 2017 for those 'at work', 7.2 per cent for workers under thirty and 6.1 per cent for women (Chart 2.23.2). The aggregate rate is over two and a half times its lowest point in 2006, translating to an increase of approximately 69,000 over that period.

Latest headline figures from Eurostat show an increase in the share of temporary employees from 6.7 to 7.6 per cent between 2017 and 2018.[5] Access to more detailed data allows researchers to group certain types of workers and exclude others with the latest data from 2017. Temporary contracts peaked in 2012 at over 8 per cent of those identifying as 'at work' (Chart 2.24) and was 6.7 per cent in Q3 2017.[6] The prevalence of temporary employment is now virtually equal for both genders. For these employees 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, the LFS recorded an increase 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 2.24 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 workers would rather have a more secure contract. On the other hand, this figure has come down from close to five-in-six 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 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.

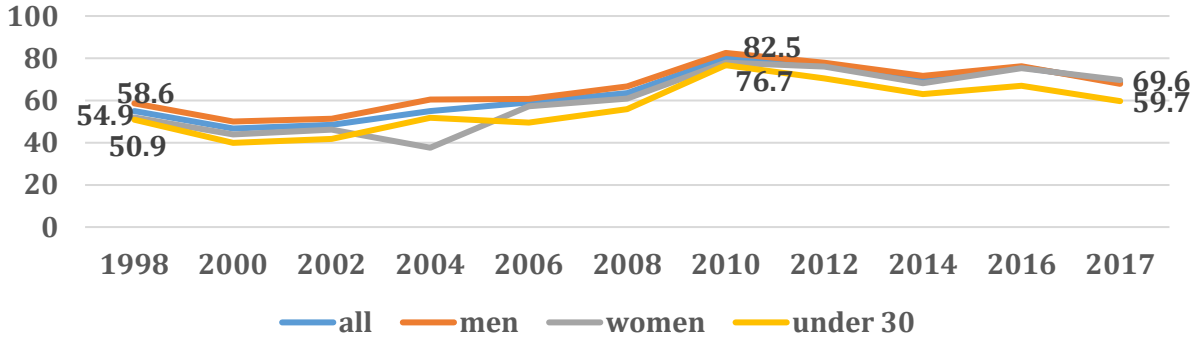
[4] The framing of the possible survey responses to this question might downplay the proportion of women who would like to be in full-time work and are forced by the prohibitive costs of private childcare and care of elderly/ill relatives into part-time work.
[5] https://ec.europa.eu/eurostat/tgm/table.do?tab=table&plugin=1&language=en&pcode=tesem110
[6] 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 2.23 Temporary Contract Rate, 1998-2017



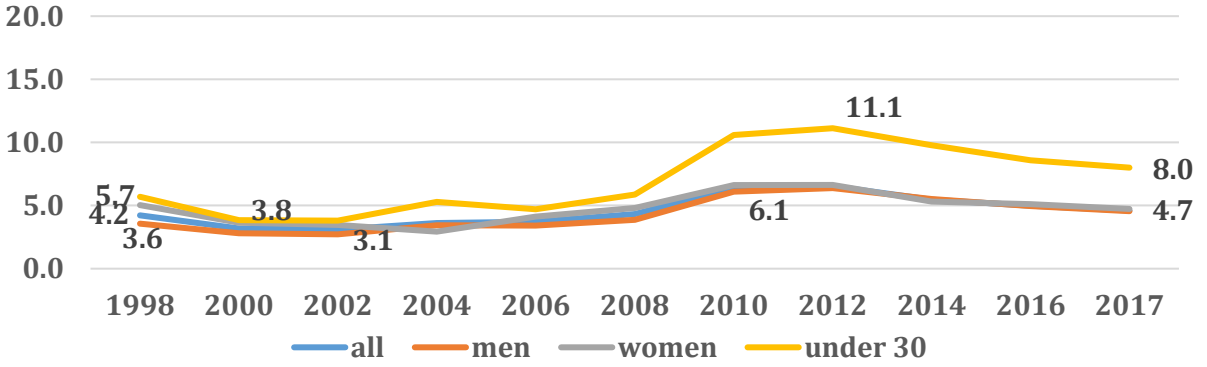
Source: CSO (2018a) Labour Force Survey and authors calculations
Notes: Rates are for those who identify as 'at work' as their principal economic status.

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



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

Chart 2.24.1 Involuntary Temporary Contracts (% of those at work), 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'.[7]

[7] 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.

Table 2.7 shows job vacancy rates (JVR) by economic sector. The JVR was 0.9 per cent in Q4 2018, unchanged since 2016 and low by international standards. This is evidence to suggest that there may be remaining slack in the Irish labour market. The only sector with a marked improvement in the JVR since 2008 has been in *Professional, scientific and technical activities* with some evidence of tightness (1.2-2.7). Although there is little change over ten years in the JVR in *Financial, insurance and real estate activities* (2.2), there is also some evidence of tightness and a higher share of job opportunities.

As there are inherent differences in job markets in different sectors, with some more likely to advertise jobs, levels of slack cannot be compared by JVR's alone. Within-sector comparisons across time however are still relevant. Over the past two years, there has been no change in the national JVR, as well as in four out of thirteen sectors; *Administrative and support*, *Accommodation and food*, *Information and communication* and *Education*. The JVR for six out of thirteen sectors actually fell between 2016 and 2018 and only increased in three; *Public admin and defence*, *Financial, insurance, real estate activities* and *Industry*. This suggests particularly high degrees of slack in the remaining ten of thirteen sectors.

The total number of job vacancies in the economy was 16,300 in the final quarter of 2018, down from 17,700 a year before that, a decline of 8%.

Table 2.7 Job Vacancy Rate by Economic Sector, 2008-2018

	2008 Q2	2012 Q4	2016 Q4	2018 Q4
All NACE economic sectors	0.9	0.6	0.9	0.9
Construction (F)	0.2	0.3	0.6	0.3
Wholesale and retail trade; repair of motor v...(G)	0.8	0.3	0.8	0.4
Transportation and storage (H)	0.3	0.3	0.5	0.4
Accommodation and food service activities (I)	0.6	0.4	0.7	0.7
Information and communication (J)	1.9	2.2	1.7	1.7
Professional, scientific and technical activities (M)	1.2	1	1.7	2.7
Administrative and support service activities (N)	1	0.9	1.2	1
Public admin and defence; compulsory s... (O)	1.5	0.4	0.8	1.6
Education (P)	0.6	0.4	0.5	0.5
Human health and social work activities (Q)	0.9	0.5	1.3	0.6
Industry (B to E)	0.5	0.5	0.5	0.7
Financial, insurance, real estate activities (K,L)	2.1	2	1.9	2.2
Arts, entertainment, recreation and other s.. (R,S)	1.1	0.7	0.7	0.5

Source: CSO (2019c) Earnings, Hours and Employment Costs- Job Vacancies by Economic Sector NACE Rev 2, Private or Public Sector, Quarter and Statistic – Table EHQ 16
Notes: JVR = number of job vacancies/(number of occupied posts + number of job vacancies)*100

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, 2019c).

3.1 Nominal wage growth

Average weekly earnings were €761.65 in Q4 2018 (Table 3.1). This represents a 4.1 per cent annual increase or 3.4% in real terms. Over a decade, this represents growth of just 5.5 per cent, and 5.8 in real terms.[8]

The aggregate figure masks substantial sectoral differences. Nominal weekly earnings were lower in 2018 compared to 2008 in four of the sixteen reporting economic sectors, three of which are most associated with the public service: *Public Administration*, *Education*, *Human Health & Social Work* and *Arts, entertainment, recreation and other service activities*. Nominal average earnings exceed €1,000 in the *Information & Communications* sector (€1,175) and in the *Financial & Insurance Activities* sector (€1,133).

These are among the sectors with the highest wage growth over the decade, at 22.5 and 10.8 per cent (22.8 and 11.1 in real terms). Other sectors performing relatively well include *Admin and support services* (21.8), *Professional, Scientific and technical* (14.2) and *Wholesale retail*

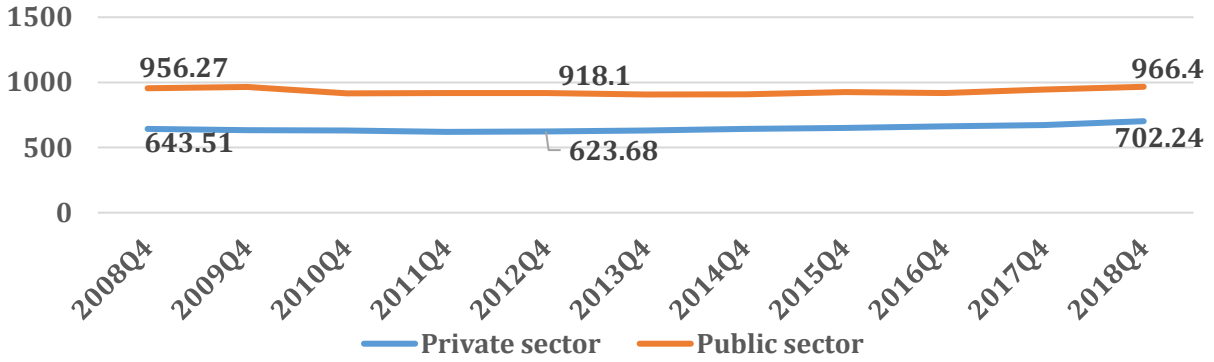
Table 3.1 Nominal Average Weekly Earnings by Sector, 2008-2018, €

	2008 Q4	2013 Q4	2017 Q4	2018 Q4	2008-18 Δ
All NACE economic sectors	721.89	694.03	731.86	761.65	**5.5%**
Industry (B to E)	818.55	831.34	882.56	897.81	**9.7%**
Construction (F)	788.96	731.45	750.64	810.6	**2.7%**
Wholesale and retail trade; re.. (G)	518.78	533.33	582.99	596.6	**15.0%**
Transportation and storage (H)	796.66	755.76	781.47	852.79	**7.0%**
Accommodation and food ser... (I)	348.21	314.8	346.64	360.73	**3.6%**
Information and communic... (J)	959.86	1002.93	1113.04	1175.46	**22.5%**
Financial and insurance acti... (K)	1022.61	1035.9	1085.72	1133.08	**10.8%**
Real estate activities (L)	678.79	540.1	735.02	752.34	**10.8%**
Professional, scientific and tec..(M)	822.82	817.31	916.65	939.97	**14.2%**
Administrative and support se..(N)	496.67	496.76	547.52	605.01	**21.8%**
Public administration and def.. (O)	982.84	925.69	943.25	955.42	**-2.8%**
Education (P)	890.33	816.92	838.91	861.13	**-3.3%**
Human health and social wo.. (Q)	772.11	672.36	703.46	729.2	**-5.6%**
Arts, entertainment, recreati.. (R,S)	507.97	490.9	477.59	493.12	**-2.9%**

Source: CSO (2019c) Earnings, Hours, Employment Costs – Average Weekly Earnings (Euro) by Type of Employee, Economic Sector-Table EHQ 03

[8] The analysis uses CPI from November to November. https://www.cso.ie/en/interactivezone/visualisationtools/cpiinflationcalculator/

Chart 3.1 Nominal Average Weekly Earnings in the Public and Private Sectors, 2008-2017, €



Source: CSO (2019c) Earnings, Hours, Employment Costs – Average Weekly Earnings by Private or Public Sector and Quarter -Table EHQ 08

(15.0 per cent). Weekly wages averaged from €360.18 in *Accommodation and Food Services* to €1,175.46 in *Information and Communications* in Q4 2018.

Average weekly public sector wages were €966.40 in Q4 2018 representing a nominal increase of just 1.0 per cent over ten years, or 1.3% in real terms (Chart 3.1). Average private sector wages, at €702.24, increased 9.1 per cent in the same period, or 9.4 in real terms. Average private sector wages were just 72.7 per cent of public sector wages in Q4 2018. Direct comparison of the averages is misleading however, as the skill profiles of workers in the two sectors differ markedly.[9] The share of those with undergraduate-level education or higher is substantially higher in the public sector (CSO, 2014).

Table 3.2 shows the average weekly earnings for the public sector sub-sectors. The *Garda Siochána* have had the highest wage growth over the decade at 6.5 per cent. They are also the highest earning sub-sector at €1,232.53. The opposite is true of *regional bodies* who have the lowest earnings at €844.42 and experienced the largest drop over the past decade (10.2 per cent). Similarly, wages in *Defence* are the second lowest and had the second largest drop since 2008 (7.0 per cent). Average weekly earnings also exceed €1,000 for workers in the *Semi-states*.

The Earnings, Hours and Employment Costs survey also provide data on average wages by broad company size. Average weekly earnings tend to increase as the size of the company does.

[9] https://www.cso.ie/en/media/csoie/newsevents/researchpaper/EconA20112014.pdf

Table 3.2 Nominal Average Weekly Earnings for Public Sector Sub-sectors, €

	2008Q4	2013Q4	2017Q4	2018Q4	08-18 Δ
Civil service	982.77	924.16	926.60	944.88	-4.7%
Defence	914.65	895.83	843.24	857.96	-7.0%
Garda Síochána	1149.01	1131.97	1,288.81	1232.53	6.5%
Education	950.66	920.81	962.88	997.23	4.1%
Regional bodies	931.98	830.64	824.53	844.42	-10.2%
Health	913.67	851.99	896.26	919.64	-0.1%
Semi-State companies	1022.42	989.46	1,027.67	1042.96	1.2%
Commercial Semi-State	1014.79	981.36	1,042.85	1057.08	3.4%
Non-commercial Semi-State	1048.38	1018.1	988.88	1008.1	-4.6%
Total Public Sector incl. Semi-State	956.27	907.23	944.64	966.4	0.3%
Total Public Sector excl. Semi-State	945.76	894.97	931.82	954.5	0.1%

Source: CSO (2019c) Earnings, Hours, Employment Costs – Average Weekly Earnings (Euro) by Sub Sector and Quarter-Table EHQ 10

Nominal average weekly earnings were in highest in enterprises of 250 employees or more at €882.94 in Q4 2018 (Table 3.3). Average earnings for enterprises with under 50 employees were just 69.7 per cent or €615.36 in comparison and €706.96 for enterprises with 50-250 employees (80.0 per cent that of large enterprises). Average weekly earnings for each group finally recovered from the financial crisis in the past two years in nominal terms with growth accelerating since then. Average weekly earnings are now 5.4 per cent higher in enterprises under 50 than in 2008, 5.3 per cent higher in enterprises of 50 to 250 employees and 3.6 per cent higher in large enterprises.

Table 3.4 shows nominal average hourly earnings by economic sector since 2008. Cumulative hourly wage growth was 5.5 per cent between Q4 2008 and Q4 2018 (5.8 in real terms).

Table 3.3 Nominal Average Weekly Earnings by Size of Firm, 2008-2018, €

	2008Q4	2013Q4	2017Q4	2018Q4	08-18 Δ
Under 50	579.33	550.21	577.26	615.36	5.4%
50 - 250	666.35	647.11	678.24	706.96	5.3%
Greater than 250	846.13	819.6	864.53	882.94	3.6%

Source: CSO (2019c) Earnings, Hours, Employment Costs – Average Earnings and Hours Worked by Size of Employees per Enterprise, Economic Sector NACE Rev 2-Table EHQ 04

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

	2008 Q4	2013 Q4	2017 Q4	2018 Q4	2008-18 Δ
All NACE economic sectors	22.24	21.89	22.6	23.46	5.5%
Industry (B to E)	21.37	21.85	22.86	23.35	9.3%
Construction (F)	21.15	20.32	20.67	21.92	3.6%
Wholesale and retail trade; repair o…. (G)	16.87	17.42	18.68	19.38	14.9%
Transportation and storage (H)	21.34	21.46	21.45	23.63	10.7%
Accommodation and food service act.. (I)	12.78	12.26	12.9	13.33	4.3%
Information and communication (J)	26.66	27.5	30.51	32.32	21.2%
Financial and insurance activities (K)	30.17	30.11	30.78	31.95	5.9%
Real estate activities (L)	21.12	17.74	23.83	24.68	16.9%
Professional, scientific and technical… (M)	25.06	24.75	27.09	27.11	8.2%
Administrative and support service… (N)	16.27	16.6	17.41	18.57	14.1%
Public administration and defence; co..(O)	27.71	25.46	25.55	26.07	-5.9%
Education (P)	35.32	34.33	35.12	36.27	2.7%
Human health and social work activit (Q)	25.04	22.31	22.53	23.13	-7.6%
Arts, entertainment, recreation… (R,S)	17.03	17.24	17.11	17.59	3.3%

Source: CSO (2019c) Earnings, Hours, Employment Costs, Average Earnings, Hours Worked, Employment and Labour Costs by Economic Sector NACE Rev 2, Type of Employee, Quarter and Statistic – Table EHQ 03

Hourly wages in Q4 2018 were highest in the *Education* sector at €36.27[10] (154.6 per cent of the national figure), though the cumulative growth over ten years was one of the lowest of any sector at 2.7 per cent (3.0 in real terms). The lowest average hourly earnings were in the *Accommodation & food services* sector at €13.33 (just 56.8 per cent of the average compared to 57.5 in 2008). Cumulative growth in this sector over a decade was also lower than average (4.3 per cent). The national living wage in 2018 was €11.90 per hour for a single person working full-time (Living Wage, 2018).

Average hourly earnings are highest in *Information and Communications* (€32.32) which also saw the strongest sectoral growth over the decade (21.2 per cent), overtaking earnings in *Financial and Insurance activities* (€31.95), which increased 5.9 per cent in the same period. Earnings growth was relatively strong in *Wholesale/Retail* (14.9 per cent), *Real Estate*

[10] 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 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).

Table 3.5 Average Hourly Earnings by Sector Relative to Average Hourly Earnings in the Economy

	2008 Q4	2018 Q4	% of average 2008Q4	% of average 2018Q4
All NACE economic sectors	22.24	23.46	100.0%	100.0%
Industry (B to E)	21.37	23.35	96.1%	99.5%
Construction (F)	21.15	21.92	95.1%	93.4%
Wholesale and retail trade; repair of motor v.... (G)	16.87	19.38	75.9%	82.6%
Transportation and storage (H)	21.34	23.63	96.0%	100.7%
Accommodation and food service activities (I)	12.78	13.33	57.5%	56.8%
Information and communication (J)	26.66	32.32	119.9%	137.8%
Financial and insurance activities (K)	30.17	31.95	135.7%	136.2%
Real estate activities (L)	21.12	24.68	95.0%	105.2%
Professional, scientific and technical activities (M)	25.06	27.11	112.7%	115.6%
Administrative and support service activities (N)	16.27	18.57	73.2%	79.2%
Public admin and defence; compulsory social..(O)	27.71	26.07	124.6%	111.1%
Education (P)	35.32	36.27	158.8%	154.6%
Human health and social work activities (Q)	25.04	23.13	112.6%	98.6%
Arts, entertainment, recreation and other se... (R,S)	17.03	17.59	76.6%	75.0%

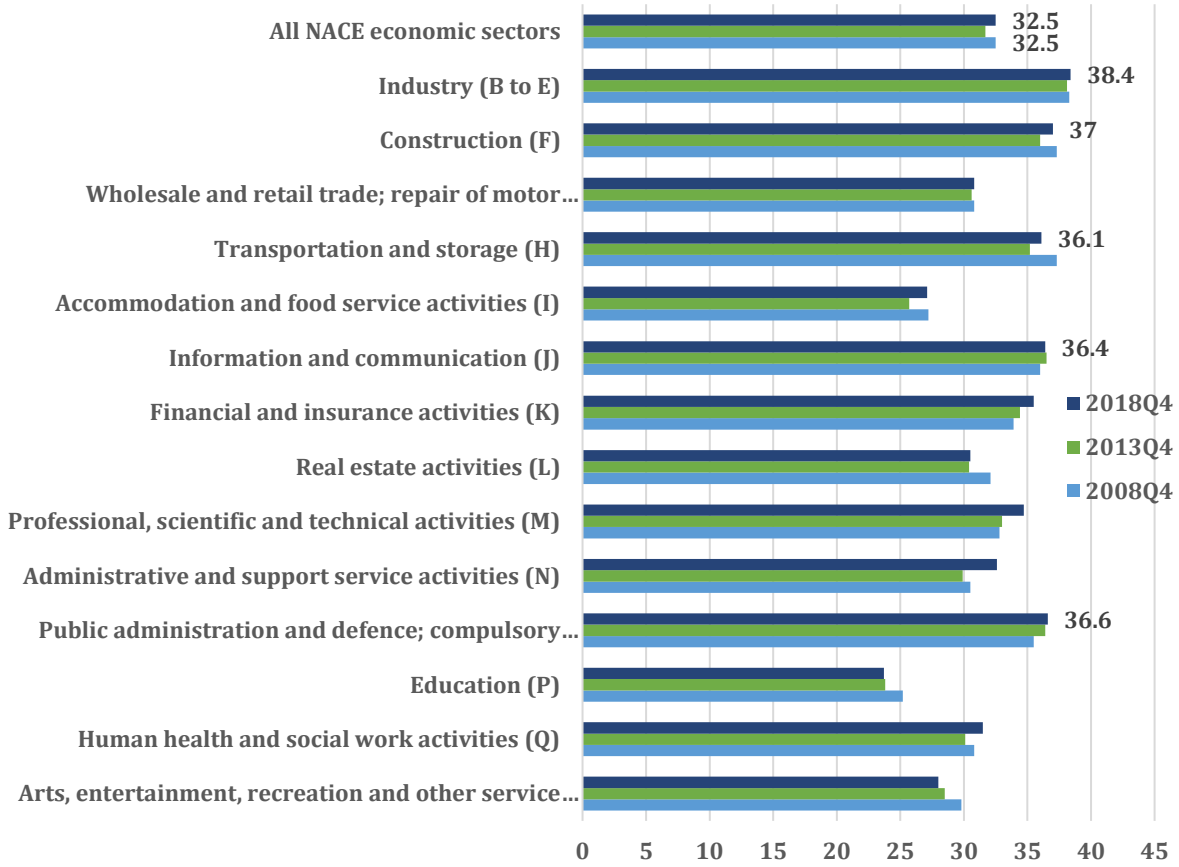
Source: CSO (2019c) Earnings, Hours, Employment Costs, Average Earnings, Hours Worked, Employment and Labour Costs by Economic Sector NACE Rev 2, Type of Employee, Quarter and Statistic – Table EHQ 03

Activities (16.9 per cent), *Admin and support services* (14.1 per cent), *Transportation and Storage* (10.7 per cent), *Industry* (9.3 per cent) and *Professional, Scientific and technical* (8.2 per cent) on foot of strong growth in the past year.

The three worst performing sectors relate mostly to the public sector. Hourly wages in *Health & social work* were down 7.6 per cent over the decade and wages in *Education* only recovered to the nominal wage in 2008 on foot of strong growth on the past year. Average hourly earnings in *Human Health and social work activities* were 12.6 per cent over average in 2008 compared to 1.4 per cent below in 2018. Hourly wages in *Public Administration and defence* are still 5.9 per cent lower than a decade ago. Hourly wage growth in *Construction* was also below average over ten years at 2.8 per cent. However, after several years of negative or slow growth sectoral wages improved strongly over the past year.

Average hourly labour costs increased from €26.31 to €27.14 (3.1 per cent) in the year up to Q4 2018 and are 5.0 per cent higher over ten years.

Chart 3.2 Average Weekly Paid Hours by Economic Sector, 2008-2017



Source: CSO (2019c) Earnings, Hours, Employment Costs –Average Weekly Paid Hours (Hours) by Type of Employee, Economic Sector- Table EHQ 03

Chart 3.2 shows average weekly paid hours by economic sector. Average weekly paid hours returned to 32.5 in Q4 2018 to having decreased during the recession. They have been stable for three years. Employees in *Industry* have the highest paid hours on average (38.4). Although weekly and hourly earnings have decreased for employees in *Public Administration and defence* over the past decade, average hours have continued upward. This is now the second highest of any sector (36.6). Average paid hours in *Construction* and *Information and Communication* are also relatively high, at 37 and 36.4.

Table 3.5 shows average earnings by broad occupational category.[11] There is substantial earnings inequality between the main groups. *Managers, professionals & associated professionals* group had average weekly earnings of €1,274 in Q3 2018, 18.7 per cent higher than Q3 2010 and 1.72 times average earnings. The ratio is even higher for this group of

[11] Unfortunately, the available data is confined to three broad groups instead of the usual nine ISCO categories (based on skill level) and dates only as far back as 2010, the depth of the recession.

Table 3.5 Estimates of Average Earnings by Type of Employee and Economic Sector

		2010 Q3 €	2014 Q3 €	2018 Q3 €	2010-18 real Δ	Ratio to avg wage
Managers, professionals and associated professionals	Business and services (B to N,R,S)	1151	1216	1361	17.4%	1.83
	Public admin, education & health (O to Q)	997	1087	1218	21.4%	1.64
	All NACE sectors excl. A,T,U (B to S)	1073	1134	1274	17.9%	1.72
Clerical, sales and service employees	Business and services (B to N,R,S)	447	465	505	12.2%	0.68
	Public admin, education & health (O to Q)	546	535	575	4.3%	0.77
	All NACE sectors excl. A,T,U (B to S)	476	492	514	7.0%	0.69
Production, transport, craft and other manual workers	Business and services (B to N,R,S)	503	510	578	13.9%	0.78
	Public admin, education & health (O to Q)	506	428	476	-6.7%	0.64
	All NACE sectors excl. A,T,U (B to S)	501	500	550	9.0%	0.74

Source: CSO (2018c) Earnings and Labour Costs Quarterly, Estimates of Average Earnings by Economic Sector NACE Rev 2– Table EHQ13
Notes: All NACE economic sectors excluding activities A, T and U

workers in the sectors dominated by private sector workers. *Managers, professionals and associated professionals* in *Business and Services* earn on average 1.83 times average earnings. Clerical, sales and service employees who make up, in broad terms, the middle of the skills distribution earn 69 per cent of the average or €514 a week. By contrast, these workers get better wages in the public sector.

Employees in the lower third of the skills distribution are paid 74 per cent of average earnings (€550). There are relatively wide discrepancies between public and business sectors among this group however, with these workers returning on average €476 in sectors related to the public service and €578 for those in business and services. This group is the only one considered here to have experienced a decrease in wages since 2010.

3.2 Minimum Wage and Below

A recent release by the CSO profiles minimum wage workers in Ireland between 2016 and 2018 using Labour Force Survey data (CSO 2019e). The analysis found that 7.6 per cent of Irish employees, or 137,200 workers earn the national minimum wage (NMW) or below (Q4 2018). This compares to 8.6 per cent in the final quarter of 2017. The likelihood of being on

the minimum wage is strongly correlated with Gender, Education, Age group, Sector and Occupational group.

Women make up 55.3 per cent of all minimum wage workers with 8.3 per cent of all female employees earning the minimum wage or less. A large majority of these workers are under 35 (70.6 per cent). Thirty two per cent of all employees under 25 are on or under the NMW. A majority of NMW employees work less than 30 hours (51.5 per cent) and temporary workers make up 30.5 per cent of all NMW workers and are much more likely to be on the minimum wage or lower (26.3 compared to 5.7 per cent of permanent staff). Employees in a new job (less than a year) are also more likely to be on or below the NMW (17.9 per cent).

Some regions also have higher shares of workers on or below the NMW. The share in the *South-East* is 12.9 per cent (this has grown over the past two years) and 11.7 per cent in the *Midlands* compared to just 5.5 per cent in Dublin. Fifty-six per cent of all workers on the minimum wage or below work in *Accommodation and Food* (27.8 per cent) or *Wholesale/Retail* (28.2 per cent), translating to 26.6 and 14.9 per cent of employees in these sectors. Over sixty per cent in this category belong to two occupational categories: *Elementary professions* (37.1 per cent) and *Sales and Customer Service* (24.0 per cent). Over 60 per cent of employees on the NMW or below have a secondary school or lower level of education.

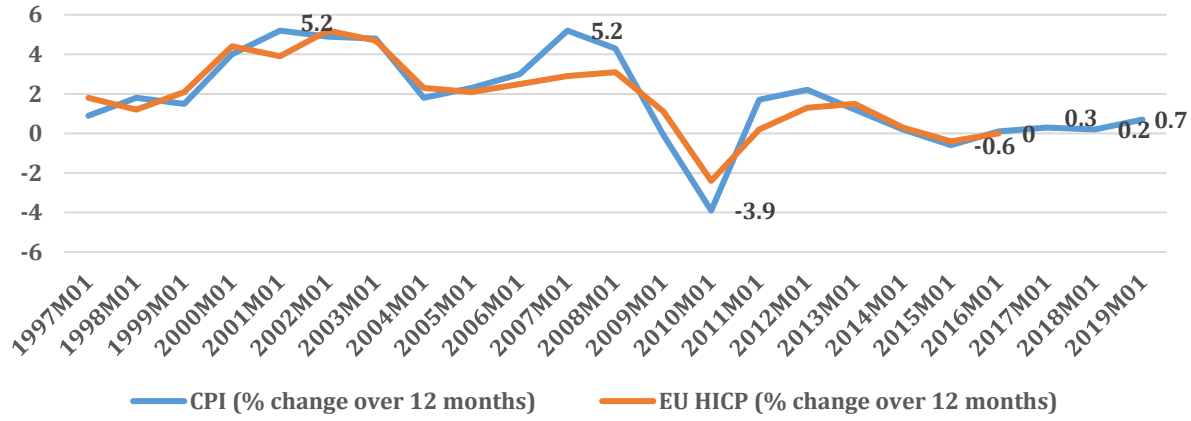
3.3 Prices and real wage growth

Chart 3.3 and Chart 3.4 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 5.2 per cent year-on-year in January 2001 and 2006 and a deflationary low of 3.9 per cent year-on-year (i.e. a decline in prices) in January 2010. The annual average for the CPI has been below 1 per cent since 2013. The Harmonised Index of Consumer Price (HICP) shows very similar results.

The recent period of very low inflation is something of an historical outlier (Chart 3.4). The average annual change in consumer prices since 1923 is 4.4 per cent. The peak of 20.9 per cent in 1975 occurred during a prolonged period of high rates of inflation in the 1970s associated with two oil crises. Between 1969 and 1984, inflation never fell below 7 per cent.

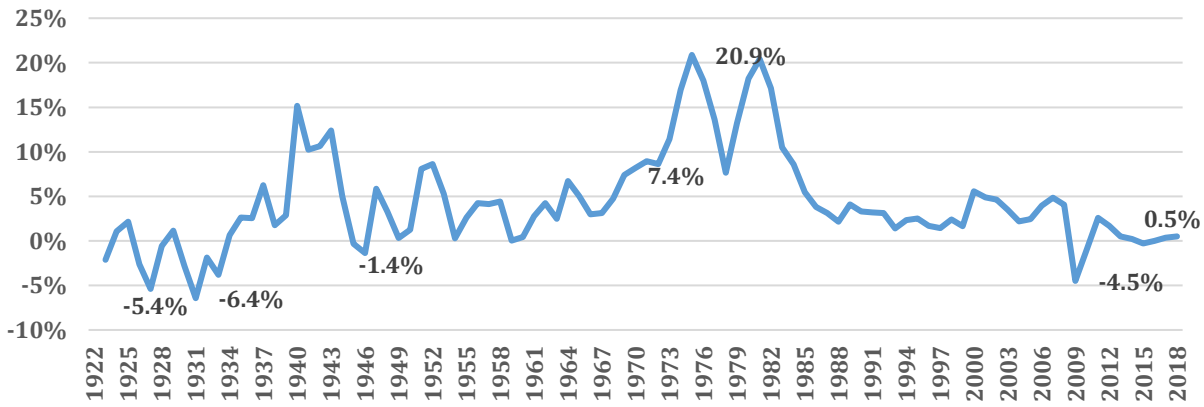
The lowest annual rate recorded for the CPI was in 1931 when prices fell by 6.4 per cent in a year. The CPI fell 4.5 per cent in 2009.

Chart 3.3 The Consumer Price Index and the Harmonised Index of Consumer Prices, 1998-2018, %



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 3.4 The Consumer Price Index and the Harmonised Index of Consumer Prices, ROI, 1922-2019, %



Source: CSO (2019d) Consumer Price Index- Table CPA04
Notes: Annual Inflation measured for 12 months up to January

Table 3.8 Real Annual Avg Weekly Earnings Growth, (Q4-Q4), 2008-18

2009 Q4	2010 Q4	2011 Q4	2012 Q4	2013 Q4	2014 Q4	2015 Q4	2016 Q4	2017 Q4	2018 Q4	2008-18 Δ
5.6%	-3.0%	-3.9%	-1.5%	0.0%	1.1%	1.5%	1.0%	1.5%	3.5%	5.8%

Source: CSO (2019c) Earnings, Hours and Employment Costs- Table EH QO3
Notes: Figures for 12 months growth. Annual Inflation measured for 12 months up to November using CPI- Table CPM 01

Real average weekly earnings rose by 3.5 per cent in the year up to Q4 2018. This was the first year in a decade that real weekly wage growth exceeded two per cent. This was followed by an increase of 1.5 per cent in 2017 and 1 per cent in 2016 (comparing Q4-to-Q4 on an annualised basis). Cumulative growth over ten years was just 4.7 per cent however.

A large drop in CPI in 2009 (-4.5 per cent) rather than an increasing nominal wage drove the relatively high real average weekly earnings growth figure that year. Nominal wages remained relatively sticky in 2009 despite the severe recession taking place. Real average weekly wages fell for the following three years in a row, stabilizing in 2013.

Chart 3.9 shows the trends for real average hourly wages during this period which tend to mirror what we have seen in weekly wages. Inflation between November 2017 and 2018 was 0.6 per cent. A nominal average hourly wage increase in the year-to-Q4 2018 translated into a 3.2 per cent real hourly wage rise. This again, was the first time real hourly wage growth broke 2 per cent in a decade (measured on a Q4-Q4 basis). The cumulative real hourly wage growth over ten years was identical to that for weekly wages at 4.7 per cent. Solid growth over the past three years have resulted in the real average hourly earnings finally recovering after ten years from the financial crisis.

Table 3.9 Real Annual Average Hourly Earnings Growth, (Q4-Q4), 2008-2018

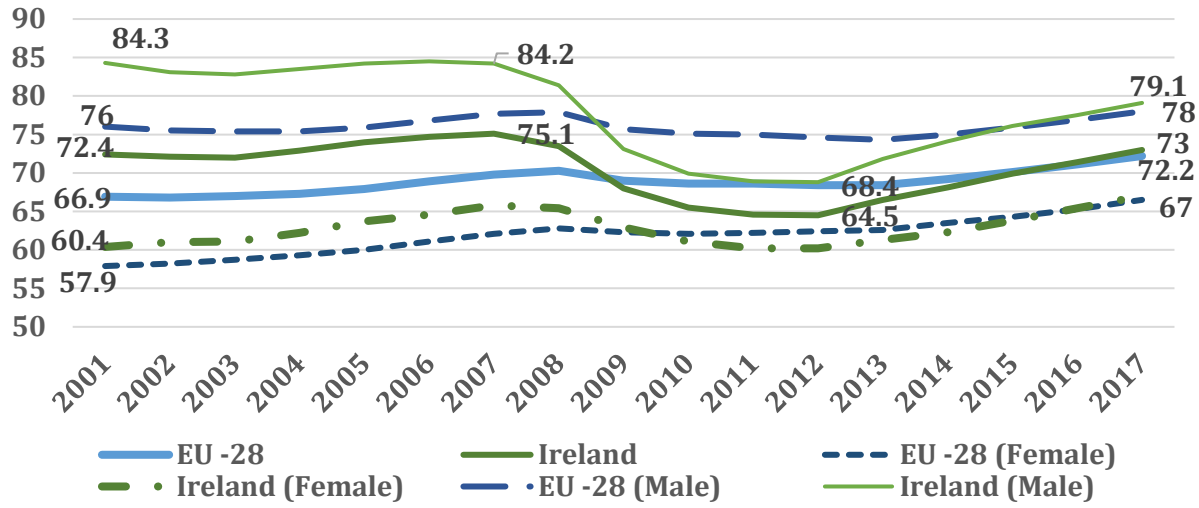
2009 Q4	2010 Q4	2011 Q4	2012 Q4	2013 Q4	2014 Q4	2015 Q4	2016 Q4	2017 Q4	2018 Q4	2008-18 Δ
7.0%	-2.2%	-3.3%	-1.5%	-0.4%	0.6%	-0.4%	1.3%	1.4%	3.2%	5.8%

Source: CSO (2018c) Earnings, Hours and Employment Costs- Table EH QO3
Notes: Figures for 12 months growth. Annual Inflation measured for 12 months up to November using CPI- Table CPM 01

4. COMPARATIVE PERFORMANCE

Examining the evolution of labour market indicators across time is important for guidance on policy and to identify areas where outcomes may be improving or getting worse. Comparing Ireland to similar countries and the wider European Union also gives an idea about our relative performance in an international context.

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



Source: Eurostat (2019a) Labour Force Survey –Employment and activity by sex and age - Table lfsa_emp_a
Notes: Total Employment (resident population concept). Breaks in series noted for Ireland in 2007

Chart 4.1 shows Ireland's relative employment rate performance for 20-64 year olds.[12] From 2001 until 2008, Ireland outperformed the EU 28 average, peaking at 75.1 per cent in 2007. The positive gap between Ireland and the EU 28 reached its widest at 6.1 percentage points in 2005, driven mainly by the Irish male employment rate, which was as much as 8.3 percentage points higher than the EU average in 2005. The average between 2001 and 2008 was 83.1 per cent compared to 75.6 in the EU. The gap in the female employment rate was much smaller during this period, though Ireland slightly outperformed the EU. The EU average between 2001 and 2008 was 60.0 per cent versus 63.0 per cent for Irish women. Ireland's employment rate fell 10.6 percentage points between 2007 and 2012 (15.4 for men) and below the EU average from 2009 to 2015, reflecting the particular severity of the economic crisis in Ireland. In the EU by contrast, employment fell only 1.2 percentage points and 2.4 per cent for men. The female employment rate fell just 5.6 per cent in Ireland and actually increased marginally in the EU. By 2012, the EU's employment rate, at 68.4

[12] This estimate and others will be slightly different and thus, not comparable to some of the estimates in Section 2 compiled by the CSO. This is simply due to different decisions on grouping. For instance, the participation rate published on CSO's statbank service is for everyone over 15. Above, the estimate published by Eurostat is for 20-64 year olds.

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

	2002	2007	2012	2017
Iceland	:	86.7	81.8	87.6
Sweden	78.5	80.1	79.4	81.8
Germany	68.7	72.9	76.9	79.2
United Kingdom	74.5	75.2	74.1	78.2
Netherlands	75.8	77.8	76.6	78
Ireland	72.1	75.1	64.5	73
EU-28	66.8	69.8	68.4	72.2
Poland	57.4	62.7	64.7	70.9
Spain	63.1	69.7	59.6	65.5
Italy	59.4	62.7	60.9	62.3
Greece	62.5	65.8	55	57.8

Source: Eurostat (2018a) Labour Force Survey- Employment and activity by age – Table lfsi_emp_a
Notes: Total Employment (resident population concept). Breaks in series noted for Ireland in 2007

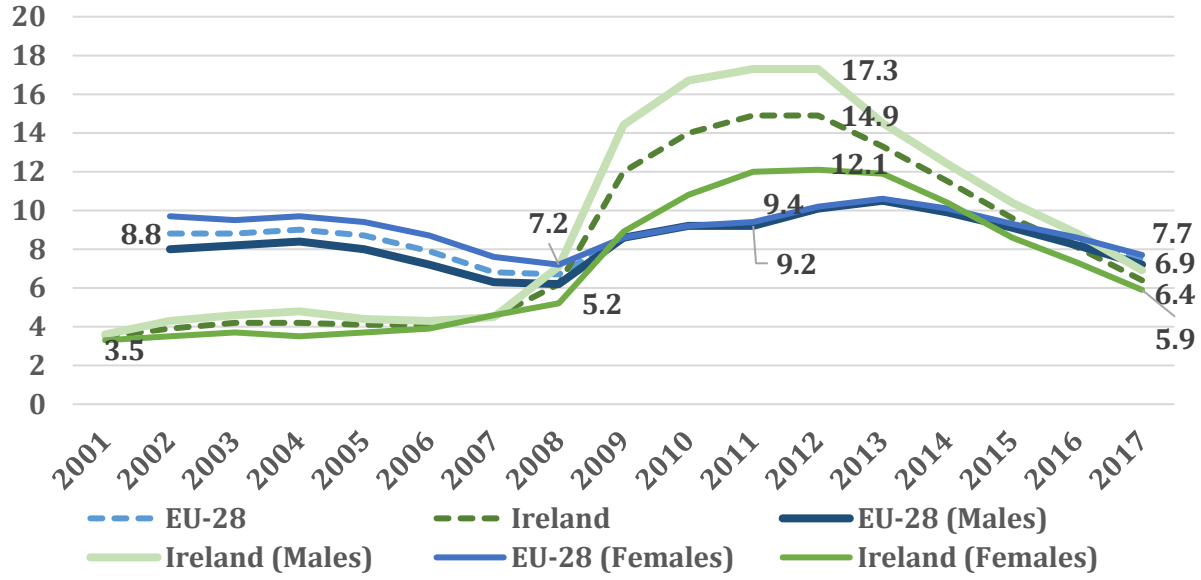
per cent, was well above the 64.4 per cent rate in Ireland. Since 2012, Ireland's employment rate has recovered and marginally exceeded the EU average in 2017, both in total (73.0 compared to 72.2) and for both genders. Ireland's male employment rate of 79.1 was 1.1 percentage points above the EU average in 2017 while the female employment rate of 67.0 was 0.5 percentage points higher.

Ireland is very much a middle performer in an EU context in employment terms but way behind the top performers of Northern and Western Europe (table 4.1). Sweden's employment rate for instance, is 81.8 per cent, almost nine percentage points higher than Ireland. Roughly translated, this means that for every 100 workers aged 20-64, Sweden has almost nine more in employment than in Ireland. Ireland generally performs better than most of the Southern and Eastern European countries.

Ireland consistently had one of the highest unemployment rates in the old EU-15 in the decades leading up to the late 1990s. However, the employment boom of the Celtic Tiger changed that. By 2001, Ireland, at 3.5 per cent had the third lowest unemployment rate in the EU-15 (after Luxembourg and the Netherlands).[13] Ireland's unemployment rate was less than half the EU average from 2000 through to 2005 and remained below until 2009 when Ireland's unemployment rate almost doubled in a single year (Chart 4.2). From 2009 to 2014,

[13] These figures are not directly comparable to unemployment figures in Section 2. In this section, unemployment rate refer to those between 20 and 64 years old.

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



Source: Eurostat (2019a) Labour Force Survey – Table lfsa_urgan

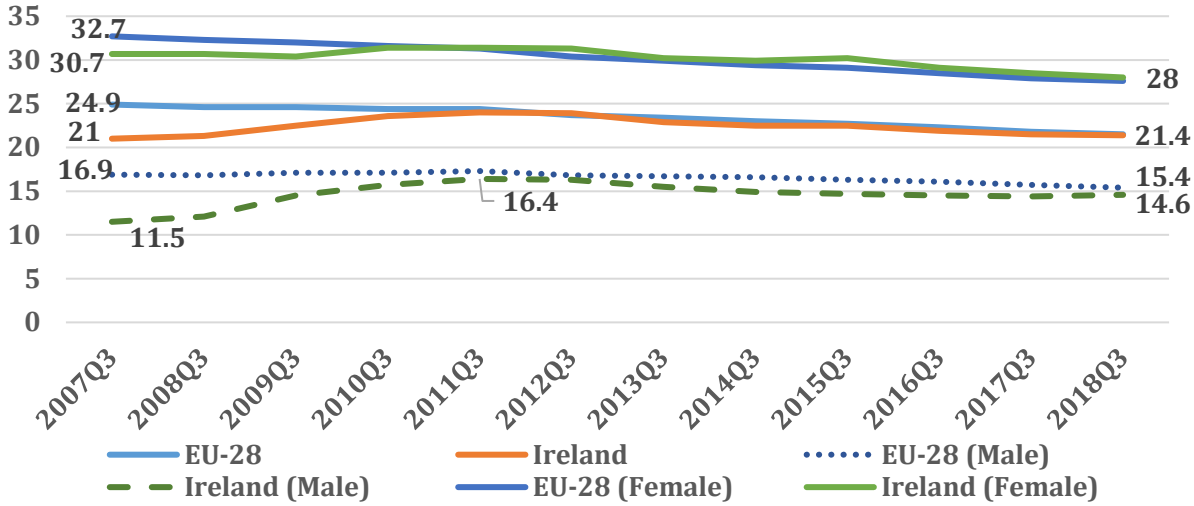
Table 4.2 Unemployment Rate (20-64), ROI and Selected Countries %

	2001	2005	2009	2013	2017
Iceland	1.5	2.1	6.6	4.8	2.4
Germany	7.9	11.2	7.7	5.2	3.7
UK	4.2	4	6.6	6.7	3.8
Netherlands	1.8	5.4	3.8	6.7	4.4
Poland	18.1	17.7	8.1	10.2	4.8
Sweden	4.2	6.8	7.3	7.1	6
Ireland	3.5	4.1	12	13.3	6.4
EU -28		8.7	8.6	10.6	7.5
Italy	9.2	7.4	7.5	11.9	11.1
Spain	9.8	8.7	17.2	25.6	16.9
Greece	10.2	9.8	9.5	27.3	21.4

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

Ireland's unemployment rate remained above the EU average but has fallen below again as of 2016. Female unemployment in Ireland dropped below the EU average in 2015, followed by male unemployment in 2017. The male unemployment rate outstripped the female rate during Ireland's economic crisis, reflecting the collapse of the predominantly male construction sector, peaking at 17.3 per cent in 2011 and 2012. Once again, we can see that Ireland is a mid-performing country in unemployment, generally underperforming Northern and Western Europe in 2017 but outperforming southern Europe (Table 4.2). In February

Chart 4.3 Inactivity Rate (20-64), ROI and EU, 2007-2018



Source: Eurostat (2019a) Labour Force Survey - Inactive population as a percentage of the total population, by sex and age (%) [lfsq_ipga]

Table 4.3 Inactivity Rate, (20-64), ROI and EU, 2007-2018

	2001Q3	2005Q3	2009Q3	2013Q3	2018Q3
Italy	35.4	34.3	33.8	32.9	30.2
Greece	31.3	28.4	27.1	27.1	25.9
Poland	27.6	28.5	28.9	27.4	24.4
EU- 28	:	:	24.6	23.4	21.5
Ireland	25.3	23.5	22.5	22.9	21.4
Spain	30.9	26.2	23	21.2	21.2
Portugal	23.1	21.6	21.6	21.8	18.9
United Kingdom	22.1	21.6	20.8	19.5	18.3
Netherlands	23.2	23.2	20.2	18.7	17.8
Germany	:	21.8	19.7	18.3	17.1
Sweden	17	15.6	15.2	13.5	11.8
Iceland	:	12.5	13.2	11.9	11

Source: Eurostat (2019a) Labour Force Survey - Inactive population as a percentage of the total population, by sex and age (%) [lfsq_ipga]

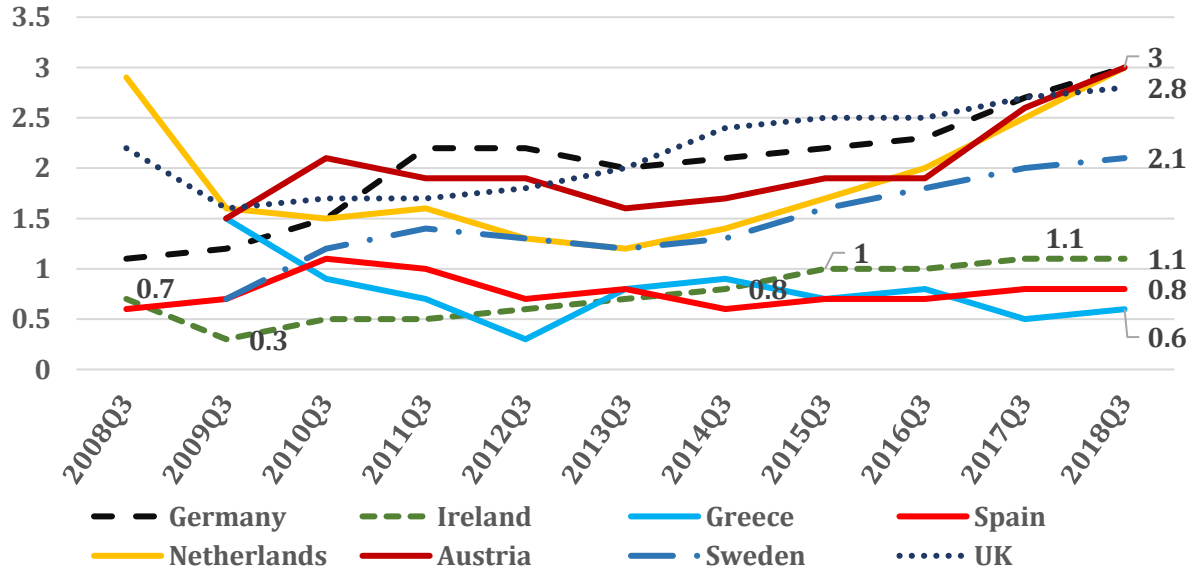
2019, Ireland's seasonally adjusted unemployment rate of 5.6 per cent was below the EU average of 6.5 per cent, ranking 15th out of 28 EU countries.

The inactivity rate is the opposite of the labour force participation rate. The Irish inactivity rate is 0.1 per cent lower than the EU average of 21.5 per cent in the third quarter of 2018 (Chart 4.3). While Irish female inactivity is slightly higher (28.0 compared to 27.6), male inactivity is slightly lower (14.6 per cent compared to 15.4). The latest figures show Irish inactivity at 3.9 percentage points below 2001 but higher than in 2007. For women the inactivity rate has come down significantly since 2001 (37.8-28.0 percentage points) though it is slightly up for men (12.8-14.6 percentage points).

Job vacancy rates (JVR)[14] are indicators of labour supply and demand dynamics as well as of the general health of a national or sectoral labour market. Although Ireland's vacancy rate improved slowly between 2009 (0.3) and 2015 (1.0), it has not improved since then (Chart 4.4). This translates to approximately 19,200 jobs advertised in the quarter. Ireland has significantly lower vacancy rates than many of our European counterparts and is much closer to Spain and Greece in this regard than to Sweden, Austria or even the UK.

Ireland's job vacancy rate ranks 20th out of 28 in the EU. The EU average job vacancy rate in the third quarter of 2018 was 2.2, twice the Irish rate. This suggests there is significant remaining slack in the Irish labour market in late 2018.

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



Source: Eurostat (2019a) Labour Force Survey – Table jvs_q_nace2

At €26.70 per hour, Irish nominal average hourly wages in the *industry, construction & services* sectors (the bulk of the economy) were significantly above the EU average of €20.30 in 2017, and in the top five EU countries. However, considering Ireland within the top 11 income countries, wages are only more than ten per cent higher than in one other country, the UK, which occupies the eleventh spot. There is a €2.50 an hour difference between Ireland and France (€24.20), where hourly wages are the tenth highest in the EU. Denmark has the highest hourly wage rate

[14] The job vacancy rate (JVR) measures the proportion of total posts that are vacant, expressed as a percentage: JVR = (number of job vacancies/(number of occupied posts + number of job vacancies).

Table 4.4 Nominal Wage Trends, ROI and Selected Countries, €

	2004	2008	2012	2013	2014	2015	2016	2017	2004-17 Δ
Denmark	26.9	30.3	34.2	34.6	35	35.5	35.9	36.6	36.1%
Luxembourg	25.7	26.6	29.3	30.3	31.2	31.4	31.7	33	28.4%
Belgium	20.6	23.9	27.4	28	28.2	28.2	28.4	28.9	40.3%
Ireland	22	24.8	25.8	25.7	25.7	25.9	26.2	26.7	21.4%
Germany	21	21.8	23.7	24	24.5	25.1	25.7	26.4	25.7%
Netherlands	20.9	22.9	24.7	25.1	25.1	25.6	25.9	26.4	26.3%
Sweden	19.3	21.2	25.4	26.2	25.5	25.4	25.8	25.8	33.7%
Finland	19	20.9	24.4	24.9	25.3	25.6	25.7	25.6	34.7%
Austria	18.9	19.6	21.9	22.5	23	23.9	24.3	25	32.3%
France	18.9	20.9	22.4	22.8	23.1	23.4	23.8	24.2	28.0%
UK	17.8	20.1	20.9	20.2	21.5	24.8	22.3	21.3	19.7%
Italy	15.7	18.2	19.9	20.2	20.3	20.3	20.3	20.4	29.9%
EU-28	14.9	16.7	18.6	18.8	19.1	19.5	19.9	20.3	36.2%
Spain	12.3	14.3	15.7	15.6	15.7	15.8	15.8	15.9	29.3%
Portugal	9.1	9.9	10.7	10.6	10.5	10.6	10.9	11.3	24.2%
Greece	11.5	13.5	12.2	10.9	10.8	10.7	10.7	10.8	-6.1%

Source: Eurostat (2019b) 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 €36.60 while Bulgaria has the lowest at €4.20.

Cumulative hourly wage growth since 2004 has been significantly slower in Ireland (21.4 per cent) than it has been in the EU as a whole (36.2 per cent) and the single market (32.7 per cent), by significant margins. Greece was the only EU country where wages fell over the period, where they are 6.1 per cent lower than in 2004. Wage growth has been sluggish since the end of the euro crisis at just 9.1 per cent in the EU between 2012 and 2017 and 3.4 per cent in Ireland (1.3 per cent in real terms).

Ireland's average hourly labour costs are also high in an EU context though they are much lower than many similar small open economies (Table 4.5). Average labour costs in Ireland were €31.00 an hour in 2017 compared to €26.80 for the EU as a whole. While nominal wages are 31.5 per cent higher in Ireland, labour costs are just 15.7 per cent higher. This mainly reflects the much lower than average social contributions from employers in Ireland. Nominal hourly labour costs are at least ten per cent higher in Denmark, Belgium, Sweden, Luxembourg, France, Netherlands, Germany and Austria than in Ireland. This, rather than wages is what business considers when weighing up the cost competitiveness of economies and making decisions about the location of investments. Ireland is relatively competitive in unit labour costs in an EU context.

Table 4.5 Nominal Labour Cost Trends, ROI and Selected Countries, €

	2004	2008	2012	2013	2014	2015	2016	2017	2004-17Δ
Denmark	29.6	34.6	39.4	39.9	40.6	41.2	41.6	42.5	43.5%
Belgium	29.2	32.9	38	38.7	39	39.1	39.2	39.6	35.6%
Sweden	29	31.6	37.3	38.2	37.3	37.4	38.2	38.3	32.0%
Luxembourg	30.3	31	33.9	35.1	36.2	36.3	36.7	37.6	24.1%
France	28.2	31.2	34.3	34.5	34.7	35.1	35.6	36	27.7%
Netherlands	27.4	29.8	32.5	33.2	33.7	33.7	34	34.8	27.0%
Germany	26.8	27.9	30.5	30.9	31.5	32.3	33.2	34.1	27.2%
Austria	25.2	26.4	29.7	30.6	31.5	32.5	33.2	34.1	35.3%
Finland	24.4	27.1	31.3	32	32.5	33	33.2	32.7	34.0%
Ireland	25.3	28.9	29.8	29.8	29.8	30	30.4	31	22.5%
Italy	22.4	25.2	27.7	28.1	28.3	28.1	28	28.2	25.9%
EU-28	19.8	21.9	24.5	24.8	25.2	25.7	26.2	26.8	35.4%
UK	21.6	23.7	25	24.1	25.7	29.7	26.8	25.7	18.9%
Spain	16.5	19.4	21.1	21.2	21.1	21.2	21.1	21.2	28.5%
Greece	15.3	16.8	15.7	14.5	14.5	14.1	14.2	14.5	-5.2%
Portugal	11.3	12.2	13.3	13.3	13.2	13.4	13.7	14.1	24.8%

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)

The European Commission also collate and standardise real wage data from member states for European comparisons.[15] Ireland returned to growth in 2014 after four consecutive years of decline, surpassing EU average growth for the first time since 2009. Irish growth has been ahead of the EU average in three of the last four years. Real wage growth in Ireland was slower than Germany for seven consecutive years between 2010 and 2016. In 2017, the situation reversed with accelerated growth of 1.7 per cent in Ireland and a slowdown in Germany to 0.9 per cent (Table 4.6). The EU average has slowed considerably to 0.5 per cent in 2017, significantly behind Ireland at 1.7 per cent.

Table 4.6 Real Wage Trends, ROI and Selected Countries, 2005-2017

	'04	'05	'06	'07	'08	'09	'10	'11	'12	'13	'14	'15	'16	'17
DE	0.8	-1.3	-0.1	-0.7	0.4	0.6	0.6	0.9	1	0.8	1.8	2	1.6	0.9
IE	3.9	4.2	2.3	3.2	2.7	6.1	-1.0	-0.1	-1.3	-1.5	0.6	1.7	1.2	1.7
UK	3.2	1.4	3.1	3.4	-3.4	1.4	1.4	-2.6	-0.4	0.4	-1.4	0.5	1.9	0.9
EU-28	0.6	0.6	0.6	0.9	-0.1	2.0	1.1	-0.6	-0.1	0.5	0.4	1	1.2	0.5

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.

[15] These estimates are from different surveys than that referred to in section 2 and as such are not directly comparable.

Table 4.7 Adjusted Wage Share, ROI and EU 15 Countries, 1981-2017

	1982	1987	1992	1997	2002	2007	2012	2017
France	75.1	69.1	66.1	65.3	64.5	63.6	66.9	67.1
UK	62.8	61.6	63.8	59.5	64.8	65.9	67.1	66.8
Belgium	70.9	68.2	69.1	68.6	69	65.1	67.8	65.7
Netherlands	72.5	70.9	69.5	66.6	66.2	62.9	66	64.5
Denmark	68.8	69.1	65.1	63.3	64.7	65.7	64.2	64.5
Germany	69.8	67.5	65.7	63.5	63.4	59.4	62.7	62.7
Austria	70.8	68.7	68.3	65.7	63	59.6	62.5	62.4
Sweden	64.7	62.2	63.4	60.5	62.2	59.7	63.2	61.8
Finland	70.4	71.1	71.7	61.9	59.5	58.7	65.2	60.8
Spain	70.9	65.5	68.8	65.3	63.3	62.2	61.2	60.6
Portugal	73.6	63	68.3	67.7	68	64.4	61.4	60.5
Italy	66.5	63	63.8	60.2	58.7	59.9	62	60.3
Luxembourg	60.8	58.8	57.8	57	60.1	56.2	59.3	59.6
Greece	60.3	57.6	55	54.6	57.8	57.7	58.9	58.9
Ireland	70.3	65.9	64.6	56.5	49.4	54.7	51.8	37.1

Source: European Commission (2017) Statistical Annex of European Economy
Notes: Total economy; as percentage of GDP at current factor cost

Table 4.7 shows the adjusted wage share (the share of wages in gross domestic product) of the economies of the EU15. Ireland is an outlier in this regard. Ireland had the second highest wage share in the group in 1981 but it declined steadily over the subsequent twenty years by an average of more than 1 percentage point per year. By 2001, it was the lowest in the EU15. In 2017, the wage share in Ireland (37.1 per cent) was over 20 percentage points below the next lowest country, Greece (58.9 per cent) and even 22.5 percentage points behind Luxembourg. Ireland's adjusted wage share is 30 percentage points off France (67.1 per cent), at the top of the table.

As the tax planning activities of a small number of very large multinationals have a considerable impact on Ireland's national accounts, it is useful to compare this indicator with another that strips this activity from the data. Using the CSO's alternative modified GNI metric (GNI*) instead of GDP as the denominator for Ireland, we find that the wage share is 60.2 per cent of GNI*. Although this is not directly comparable to the figures for other countries based on GDP, it shows Ireland is still towards the bottom of the list. The UK was the only EU 15 country to have a higher wage share in 2016 than it had in 1981.

5. CONCLUDING REMARKS

In many regards, the Irish labour market has still not fully recovered from the impact of the 2007-08 economic crisis. The unemployment rate and underemployment are still higher and employment and participation rates both lower relative to 2007/8. The Job Vacancy Rate is still low both in an Irish and international context and has not improved in three years. The data suggest there was a degree of slack in the Irish labour market in 2018. Overall, there was little evidence of the labour market overheating**.**

However, real wage growth has picked up in the past year after six years of weak performance since the onset of the economic recovery in 2012. This growth however, has been driven by a handful of sectors. Employment growth in *Administrative and support service activities, Transportation and Storage* and *Construction* represent over 50 per cent of all employment growth in the past year. Average nominal earnings grew 10.5, 9.1 and 8.0 per cent year-on-year in these sectors respectively. *Education,* one of the biggest sectors and one of the better paid represented just over 20 per cent of employment growth between Q4 2017 and Q4 2018, and estimated average earnings growth was 2.6 per cent.

Comparatively, Ireland can be characterised as a middle ranking EU country in employment, participation and unemployment outcomes but comes in significantly behind the best performing economies in the EU, evident from a myriad of labour market indicators. The Job Vacancy Rate, an important marker of a dynamic labour market is among the lowest in the EU and under half the EU average.

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.

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