# Hourly Earnings Inequality in high-income EU countries and the UK

## Evidence from the Structure of Earnings Survey

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...Irish wages are more unequally distributed than in any other high-income European country...

# Introduction

This report compares the hourly earnings structure in Ireland relative to a selection of high-income EU countries (real GDP per capita above €25,000 in 2018), as well as the UK but excluding Luxembourg between 2006 and 2018. This includes an examination of within-group inequality by occupation across the sample using the International Standard Classification of Occupations (ISCO-08) of which there are nine broad categories. The analysis continues with a cross-country comparison of intergenerational inequality in hourly earnings over time as well as within the nine occupational groups. The report concludes by examining low pay for certain groups.

Data from the *Structure of Earnings Survey* suggests that Irish wages are more unequally distributed than in any other high-income European country when comparing hourly earnings at the 10th and 90th percentiles by some margin. This relationship holds for full-time employees. Similarly, Ireland has relatively high earnings inequality in the *Business economy* out of the 11-country sample (2nd behind the Netherlands). The gap between the top and bottom has remained relatively static since 2006, though it has narrowed in some countries (Germany and the UK for example). Comparing hourly earnings by Purchasing Power Standard (PPS), top earners in Ireland can buy more goods and services than any of their equivalents in high-income EU countries with an hour's wages, while Irish earners at the bottom can buy least. Similarly, the ratio of hourly earnings between the median (50th percentile) and the top (90th percentile) is highest in Ireland and has widened since 2006. The difference between the bottom (10th percentile) and the median/middle (50th percentile) is also relatively high (3rd), though this inequality has improved moderately since 2006.

The evidence suggests that high levels of earnings inequality within occupations is an important factor driving the gap between top and bottom, with highly-paid *Professionals* (at the 90th percentile of all *Professionals*) in Ireland on the highest hourly rates in the EU. Irish earnings inequality (the 90th and 10th percentile ratio) is also in the top 3 rankings in 8 out of 9 occupational categories (2018), with earnings among *Skilled Agricultural, Forestry and Fishery* workers the only exception.

The ratio of average hourly earnings for under 30's to average earnings is second lowest in Ireland in a high-income European context and lowest for full-time workers. Since 2006, the intergenerational gap for full-time workers has widened more in Ireland than any other of 11 high-income EU countries. This is not being driven by any particular occupational group or by returns to different levels of education. Between 2006 and 2018 there has been an increase in intergenerational inequality across all nine broad occupational groups, including those associated with most training/education (where theoretically, the opposite should be true).

Hourly earnings in Ireland tend to be relatively high on average and for those at the top, but mid-ranking for earners in the middle and at the bottom of the distribution relative to other high-income EU countries. When ranking the purchasing power of hourly earnings however, Irish earners in the middle and at the bottom do not do as well as most of their European counterparts. This applies almost uniformly across the demographic groups considered in the report.

The evidence suggests that the effects of austerity and internal devaluation (wage suppression) post-financial crisis is an important driver of high earnings inequality in Ireland. Despite continued growth in the share of younger workers with tertiary education, returns to that education in the form of hourly earnings relative to older (less educated on average) cohorts have not come to fruition in the years since the financial crisis.

# Data and Measurement

The *Structure of Earnings Survey* is a large-scale enterprise sample survey conducted every four years. New data on the structure of earnings in the EU in 2018 was published in late 2020 for enterprises with 10 or more employees. In an Irish context, the survey covers just under 1.6 million of approximately 1.9 million employees (in 2018). This report covers four rounds between 2006 and 2018.

About 30 percent of Irish workers (including the self-employed) and 18 percent of employees work in microenterprises where the average employee wage is approximately half the average Irish wage. The estimates for earnings are therefore higher towards the bottom of the distribution and not comparable to other available data on the distribution of earnings in Ireland such as *Earnings Analysis using Administrative Data Sources* (EADS), which provides estimates for earnings for all Irish employees. Some of the estimates of earnings distribution I will discuss later are therefore likely to reflect lower levels of inequality than the figures, had we access to data for all employees. For example, the estimate of monthly earnings at the 10th percentile in Ireland in this data (€1,733) translates to approximately twice the estimate of the EADS weekly estimate in 2018 (€203). A breakdown of that data is summarised in last years' Labour Market Observer with the most up to date data (also 2018). This will likely have an occupational component too, with some occupations such as *Skilled Agricultural* and *Craft and Related Trades* located disproportionately in microenterprises. The estimates of earnings at the bottom of the distribution in these occupations are therefore likely to be relatively higher.

The *Structure of Earnings* estimate for the average hourly wage (€22.88) compares well to the *Earnings, Hours and Employment Costs survey* (EHECS) at €23.07 in 2018 (the sample is for firms with 3+ employees).

| 2018 | Employees SES | Employees LFS | Share SES |
|---|---|---|---|
| Managers | 120013 | 129800 | 92.5% |
| Professionals | 453924 | 466900 | 97.2% |
| Technicians and associate professionals | 183331 | 236600 | 77.5% |
| Clerical support workers | 172168 | 190100 | 90.6% |
| Service and sales workers | 309,087 | 414000 | 74.7% |
| Skilled agricultural, forestry and fishery workers | 4643 | 16400 | 28.3% |
| Craft and related trades workers | 96660 | 155300 | 62.2% |
| Plant and machine operators and assemblers | 95434 | 112800 | 84.6% |
| Elementary occupations | 146307 | 176800 | 82.8% |
| Total | 1581568 | 1918400 | 82.4% |

Nevertheless, the data collected is comparable across countries and gives an insight into Irish performance in a European context. For the purpose of this analysis, I have chosen a selection of high-income EU members; Belgium, Denmark, Germany, France, Italy, the Netherlands, Austria, Finland and Sweden, plus the UK. The report looks at several indicators to describe the distribution of hourly earnings in the Irish labour market over time and performance in an EU context. Digging deeper the report avails of the wide range of detail in the structure of earnings data, examining earnings inequality by broad occupation, among full-time workers, in the business economy and for young workers.

The report relies on the data directly available through Eurostat including the average (or mean) as well as indicators describing the relationship between earners at three points in the distribution; the bottom (p10), the middle (p50 or the median) and the top (p90).

The p10 variable is the threshold in the distribution at which 90 percent of employees earn more and 10 percent earn less. The opposite is true for the p90 variable which demarcates the threshold of the top 10 percent of earners. The median is the middle mark in the distribution or the 50$^{th}$ percentile. Half of workers earn more and half earn less than the median. The p10 and the p90 rates are what is available through Eurostat in the *Structure of Earnings Survey* and I will at times refer to them as the 'bottom' and the 'top'. However, it's important to note the wide gap that also exists between p90 and p99 (or the top 1 percent) and also between p10 and p1 (the bottom 1 percent). For instance, estimates for 2018 on earnings distribution (weekly) in the *Earnings using Administrative Data Sources* (EADS) showed the gap between p90 and p99 to be almost identical as the gap between the median (p50) and p90 in relative terms (approximately 2.5 times for each).

# Earnings inequality in Ireland & high-income EU members in 2018

In 2018, the National Minimum Wage in Ireland was €8.55 and the Living Wage was €11.90 per hour.

Table 1 shows that 90 percent of Irish employees in enterprises of more than 10 employees were on less than €41.29 an hour (p90) in 2018, 10 percent earned less than €10.37 (p10) and half less than €17.79 (median). The average hourly rate at €22.88 is significantly higher than both Eurozone and EU averages (€16.90 and €16.09), the second highest in our sample but significantly behind Denmark (€29.53). The Irish worker at the 90th percentile also earns the second highest hourly rate, but it's much closer to the Danish equivalent (€43.24). For hourly earnings at the median and at the 10th percentile, the Irish ranking is closer to mid-table (4th and 5th) of 11 high-income EU countries.

Eurostat also provides earnings data controlled for by country-specific costs of living to estimate and compare the amount in goods and services earnings will afford across countries. 'The purchasing power standard, abbreviated as PPS, is an artificial currency unit. Theoretically, one PPS can buy the same amount of goods and services in each country.' Though the focus of this report is euros, it is important to keep in mind that relative to most high-income EU countries, a euro in Ireland does not purchase as much goods and services. Table 2 demonstrates these differences at the headline/economy wide rates. Specifically, the data show that Irish rankings in earnings at different points in the distribution change relative to rankings based on euros, and reflect even more inequality compared to EU peers with living costs incorporated. Average Irish earnings fall from 2nd place in our sample to 4th, earnings at p90 increase to top position, median earnings in PPS drop to 7th/8th and earnings at p10 drops to last place; earners at the top of the Irish distribution can buy more with their hourly earnings than any of their equivalents, while earners at the bottom can buy least amount of goods and services compared to our high-income, European peers.

The ratio of hourly earnings between the bottom (p10) and the top (p90) of full-time employees (euros) is almost identical to the wider sample, with earnings at p90 3.96 times the hourly rate of the earner at p10 (Table 3). This again, is the widest gap in the sample by some margin, with the UK in second (3.53) and Germany in third (3.50). Earnings in Sweden are relatively compressed, with the worker at the 90th percentile earning 2.12 times the worker at the 10th. Ireland has the second highest hourly rate at p90 for full-time workers (€43.27) behind Denmark (€46.57) and the second highest mean hourly wage (€24.30), again behind Denmark (€31.71). The median hourly full-time rate is 3rd highest (€18.98) and the rate at the tenth percentile is ranked mid-table (€10.92) and just over half the corresponding Danish rate (€20.13). At least 10 percent of full-time workers are therefore working at an hourly rate below the living wage in Ireland.

### Table 1 Hourly Earnings, 2018 (Euro)

| | Mean | Median | p10 | p90 | p90/p10 |
|---|---|---|---|---|---|
| EU-28 | 16.09 | : | : | : | |
| EU-19 | 16.9 | : | : | : | |
| Belgium | 20.19 | 17.96 | 11.38 | 32.18 | 2.83 |
| Denmark | 29.53 | 27.09 | 18.26 | 43.24 | 2.37 |
| Germany | 19.66 | 16.85 | 9.42 | 32.91 | 3.49 |
| Ireland | 22.88 | 17.79 | 10.37 | 41.29 | 3.98 |
| France | 18.1 | 15.2 | 10.23 | 27.77 | 2.71 |
| Italy | 15.55 | 12.45 | 8.5 | 25.85 | 3.04 |
| Netherlands | 18.34 | 16.44 | 9.19 | 29.47 | 3.21 |
| Austria | 17.42 | 15.02 | 9.2 | 28.13 | 3.06 |
| Finland | 20.05 | 17.49 | 12.62 | 29.92 | 2.37 |
| Sweden | 20.18 | 18.17 | 13.56 | 28.4 | 2.09 |
| UK | 19.46 | 15.11 | 9.45 | 33.34 | 3.53 |

Industry, construction and services (except public administration, defense, compulsory social security)
Note: Estimates are for firms with 10 or more employees (about 70 percent of Irish employment)

### Table 2 Hourly Earnings, 2018 (PPS)

| | Mean | Median | p10 | p90 | p90/p10 |
|---|---|---|---|---|---|
| EU-28 | 15.61 | : | : | : | |
| EU-19 | 15.97 | : | : | : | |
| Belgium | 17.59 | 15.65 | 9.91 | 28.03 | 2.83 |
| Denmark | 20.86 | 19.14 | 12.9 | 30.54 | 2.37 |
| Germany | 18.4 | 15.77 | 8.82 | 30.81 | 3.49 |
| Ireland | 17.24 | 13.41 | 7.81 | 31.12 | 3.98 |
| France | 15.93 | 13.38 | 9 | 24.44 | 2.72 |
| Italy | 15.03 | 12.03 | 8.21 | 24.98 | 3.04 |
| Netherlands | 15.88 | 14.23 | 7.96 | 25.52 | 3.21 |
| Austria | 15.56 | 13.41 | 8.22 | 25.12 | 3.06 |
| Finland | 15.91 | 13.89 | 10.02 | 23.75 | 2.37 |
| Sweden | 16.33 | 14.7 | 10.97 | 22.98 | 2.09 |
| UK | 16.2 | 12.58 | 7.87 | 27.76 | 3.53 |

Industry, construction and services (except public administration, defense, compulsory social security)
Note: Estimates are for firms with 10 or more employees (about 70 percent of Irish employment)

**the data show that Irish rankings in earnings at different points in the distribution change relative to rankings based on euros, and reflect even more inequality compared to EU peers with living costs incorporated**

**Ireland has the second highest hourly rate at p90 for full-time workers**

## Table 3 Hourly Earnings, 2018 (Full-time, euro)

| | Mean | Median | p10 | p90 | p90/p10 |
|---|---|---|---|---|---|
| EU-28 | 16.42 | : | : | : | |
| EU-19 | 17.65 | 15.08 | 6.63 | 30.47 | 4.60 |
| Belgium | 21.46 | 19.32 | 12.49 | 33.49 | 2.68 |
| Denmark | 31.71 | 28.75 | 20.13 | 46.57 | 2.31 |
| Germany | 21.82 | 18.89 | 10.36 | 36.24 | 3.50 |
| Ireland | 24.3 | 18.98 | 10.92 | 43.27 | 3.96 |
| France | 18.42 | 15.61 | 10.6 | 28.06 | 2.65 |
| Italy | 16.53 | 13.39 | 9.04 | 27.22 | 3.01 |
| Netherlands | 21.58 | 18.51 | 11.56 | 34.26 | 2.96 |
| Austria | 18.34 | 15.85 | 9.51 | 29.64 | 3.12 |
| Finland | 20.65 | 18.12 | 13.02 | 30.67 | 2.35 |
| Sweden | 21.05 | 18.9 | 14.05 | 29.86 | 2.12 |
| UK | 20.9 | 16.88 | 10.01 | 35.37 | 3.53 |

Industry, construction and services (except public administration, defense, compulsory social security)
Note: Estimates are for firms with 10 or more employees (about 70 percent of Irish employment)

Table 4 shows the relative buying power of the hourly euro rates of full-time workers across countries. Controlling for cost of living, the average hourly wage of a full-time Irish worker can buy the 5th most out of our sample of 11 (22.3 percent less than top spot Denmark) and the full-time worker at the top (p90) can buy 3rd most relative to the equivalents in high-income European countries (4 percent less than top spot Germany). The median hourly rate in Ireland can purchase the 7th most out of 11 (42 percent behind best performer Denmark) and finally, the worker at the bottom (p10) can buy least with their hourly rate out of the sample of 11 countries (70 percent less than top spot Denmark).

In the *Business economy*, Ireland has the second highest mean hourly rate (€21.60) out of 11 high income EU members and 29.8 percent higher than the Eurozone average. The Irish *Business economy* also has the second highest hourly rate at the 90th percentile (€38.23), more than 10 percent higher than the equivalent in Germany and the UK and more than 20 percent higher than in Belgium, France, the Netherlands, Finland and Sweden. Ireland's median hourly rate (€16.26) and the hourly rate at p10 (€10.21) in the *Business economy* were both mid table relative to European peers (6th and 5th out of 11). Inequality in the Irish *Businesss economy* (see note) between the top and the bottom is the second highest out of 11 in the sample at 3.74, behind the Netherlands at 3.81 but not significantly higher than the next two most unequal economies, the UK (3.72) and Germany (3.69). The Swedes were the best performers again with a gap of just 2.22.

Table 6 shows the relative buying power of the hourly euro rates of workers in the *Business economy* across countries. The Irish ranking falls in each measure and falls further for earners in the lower half of the *Business economy* once the cost of living is brought into the equation. Hourly earnings at the 90th percentile in the Irish business economy will buy the 4th most goods and services of our sample of 11 countries (15 percent less than first place Denmark), while the average hourly rate will buy 8th most (3.6 percent higher than the Eurozone average). The median Irish earner will be able to buy the 3rd least amount of goods relative to median earners in the sample (6.2 percent less than in the Eurozone as a whole), while the earner at the bottom (tenth percentile) can afford the 2nd least amount of goods and services compared to their counterparts in Europe (64 percent less than the Danish equivalent).

### Table 4 Hourly Earnings, 2018 (Full-time, PPS)

| | Mean | Median | p10 | p90 | p90/p10 |
|---|---|---|---|---|---|
| EU-28 | 15.92 | : | : | : | |
| EU-19 | 16.68 | 14.25 | 6.26 | 28.79 | 4.60 |
| Belgium | 18.69 | 16.83 | 10.88 | 29.18 | 2.68 |
| Denmark | 22.4 | 20.31 | 14.22 | 32.9 | 2.31 |
| Germany | 20.42 | 17.68 | 9.7 | 33.93 | 3.50 |
| Ireland | 18.31 | 14.3 | 8.23 | 32.61 | 3.96 |
| France | 16.21 | 13.74 | 9.33 | 24.7 | 2.65 |
| Italy | 15.97 | 12.94 | 8.73 | 26.3 | 3.01 |
| Netherlands | 18.69 | 16.03 | 10.01 | 29.66 | 2.96 |
| Austria | 16.38 | 14.15 | 8.49 | 26.47 | 3.12 |
| Finland | 16.39 | 14.39 | 10.34 | 24.35 | 2.35 |
| Sweden | 17.03 | 15.29 | 11.37 | 24.16 | 2.12 |
| UK | 17.4 | 14.05 | 8.34 | 29.45 | 3.53 |

Industry, construction and services (except public administration, defense, compulsory social security)
Note: Estimates are for firms with 10 or more employees (about 70 percent of Irish employment)

### Table 5 Hourly Earnings, 2018, Business Economy (euro)

| | Mean | Median | p10 | p90 | p90/p10 |
|---|---|---|---|---|---|
| EU-28 | 15.69 | : | : | : | |
| EU-19 | 16.63 | 13.78 | 6.73 | 28.99 | 4.31 |
| Belgium | 19.71 | 18.06 | 11.56 | 30.36 | 2.63 |
| Denmark | 30.61 | 27.49 | 17.88 | 47.06 | 2.63 |
| Germany | 19.65 | 16.36 | 9.28 | 34.21 | 3.69 |
| Ireland | 21.60 | 16.26 | 10.21 | 38.23 | 3.74 |
| France | 18.57 | 15.42 | 10.37 | 28.81 | 2.78 |
| Italy | 14.37 | 11.7 | 8.35 | 22.45 | 2.69 |
| Netherlands | 17.62 | 14.99 | 7.82 | 29.76 | 3.81 |
| Austria | 17.37 | 14.92 | 9.16 | 28.2 | 3.08 |
| Finland | 20.64 | 18.01 | 12.6 | 31.2 | 2.48 |
| Sweden | 21.23 | 18.89 | 13.86 | 30.72 | 2.22 |
| UK | 19.59 | 14.71 | 9.34 | 34.73 | 3.72 |

Business economy
Estimates are for firms with 10 or more employees (about 70 percent of Irish employment)

**Table 6 Hourly Earnings, 2018, Business Economy (PPS)**

| | Mean | Median | p10 | p90 | p90/p10 |
|---|---|---|---|---|---|
| EU-28 | 15.22 | : | : | : | |
| EU-19 | 15.71 | 13.02 | 6.36 | 27.39 | 4.31 |
| Belgium | 17.17 | 15.73 | 10.07 | 26.45 | 2.63 |
| Denmark | 21.62 | 19.42 | 12.64 | 33.24 | 2.63 |
| Germany | 18.4 | 15.32 | 8.69 | 32.03 | 3.69 |
| Ireland | 16.28 | 12.25 | 7.69 | 28.81 | 3.75 |
| France | 16.35 | 13.57 | 9.13 | 25.36 | 2.78 |
| Italy | 13.88 | 11.31 | 8.07 | 21.69 | 2.69 |
| Netherlands | 15.26 | 12.98 | 6.77 | 25.77 | 3.81 |
| Austria | 15.52 | 13.32 | 8.18 | 25.18 | 3.08 |
| Finland | 16.39 | 14.3 | 10 | 24.77 | 2.48 |
| Sweden | 17.18 | 15.28 | 11.22 | 24.85 | 2.21 |
| UK | 16.31 | 12.24 | 7.77 | 28.92 | 3.72 |
| Business economy | | | | | |

# Earnings Inequality over time

In this section, I examine the distribution of earnings in Ireland relative to comparative high-income EU countries and performance over time (2006-2018). The analysis focusses on the ratio of earnings at particular points in the distribution; between the 10th percentile and the median (we can call this roughly 'the bottom and the middle'), between the 10th percentile and the 90th ('the bottom and the top') and between the median and the 90th percentile ('the middle and the top'). With methodological changes between rounds of the survey, estimates in absolute terms over time (such as median or mean) should be interpreted with care. Each survey however, should be internally consistent and relationships within each (such as ratios between top and bottom, or differences between demographic groups) should be reliable and comparable in a time-series.

The gap between the Irish worker at p10 and the worker at p90 has remained relatively steady since 2006 (Table 7). Although this gap narrowed between 2014 and 2018, Ireland was still the most unequal labour market out of all high-income EU countries in 2018 by a significant margin. The worker at the 90th percentile earned almost 4 times the worker at the 10th (3.98). This compares to 3.53 in the UK and 3.49 in Germany, both of which have closed this gap significantly since 2006. Ireland's gap between the top and the bottom is almost twice that of Sweden (2.09). The distance between the bottom and the top in Ireland is more similar to the distance between the top and the bottom in the entire Eurozone (4.23; 2014) than the next most unequal country, the UK (3.53). Considering the fact that the Eurozone covers 19 labour

**The gap between the Irish worker at p10 and the worker at p90 has remained relatively steady since 2006**

markets from the relatively low-income Baltic states to high-income states like Germany, Belgium and Luxembourg, this is a revealing statistic about the exceptional level of inequality in the Irish labour market in a European context.

Similarly, the ratio of the 90th percentile of hourly earnings to the median (the gap between the middle and the top) is highest in Ireland out of any of the sample and increased between 2014 and 2018 from 2.16 to 2.32 (see Table 8). The worker at the 90th percentile earns an hourly rate of 2.32 times the median worker compared to 2.21 in the UK (the second most unequal), 1.6 times in Denmark and 1.56 in Sweden, the narrowest gap between the middle and the top of any country in the sample.

The gap in hourly earnings between the 10th and 50th percentiles (or the bottom and the middle) improved in Ireland between 2014 and 2018, having increased between 2006 and 2014, though it is still the third highest in this sample of high-income EU countries and relatively similar to the most unequal countries (Table 9). The worker at the median hourly rate earned 1.72 times the worker at the 10th percentile. The smallest difference between these two workers is measured in the Swedish labour market at 1.34 with Germany and the Netherlands tied in top spot with the widest gap and a ratio of 1.79. The distribution in Italy and France is also more equal between these two points on the scale at 1.46 and 1.49 respectively.

### Table 7 The gap between the top and the bottom, Hourly Earnings, 2006-2018 (euro), p90/p10

| | 2006 | 2010 | 2014 | 2018 |
|---|---|---|---|---|
| EU-28 | 9.46 | 7.26 | 7.24 | - |
| EU-19 | - | 4.32 | 4.23 | - |
| Belgium | 2.67 | 2.55 | 2.38 | 2.83 |
| Denmark | 2.29 | 2.32 | 2.37 | 2.37 |
| Germany | 3.84 | 4.06 | 3.78 | 3.49 |
| Ireland | 4.02 | 4.06 | 4.10 | 3.98 |
| France | 2.63 | 2.67 | 2.69 | 2.71 |
| Italy | 3.17 | 3.30 | 3.16 | 3.04 |
| Netherlands | 3.38 | 3.14 | 3.34 | 3.21 |
| Austria | 3.16 | 3.17 | 3.09 | 3.06 |
| Finland | 2.30 | 2.37 | 2.36 | 2.37 |
| Sweden | 2.04 | 2.01 | 2.06 | 2.09 |
| UK | 4.03 | 4.07 | 3.83 | 3.53 |

Industry, construction and services (except public administration, defense, compulsory social security)
Note: Estimates are for firms with 10 or more employees (about 70 percent of Irish employment)

## Table 8 The gap between the top and the middle, Hourly Earnings, 2006-2018 (euro), p90/50

| | 2006 | 2010 | 2014 | 2018 |
|---|---|---|---|---|
| EU-28 | 2.19 | 2.16 | 2.14 | - |
| EU-19 | - | 1.98 | 1.99 | - |
| Belgium | 1.86 | 1.78 | 1.76 | 1.79 |
| Denmark | 1.55 | 1.57 | 1.59 | 1.60 |
| Germany | 1.85 | 1.92 | 1.97 | 1.95 |
| Ireland | 2.17 | 2.16 | 2.16 | 2.32 |
| France | 1.81 | 1.85 | 1.81 | 1.83 |
| Italy | 2.10 | 2.11 | 2.13 | 2.08 |
| Netherlands | 1.81 | 1.79 | 2.02 | 1.79 |
| Austria | 1.89 | 1.89 | 1.86 | 1.87 |
| Finland | 1.68 | 1.69 | 1.69 | 1.71 |
| Sweden | 1.57 | 1.55 | 1.57 | 1.56 |
| UK | 2.29 | 2.29 | 2.22 | 2.21 |

Industry, construction and services (except public administration, defense, compulsory social security)
Note: Estimates are for firms with 10 or more employees (about 70 percent of Irish employment)

## Table 9 The gap between the middle and the bottom, Hourly Earnings (euro), 2006-2018, p50/p10

| | 2006 | 2010 | 2014 | 2018 |
|---|---|---|---|---|
| EU-28 | 4.33 | 3.36 | 3.38 | - |
| EU-19 | - | 2.18 | 2.13 | - |
| Belgium | 1.43 | 1.43 | 1.36 | 1.58 |
| Denmark | 1.48 | 1.48 | 1.48 | 1.48 |
| Germany | 2.07 | 2.11 | 1.92 | 1.79 |
| Ireland | 1.85 | 1.88 | 1.90 | 1.72 |
| France | 1.45 | 1.44 | 1.49 | 1.49 |
| Italy | 1.51 | 1.56 | 1.48 | 1.46 |
| Netherlands | 1.87 | 1.76 | 1.66 | 1.79 |
| Austria | 1.67 | 1.68 | 1.66 | 1.63 |
| Finland | 1.37 | 1.40 | 1.40 | 1.39 |
| Sweden | 1.30 | 1.30 | 1.31 | 1.34 |
| UK | 1.76 | 1.77 | 1.73 | 1.60 |

Industry, construction and services (except public administration, defense, compulsory social security)
Note: Estimates are for firms with 10 or more employees (about 70 percent of Irish employment)

# Earnings Inequality and Occupations: Cross country comparison

The SES data provides detail on wages among nine broad occupational groups categorised by the level of education/training required to perform them, giving an opportunity to provide further insight into the drivers of inequality in Irish earnings relative to high-income European peers.

The International Standard Classification of Occupations (ISCO) is based on four broad skills levels. Jobs at skill level 4 involve complex problem-solving, decision-making and creativity and extensive knowledge in a specialised field while jobs at skill level 3 involve complex technical and practical tasks that also require knowledge in a specialised field. *Manager* (3+4), *Professional* (4) and *Technician and Associate Professional* (3) occupations are in the top 2 skills levels and are associated with the highest wages. The next five categories are in skills level 2; *Clerical support workers*, *Service and sales workers*, *Skilled agricultural, forestry, & fishery workers*, *Craft and related trades workers* and *Plant and machine operators, and assemblers*. Occupations that fall into these categories typically involve the performance of tasks such as operating machinery and electronic equipment and the manipulation, ordering and storage of information. *Elementary occupations* are the sole category for skill level 1 (broadly requiring no more than Junior Cert level of education and typically involving the performance of simple and routine physical or manual tasks).

The SES data on average hourly wages by occupation in Ireland reflect returns to education in this respect quite well with average hourly earnings at €33.92 for *Managers* is highest of all categories and lowest in the *Elementary* occupations (€13.82). Average hourly earnings for the 'middle' group (skill level 2) are in between, ranging from €14 to €19. The data does suggest however, that within-occupation earnings inequality is relatively high in Ireland compared to our Northern European peers.

Table 10 displays earnings data for *Managers* in Ireland and ten other high-income EU members. The *Manager* classification includes occupations like *Chief executives*, *Legislators*, *Production managers*, *Hospitality and Retail managers*. *Managers* made up approximately 8.3 percent of Irish employment in 2019, which is relatively high in an EU and Eurozone context (6.1 and 5.4 percent respectively). It's the third highest in the sample (*Managers* in the UK make up 11.9 percent of employment for example).

On average Irish *Managers* do not earn a huge amount relative to their peers in high-income EU countries (€33.92), coming in at third from the bottom and not far off the rate of the lowest country, France (€31.51). The median hourly rate for *Managers* is also 2nd lowest in Ireland. However, when we look at the bottom and the top, an interesting pattern emerges. Ireland has the widest variation in hourly earnings among *Managers* in the sample (the earner at the 90$^{th}$ percentile of all *Managers*, earns 4.97 times the *Manager* at p10), after Italy (5.52). Ireland's lower paid managers (at the

10th percentile) receive significantly less per hour than in France for example (€12.81 compared to €15.90), at the same time Ireland's top managers (at the 90th percentile) are paid significantly more (28.6 percent) than their French counterparts (€63.72 and €49.59). This translates into the rankings relative to our peers; Ireland ranks 2nd last of 11 in hourly remuneration for *Managers* at the bottom but 5th for those at the top.

Table 11 shows the earnings distribution of Irish *Professionals*. *Professionals* make up the biggest share of all nine occupational categories in Irish employment at just under 1 in 4 (23.7 percent in 2018). This again is relatively high in an EU (20.5) and Eurozone (19.3 percent) context but about average among high income EU countries (the Scandinavian countries, the UK and Belgium all have higher shares). Within this group are *Scientists*, *Engineers*, *Nurses*, *Teachers*, *Finance workers*, *Accountants*, *Software Developers*, *Economists* and *Journalists*. This group also includes some of the so-called 'sheltered professions' (*Legal, Pharmacy* and *Medical Services*) identified by the Troika in the aftermath of the bank bailout as areas where restructuring would improve competitiveness. Excessive costs of legal services increase the cost of doing business generally in the Irish economy for instance.

Hourly earnings in this category are clearly an important driver of Irish earnings inequality with average hourly rate similar to that of *Managers*. Table 11 shows average hourly earnings for Irish *Professionals* at €32.54 and the second highest in our sample behind Denmark at €34.48. Note the gap here is much smaller with Denmark than for *Managers*. The median is also relatively high at €27.75 per hour, the third highest in the sample. Again, the distribution is much wider in Ireland for *Professionals* relative to any other country in the sample coming in closer towards the bottom of the table (7th of 11) for earnings at the 10th percentile (10 percent of Irish *Professionals* earn less than €15.11 an hour) and in first position at the 90th (10 percent earn more than €54.63 an hour). Irish *Professionals* at the top (p90) earn 8 percent more than their peer in Denmark (€50.45), 55 percent more than in Italy and even 65 percent more than in Sweden. Ireland's most highly paid *Professionals* get paid more than in any other EU country, 41 percent higher than the Eurozone average and even more than in Luxembourg (€53.96).

*Associate Professionals and Technicians* make up about 11.5 percent of Irish employment and the data also show relatively high within-group wage inequality (Table 12). This is a relatively low share in a European context. Germany for instance has twice as many workers in these professions (23.1 percent). Within this group are *Engineering Technicians*, *Construction Supervisors*, *Air Traffic controllers*, *Dental Assistants*, *Real Estate Agents*, *Legal Secretaries*, *Garda Inspectors* and *Detectives*, *Social Workers* and *Broadcasting and Audio-visual Technicians* etc.

The average hourly rate and the hourly rate at p90 are relatively high once again at €23.59 and €37.27, both the second highest rates in the group of eleven countries, behind Denmark. At the same time the median hourly rate and the hourly rate at p10 are closer to mid table at €19.90 and €12.60 respectively. The ratio between the 'top' and 'bottom' indicators is a close second only to Germany (2.97) at 2.96 and significantly wider than best performers Belgium (1.83) and Finland (1.93). Ireland's *Associate Professionals and Technicians* at the threshold of the top 10 percent earn approximately 10 percent more than their counterparts in Germany and 50 percent more than in France, while at the bottom, hourly rates are broadly similar.

*Clerical support workers* make up about 8.8 percent of Irish employment and are the first of five occupational groups in the 'mid-skilled' range (Table 13). The share is about average in a European context, though the Nordic countries stick out as having less of these workers (5.0 percent in Finland). The category includes *Secretaries*, *Data Entry*, *Bank Tellers*, *Bookmakers*, *Hotel Receptionists*, *Stock clerks*, *Payroll* and *Personnel clerks* etc.

Again, within this group in Ireland is the second highest disparity in hourly wages between the top and the bottom (a ratio of 2.6), behind Germany (2.76). The relative gap is lower however than in any of the occupations we've examined so far. Ireland ranks high in average earnings and earnings at the 90$^{th}$ percentile (3$^{rd}$ out of 11 in both) but mid-table with both the median and p10 hourly rates (6$^{th}$ in both).

*Service and Sales workers*, such as *Waiters*, *Bartenders*, *Cooks*, *Shop assistants*, *Housekeepers*, *Hairdressers*, *Childcare Workers*, *Gardaí* and *Health Care Assistants* make up the second biggest occupational group in Ireland, representing 1 in 5 Irish workers (19.8 percent).

The structure of earnings survey covers about 3 in 4 of these workers as a disproportionate number work in microenterprises. Earnings are relatively compressed in these occupations across the sample (Table 14). Inequality within this group is third highest in Ireland out of all our sample with the Netherlands a notable outlier driven by relatively low earnings at the bottom. The ranking of average hourly earnings for *Service and Sales* employees in Ireland is closer to mid table (5$^{th}$) than any of the previous groups, as is the median (6$^{th}$). Earnings at the p10 are ranked 7$^{th}$ at €9.55 an hour.

*Skilled agricultural, forestry and fishery* workers make up about 4 percent of Irish employment (Table 15). For a variety of reasons, the sample here is wanting for an accurate estimate of earnings for these workers. The agricultural sector (NACE) for instance, is not actually included in the sample. As such, this survey only covers around 28 percent of employees in this category (a lot of whom are likely working in the Manufacturing sector).

The workers in the sample have one of the narrower distributions of hourly earnings, relative to the other occupational groups in Ireland and relative to our EU peers (Table 14). The narrow distribution is strongly influenced by relatively low rates of hourly compensation across the board (which is a feature in most of the sample countries), with 90 percent of employees earning less than €19.04 an hour and half earning less than €13.88, less than €2 above the Living Wage.

The relative gap between the top and the bottom of hourly earners among *Craft and related trade workers* (*Bricklayers*, *Electricians*, *Mechanics*, *Painters* and *Butchers* etc.) in Ireland is the widest out of high-income EU countries by a significant margin (Table 16).

The employee at p10 earns less than a third of the worker at p90). The estimates here also likely downplay earnings among employees in these occupations, particularly in the bottom half of the distribution as almost 40 percent work in microenterprises (thus these estimates don't capture compensation for a high share of self-employment or own account workers, or the bogus-self-employed).

These occupations constitute 9.2 percent of Irish employment. Ten percent of the *Craft and Trade employees* in the sample earn more than €29.80 an hour (p90) and ten percent earn less than €9.51 (p10); the second highest at the top end and the third lowest at the bottom end of the 11-country sample. The median and mean earnings for every country in the sample are within a euro of each other (indicative of a more equal distribution), other than in Ireland where the gap is €3 an hour. Ninety percent of Danish workers in this group earn more than €20.12 an hour. Both the median hourly rate and the rate at p10 are twice as high in Denmark as in Ireland (€29.30 compared to €14.50 and €20.12 compared to €9.51).

*Plant and machine operators and assemblers* include *miners*, *quarriers*, *bus*, *train* and *taxi drivers* and make up 6 percent of employment. The difference between the top and the bottom in this group is second widest, only to Germany out of high-income EU members. The worker at the 90$^{th}$ percentile earns 2.6 times the worker at the 10$^{th}$, compared to 2.71 in Germany and 1.7, 1.64, 1.8, and 1.88 in the more equal labour markets of Denmark, Sweden, France and Italy. At the top end, Ireland's *Plant and Machine operators and assemblers* earn most while the earnings at the median, mean and p10 rank around mid-table.

Workers in the *Elementary professions* receive the lowest hourly compensation and require the least investment in skills and/or training to perform the work out of all nine categories. This group includes occupations like *cleaners*, *shelf fillers*, *hand and pedal vehicle drivers* and *food preparation assistants.* The average hourly rate in Ireland is 2$^{nd}$ highest out of 11 (€13.82) as is the earnings of the worker at p90 (€20.76). The gap between the top and bottom is also second highest however, behind the Netherlands. Due to a very low rate at the bottom, the ratio in Netherlands is an outlier and by far the most unequal country among elementary workers. Earnings at the median and p10 rank mid-table.

In summary, the gap between the top and the bottom in hourly earnings is highest in Ireland in 3 out of 9 occupational groups (*Professionals*, *Craft and Related Trades workers* and *Plant and Machine operators and assemblers*). Other than among *Skilled Agricultural workers* (where the data is lacking), the ratio of earnings between p10 and p90 is in the top 3 of 11 countries in all occupational groups. Generally speaking, hourly earnings within broad occupational groups in Ireland tend to be relatively high on average and for workers at the top of the scale, while workers in the middle and at the bottom tend to rank closer to mid-table in a comparative high-income EU country context. Although we will not go into further detail here, the earlier section comparing earnings by PPS suggest that these inequalities would be further pronounced in an Irish context relative to EU peers if the buying power of a euro in Ireland was considered in the equation.

## Table 10 Hourly Earnings distribution by Occupation (euro, ISCO), Managers, 2018

| | Mean | Median | p10 | p90 | p90/10 |
|---|---|---|---|---|---|
| EU-28 | 29.8 | : | : | : | - |
| EU-19 | 33.48 | : | : | : | - |
| Belgium | 39.59 | 40.82 | 22.79 | 52.65 | 2.31 |
| Denmark | 50.87 | 43.17 | 26.82 | 81.83 | 3.05 |
| Germany | 46.73 | 39.61 | 21.36 | 75.09 | 3.52 |
| Ireland | 33.92 | 25.3 | 12.81 | 63.72 | 4.97 |
| France | 31.51 | 24.78 | 15.9 | 49.59 | 3.12 |
| Italy | 42.59 | 37.33 | 13.06 | 72.13 | 5.52 |
| Netherlands | 34.35 | 30.1 | 15.28 | 56.04 | 3.67 |
| Austria | 36.58 | 31.12 | 16.88 | 59.52 | 3.53 |
| Finland | 43.67 | 38.8 | 22.34 | 67.48 | 3.02 |
| Sweden | 34.15 | 29.28 | 20.5 | 50.89 | 2.48 |
| UK | 32.29 | 25.4 | 12 | 58.12 | 4.84 |

Industry, construction and services (except public administration, defense, compulsory social security)
Note: Estimates are for firms with 10 or more employees (about 70 percent of Irish employment)

## Table 11 Hourly Earnings distribution by Occupation (euro, ISCO), Professionals, 2018

| | Mean | Median | p10 | p90 | p90/10 |
|---|---|---|---|---|---|
| EU-28 | 22.41 | : | : | : | - |
| EU-19 | 23.95 | : | : | : | - |
| Belgium | 30.86 | 29.68 | 21.27 | 42.46 | 2.00 |
| Denmark | 34.48 | 31.65 | 23.3 | 50.45 | 2.17 |
| Germany | 29.17 | 27.07 | 15.36 | 44.67 | 2.91 |
| Ireland | 32.54 | 27.75 | 15.11 | 54.63 | 3.62 |
| France | 23.65 | 20.73 | 12.23 | 36.21 | 2.96 |
| Italy | 24.28 | 23.47 | 13.11 | 35.18 | 2.68 |
| Netherlands | 25.56 | 23.81 | 15.17 | 36.73 | 2.42 |
| Austria | 24.8 | 21.87 | 13.77 | 38.77 | 2.82 |
| Finland | 25.99 | 23.91 | 16.39 | 37.42 | 2.28 |
| Sweden | 23.24 | 21.12 | 16.24 | 32.95 | 2.03 |
| UK | 26.03 | 23.22 | 14.17 | 39.29 | 2.77 |

Industry, construction and services (except public administration, defense, compulsory social security)
Note: Estimates are for firms with 10 or more employees (about 70 percent of Irish employment)

**Professionals make up the biggest share of all nine occupational categories in Irish employment at just under 1 in 4**

## Table 12 Hourly Earnings distribution by Occupation (euro, ISCO), Associate Professionals and Technicians, 2018

| | Mean | Median | p10 | p90 | p90/10 |
|---|---|---|---|---|---|
| EU-28 | 17.81 | : | : | : | - |
| EU-19 | 19.11 | : | : | : | - |
| Belgium | 21.45 | 21.06 | 15.33 | 28.05 | 1.83 |
| Denmark | 32.76 | 30.28 | 21.59 | 46.61 | 2.16 |
| Germany | 21.97 | 19.99 | 11.58 | 34.45 | 2.97 |
| Ireland | 23.59 | 19.9 | 12.6 | 37.27 | 2.96 |
| France | 18.2 | 17.03 | 11.8 | 24.86 | 2.11 |
| Italy | 17.48 | 15.4 | 9.82 | 25.69 | 2.62 |
| Netherlands | 20.49 | 18.87 | 12.55 | 29.29 | 2.33 |
| Austria | 19.93 | 18.39 | 11.44 | 30.12 | 2.63 |
| Finland | 20.34 | 18.85 | 14.36 | 27.75 | 1.93 |
| Sweden | 21.41 | 19.78 | 14.59 | 30.02 | 2.06 |
| UK | 18.12 | 15.7 | 10.25 | 27.06 | 2.64 |

Industry, construction and services (except public administration, defense, compulsory social security)
Note: Estimates are for firms with 10 or more employees (about 70 percent of Irish employment)

## Table 13 Hourly Earnings distribution by Occupation (euro, ISCO), Clerical support workers, 2018

| | Mean | Median | p10 | p90 | p90/10 |
|---|---|---|---|---|---|
| EU-28 | 14.24 | : | : | : | - |
| EU-19 | 15.07 | : | : | : | - |
| Belgium | 16.88 | 16.72 | 11.81 | 22.18 | 1.88 |
| Denmark | 27.01 | 25.37 | 18.55 | 37.02 | 2.00 |
| Germany | 18.06 | 16.79 | 10 | 27.62 | 2.76 |
| Ireland | 18.31 | 15.77 | 10.08 | 26.2 | 2.60 |
| France | 14.1 | 12.94 | 9.81 | 18.89 | 1.93 |
| Italy | 13.78 | 12.08 | 8.88 | 20.15 | 2.27 |
| Netherlands | 16.57 | 15.71 | 10.25 | 23.71 | 2.31 |
| Austria | 16.48 | 15.02 | 9.9 | 24.89 | 2.51 |
| Finland | 16.65 | 15.83 | 12.75 | 21.47 | 1.68 |
| Sweden | 16.88 | 16.27 | 12.83 | 21.56 | 1.68 |
| UK | 14.51 | 12.44 | 9.45 | 20.13 | 2.13 |

Industry, construction and services (except public administration, defense, compulsory social security)
Note: Estimates are for firms with 10 or more employees (about 70 percent of Irish employment)

### Table 14 Hourly Earnings distribution by Occupation (euro, ISCO), Service and Sales workers, 2018

| | Mean | Median | p10 | p90 | p90/10 |
|---|---|---|---|---|---|
| EU-28 | 11.25 | : | : | : | - |
| EU-19 | 11.69 | : | : | : | - |
| Belgium | 14.45 | 13.91 | 10.54 | 19.18 | 1.82 |
| Denmark | 22.24 | 21.67 | 12.16 | 30.46 | 2.50 |
| Germany | 13.32 | 12.22 | 8.89 | 18.79 | 2.11 |
| Ireland | 14.33 | 12.81 | 9.55 | 20.55 | 2.15 |
| France | 13.35 | 12.61 | 9.85 | 17.69 | 1.80 |
| Italy | 10.9 | 10.08 | 8.05 | 14.36 | 1.78 |
| Netherlands | 13.2 | 12.55 | 5.97 | 19.75 | 3.31 |
| Austria | 12.29 | 11.46 | 8.67 | 17.24 | 1.99 |
| Finland | 15.17 | 14.51 | 12.05 | 18.86 | 1.57 |
| Sweden | 16.23 | 15.91 | 12.75 | 19.97 | 1.57 |
| UK | 11.68 | 10.51 | 9.02 | 15.47 | 1.72 |

Industry, construction and services (except public administration, defense, compulsory social security)
Note: Estimates are for firms with 10 or more employees (about 70 percent of Irish employment)

### Table 15 Hourly Earnings distribution by Occupation (euro, ISCO), Skilled agricultural, forestry and fishery workers, 2018

| | Mean | Median | p10 | p90 | p90/10 |
|---|---|---|---|---|---|
| EU-28 | 12.56 | : | : | : | - |
| EU-19 | 12.95 | : | : | : | - |
| Belgium | : | : | : | : | - |
| Denmark | 24.79 | 24.46 | 19.05 | 30.73 | 1.61 |
| Germany | 15.28 | 14.46 | 9.43 | 21.84 | 2.32 |
| Ireland | 14.72 | 13.88 | 10.92 | 19.04 | 1.74 |
| France | 12.88 | 12.43 | 7.68 | 16.76 | 2.18 |
| Italy | 11.5 | 11.65 | 8.23 | 14.77 | 1.79 |
| Netherlands | 13.71 | 12.02 | 7.15 | 18.35 | 2.57 |
| Austria | : | : | : | : | - |
| Finland | 14.06 | 13.39 | 10.16 | 19.02 | 1.87 |
| Sweden | 15.53 | 15.14 | 12.72 | 18.43 | 1.45 |
| UK | 12.34 | 11.39 | 9.35 | 16.27 | 1.74 |

Industry, construction and services (except public administration, defense, compulsory social security)
Note: Estimates are for firms with 10 or more employees (about 70 percent of Irish employment)

## Table 16 Hourly Earnings distribution by Occupation (euro, ISCO), Craft and related trade workers, 2018

| | Mean | Median | p10 | p90 | p90/10 |
|---|---|---|---|---|---|
| EU-28 | 13.13 | : | : | : | - |
| EU-19 | 14.68 | : | : | : | - |
| Belgium | 16.19 | 16.32 | 11.16 | 20.74 | 1.86 |
| Denmark | 29.26 | 29.3 | 20.12 | 37.69 | 1.87 |
| Germany | 18.38 | 17.3 | 10 | 28.43 | 2.84 |
| Ireland | 17.49 | 14.5 | 9.51 | 29.8 | 3.13 |
| France | 14.26 | 13.89 | 10.24 | 18.94 | 1.85 |
| Italy | 11.95 | 11.09 | 8.13 | 16.39 | 2.02 |
| Netherlands | 16.33 | 16.08 | 10.27 | 22.43 | 2.18 |
| Austria | 15.59 | 15.36 | 8.62 | 21.87 | 2.54 |
| Finland | 17.66 | 17.07 | 13.19 | 22.51 | 1.71 |
| Sweden | 18.86 | 18.9 | 14.57 | 23.22 | 1.59 |
| UK | 16.13 | 15.24 | 9.81 | 23.17 | 2.36 |

Industry, construction and services (except public administration, defense, compulsory social security)
Note: Estimates are for firms with 10 or more employees (about 70 percent of Irish employment)

## Table 17 Hourly Earnings distribution by Occupation (euro, ISCO), Plant and machine operators, 2018

| | Mean | Median | p10 | p90 | p90/10 |
|---|---|---|---|---|---|
| EU-28 | 11.65 | : | : | : | - |
| EU-19 | 13.56 | : | : | : | - |
| Belgium | 16.5 | 16.34 | 10.98 | 21.81 | 1.99 |
| Denmark | 28.46 | 27.28 | 21.35 | 36.6 | 1.71 |
| Germany | 16.22 | 14.88 | 9.21 | 24.94 | 2.71 |
| Ireland | 17.35 | 15.26 | 10 | 26.03 | 2.60 |
| France | 14.31 | 13.58 | 10.51 | 18.88 | 1.80 |
| Italy | 12.67 | 11.77 | 8.92 | 16.79 | 1.88 |
| Netherlands | 15.78 | 15.18 | 10.43 | 21.51 | 2.06 |
| Austria | 15.11 | 14.4 | 9.72 | 21.26 | 2.19 |
| Finland | 17.75 | 16.86 | 13.06 | 23.88 | 1.83 |
| Sweden | 18.34 | 17.45 | 14.45 | 23.75 | 1.64 |
| UK | 13.69 | 12.4 | 9.36 | 18.84 | 2.01 |

Industry, construction and services (except public administration, defense, compulsory social security)
Note: Estimates are for firms with 10 or more employees (about 70 percent of Irish employment)

### Table 18 Hourly Earnings distribution by Occupation (euro, ISCO), Elementary Professions, 2018

| | Mean | Median | p10 | p90 | p90/10 |
|---|---|---|---|---|---|
| EU-28 | 9.88 | : | : | : | - |
| EU-19 | 10.38 | : | : | : | - |
| Belgium | 13.19 | 12.47 | 10.79 | 17.06 | 1.58 |
| Denmark | 23.37 | 22.5 | 17.64 | 30.66 | 1.74 |
| Germany | 11.33 | 10.3 | 8.85 | 15.21 | 1.72 |
| Ireland | 13.82 | 12.12 | 9.47 | 20.76 | 2.19 |
| France | 12 | 11.22 | 8.68 | 15.47 | 1.78 |
| Italy | 10.2 | 9.62 | 7.39 | 13.63 | 1.84 |
| Netherlands | 10.6 | 11.02 | 4.67 | 15.42 | 3.30 |
| Austria | 11.66 | 10.88 | 8.67 | 15.77 | 1.82 |
| Finland | 13.44 | 12.67 | 10.52 | 17.21 | 1.64 |
| Sweden | 14.4 | 13.94 | 11.85 | 17.55 | 1.48 |
| UK | 11.26 | 10.18 | 8.92 | 14.85 | 1.66 |

Industry, construction and services (except public administration, defense, compulsory social security)
Note: Estimates are for firms with 10 or more employees (about 70 percent of Irish employment)

# Earnings for young workers

The structure of earnings data includes estimates for wages by and within age groups. In 2018, a majority of employees under 30 would have entered the labour market during or in the post-financial crisis era, with some in their late twenties entering in the years directly before. The first half of the decade following 2008 in Ireland was characterised by a recession, mass youth unemployment, mass emigration, public sector recruitment freezes in some areas, lower entry level wages in others, a minimum wage freeze, an increase in unpaid internships and an increase in precarious work impacting younger labour market entrants especially. The second half saw steady employment growth but relatively static average wages up until 2018. The job vacancy rate remained at about half of the EU average, even in the years of recovery, rarely exceeding 1 percent. Wage competitiveness was a stated central plank for successive governments in addressing the fiscal deficit and was put forward as a way to regain the confidence of international markets and returning the economy to growth.

The Structural of Earnings Survey data is suggestive of an important intergenerational component driving large hourly earnings gaps within occupations in Ireland. The data suggests that austerity, disproportionately imposed on younger adults in Ireland and new entrants in the years following the bank bailout is a clear driver of relatively high wage inequality in Ireland.

Average hourly earnings were €15.54 in Ireland for workers under 30 in 2018 and 4th highest in our sample of 11 high-income European countries, compared to a Eurozone average of €12.22 (Table 19). Median earnings also rank 4th (€13.87). The Irish worker at the threshold of the top 10 percent for under 30's was second highest (10 percent of young Irish workers in the sample earn more than €23.80 an hour. The same threshold in the Netherlands was €18.24). At the same time earnings at the bottom (p10) rank closer to mid table at €9.37.

Considering earnings in the *Business economy* alone (Table 20), the ranking of wages in euros for young Irish workers are mid table using all four indicators (p10, p50, p90 and the mean).

Incorporating cost of living, the rankings for each measure change again (Table 21), though the data show that inequality among young workers in Ireland is not a particular problem in this context; the gap in returns to education are not particularly pronounced. Ranking the buying power of average hourly earnings for young workers (PPS), Ireland drops from 4th position to 8th out of 11, the median from 4th to 9th, the worker at p10 from 5th to 8th. The worker at the top (p90) can buy the 5th most goods and services with an hour's labour, down from ranking second place in euros.

### Table 19 Hourly Earnings distribution among young workers (under 30's, euro), 2018

| | Mean | Median | p10 | p90 |
|---|---|---|---|---|
| EU-28 | 12.15 | : | : | : |
| EU-19 | 12.22 | : | : | : |
| Belgium | 14.98 | 13.28 | 10.54 | 22.53 |
| Denmark | 21.72 | 21.08 | 11.63 | 30.84 |
| Germany | 13.61 | 12.36 | 5.66 | 22.15 |
| Ireland | 15.54 | 13.87 | 9.37 | 23.8 |
| France | 13.44 | 12.28 | 8.16 | 18.58 |
| Italy | 10.93 | 9.77 | 7.66 | 14.6 |
| Netherlands | 11.58 | 11.3 | 4.77 | 18.24 |
| Austria | 12.54 | 12.05 | 6.43 | 18.28 |
| Finland | 15.68 | 14.81 | 11.58 | 20.5 |
| Sweden | 16.22 | 15.68 | 11.99 | 21.01 |
| UK | 14.19 | 11.9 | 8.7 | 22.37 |

Industry, construction and services (except public administration, defense, compulsory social security)
Note: Estimates are for firms with 10 or more employees (about 70 percent of Irish employment)

## Table 20, Hourly Earnings distribution among young workers, Business Economy (under 30's, euro), 2018

| | Mean | Median | p10 | p90 |
|---|---|---|---|---|
| EU-28 | 11.73 | : | : | : |
| EU-19 | 11.9 | 10.86 | 4.99 | 19.5 |
| Belgium | 15.11 | 13.52 | 10.52 | 22.43 |
| Denmark | 21.68 | 20.8 | 11.62 | 31.46 |
| Germany | 13.51 | 12.08 | 5.47 | 22.6 |
| Ireland | 14.69 | 13.23 | 9.29 | 21.56 |
| France | 13.41 | 12.43 | 7.86 | 19.31 |
| Italy | 10.51 | 9.75 | 7.67 | 14 |
| Netherlands | 10.84 | 10.49 | 4.8 | 16.95 |
| Austria | 12.45 | 11.98 | 6.42 | 18.29 |
| Finland | 15.71 | 14.81 | 11.63 | 20.79 |
| Sweden | 16.84 | 16.22 | 12.41 | 21.98 |
| UK | 13.98 | 11.57 | 8.62 | 22.23 |
| Business economy<br>Estimates are for firms with 10 or more employees (about 70 percent of Irish employment) | | | | |

## Table 21 Hourly Earnings distribution among young workers (under 30's, PPS), 2018

| 2018 | Mean | Median | p10 | p90 |
|---|---|---|---|---|
| EU-28 | 11.79 | : | : | : |
| EU-19 | 11.55 | : | : | : |
| Belgium | 13.05 | 11.57 | 9.18 | 19.63 |
| Denmark | 15.35 | 14.89 | 8.21 | 21.79 |
| Germany | 12.74 | 11.57 | 5.3 | 20.74 |
| Ireland | 11.71 | 10.45 | 7.06 | 17.94 |
| France | 11.83 | 10.81 | 7.18 | 16.35 |
| Italy | 10.56 | 9.44 | 7.4 | 14.11 |
| Netherlands | 10.02 | 9.78 | 4.13 | 15.79 |
| Austria | 11.2 | 10.76 | 5.74 | 16.32 |
| Finland | 12.45 | 11.76 | 9.19 | 16.27 |
| Sweden | 13.13 | 12.68 | 9.7 | 17 |
| UK | 11.82 | 9.91 | 7.25 | 18.62 |
| Structure of earnings survey: hourly earnings [earn_ses_hourly] | | | | |
| Industry, construction and services (except public administration, defense, compulsory social security)<br>Note: Estimates are for firms with 10 or more employees (about 70 percent of Irish employment) | | | | |

# Intergenerational Earnings Inequality

Table 22 shows a simple ratio between average earnings in the labour market (excluding micro enterprises) and the average earnings of workers under 30. The average hourly rate a worker under 30 earns is 68 percent of the wider average. This is the second lowest ratio out of 11, behind the Netherlands (0.63). Other than Belgium, no other high-income EU country has recorded the same level of decline in the average wages of young workers relative to their older counterparts as recorded in Ireland between 2006 and 2018.

Once controlled for full-time workers, the difference increases again and Ireland's ranking falls to joint last out of 11 with the Netherlands (Table 23). A full-time worker under 30 in Ireland in 2018 earned 65 percent of the average hourly rate of all age groups in the economy. In 2006, it was 72 percent. The drop between 2006 and 2018 was largest for Ireland out of the sample (7 percentage points) though Belgium also experienced a similar rise in intergenerational earnings inequality over the same period. Germany is the only country where this intergenerational gap in average hourly earnings narrowed between 2006 and 2018 to any notable degree, from 60 to 66 percent.

### Table 22 Intergenerational Hourly Earnings Inequality, 2006- 2018, (under 30 average/average)

| | 2006 | 2010 | 2014 | 2018 |
|---|---|---|---|---|
| EU-28 | 0.73 | 0.72 | 0.73 | 0.76 |
| EU-19 | - | 0.69 | 0.71 | 0.72 |
| Belgium | 0.79 | 0.76 | 0.75 | 0.74 |
| Denmark | 0.76 | 0.74 | 0.72 | 0.74 |
| Germany | 0.63 | 0.63 | 0.67 | 0.69 |
| Ireland | 0.73 | 0.68 | 0.76 | 0.68 |
| France | 0.74 | 0.72 | 0.73 | 0.74 |
| Italy | 0.69 | 0.68 | 0.68 | 0.70 |
| Netherlands | 0.64 | 0.65 | 0.63 | 0.63 |
| Austria | 0.72 | 0.71 | 0.71 | 0.72 |
| Finland | 0.82 | 0.79 | 0.78 | 0.78 |
| Sweden | 0.81 | 0.80 | 0.80 | 0.80 |
| UK | 0.72 | 0.69 | 0.71 | 0.73 |

Industry, construction and services (except public administration, defense, compulsory social security)
Note: Estimates are for firms with 10 or more employees (about 70 percent of Irish employment)

**Table 23 Intergenerational Hourly Earnings Inequality, Full-Time, 2006- 2018, (under 30 average/average)**

| | 2006 | 2010 | 2014 | 2018 |
|---|---|---|---|---|
| EU-28 | 0.71 | 0.70 | 0.72 | 0.75 |
| EU-19 | - | 0.68 | 0.69 | 0.72 |
| Belgium | 0.79 | 0.75 | 0.75 | 0.73 |
| Denmark | 0.75 | 0.72 | 0.70 | 0.73 |
| Germany | 0.60 | 0.60 | 0.63 | 0.66 |
| Ireland | 0.72 | 0.67 | 0.69 | 0.65 |
| France | 0.73 | 0.71 | 0.72 | 0.73 |
| Italy | 0.68 | 0.67 | 0.66 | 0.68 |
| Netherlands | 0.66 | 0.66 | 0.62 | 0.65 |
| Austria | 0.69 | 0.68 | 0.69 | 0.70 |
| Finland | 0.82 | 0.80 | 0.78 | 0.78 |
| Sweden | 0.80 | 0.79 | 0.78 | 0.80 |
| UK | 0.72 | 0.70 | 0.71 | 0.73 |

Industry, construction and services (except public administration, defense, compulsory social security)
Note: Estimates are for firms with 10 or more employees (about 70 percent of Irish employment)

# Intergenerational Earnings Inequality, Occupations

Considering the fact that the rates of school leavers going on to third level education has been growing consistently, the evidence of a widening gap between older and younger workers is somewhat counterintuitive given dominant theories related to wages and returns to education.

This section is an investigation of generational differences in earnings of workers within occupational groups over time. Measuring within-occupation intergenerational inequality has the added benefit of controlling for education levels as these occupations are specifically categorised by the level of investment in skills/education required to do them (*Professionals* all require tertiary education for example). Controlling for both age groups and education in this way we can get a sense of the impact of specific contextual factors impacting the Irish labour market (financial crisis, austerity and a policy focus on controlling unit labour costs), factors which disproportionately impacted new labour market entrants.

The section focuses on one indicator of intergenerational wage inequality; the ratio of average (mean) hourly earnings for under 30's relative to average hourly earnings economy wide.

Tables 24 and 25 show the relationship between the average earnings of younger *Managers* and all *Managers* in high-income EU countries between 2006 and 2018. In the wider sample and controlling for full-time workers intergenerational wage inequality grew between 2006 and 2018. A young full-time *Manager* in Ireland earned just half the *Manager* average in 2018 (the 4th widest gap out of 11), compared to 61 percent in 2006. Apart from Belgium, this was the largest growth in intergenerational inequality in the sample during this period.

Similarly, the gap between average earnings of *Professionals* under 30 and average earnings for all *Professionals* increased in Ireland in the same period, the only country other than the Netherlands and France (for full-time workers) where this occurred (Tables 26 and 27). For most countries there was little change, though average earnings for younger *Professionals* in Germany and Italy improved somewhat relative to older *Professionals* in the same period. An Irish *Professional* under 30 earned on average 63 percent of the average of their occupational group (62 percent among full-time workers), the second lowest relative to our peers in Europe and down from 68 percent in 2006. In Sweden, the equivalent number was 77 percent and has remained relatively steady. The most highly paid *Professionals* in Ireland (p90) are on the highest hourly rates in the EU. This applies to *Professionals* over the age of 50 (€65.70 at the p90 mark) and 46.8 percent higher than in the eurozone (€44.74) but not younger *Professionals* at p90 (€27.75 and just ten percent higher than the Eurozone average of €25.20. There is a huge disparity in wages for older Irish *Professionals* in a Northern European context with the same earner in the Netherlands on €43.36 an hour, in the UK on €42.80, in Finland on €40.38, in Sweden on €36.42 and it's over twice the hourly rate in Spain (€32.64).

The ratio of average hourly earnings for under 30's to the wider occupational group of *Associate Professionals and Technicians* fell from 78 to 73 percent between 2006 and 2018 (Tables 28 and 29). Other than Belgium, this was the largest increase in intergenerational earnings inequality out of 11 high-income EU countries. Ireland ranked mid table in 2018. Although the earnings of younger workers in these occupations improved significantly relative to all *Associate Professionals and Technicians* in Germany, they still had the widest gap in intergenerational earnings in 2018 (65 percent).

The hourly rate of pay for Irish *Clerical Support workers* relative to their older counterparts is among the lowest in the sample and the lowest when considering full-time workers alone (Tables 30 and 31). The gap also widened significantly between 2006 and 2018. A full-time clerical worker under 30 earned 83 percent of the average clerical worker in 2006. This fell to 70 percent by 2018. In Belgium and Germany, the gap closed in the opposite way (62 to 72 percent and 79 to 87 percent, respectively). Ireland is the only example where the gap between younger and older workers widened in this way in this period, with the relationship relatively steady in most countries.

The ratio of average earnings for younger *Service and Sales* workers actually improved between 2006 and 2018 but fell considering full-time employees alone (Tables 32 and 33). The relationship changed little relative to the occupational groups considered to date however and this was also mostly the case countries with one or two exceptions (the gap between older and younger voters improved in Austria and Germany but widened significantly in Belgium). This is due to relatively low compensation across the board in these occupations (the hourly rate at the ninetieth percentile is approximately equal to the average hourly rate in Ireland).

Tables 34 and 35 show the figures for *Skilled Agricultural, Fishery and Forestry workers* are patchy, likely due to small and decreasing numbers in these occupations (especially younger workers) and also the fact that the agricultural sector is not included in SES data resulting in a relatively small sample. However, the available data suggests that hourly compensation for young workers in these occupations in firms with 10+ employees relative to older farmers decreased more in Ireland between 2006 and 2014 than any other country. In 2006, young workers earned almost exactly the same as their older counterparts on average. By 2014, this had fallen to approximately two thirds.

The average full-time *Craft and related Trades* employee under the age of 30 earned 69 percent of the average hourly rate in 2018 in Ireland, the lowest in the sample and way behind more equal economies such as Finland (91 percent) and Sweden (93 percent) (see Tables 36 and 37). Other than in Belgium, the relative hourly earnings of younger craft and trades workers fell most in Ireland out of the 11-country sample (down from 79 percent). The gap between young and older workers in these occupations narrowed in Germany over the same period (67 to 75 percent).

Tables 38 and 39 show that the average hourly rate for *Plant and Machine Operators and Assemblers* under the age of 30 also fell in Ireland relative to their older counterparts between 2006 and 2018 by approximately 10 percentage points (87 to 77 percent for full-time employees). Ireland is second only to Belgium in intergenerational inequality within this occupational group (73 percent, down from 96 percent in 2006).

In the lowest paid occupations (requiring the least amount of investment in training/education) the Irish generation gap in average hourly earnings decreased (84 to 92 percent), in line with the wider EU trend (89 percent to 98 percent). However, once only full-time workers are considered, the Irish generational gap moved in the opposite direction to the EU 28 for *Elementary* occupations, dropping from 86 percent of the average rate in 2006 to 77 percent of the average in 2018.

### Table 24 Intergenerational Hourly Earnings Inequality by Occupation, Managers, 2006- 2018, (under 30 average/average)

| | 2006 | 2010 | 2014 | 2018 |
|---|---|---|---|---|
| EU-28 | 0.62 | 0.56 | 0.57 | 0.58 |
| EU-19 | - | 0.56 | 0.56 | 0.54 |
| Belgium | 0.54 | 0.59 | 0.55 | 0.35 |
| Denmark | 0.64 | 0.55 | 0.53 | 0.53 |
| Germany | 0.46 | 0.59 | 0.51 | 0.52 |
| Ireland | 0.61 | 0.54 | 0.69 | 0.49 |
| France | 0.65 | 0.62 | 0.66 | 0.61 |
| Italy | - | 0.29 | 0.31 | 0.43 |
| Netherlands | 0.53 | 0.51 | 0.50 | 0.45 |
| Austria | 0.53 | 0.52 | 0.49 | 0.52 |
| Finland | 0.58 | 0.56 | 0.60 | 0.54 |
| Sweden | 0.65 | 0.60 | 0.57 | 0.60 |
| UK | 0.62 | 0.56 | 0.56 | 0.60 |

Industry, construction and services (except public administration, defense, compulsory social security)
Estimates are for firms with 10 or more employees (about 70 percent of Irish employment)

### Table 25 Intergenerational Hourly Earnings Inequality by Occupation, Managers, Full-Time, 2006- 2018, (under 30 average/average)

| | 2006 | 2010 | 2014 | 2018 |
|---|---|---|---|---|
| EU-28 | 0.63 | 0.56 | 0.57 | 0.58 |
| EU-19 | - | 0.56 | 0.57 | 0.55 |
| Belgium | 0.54 | 0.58 | 0.56 | 0.35 |
| Denmark | 0.61 | 0.56 | 0.53 | 0.53 |
| Germany | 0.47 | 0.58 | 0.52 | 0.53 |
| Ireland | 0.61 | 0.53 | 0.49 | 0.50 |
| France | 0.64 | 0.62 | 0.66 | 0.62 |
| Italy | - | 0.32 | 0.41 | 0.43 |
| Netherlands | 0.53 | 0.49 | 0.50 | 0.46 |
| Austria | 0.52 | 0.52 | 0.50 | 0.52 |
| Finland | 0.58 | 0.56 | 0.61 | 0.55 |
| Sweden | 0.65 | 0.59 | 0.57 | 0.59 |
| UK | 0.62 | 0.57 | 0.56 | 0.60 |

Industry, construction and services (except public administration, defense, compulsory social security)

### Table 26 Intergenerational Hourly Earnings Inequality by Occupation, Professionals, 2006- 2018, (under 30 average/average)

| | 2006 | 2010 | 2014 | 2018 |
|---|---|---|---|---|
| EU-28 | 0.71 | 0.70 | 0.72 | 0.73 |
| EU-19 | - | 0.66 | 0.67 | 0.69 |
| Belgium | 0.71 | 0.71 | 0.71 | 0.72 |
| Denmark | 0.75 | 0.78 | 0.75 | 0.76 |
| Germany | 0.64 | 0.67 | 0.65 | 0.67 |
| Ireland | 0.68 | 0.70 | 0.86 | 0.63 |
| France | 0.69 | 0.63 | 0.66 | 0.69 |
| Italy | 0.53 | 0.57 | 0.51 | 0.57 |
| Netherlands | 0.72 | 0.69 | 0.66 | 0.67 |
| Austria | 0.69 | 0.68 | 0.66 | 0.68 |
| Finland | 0.76 | 0.76 | 0.75 | 0.76 |
| Sweden | 0.78 | 0.78 | 0.77 | 0.77 |
| UK | 0.75 | 0.74 | 0.76 | 0.75 |

Industry, construction and services (except public administration, defense, compulsory social security)
Estimates are for firms with 10 or more employees (about 70 percent of Irish employment)

### Table 27 Intergenerational Hourly Earnings Inequality by Occupation, Professionals, Full-Time, 2006- 2018, (under 30 average/average)

| | 2006 | 2010 | 2014 | 2018 |
|---|---|---|---|---|
| EU-28 | 0.71 | 0.70 | 0.72 | 0.73 |
| EU-19 | - | 0.65 | 0.66 | 0.68 |
| Belgium | 0.70 | 0.70 | 0.70 | 0.73 |
| Denmark | 0.74 | 0.76 | 0.72 | 0.73 |
| Germany | 0.63 | 0.66 | 0.64 | 0.66 |
| Ireland | 0.67 | 0.69 | 0.76 | 0.62 |
| France | 0.69 | 0.64 | 0.66 | 0.65 |
| Italy | 0.51 | 0.56 | 0.49 | 0.56 |
| Netherlands | 0.68 | 0.67 | 0.64 | 0.65 |
| Austria | 0.66 | 0.67 | 0.67 | 0.68 |
| Finland | 0.76 | 0.76 | 0.75 | 0.76 |
| Sweden | 0.78 | 0.78 | 0.77 | 0.77 |
| UK | 0.76 | 0.74 | 0.75 | 0.75 |

Industry, construction and services (except public administration, defense, compulsory social security)
Estimates are for firms with 10 or more employees (about 70 percent of Irish employment)

### Table 28 Intergenerational Hourly Earnings Inequality by Occupation, Assoc Professionals & Technicians, 2006- 2018, (under 30 average/average)

| | 2006 | 2010 | 2014 | 2018 |
|---|---|---|---|---|
| EU-28 | 0.75 | 0.71 | 0.74 | 0.75 |
| EU-19 | - | 0.71 | 0.73 | 0.74 |
| Belgium | 0.79 | 0.75 | 0.71 | 0.71 |
| Denmark | 0.77 | 0.74 | 0.75 | 0.77 |
| Germany | 0.61 | 0.61 | 0.66 | 0.69 |
| Ireland | 0.79 | 0.69 | 0.77 | 0.77 |
| France | 0.80 | 0.81 | 0.79 | 0.81 |
| Italy | 0.73 | 0.71 | 0.80 | 0.76 |
| Netherlands | 0.75 | 0.75 | 0.71 | 0.72 |
| Austria | 0.70 | 0.72 | 0.70 | 0.71 |
| Finland | 0.87 | 0.85 | 0.85 | 0.84 |
| Sweden | 0.82 | 0.79 | 0.80 | 0.78 |
| UK | 0.83 | 0.76 | 0.79 | 0.81 |

Industry, construction and services (except public administration, defense, compulsory social security)
Estimates are for firms with 10 or more employees (about 70 percent of Irish employment)

### Table 29 Intergenerational Hourly Earnings Inequality by Occupation, Assoc Professionals & Technicians, Full-Time, 2006- 2018, (under 30 average/average)

| | 2006 | 2010 | 2014 | 2018 |
|---|---|---|---|---|
| EU-28 | 0.74 | 0.71 | 0.73 | 0.75 |
| EU-19 | - | 0.70 | 0.72 | 0.74 |
| Belgium | 0.79 | 0.75 | 0.72 | 0.72 |
| Denmark | 0.75 | 0.73 | 0.74 | 0.75 |
| Germany | 0.58 | 0.59 | 0.64 | 0.65 |
| Ireland | 0.78 | 0.68 | 0.71 | 0.73 |
| France | 0.80 | 0.81 | 0.79 | 0.81 |
| Italy | 0.73 | 0.72 | 0.80 | 0.77 |
| Netherlands | 0.72 | 0.72 | 0.68 | 0.69 |
| Austria | 0.69 | 0.70 | 0.68 | 0.70 |
| Finland | 0.87 | 0.85 | 0.85 | 0.84 |
| Sweden | 0.81 | 0.79 | 0.80 | 0.79 |
| UK | 0.81 | 0.75 | 0.78 | 0.80 |

Industry, construction and services (except public administration, defense, compulsory social security)
Estimates are for firms with 10 or more employees (about 70 percent of Irish employment)

### Table 30 Intergenerational Hourly Earnings Inequality by Occupation, Clerical Support Workers, 2006-2018, (under 30 average/average)

| | 2006 | 2010 | 2014 | 2018 |
|---|---|---|---|---|
| EU-28 | 0.76 | 0.79 | 0.79 | 0.81 |
| EU-19 | - | 0.77 | 0.76 | 0.79 |
| Belgium | 0.79 | 0.80 | 0.79 | 0.86 |
| Denmark | 0.82 | 0.81 | 0.80 | 0.80 |
| Germany | 0.64 | 0.72 | 0.71 | 0.73 |
| Ireland | 0.84 | 0.79 | 0.84 | 0.74 |
| France | 0.84 | 0.88 | 0.83 | 0.86 |
| Italy | 0.74 | 0.75 | 0.74 | 0.76 |
| Netherlands | 0.74 | 0.76 | 0.74 | 0.75 |
| Austria | 0.69 | 0.72 | 0.73 | 0.73 |
| Finland | 0.89 | 0.88 | 0.89 | 0.89 |
| Sweden | 0.91 | 0.89 | 0.89 | 0.88 |
| UK | 0.91 | 0.86 | 0.88 | 0.89 |
| Industry, construction and services (except public administration, defense, compulsory social security)<br>Estimates are for firms with 10 or more employees (about 70 percent of Irish employment) | | | | |

### Table 31 Intergenerational Hourly Earnings Inequality by Occupation, Clerical Support Workers, Full-Time, 2006-2018, (under 30 average/average)

| | 2006 | 2010 | 2014 | 2018 |
|---|---|---|---|---|
| EU-28 | 0.76 | 0.78 | 0.79 | 0.81 |
| EU-19 | - | 0.77 | 0.76 | 0.79 |
| Belgium | 0.79 | 0.81 | 0.79 | 0.87 |
| Denmark | 0.81 | 0.79 | 0.78 | 0.79 |
| Germany | 0.62 | 0.71 | 0.69 | 0.72 |
| Ireland | 0.83 | 0.79 | 0.79 | 0.70 |
| France | 0.84 | 0.86 | 0.83 | 0.85 |
| Italy | 0.73 | 0.75 | 0.73 | 0.75 |
| Netherlands | 0.76 | 0.76 | 0.73 | 0.75 |
| Austria | 0.68 | 0.71 | 0.72 | 0.73 |
| Finland | 0.89 | 0.89 | 0.89 | 0.89 |
| Sweden | 0.90 | 0.88 | 0.88 | 0.88 |
| UK | 0.89 | 0.85 | 0.87 | 0.88 |
| Industry, construction and services (except public administration, defense, compulsory social security)<br>Estimates are for firms with 10 or more employees (about 70 percent of Irish employment) | | | | |

### Table 32 Intergenerational Hourly Earnings Inequality by Occupation, Service and Sales Workers, 2006- 2018, (under 30 average/average)

| | 2006 | 2010 | 2014 | 2018 |
|---|---|---|---|---|
| EU-28 | 0.89 | 0.87 | 0.90 | 0.92 |
| EU-19 | - | 0.83 | 0.84 | 0.86 |
| Belgium | 0.85 | 0.84 | 0.84 | 0.78 |
| Denmark | 0.89 | 0.86 | 0.86 | 0.85 |
| Germany | 0.78 | 0.70 | 0.78 | 0.81 |
| Ireland | 0.86 | 0.82 | 0.89 | 0.90 |
| France | 0.89 | 0.89 | 0.89 | 0.91 |
| Italy | 0.89 | 0.86 | 0.88 | 0.90 |
| Netherlands | 0.78 | 0.78 | 0.77 | 0.76 |
| Austria | 0.79 | 0.79 | 0.81 | 0.82 |
| Finland | 0.95 | 0.94 | 0.94 | 0.95 |
| Sweden | 0.94 | 0.94 | 0.94 | 0.94 |
| UK | 0.89 | 0.86 | 0.88 | 0.91 |

Industry, construction and services (except public administration, defense, compulsory social security)
Estimates are for firms with 10 or more employees (about 70 percent of Irish employment)

### Table 33 Intergenerational Hourly Earnings Inequality by Occupation, Service and Sales Workers, Full-Time, 2006- 2018, (under 30 average/average)

| | 2006 | 2010 | 2014 | 2018 |
|---|---|---|---|---|
| EU-28 | 0.85 | 0.83 | 0.86 | 0.90 |
| EU-19 | - | 0.80 | 0.82 | 0.85 |
| Belgium | 0.85 | 0.85 | 0.86 | 0.78 |
| Denmark | 0.85 | 0.79 | 0.79 | 0.81 |
| Germany | 0.67 | 0.63 | 0.69 | 0.72 |
| Ireland | 0.84 | 0.78 | 0.81 | 0.82 |
| France | 0.88 | 0.88 | 0.86 | 0.90 |
| Italy | 0.86 | 0.83 | 0.85 | 0.87 |
| Netherlands | 0.76 | 0.78 | 0.73 | 0.75 |
| Austria | 0.72 | 0.72 | 0.75 | 0.76 |
| Finland | 0.93 | 0.92 | 0.92 | 0.92 |
| Sweden | 0.94 | 0.93 | 0.92 | 0.93 |
| UK | 0.89 | 0.85 | 0.88 | 0.90 |

Industry, construction and services (except public administration, defense, compulsory social security)
Estimates are for firms with 10 or more employees (about 70 percent of Irish employment)

### Table 34 Intergenerational Hourly Earnings Inequality by Occupation, Skilled Agri, Forestry, Fishery Workers, 2006- 2018, (under 30 average/average)

| | 2006 | 2010 | 2014 | 2018 |
|---|---|---|---|---|
| EU-28 | 0.85 | 0.84 | 0.86 | 0.84 |
| EU-19 | - | 0.82 | 0.80 | 0.80 |
| Belgium | - | - | - | - |
| Denmark | 0.84 | 0.82 | 0.86 | 0.88 |
| Germany | 0.66 | 0.74 | 0.74 | 0.80 |
| Ireland | 0.98 | 0.68 | 0.67 | - |
| France | 0.85 | 0.92 | 0.81 | 0.77 |
| Italy | - | 1.09 | 0.80 | 1.01 |
| Netherlands | 0.86 | 0.76 | 0.75 | 0.69 |
| Austria | - | - | - | - |
| Finland | 1.00 | 0.78 | 0.82 | 0.86 |
| Sweden | 0.92 | 0.91 | 0.94 | 0.90 |
| UK | 0.86 | 0.84 | 0.92 | 0.88 |

Industry, construction and services (except public administration, defense, compulsory social security)
Estimates are for firms with 10 or more employees (about 70 percent of Irish employment)

### Table 35 Intergenerational Hourly Earnings Inequality by Occupation, Skilled Agri, Forestry, Fishery Workers, Full-Time, 2006- 2018, (under 30 average/average)

| | 2006 | 2010 | 2014 | 2018 |
|---|---|---|---|---|
| EU-28 | 0.83 | 0.85 | 0.86 | 0.85 |
| EU-19 | - | 0.83 | 0.81 | 0.81 |
| Belgium | - | - | - | - |
| Denmark | 0.79 | 0.76 | 0.84 | 0.84 |
| Germany | 0.61 | 0.70 | 0.71 | 0.75 |
| Ireland | 0.92 | 0.70 | - | - |
| France | 0.81 | 0.91 | 0.81 | 0.76 |
| Italy | - | 1.09 | - | 1.00 |
| Netherlands | 0.82 | 0.80 | 0.78 | 0.73 |
| Austria | - | - | - | - |
| Finland | 1.00 | 0.79 | 0.81 | 0.86 |
| Sweden | 0.92 | 0.92 | 0.94 | 0.89 |
| UK | 0.84 | 0.84 | 0.88 | 0.90 |

Industry, construction and services (except public administration, defense, compulsory social security)
Estimates are for firms with 10 or more employees (about 70 percent of Irish employment)

### Table 36 Intergenerational Hourly Earnings Inequality by Occupation, Craft and related Trades Workers, 2006-2018, (under 30 average/average)

| | 2006 | 2010 | 2014 | 2018 |
|---|---|---|---|---|
| EU-28 | 0.82 | 0.85 | 0.87 | 0.88 |
| EU-19 | - | 0.79 | 0.81 | 0.82 |
| Belgium | 0.91 | 0.88 | 0.85 | 0.74 |
| Denmark | 0.85 | 0.83 | 0.83 | 0.85 |
| Germany | 0.67 | 0.68 | 0.73 | 0.75 |
| Ireland | 0.80 | 0.75 | 0.85 | 0.72 |
| France | 0.80 | 0.81 | 0.82 | 0.83 |
| Italy | 0.84 | 0.88 | 0.86 | 0.86 |
| Netherlands | 0.76 | 0.76 | 0.74 | 0.73 |
| Austria | 0.77 | 0.77 | 0.78 | 0.78 |
| Finland | 0.88 | 0.91 | 0.89 | 0.90 |
| Sweden | 0.92 | 0.93 | 0.92 | 0.93 |
| UK | 0.81 | 0.87 | 0.84 | 0.85 |

Industry, construction and services (except public administration, defense, compulsory social security)
Estimates are for firms with 10 or more employees (about 70 percent of Irish employment)

### Table 37 Intergenerational Hourly Earnings Inequality by Occupation, Craft and related Trades Workers, Full-Time 2006- 2018, (under 30 average/average)

| | 2006 | 2010 | 2014 | 2018 |
|---|---|---|---|---|
| EU-28 | 0.82 | 0.84 | 0.87 | 0.88 |
| EU-19 | - | 0.78 | 0.80 | 0.82 |
| Belgium | 0.91 | 0.88 | 0.85 | 0.73 |
| Denmark | 0.84 | 0.79 | 0.80 | 0.83 |
| Germany | 0.67 | 0.69 | 0.73 | 0.75 |
| Ireland | 0.79 | 0.75 | 0.81 | 0.69 |
| France | 0.80 | 0.81 | 0.82 | 0.83 |
| Italy | 0.83 | 0.86 | 0.82 | 0.84 |
| Netherlands | 0.78 | 0.77 | 0.75 | 0.75 |
| Austria | 0.77 | 0.76 | 0.78 | 0.78 |
| Finland | 0.88 | 0.91 | 0.90 | 0.91 |
| Sweden | 0.92 | 0.93 | 0.91 | 0.93 |
| UK | 0.80 | 0.81 | 0.83 | 0.84 |

Industry, construction and services (except public administration, defense, compulsory social security)
Estimates are for firms with 10 or more employees (about 70 percent of Irish employment)

**The average full-time Craft and related Trades employee under the age of 30 earned 69 percent of the average hourly rate in 2018 in Ireland**

### Table 38 Intergenerational Hourly Earnings Inequality by Occupation, Plant and Machine Operators and assemblers, 2006- 2018, (under 30 average/average)

| | 2006 | 2010 | 2014 | 2018 |
|---|---|---|---|---|
| EU-28 | 0.84 | 0.84 | 0.85 | 0.89 |
| EU-19 | - | 0.84 | 0.87 | 0.88 |
| Belgium | 0.96 | 0.90 | 0.82 | 0.74 |
| Denmark | 0.92 | 0.91 | 0.90 | 0.91 |
| Germany | 0.83 | 0.78 | 0.89 | 0.90 |
| Ireland | 0.88 | 0.76 | 0.85 | 0.77 |
| France | 0.86 | 0.89 | 0.88 | 0.90 |
| Italy | 0.83 | 0.86 | 0.87 | 0.86 |
| Netherlands | 0.79 | 0.85 | 0.82 | 0.80 |
| Austria | 0.92 | 0.92 | 0.95 | 0.94 |
| Finland | 0.91 | 0.91 | 0.88 | 0.90 |
| Sweden | 0.94 | 0.93 | 0.95 | 0.98 |
| UK | 0.89 | 0.85 | 0.87 | 0.89 |

Industry, construction and services (except public administration, defense, compulsory social security)
Estimates are for firms with 10 or more employees (about 70 percent of Irish employment)

### Table 39 Intergenerational Hourly Earnings Inequality by Occupation, Plant and Machine Operators and assemblers, Full-Time, 2006- 2018, (under 30 average/average)

| | 2006 | 2010 | 2014 | 2018 |
|---|---|---|---|---|
| EU-28 | 0.83 | 0.83 | 0.85 | 0.89 |
| EU-19 | - | 0.85 | 0.87 | 0.89 |
| Belgium | 0.96 | 0.89 | 0.83 | 0.73 |
| Denmark | 0.93 | 0.90 | 0.91 | 0.91 |
| Germany | 0.83 | 0.78 | 0.87 | 0.89 |
| Ireland | 0.87 | 0.75 | 0.79 | 0.77 |
| France | 0.86 | 0.88 | 0.87 | 0.90 |
| Italy | 0.83 | 0.86 | 0.87 | 0.85 |
| Netherlands | 0.80 | 0.84 | 0.80 | 0.84 |
| Austria | 0.92 | 0.92 | 0.95 | 0.94 |
| Finland | 0.91 | 0.92 | 0.89 | 0.90 |
| Sweden | 0.94 | 0.92 | 0.95 | 0.98 |
| UK | 0.87 | 0.85 | 0.87 | 0.88 |

Industry, construction and services (except public administration, defense, compulsory social security)
Estimates are for firms with 10 or more employees (about 70 percent of Irish employment)

## Table 40 Intergenerational Hourly Earnings Inequality by Occupation, Elementary occupations, 2006- 2018, (under 30 average/average)

| | 2006 | 2010 | 2014 | 2018 |
|---|---|---|---|---|
| EU-28 | 0.89 | 0.93 | 0.96 | 0.98 |
| EU-19 | - | 0.89 | 0.91 | 0.93 |
| Belgium | 0.94 | 0.94 | 0.91 | 0.94 |
| Denmark | 0.88 | 0.86 | 0.88 | 0.90 |
| Germany | 0.77 | 0.85 | 0.90 | 0.92 |
| Ireland | 0.84 | 0.83 | 0.90 | 0.92 |
| France | 0.89 | 0.89 | 0.89 | 0.93 |
| Italy | 0.92 | 0.87 | 0.92 | 0.93 |
| Netherlands | 0.76 | 0.78 | 0.79 | 0.76 |
| Austria | 0.96 | 0.97 | 0.96 | 0.97 |
| Finland | 0.95 | 0.96 | 0.95 | 0.98 |
| Sweden | 0.96 | 0.95 | 0.95 | 0.96 |
| UK | 0.89 | 0.89 | 0.91 | 0.90 |

Industry, construction and services (except public administration, defense, compulsory social security)
Estimates are for firms with 10 or more employees (about 70 percent of Irish employment)

## Table 41 Intergenerational Hourly Earnings Inequality by Occupation, Elementary occupations, Full-Time, 2006- 2018, (under 30 average/average)

| | 2006 | 2010 | 2014 | 2018 |
|---|---|---|---|---|
| EU-28 | 0.87 | 0.91 | 0.93 | 0.98 |
| EU-19 | - | 0.87 | 0.88 | 0.93 |
| Belgium | 0.92 | 0.93 | 0.90 | 0.94 |
| Denmark | 0.94 | 0.91 | 0.91 | 0.92 |
| Germany | 0.71 | 0.79 | 0.80 | 0.83 |
| Ireland | 0.86 | 0.79 | 0.84 | 0.77 |
| France | 0.84 | 0.84 | 0.83 | 0.90 |
| Italy | 0.89 | 0.84 | 0.90 | 0.91 |
| Netherlands | 0.79 | 0.78 | 0.74 | 0.78 |
| Austria | 0.94 | 0.95 | 0.94 | 0.97 |
| Finland | 0.94 | 0.95 | 0.95 | 0.97 |
| Sweden | 0.95 | 0.93 | 0.95 | 0.96 |
| UK | 0.87 | 0.87 | 0.89 | 0.92 |

Industry, construction and services (except public administration, defense, compulsory social security)
Estimates are for firms with 10 or more employees (about 70 percent of Irish employment)

# Low Pay by age

**Low-wage earners** are defined as those employees (excluding apprentices) earning two-thirds or less of the national median gross hourly earnings in that particular country.

In 2018, Ireland had the second highest share of low-wage earners out of 11 high income EU countries (19.8 percent) behind Germany on 20.7 percent, a slight improvement relative to 2006 (21.4 percent). This was 24 percent higher than the Eurozone average, twice the rate in Denmark, France and Italy and over five times the rate in Sweden.

Ireland's rate of low-wage workers among younger workers is the third highest in the sample (33.9 percent), higher than in Germany but lower than Belgium (35.5 percent) and the Netherlands (45.7 percent). The rate in 2018 was a slight improvement on 2006 though it was still twice the rate in France and Italy (15.9 percent).

### Table 42 Low-wage earners, 2006-2018

| | 2006 | 2010 | 2014 | 2018 |
|---|---|---|---|---|
| EU-28 | : | 17.0 | 17.2 | : |
| EU-19 | : | : | 15.9 | 15.0 |
| Belgium | 6.8 | 6.4 | 3.8 | 13.7 |
| Denmark | 8.3 | 8.2 | 8.6 | 8.7 |
| Germany | 20.3 | 22.2 | 22.5 | 20.7 |
| Ireland | 21.4 | 20.7 | 21.6 | 19.8 |
| France | 7.1 | 6.1 | 8.8 | 8.6 |
| Italy | 10.3 | 12.4 | 9.4 | 8.5 |
| Netherlands | 17.7 | 17.5 | 18.0 | 18.2 |
| Austria | 14.2 | 15.0 | 14.8 | 14.8 |
| Finland | 4.8 | 5.9 | 5.3 | 5.0 |
| Sweden | 1.8 | 2.5 | 2.6 | 3.6 |
| UK | 21.8 | 22.1 | 21.3 | 17.0 |

Industry, construction and services (except public administration, defense, compulsory social security)
Estimates are for firms with 10 or more employees (about 70 percent of Irish employment)

### Table 43 Low-wage earners, under 30, 2006-2018

| | 2006 | 2010 | 2014 | 2018 |
|---|---|---|---|---|
| EU-28 | : | 30.5 | 30.1 | : |
| EU-19 | : | : | 28.8 | 28.1 |
| Belgium | 12.4 | 15.3 | 12.9 | 35.5 |
| Denmark | 22.0 | 24.6 | 25.8 | 25.3 |
| Germany | 37.7 | 38.1 | 35.0 | 33.0 |
| Ireland | 36.1 | 39.4 | 34.1 | 33.9 |
| France | 13.5 | 12.4 | 16.7 | 15.9 |
| Italy | 21.2 | 25.0 | 19.9 | 15.9 |
| Netherlands | 43.5 | 44.1 | 46.5 | 45.7 |
| Austria | 23.6 | 24.3 | 24.8 | 24.5 |
| Finland | 10.0 | 13.2 | 12.6 | 10.7 |
| Sweden | 7.2 | 9.5 | 9.5 | 11.0 |
| UK | 38.4 | 40.6 | 37.8 | 30.0 |

Industry, construction and services (except public administration, defense, compulsory social security)
Estimates are for firms with 10 or more employees (about 70 percent of Irish employment)

# Low pay tertiary education

Ireland is truly an outlier in terms of the share of workers with tertiary education on low wages with the highest rate out of the entire SES sample (30 countries). In Ireland, 1 in 8 of the most highly educated employees are working in low-wage employment compared to a Eurozone and EU average of less than 1 in 20. Estonia is the only other country in double digits and the share of Irish workers with high levels of education in low wage jobs is 8-9 times the rate in Finland and Sweden (1.5 percent).

### Table 44 Low-wage earners, tertiary education, 2006-2018

| | 2006 | 2010 | 2014 | 2018 |
|---|---|---|---|---|
| EU-28 | : | 5.8 | 6.4 | : |
| EU-19 | : | : | 5.5 | 4.7 |
| Belgium | 1.2 | 0.2 | 0.2 | 0.8 |
| Denmark | 3.2 | 2.6 | 2.1 | 2.7 |
| Germany | 3.8 | 2.1 | 6.0 | 5.7 |
| Ireland | 12.9 | 12.9 | 13.2 | 13.0 |
| France | 2.4 | 2.8 | 3.6 | 4.0 |
| Italy | 3.6 | 2.6 | 2.8 | 2.8 |
| Netherlands | 3.9 | 3.5 | 4.8 | 4.3 |
| Austria | 3.5 | 3.2 | 5.6 | 5.3 |
| Finland | 1.4 | 1.7 | 1.6 | 1.5 |
| Sweden | 0.8 | 2.1 | 1.2 | 1.5 |
| UK | 6.0 | 11.4 | 10.3 | 7.9 |

Industry, construction and services (except public administration, defense, compulsory social security)
Estimates are for firms with 10 or more employees (about 70 percent of Irish employment)

# Conclusion:

The gap between the Irish earner at the bottom (10th percentile) and the top (90th percentile) is the highest in Ireland out of 11 countries and this holds for full-time workers and in the *Business economy.* Considering relatively expensive living costs in Ireland, workers at the 90th percentile can afford more goods and services with an hour's compensation than any of their equivalents in Europe at the same time as those at the bottom in Ireland can afford least. For full-time workers the buying power of Irish top earners is 3rd out of 11, while earners at the bottom come in last place once more.

The evidence suggests that high levels of earnings inequality within occupations is an important factor, driving the gap between top and bottom, with highly-paid *Professionals* in Ireland on higher hourly rates than in any other country in the EU. The gap between the top and bottom earners in Ireland is among the widest (top 3) of the sample in 8 out of 9 broad occupational groups.

Relatively low wages for younger workers are also driving inequality in Irish wages and driving inequality within occupations. The ratio of average hourly earnings for under 30's to average earnings is second lowest in Ireland in a high-income European context and the lowest when controlled for full-time workers. Since 2006, this gap has widened more in Ireland than any other of 11 high-income EU countries. This increase in intergenerational inequality applies across all nine occupational groups including those associated with most training/education. With increasing rates of third level graduates, this relationship should theoretically have moved in the opposite direction.

Rates of low pay in Ireland are second highest out of 11 (behind Germany) and 8th in the EU. For younger workers the rate of low pay is third out of 11 high-income countries but 5th highest in the EU. Ireland is a clear outlier in terms of the share of low-wage earners with tertiary education (13.0 percent) suggesting that the demand for highly educated workers in the Irish economy is outstripped by supply and continues to be. A recent NERI report showed over-qualification rates of tertiary graduates to be a continuing problem and high in a European context.

The increase in intergenerational inequality between 2006 and 2018 across all types of occupations at the same time as increasing numbers of graduates and graduates in low wage jobs (in absolute terms) is of clear concern and flies in the face of what economic theory would predict.

Given the time frame it's clear that the financial crisis and the following approach of austerity as set out in the Memorandum of Understanding in late 2010 and pursued in accordance with the Troika was clearly a driver/accelerator of these trends. Though Ireland has exited the programme, much of the spirit of the MoU informs Irish policy on wages and continues to drive these trends (continuation of two-tier pay systems in various public sector jobs and tiny increments in the minimum wage in recent years for instance). The MoU set out a clear strategy for a restoration of 'competitiveness'. Where monetary policy was no longer a tool available to the Irish government the approach taken was through fiscal adjustment. The focus of Ireland's internal devaluation was wage moderation and restraint for both Fianna Fáil and the Greens and Fine Gael and Labour governments.

The MoU included a raft of austerity recommendations/directives some of which were direct interventions to wage levels with an explicit goal to push wages down throughout the labour market, often presented as a strategy to improve 'export competitiveness' (public sector wage cuts, lower entry level earnings in the public sector, a cut in the minimum wage). Other cuts in social welfare payments would not only reduce government expenditure but would also put downward pressure on wages elsewhere (usually in the name of 'incentivising the take up of work'). These included lowering headline social welfare rates, serious cuts to jobseekers benefit for younger adults as well as cuts to universal child benefit. This unfortunately resulted in a downward austerity-induced demand spiral which resulted in further unemployment, especially for young workers, which in turn pushed wages down for younger workers and new entrants. Government funded internship schemes such as *Jobbridge*, put further downward pressure on wages for young people.

At the same time, little reform was implemented to tackle excessive costs in the high earning 'sheltered professions' as recommended by the Troika (in legal services for instance). This is likely an important factor in the unequal distribution of wages in Ireland.

The recent EU Directive on Minimum Wages makes a strong connection between low pay and collective bargaining coverage. Only 33 percent of Irish employees are covered by a collective agreement compared to 99 percent in France and 90 percent in Sweden. Research from the IMF finds that less prevalent trade union presence and collective bargaining are indeed associated with higher market inequality, while others find that higher levels of collective bargaining are associated with lower levels of inequality for OECD member states. Evidence also suggests that wage compression in Sweden resulted in positive aggregate productivity gains.

The state should support collective bargaining through union recognition laws and the extension of collective agreements to unorganised sectors of the economy.

**Considering relatively expensive living costs in Ireland, workers at the 90th percentile can afford more goods and services with an hour's compensation than any of their equivalents in Europe at the same time as those at the bottom in Ireland can afford least.**


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