



GENDER PAY GAP STATISTICS



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INTRODUCTION

This paper will provide information on how to calculate and report on the gender pay gap. In doing so it will aim to explore some of the complexities surrounding different methods of calculation and why it is important to understand what is behind the information reported in the media. It is hoped this will be useful for businesses and organisations that are looking to generate and report on their pay gaps. It will also be useful for those interested in gender disaggregated statistics and those who support organisations and businesses to challenge gender inequality in the workplace.

This paper is an updated version of Statistics Working Paper 5 published in 2011. It provides the latest gender pay gap statistics for Scotland and revisits the complexities of measuring and reporting on the pay gap.



WHAT IS THE GENDER PAY GAP?

The gender pay gap is an important indicator within the wider socio-economic context as it enables industries, regions or countries to benchmark how well they are challenging gender inequality. This is partly due to the fact that the gender pay gap i.e. the difference between women and men's earnings, is a global phenomenon and the reasons why the pay gap exists are symptomatic of wider issues related to the undervaluing of women's contribution to the economy.

The pay gap varies between countries, due to differences in data collection and analysis and due to the nature of women's participation in local formal labour markets. Notwithstanding the methodological problems and complexities of comparing international datasets, the global gender pay gap is calculated at 15.6 per cent.¹

The UK Office of National Statistics has been producing information on the hourly earnings of women and men over a number of years. The methodology and quality of data collection has improved and in 2004 the Annual Survey of Hours and Earnings* (ASHE) replaced the National Earnings Survey. Data on employees' earnings are obtained from a 1 per cent sample of payslip information (from the Pay As You Earn (PAYE) system). The results are summarised every year in a number of tables accessible to the public.

* ASHE is an annual survey based on a 1 per cent sample of employees in the UK. It is the official source of detailed information on earnings, with information on earnings and hours provided by employers. It does not cover those who are self-employed or employees not paid during the reference period.

The ASHE tables provide information about the levels, distribution and make-up of earnings and hours paid for employees within industries, occupations, sectors (public, private) and regions. It also provides data on earnings for employees by sex and full-time and part-time workers. Further breakdowns include by region, occupation, industry, region by occupation and age-groups.

Until 2011 the ONS calculated the ASHE results using the Standard Occupational Classification (SOC) codes from 2000. During 2011 the

ONS recalculated the pay gap based on the new SOC 2010 classification. This revision resulted in a UK gender pay gap of 10.5 per cent, larger than the previous figure. This change has been explained by ONS as having been caused by the reclassification of several supervisory, administrative and project management roles from the 'Manager, directors and senior officials' occupational group into other groups.

Therefore a number of women in the survey who would have previously been classified as managerial/senior occupational group are now grouped into typically lower paid roles of middle-management and supervisors. The ONS say that the 'Manager, directors and senior officials' group within SOC 2010 is now more focused on those occupations with corporate and strategic roles and responsibilities.

From the tables it is possible to calculate the gender pay gap for the whole of Scotland and for different occupational groups and age groups. Requests can be made to analysts at the Scottish Government to find out the pay gap for local geographical areas e.g. Highland and Islands region or for specific economic sectors e.g. energy.



CALCULATING THE GENDER PAY GAP

The gender pay gap is a complex issue and there is no definitive way in which to report a single figure which fully captures those complexities (see ONS, 2009²). There are a number of factors to consider when reporting on the pay gap and it is important to understand what the different statistics indicate. The Government Equality Office (GEO), now part of the Department for Culture Media and Sport, uses the median hourly earnings (excluding overtime) to report on the pay gap, whereas, for example, the Equality and Human Rights Commission (EHRC) uses the mean average.

The Office of National Statistics (ONS) now report ASHE with both the mean and the median measurements, but their statistical bulletin will 'give prominence to the median' (ONS, 2009). ASHE does not include the self-employed or those earning below the 'pay as you earn' (PAYE) income tax level, but it is possible to consider additional groups of people by examining the Labour Force Survey results.³

The headline gender pay gaps reported in the media may differ according to the region, the average measurement used and whether the headline figure combines the full-time and part-time earnings. Table 1 illustrates the provisional pay gap calculations in Scotland for 2012.

Table 1: Pay gap measurements: comparing mean and median averages

Pay gap in Scotland 2012 (provisional)	Mean	Median
Comparing women and men's full-time hourly rates of pay	13.9%	8.4%
Comparing women's part-time and men's full-time hourly rates of pay	35.4%	35.7%
Combined figure (all women/all men)	17.8%	17.7%

In general the median is a measurement used to calculate the average, by finding the midpoint in all employees' hourly rates of pay. Therefore, half of the employees will earn a rate above the midpoint and half will earn a rate below the midpoint. The median, from a robust statistical perspective, is a more accurate measure as it is not skewed by very low hourly rates of pay or very high hourly rates of pay. However, as the very high paid people tend to be men, and the very low paid people tend to be women, its use can obscure some gendered differences.

The mean is calculated by adding all employees' rates of pay together and dividing by the total number of employees. The mean includes the lowest and highest rates of pay. This will include a number of low paid employees, who are more likely to be women. International measures also use the mean when calculating the pay gap, which enables comparisons to be made with other countries, for example the global gender pay gap.

In some cases the pay gap is reported as one headline figure combining full and part-time earnings. Analysts at the Scottish Government recognise that the headline figure is influenced by compositional differences in working patterns. For example, more women work in lower paid, part-time work, which in statistical reporting is referred to as the 'part-time effect'.⁴ The 13.9 per cent illustrates the size of the gender pay gap when the part-time effect has been controlled for, although it is important to note that the 'part-time effect' is itself gendered.

Women are more likely to work part-time than men. Estimates from the Annual Population Survey as part of the monthly Labour Market Statistics Brief from ONS, suggests that 43.0 per cent of the total female workforce work part-time compared to 12.5 per cent of the total male workforce.* A much lower percentage of men work part-time in Scotland and they are less likely to be in part-time positions over a long period of time.⁵

In addition, wages are more likely to be lower in female-dominated workplaces than male-dominated workplaces or workplaces which are more diverse. This is also true for the UK as whole.

*The split between full-time and part-time is based on self-classification and excludes temporary workers. Regional Tables 1 to 11 Scotland <http://www.ons.gov.uk/ons/publications/reference-tables.html?edition=tc%3A77-226770>
Accessed January 2012



WHAT HAS CHANGED BETWEEN 2011 AND 2012?

The pay gap has increased significantly between the ASHE results from revised 2011 data and the provisional ASHE results from 2012. Table 2 shows the percentage change in full-time hourly pay, excluding overtime, for men and women. The increase for men is greater compared to women for both median and mean average measurements. This explains the increase in the pay gap in Scotland.

Table 2: Percentage change in hourly pay (excluding overtime) for men and women between 2011 and 2012

	Median hourly pay excluding overtime			Mean hourly pay excluding overtime		
	2011	2012	% Change	2011	2012	% Change
Men	£12.57	£12.97	3.1%	£15.41	£15.90	3.1%
Women	£11.73	£11.88	1.3%	£13.62	£13.69	0.5%

Sources: ONS Provisional Results Annual Survey of Hours and Earnings 2012
<http://www.ons.gov.uk/ons/publications/re-referencetables.html?edition=tcm%3A77-280149>
 ONS Annual Survey of Hours and Earnings, 2011 Revised Results (SOC 2010)
<http://www.ons.gov.uk/ons/publications/re-reference-tables.html?edition=tcm%3A77-280145>

However, it is unclear why women's hourly pay has not increased at the same rate as men's over the same period. This could be explained by the higher number of women who work in the public sector compared to men in Scotland and have subsequently been affected by the public sector pay freeze, job losses and reductions in the number of posts.

The pay gap figure can also be affected by the timing of pay settlements over the survey period, where pay settlements affecting men's earnings are included during the survey period, but not women's which could explain the differences in hourly rates of pay.

Different occupational groups

Table 3 and 4 illustrate the gender pay gap for different occupational groups in relation to hourly and weekly pay.

Table 3: Mean hourly pay (excluding overtime) (£) for male and female employees in Scotland by occupational group 2012*

Occupation	Full-time Male	Full-time Female	% Pay gap	Part-time Female	% Pay gap (PT female compared to FT male)
All Scotland	£15.90	£13.69	13.9%	£10.27	35.4%
Managers and Senior Officials	£24.19	£18.26	24.5%	£14.41	40.4%
Professional Occupations	£21.86	£18.74	14.3%	£17.53	19.8%
Associate Professional and Technical	£18.49	£14.83	19.8%	£12.90	30.2%
Administrative and Secretarial	£12.73	£10.92	14.2%	£9.75	23.4%
Skilled Trades	£12.32	£9.75	20.9%	£7.54	38.8%
Caring, Leisure and other service occupations	£10.29	£9.60	6.7%	£9.39	8.7%
Sales and Customer Service	£9.64	£9.01	6.5%	£7.35	23.8%
Process, Plant and Machine Operatives	£10.60	£7.70	27.4%	£8.36	21.1%
Elementary Occupations	£8.87	£7.77	12.4%	£6.99**	21.2%

***Source:** ONS Provisional Results Annual Survey of Hours and Earnings 2012
<http://www.ons.gov.uk/ons/publications/re-reference-tables.html?edition=tcm%3A77-280149>

** Below Living Wage set for 2012-13 in Scotland of £7.20 per hour. (The LW set for 2013-2014 is £7.45)

Table 4 details the differences in weekly pay, excluding overtime, between women and men. Compared to Table 3 the differences are greater in some cases than hourly rates of pay. Women are more likely to work fewer paid hours per week than men, due the disproportionate burden of care, and at the same time may not be categorised as part-time workers. Table 4 also details comparisons between men’s mean full-time weekly earnings and women’s mean part-time earnings. This varies according to occupation from weekly pay gap of 68.7 per cent for managers and senior officials to a difference of 53.1 per cent for care, leisure and other service occupations.

Table 4: Mean weekly pay (excluding overtime) (£) for male and female employees in Scotland by occupational group 2012*

Occupation	Full-time Male	Full-time Female	% Pay gap**	Part-time Female	% Pay gap (PT female compared to FT male)
All Scotland	£611.30	£501.20	18.0%	£188.90	69.1%
Managers and senior officials	£934.1	£679.30	27.3%	£292.20	68.7%
Professional occupations	£807.70	£673.60	16.6%	£332.90	58.8%
Associate professional occupations	£705.80	£543.70	23.0%	£242.80	65.6%
Administrative and technical	£476.50	£396.80	16.7%	£185.50	61.1%
Skilled trades	£483.60	£367.10	24.1%	£162.70	66.4%
Caring, Leisure and other service occupations	£385.90	£354.90	8.0%	£181.00	53.1%
Sales and customer services	£369.90	£330.70	10.5%	£131.10	64.6%
Process, plant and machine operatives	£425.0	£309.5	27.2%	£171.90	59.6%
Elementary occupations	£352.0	£288.70	18.0%	£112.60	68.0%

***Source:** ONS Provisional Results Annual Survey of Hours and Earnings 2012 Table 3 Regions By Occupation (2digit SOC 2010) <http://www.ons.gov.uk/ons/publications/re-reference-tables.html?edition=tcn%3A77-280149>

**Read as: for ‘All Scotland’ full-time women earn 18.0% per week less than full-time men. For ‘All Scotland’ part-time women earn 69.1% per week less than full-time men.



DISCUSSION

Over time there has been a reduction in the gender pay gap (based on mean hourly earnings excluding overtime) from an estimated 29 per cent in 1970 to 10.7 per cent in 2011, but since the 1990s the decrease slowed to around 11 per cent in 2011. This year the full-time pay gap in Scotland has increased to 13.9 per cent, despite the full-time UK pay gap figure having slightly decreased. It is unclear why women's hourly earnings have not increased at the same rate as men's in Scotland. A possible explanation could be that women who account for approximately two thirds of those employed in the public sector are therefore likely to be disproportionately affected by pay freezes, job losses and reductions in the number of posts within the public sector. The headline pay gap figure cannot illustrate the full complexities of the pay gap, but it does provide an evidence base for policy and practice to address the economic injustice women face in Scotland, in the UK and internationally.

Factors causing the gender pay gap

Walby and Olsen researched how much of the gender pay gap is associated with different factors. These factors included working patterns over the course of a life-time; occupational segregation; size of an organisation and whether it is unionised or not and direct discrimination related to the choices women make in the labour market.⁶ However, Walby and Olsen emphasised the systemic indirect discrimination experienced by women in education, training and the labour market and the importance of these experiences in shaping all the other factors mentioned.

Therefore it is possible to identify the three main causes of the pay gap as: occupational segregation; lack of flexible working opportunities and discrimination in pay and grading structures. This resonates with the experiences of women participating in the labour market who find it difficult to secure work which is flexible, to accommodate caring for family and relatives. This leads to women opting to look for part-time, flexible working options which are more likely to be found in lower valued and lower paid

sectors of the economy i.e. social care, administration, catering and service industries. In addition, the nature of women's participation in the labour market has been characterised by the historic undervaluing of women's contribution to society and the economy. Despite over 40 years of the Equal Pay Act, which aimed to correct the undervaluing of female employment and ensure equal pay for 'like work' or 'work of equal value', pay and grading structures continue to reward stereotypical male behaviour and characteristics.

The statistical evidence backs this up. A higher percentage of women work part-time compared to men in Scotland, a smaller percentage of women are in managerial and senior positions and women are concentrated in certain occupational groups and sectors e.g. public sector, health and social care, administration.

This economic injustice will extend over the period of a woman's working life. For example, from the survey, full-time female employees earn on average £110.10 less per week in Scotland than full-time male employees. Over the course of a woman's working life (full-time from age 16-64) she will earn £274,809 less than a man.*

Gender disaggregated statistics are necessary for policy makers, employers and organisations to challenge gender inequality. The cross-cutting and complex issues relating to the nature of women and men's access to education, training and participation in the labour market can only be understood if the information provided is disaggregated according to gender, otherwise new policies and practices will continue to perpetuate gender inequality.

* Calculated using average full-time weekly earnings multiplied by 52 weeks over 48 years (age 16-64). This is illustrative only as it will not take into account periods of absence from the labour market, inflation, working part-time etc.

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THE PROJECT

Close the Gap works across Scotland with employers to encourage and enable actions to address the gender pay gap. The project has been operating since 2001.

The project partners are Scottish Government, Equality and Human Rights Commission, Scottish Enterprise, Highlands and Islands Enterprise, Skills Development Scotland, and Scottish Trades Union Congress.

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