



The Gender Pay Gap in Northern Ireland

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Dr Lisa Wilson



The gender pay gap should
not be confused with
equal pay



What is the gender pay gap?

The gender pay gap is a metric that tells us about the **difference in the earnings of males and females in the labour market** and is one of the main mechanisms used to assess the extent of gender inequalities in the labour market.

Specifically, the **gender pay gap captures the differential economic returns from paid work rewarded to females as compared to males.**

The **gender pay gap should not be confused with equal pay**, which refers to paying men and women differently for doing the same work. This discriminatory practice was outlawed in the United Kingdom (UK) by the Equal Pay Act 1970.

The overall gender pay gap in hourly earnings



When we compare the hourly earnings of **all males and all females** we see that using median hourly pay that females earn 8.1% less per hour than males.

In terms of mean earnings females earn 4.1% less per hour than males.



Hourly

This means that in terms of **median pay**, for every **£1** a male employee earns, a female employee will earn **91.9p**.

In terms of **mean earnings** his means that for every **£1** a male employee earns, a female employee will earn **95.9p**.

What is the difference between the mean and the median and why do they provide different estimates of the gender pay gap?

MEAN

The **mean** is calculated by **adding up all the earnings** and then **dividing it by the number of people**.

MEDIAN

The **median** is calculated by **finding the earnings of the person at the middle of the distribution**.

Both measures have merit in assessing the gender pay gap.

The median provides a more stable measure of the average than the mean as it is **less affected by extreme values** and so the impact of a small number of very high or very low earners is minimised.

median provides a more stable measure of the average

The **mean takes into consideration the whole of the earnings distribution** and allows the fact that those on very high earnings are predominantly male, and those on very low earnings are predominantly female to be taken into account.

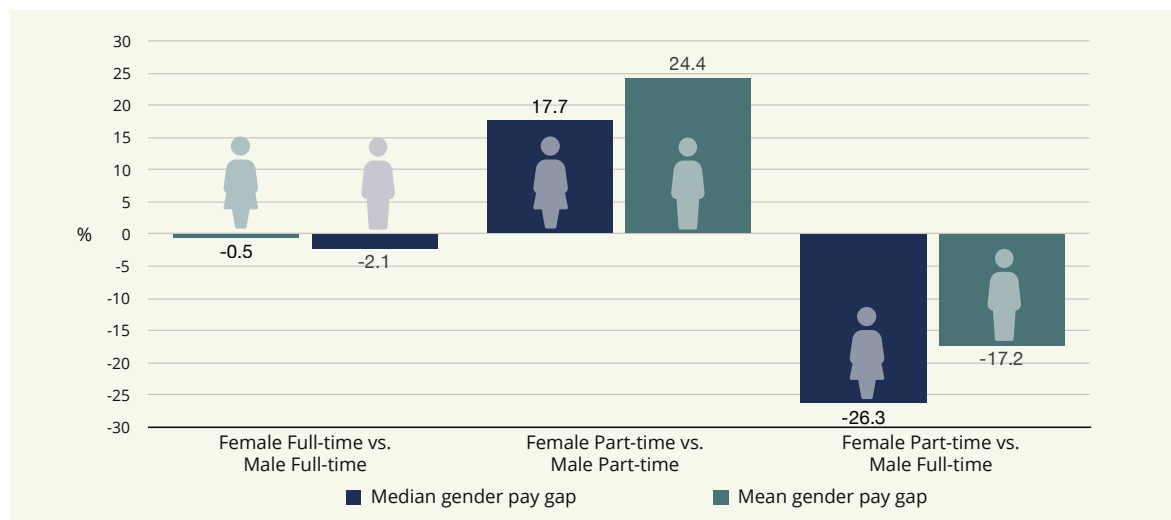
Mean includes those on very low earnings who are predominantly female



Who are we comparing? All workers? Full-time only? Part-time only?

We can also look at the gender pay gap separately for those who are in full-time work and those in part-time work.

When we look at the gender pay gap in hourly pay separated out into full-time and part time employment, the picture becomes more complicated.



As shown in the chart above in 2018 **median hourly female full-time pay was 0.5% less than the male equivalent. Mean hourly female pay was 2.1% less** than the male equivalent.

For those in **part-time employment we see that the gap not only widens but actually works the other way around** whereby females earn more per hour on average than males. This is often referred to as a **'reverse gender pay gap'**.

Specifically, there is a **reverse median hourly gender pay gap of 17.7%**, and a **reverse gap of 24.4% in mean hourly pay**.

Despite part-time male hourly earnings being lower than part-time female hourly earnings it remains that overall female hourly earnings are lower than average male hourly earnings because not only is the **hourly pay rate for part-time employment much lower than the pay rate for full-time employment**, but also because **females are much more likely to work part-time than males**.

When we compare the earnings of part-time female workers to full-time male workers we see a gap of over 26% in median hourly earnings, and a gap of just over 17% in mean hourly earnings. Some argue the importance of this measure because it captures at once both the inferiority of part-time earnings as compared to full-time earnings and the much higher likelihood of females to work part-time compared to males.

What about the gender pay gap based on weekly or annual pay?

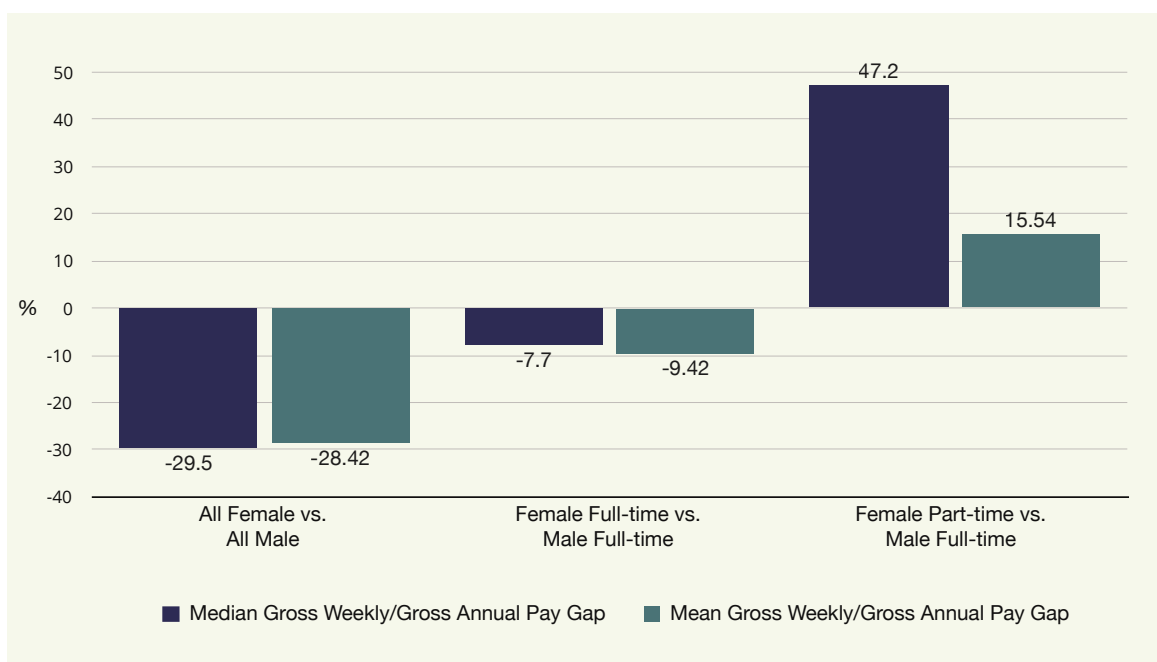
We can also look at the size of the gender pay gap based on longer time periods.

Estimates of the gender pay gap **based on weekly, monthly or annual earnings is often much larger than estimates based on hourly earnings.**

The **rationale for basing the gender pay gap on these longer time periods is that we get closer to understanding the true reality of gendered differences in the economic returns for paid work for males and females.**

This is important because as Lips (2003) points out:

'When a woman applies for a mortgage or a car loan, she is not asked about her hourly income. The income statistic that affects whether or not she gets the loan, and indeed what kind of life she is able to afford, is her annual income.'



What size is the gender pay gap in your job?

Headline figures for the gender pay gap can mask significant differences across different employment types.

It is important to bear in mind in interpreting these results that each estimate represents only the raw gap, in that it is made by adjusting for differences in that characteristic, but without controlling for differences in other characteristics.

These estimates make what is known as a 'partial adjustment' to the overall gender pay gap.

Occupation	Male £ per hour (mean)	Female £ per hour (mean)	Mean gender pay gap %
Managerial, Directors, Senior Officials	18.15	17.64	-2.8
Professional	16.73	19.9	18.9
Associate Professional & Technical	15.1	14.58	-3.4
Administrative & Secretarial	12.5	11.39	-8.9
Skilled trades	12.61	7.05	-44.1
Caring, Leisure & Other service	15.69	8.71	-44.5
Sales & Customer service	8.57	8.1	-5.5
Process, Plant & Machine	11.56	9.78	-15.4
Elementary	8.26	8.59	4
Industry			
Agriculture, Forestry, Fishing, Electricity, Water	16.91	10.76	-36.4
Manufacturing	13.58	12.24	-9.9
Construction	11.61	12.64	8.9
Wholesale, Retail & Transportation	10.14	8.47	-16.5
Accommodation & Food	5.71	8.12	42.2
Information, Comms, Financial, Insurance & Real Estate	15.09	14.91	-1.2
Professional, Technical, Scientific, Administration	12.44	14.57	17.1
Public admin, Health, Education	15.78	13.53	-14.3
Arts, Entertainment & Recreation	9.3	9.95	7
Other service activities	10.99	8.42	-23.4
Sector of Employment			
Private	11.54	10.28	-10.9
Public	15.66	14.18	-9.5

Occupation	Male hourly earnings were higher than that of females across the majority of major occupational groups, with the exception of 'professional' and 'elementary' occupations where females earned more than males. The gap in earnings was largest for those in 'caring, leisure and other service' occupations. Female hourly earnings were also considerably lower in skilled trades' occupations and 'process, plant and machine' occupations.
Industry	Looking across a breakdown of major industries it is clear that female hourly earnings are considerably lower than males across the majority of industries. Specifically, in all but a few of the major industries (namely the 'accommodation and food services' sector, the 'professional, technical, scientific and administration' sector and indeed the 'construction' sector) hourly earnings were lower for females, than males. The gender pay gap was largest in the 'accommodation and food services' sector where mean female hourly earnings were 42% higher than males. Female median hourly earnings were 23% below that of males in the 'other services' sector and 9.9% below that of males in the 'manufacturing' sector. The gendered gap in hourly earnings was smallest in the 'information, communication, financial, insurance and real estate' sector where there was only a 1.2% gap using mean female hourly earnings.
Sector of employment	The data shows that there is a considerable gender pay gap in both the public and private sector - with mean female hourly earnings in both the public and private sector around 10% less per hour than males. Importantly, however, it is worth emphasising that despite females earning less than males on average in the public sector, it remains the case that the both the high proportion of female employment in the public sector, and the fact that the gap in earnings is lower in the public sector compared to the private sector that public sector employment buffers the overall gender pay gap. Of course, the causal influences here are complex. This means that we cannot necessarily conclude from this data that further increasing female employment in the public sector would reduce the size of the gender pay gap.

How does individual or family circumstances affect gender differences in pay?

The overall gender pay gap can disguise widely varying gender pay gaps between different categories of workers.

	Male £ per hour (mean)	Female £ per hour (mean)	Mean gender pay gap %
Age			
16-29	9.60	10.78	10.9
30-39	10.03	11.45	12.4
40-49	14.67	12.99	-12.8
50-59	14.67	12.96	-13.2
60 +	14.38	11.97	-20.1
Educational qualifications			
Degree or higher	14.91	14.57	-2.3
Below Degree	9.36	9.41	0.5
No Qualifications	11.89	10.71	-10.0
Marital status			
Single	9.96	11.28	11.7
Married/Civil Partnership	13.84	12.91	-7.2
Separated/ Divorced/ Widowed	11.07	10.81	-2.4



Age	It is clear from the table above that, in general, earnings tend to increase with age as the worker builds up experience and seniority. However, in terms of the gendered nature of earnings by age, the first point to note is the general trend for females to earn less than males per hour as age increases. This may reflect the fact that male labour market careers tend to have fewer and shorter interruptions than females. Indeed, the results show that across the younger age groups female workers actually earn more on average than male workers. Females aged 16-29 earn just over 2% more per hour excluding overtime than males of the same age, whilst females aged 30-39 earn more than 10% more per hour excluding overtime. However, in older age groups (40-49, 50-59, 60+) the results show that not only do males earn considerably more per hour excluding overtime than females, but the size of the pay gap is considerably larger. The largest gender pay gap is amongst those aged 60+, whereby females earn 20% less per hour excluding overtime than males.
Educational Qualifications	The results presented show that irrespective of gender educational qualifications is in its own right an important determinant of pay. Nevertheless, there remains a gap in hourly earnings between males and females at each educational level. The gap is widest amongst those with no qualifications where female hourly earnings excluding overtime are 10% below that of male earnings. For those with degree or above level qualifications the gender pay gap is much smaller, albeit the direction is reversed, with females earning 2.3% more than males per hour excluding overtime. Smaller and reversed gaps in gendered pay the higher the level of educational qualification may in part be due to greater labour market attachment among females with higher levels of educational attainment. For example, previous research in the UK has shown that women with university degrees spend much shorter periods outside the labour market and are more likely to work full-time.
Marital Status	The analysis also looks at how the gender pay gap varies by marital status. The largest gap in earnings is amongst those who are single whereby females earn almost 12% more than males per hour excluding overtime. However, for those who are married or separated/divorced female hourly earnings are below that of males, with married females earning around 7% less per hour compared to married males. These results suggest that there is a considerable 'marriage premium' for male earnings and a 'marriage penalty' for female earnings. This 'marriage premium' in earnings is a well-documented fact in previous research for male earnings, with a number of competing theories seeking to explain it.

Appendix: Data and Methods

This report summarises findings from a [NERI Working paper](#) which utilises findings data from the Northern Ireland element of the Understanding Society survey (University of Essex et al, 2018). The Understanding Society survey is a longitudinal annual survey of households and is the principal panel household dataset in the UK.

The Northern Ireland sample of Understanding Society was based on an unclustered systematic random sample of addresses, selected from the Land and Property Services Agency list of domestic addresses. Interviews were carried out with 1,427 households and 2,550 individuals. Given however that this study is focused on estimating the size of the GPG for those in employment the sample was restricted to those aged 16 years or more and in employment. This results in a final sample of 1,079 individuals.

It is worth mentioning that estimates of earnings obtained using data from the Understanding Society survey are different from those obtained using data from the Annual Survey of Hours and Earnings. We attribute this to a number of reasons, including the different means of data collection in both surveys. Nonetheless, we remain satisfied with the quality of earnings data collected in both. Understanding Society is a household survey, whereby data are collected directly from respondents. The Annual Survey of Hours and Earnings (ASHE) is based on a 1% sample of employees on the pay as you earn register (PAYE) with employers responsible for providing employee information.

Furthermore, another reason suggested for differences in estimates is that Understanding Society survey data is more likely to obtain responses from low-paid workers. This is because low-paid workers whose earnings fall below the National Insurance Lower Earnings Limit will not be included in the PAYE register and so not be included in ASHE. Furthermore, ASHE excludes those who have not been in continuous employment for at least 12 months. Existing evidence showing that substantial proportions of females are low paid it was posited that the Understanding Society survey data provided the most suitable data given the focus of this study.

Another reason as to why this study utilised data from Understanding Society, rather than ASHE is that despite being one of the largest datasets on earnings for Northern Ireland, ASHE lacks key variables necessary to conduct a full analysis of factors which can explain the GPG. In this way, the Understanding Society survey facilitates the production of estimates of differences in men's and women's pay by different personal characteristics which are not available in ASHE, such as for example number of dependent children and education. Of course, all data sources come with their limitations in terms of data availability and in the context of this study the most notable is the lack of data capturing job tenure.



The gender pay gap was largest in the ‘accommodation and food services’ sector where mean female hourly earnings were 42% higher than males.



31/32 Parnell Square, Dublin 1, Ireland
Phone: +353 1 8897722

45-47 Donegall Street, Belfast BT1 2FG, Northern Ireland
Phone: +44 (0)28 9024 6214

info@NERInstitute.net

www.NERInstitute.net

 [@NERI_research](https://twitter.com/NERI_research)