

Scotland's gender pay gap; latest data and insights

Neil Hamilton and Kenny Richmond, Scottish Enterprise¹

Abstract

Women working full-time in Scotland earn less on average than men. Scotland's gender pay gap at 6.2% in 2016 is smaller than the UK average and is generally declining. However, key sectors and occupations continue to post substantial pay gaps. Occupational segregation, across sectors, is a major factor in explaining Scotland's gender pay gap, but the underlying causes are the career disruptions of female workers plus some combination of other harder to measure factors such as discrimination and gender bias. The potential economic benefits from closing Scotland's gender pay gap are substantial; a more engaged, inclusive and productive workforce, an increase in consumer spending and an easing of skills shortages.

1. Introduction

Everyone has a right to participate in, and benefit from, economic opportunities equally. Gender pay differences are a measure of how well an economy is succeeding at delivering inclusive growth to its citizens. Inclusion is an important driver of economic performance, and a range of evidence highlights that economies that are more inclusive are more productive and grow faster².

Like nearly all other developed economies, Scotland has a gender pay gap with women who work full-time earning on average less than men. This is despite UK legislation (the Equalities Act 2010) that gives women (and men) a right to equal pay for equal work³. Although Scotland's gender pay gap is below the UK average and is generally declining, there are some sectors and occupations where the pay gap is substantial and rising, negatively affecting productive potential.

This paper reviews the latest data and evidence on Scotland's gender pay gap and considers its underlying causes. It then explores the potential economic benefits of reducing the gender pay gap, and considers appropriate policy responses.

There are many different ways to measure and present the pay gap⁴. In this analysis, we mirror the approach of the Scottish Government and use the *full-time employment median pay gap*

¹ *Scottish Enterprise* is Scotland's main economic development agency.

² See for example *The Productivity-Inclusiveness Nexus*, OECD 2016 and *Redistribution, Inequality and Growth IMF Staff Discussion Note*, IMF 2014

³ *Equalities Act 2010*. The provisions of the Equality Act relating to equal pay set out that an individual can claim equal pay when she or he, when compared with a comparator of the opposite sex, is employed in:

- Like work: work that is the same or broadly similar, regardless of whether the job title is the same.
- Work rated as equivalent: work that has been rated as equivalent under a job evaluation scheme.
- Work of equal value: work that requires the same levels of effort, skill, knowledge and responsibility.

⁴ For a full discussion on the complexities of measuring and reporting on Scotland's pay gap see *Close the Gap Working Paper 17: Gender Pay Gap Statistics*

measure, which allows a direct comparison of earnings between women and men working full-time only and removes the effect of differences in working patterns⁵.

2. Why Scotland's gender pay gap matters

Traditionally, gender pay differences have been considered primarily as an issue of equality. This has fundamentally shifted over the past few years and there is now a growing policy recognition that pay parity is not simply an issue of fairness but also one of economic efficiency. Gender pay differences represent the untapped potential of women's talents and skills. The gender pay gap represents a productivity as well as fairness gap, and there are real economic gains to be made from closing it⁶.

Scotland's Economic Strategy (SES) recognises that maximising economic opportunities for women to participate fully in the economy is key to improving economic performance and tackling inequality. SES highlights that supporting women to overcome the barriers and structural challenges they face in the labour market is good for women and families, good for business and good for the Scottish economy⁷. The full-time employment gender pay gap is a National Performance Framework indicator monitored by the Scottish Government⁸.

3. Latest data and trends

The Office of National Statistics (ONS) calculates the gender pay gap as the difference between the median full-time hourly earnings (excluding overtime) of men and women as a proportion of the median full-time hourly earnings of men. A positive pay gap indicates that men are earning more than women; a negative pay gap means that women are earning more than men.

In 2016, Scotland's pay gap was 6.2 percent. Men working full-time earned an average of £13.85 per hour compared to an average of £13.00 for women.

Over the past two decades, Scotland's pay gap has fallen from a high of 19.1 percent in 1998 to 6.2 percent. The narrowing gap is mainly due to female wages rising faster than that of males. This has been driven by the longer term trend of women's educational qualifications increasing more quickly than men's (higher qualification levels are associated with higher pay), and recent rises to the minimum wage that have disproportionately benefited women⁹.

⁵ However, we recognise that a focus on full-time earnings excludes a large proportion of women in the workforce. Though women represent 52 percent of the Scottish workforce, only 57 percent of female workers are in full-time employment. Excluding almost half the women in the labour market from these pay gap calculations ignores the many challenges and constraints faced by women who work part-time.

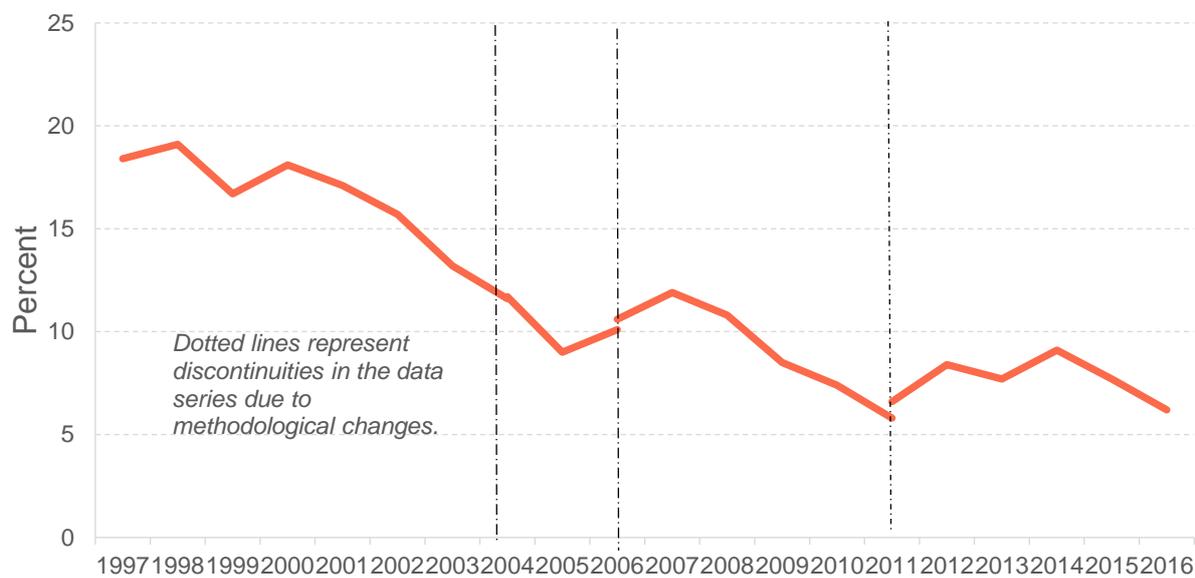
⁶ The *UK Commission for Employment & Skills* points to research estimating the under-utilisation of women's skills costs the UK economy between 1.3 percent and 2 percent of GDP every year

⁷ *Scotland's Economic Strategy*, Scottish Government, 2015

⁸ *Scotland Performs*, Scottish Government

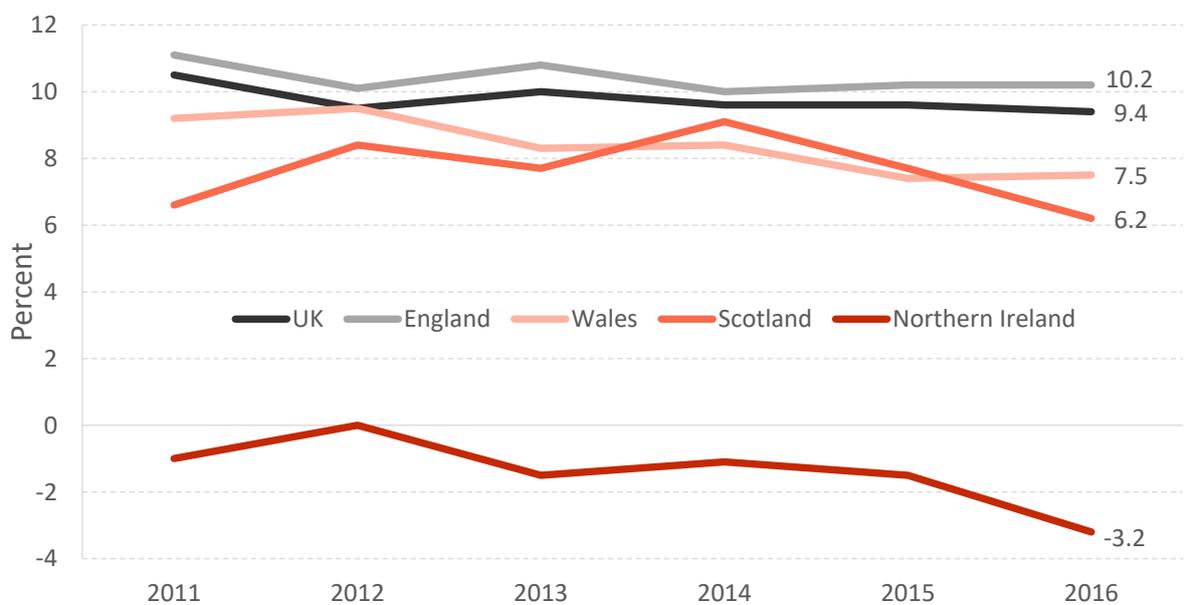
⁹ Sectors with the most 'minimum wage jobs' are hospitality, social care, cleaning and employment agencies, and these have high proportions of female workers.

Figure 1: Gender pay gap (%), Scotland, 1997-2016



Source: Annual Survey of Hours & Earnings, Office for National Statistics

Figure 2: Gender pay gap, by UK nation, 2011-2016



Source: Annual Survey of Hours & Earnings, Office for National Statistics

Scotland's gender pay gap is smaller than the UK average, and smaller than any other UK nation except Northern Ireland¹⁰. However, as of 2014, the UK had the 11th highest gender pay gap of 33 OECD countries, so Scotland's gap is also likely to be above the OECD average¹¹.

4. Causes of Scotland's gender pay gap

There are a range of causes of the gender pay gap. Discrimination, unconscious gender bias (assumptions about women's skills and preferences), the undervaluing of female-dominated work and stereotyping may all be factors, although there are no specific Scottish data or research on these¹².

Two potential causes of Scotland's gender pay gap where data is available are presented below.

i. Career disruptions of female workers

A common reason for gender pay gaps worldwide is the disproportionate career disruptions that many female workers bear in order to take on caring responsibilities, most often raising children and increasingly looking after elderly parents / family members. This is often because women are stereotypically believed to be better at caring-type work.

In Scotland, a widening pay gap in older age groups lends support to this. Figure 3 shows that in Scotland the pay gap was close to zero for the 25 to 34 age group in 2016, but widened for older age groups (the pay gap for the 16 to 24 year olds, which covers a period of education, has historically proven difficult to measure and understand¹³).

The wider pay gap in latter-career age groups is largely consistent with women leaving the labour market temporarily and then re-entering at a lower salary than had they remained working, or indeed at a lower salary than men who continued working¹⁴. That is, spending time out of the workforce to care for their families is resulting in women missing out on pay progression. Similar trends can be seen across the world¹⁵. The pay gap is largest for women in the oldest age group, and this is likely to be in part due to the 'glass ceiling' effect that sees fewer women reaching senior management positions¹⁶.

¹⁰ Northern Ireland is an interesting case where female average wages are actually higher than male average wages. Two possible reasons are the greater proportion of women who work in the public sector, which carries a significant wage premium compared to the private sector in Northern Ireland, and a lower overall female employment rate.

¹¹ It is not possible to directly compare Scotland's pay gap with OECD statistics due to different definitions used and data availability.

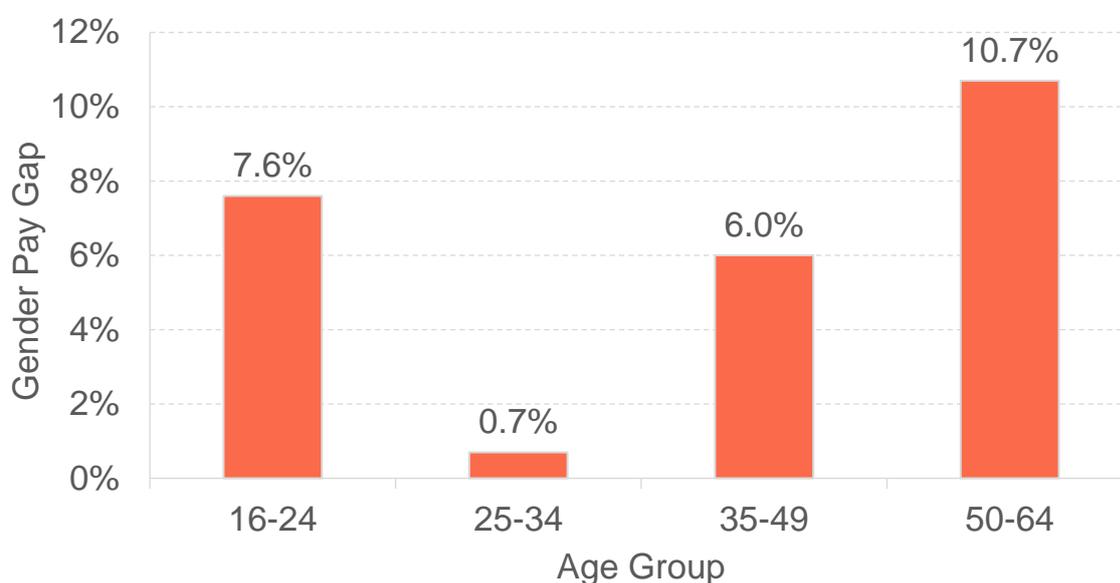
¹² For an overview of causes at the UK level, see for example *The Gender Pay Gap: Facts, Causes and Solutions*, Fawcett Society 2016, and *The Women and Equalities Committee*, UK Parliament, 2016.

¹³ However, UNESCO data indicates UK women stay in education an average of 0.9 years longer than men, so it may also be the case they do not enter the labour market until later.

¹⁴ Women leaving the labor market is often a by-product of inflexible working practices that make it difficult to combine employment and caring responsibilities

¹⁵ See for example *EU data*

¹⁶ Gender Pay Gap report, *Written evidence submitted by The Chartered Management Institute (CMI)*, UK Parliament, 2016.

Figure 3: Gender pay gap, by age cohort, Scotland, 2016

Source: Annual Survey of Hours & Earnings, Office for National Statistics

ii. Occupational segregation

There is evidence that Scotland's overall pay gap is also linked to the occupational composition of the country's workforce, with full-time female workers disproportionately concentrated in lower paying occupations.

Figure 4 shows the distribution of men and women across Scotland's full-time workforce. Women are over-represented in lower paid occupational groups such as caring and customer service occupations¹⁷.

Although women are also well-represented in higher paid groups, this is predominantly because they hold more than two-thirds of all jobs considered 'professional' in the education and healthcare sectors. This masks significant under-representation in other higher paying occupational groups, particularly managerial roles (where men hold 66 percent of all positions).

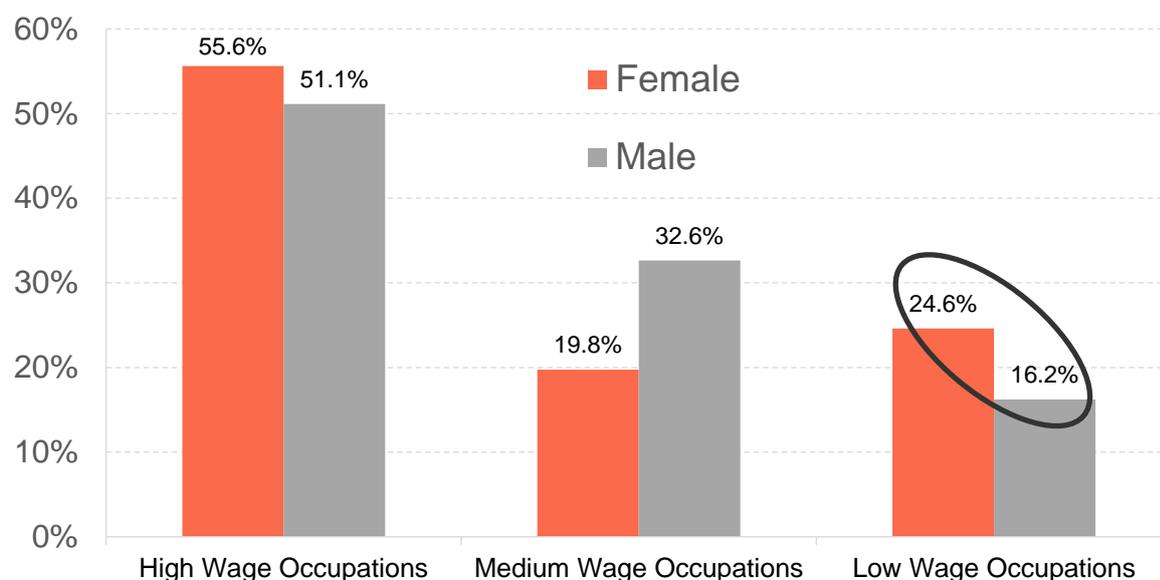
Evidence of the dominance of one gender in certain jobs and occupations (often reflecting stereotypes about the skills and attributes associated with that gender¹⁸) along with men being more likely than women to be found in management, points to two distinct layers of occupational segregation in Scotland – **horizontal** (where men and women are clustered in different kinds of

¹⁷ See Appendix A for full clarification of the wage tiers used.

¹⁸ For example, men in skilled trades and women in caring occupations

roles), and **vertical** (where men and women cluster at different levels of seniority in the same kind of role)¹⁹.

Figure 4: Gender occupational distribution, by high, medium and low wage occupations (% of male and female full-time employment), Scotland, 2016



Source: Annual Survey of Hours & Earnings, Office for National Statistics

Gender pay gaps exist in all occupational groups in Scotland, illustrated in Figure 5 (and in more detail in Appendix B). The pay gaps are most pronounced in the skilled trades and in management occupations (gaps of 29.3 percent and 19.8 percent, respectively). Gender pay gaps persist even though women have a higher educational profile than men.

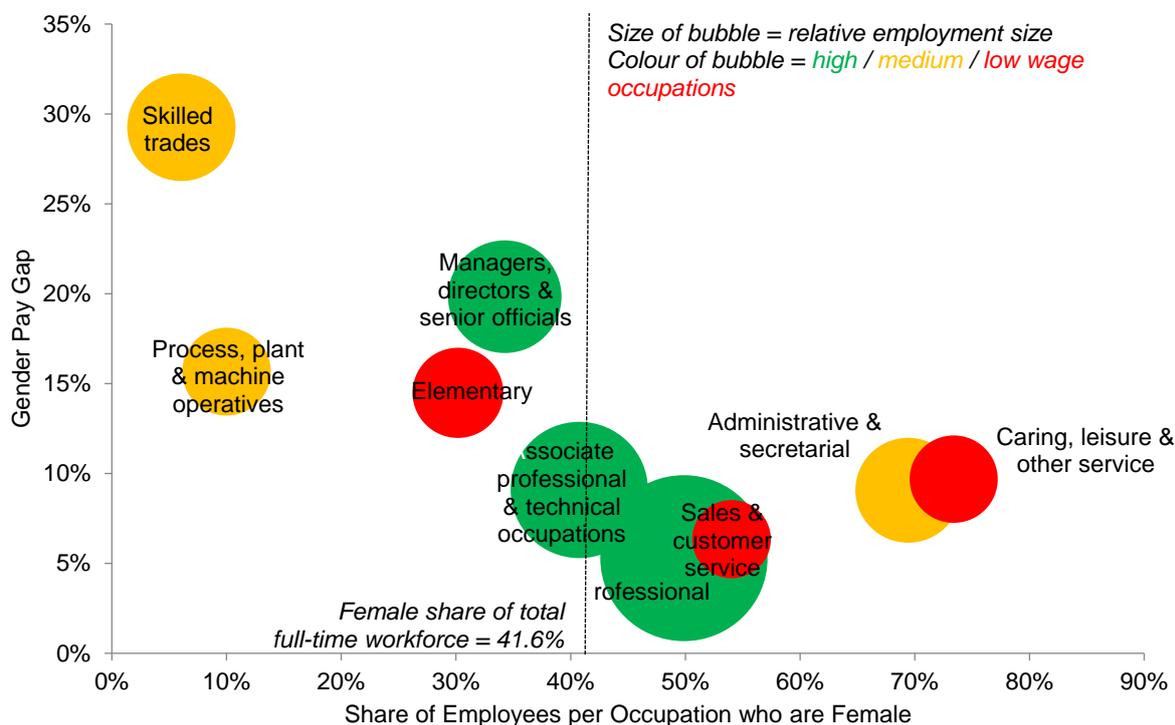
A key individual contributor to the overall pay gap is professional occupations, which have a relatively small pay gap of 5.3 percent, a high proportion of employees who are women (49.9 percent) and a large share of the total workforce (24.8 percent). Associate professional occupations, which represent a lower skill level than professional occupations, also stand out as a large occupational group with a relatively large pay gap.

Although imperfect, there does appear to be a relationship between the gender parity of an occupational group and the extent of the gender pay gap in that group. That is, the more gender balanced an occupational group, the lower is its pay gap²⁰.

¹⁹ Of the two, vertical segregation is the more difficult to measure because it refers to hierarchies within individual occupations.

²⁰ Male-dominated industries are generally less likely to have pay transparency, undertake equal pay reviews, and have good equalities practice.

Figure 5: Gender pay gap, by occupation and scale of occupation, Scotland, 2016



Source: Annual Survey of Hours & Earnings, Office for National Statistics

There has been a mixed performance in closing occupational pay gaps since 2011, the first year of the most recent and consistent time series data. While several occupational groups have recorded a decline in their pay gap over the period, there has been a notable lack of progress for ‘managers, directors & senior officials’ (one of the highest paid groups). There has also been an increase in the gender pay gap for ‘caring, leisure & other service occupations’, an area where there is a high proportion of women workers – both full time (as used in this analysis) and in part-time employment.

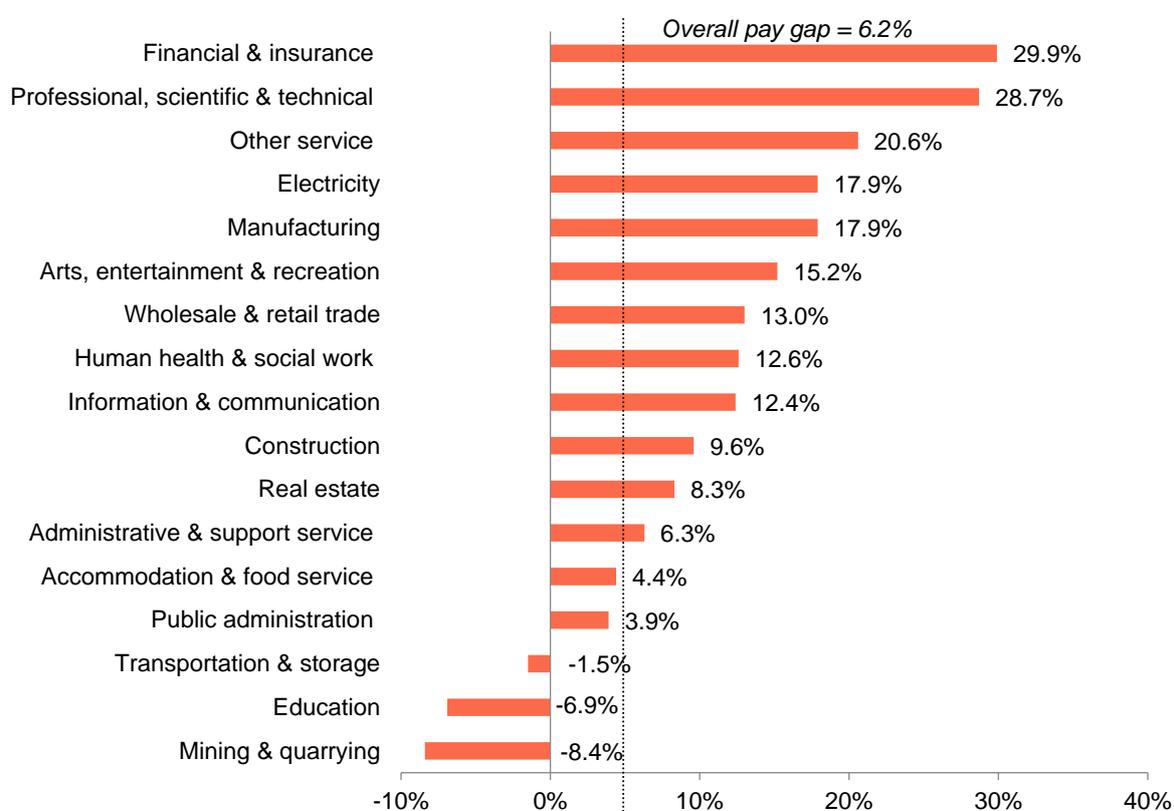
In fact, gender pay gaps exist in the overwhelming majority of sectors, as illustrated in Figure 7. The most pronounced pay gaps are in the financial & insurance and professional & scientific sectors (29.9 percent and 28.7 percent respectively) as well as the energy and manufacturing sectors (each 17.9 percent). Some public sector focused sectors, such as public administration and education, have lesser pay gaps (or even negative pay gaps), though health & social work still has a substantial pay gap (12.6 percent).

Figure 6: Gender pay gap, by occupation and percentage point change (ranked by 2016 pay gap), Scotland, 2011-2016

Occupation	Gender Pay Gap		
	2011	2016	PP Change
Skilled trades	28.9%	29.3%	0.4%
Managers, directors & senior officials	18.5%	19.8%	1.3%
Process, plant & machine operatives	24.3%	15.7%	-8.6%
Elementary	16.4%	14.5%	-1.9%
Caring, leisure & other service	2.7%	9.7%	7.0%
Associate professional & technical	10.8%	9.1%	-1.7%
Administrative & secretarial	11.4%	9.1%	-2.3%
Sales & customer service	4.7%	6.3%	1.6%
Professional	6.0%	5.3%	-0.7%

Source: Annual Survey of Hours & Earnings, Office for National Statistics

Figure 7: Gender pay gap, by industry (ranked by 2016 pay gap), Scotland



Source: Annual Survey of Hours & Earnings, Office for National Statistics

Evidence suggests that industry pay gaps are largely due to each industry's occupational make-up²¹. Within most industries, women tend to be in the lower paid occupations. For example, in financial services women account for 76 percent of lower paid administrative and secretarial occupations and 56 percent of sales and customer services occupations (both lower paid), and less than 40 percent of managerial and professional occupations (both higher paid).

In summary, the evidence suggests that:

- the causes of pay gaps within occupations are likely to be due to the career disruptions of female workers plus some combination of other harder to measure factors such as discrimination and gender bias;
- it is a combination of women tending to be in lower paid occupations within each industry, plus women getting paid less than men within each occupation, that drives industry pay gaps;
- to address Scotland's gender pay gap two things need to happen. One, more women need to have the opportunity to be employed in higher paid occupations across all industries and, two, pay gaps within individual occupations need to be addressed.

5. Potential economic benefits of reducing Scotland's gender pay gap

Though often viewed as an issue of equality or fairness, the reduction or even elimination of Scotland's gender pay gap would deliver significant benefits to the Scottish economy. These potential economic benefits can be considered in three key areas.

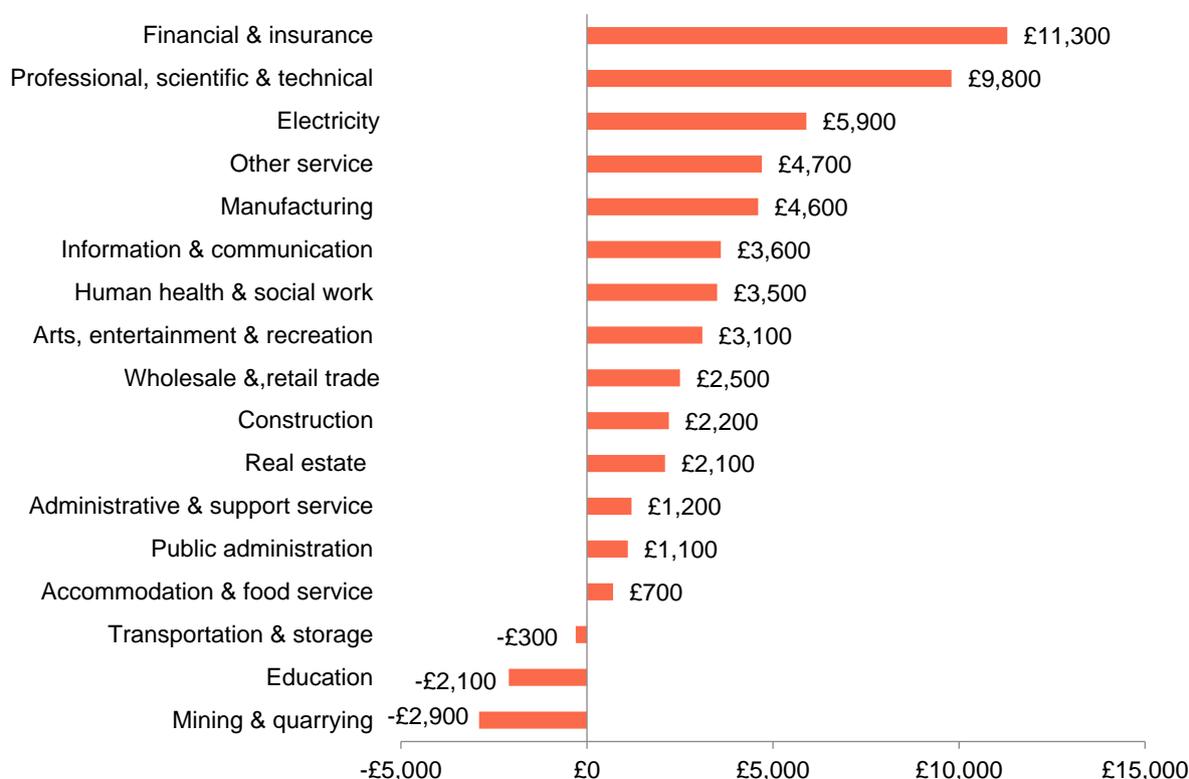
i. Increased consumer spending

At a very simple level, reducing or eliminating the gender pay gap by raising women's pay to that of men would generate additional spending in the Scottish economy²². Fully closing the full-time gender pay gap in Scotland would increase total female earnings by an estimated £1.9 billion per year²³, with women standing to gain up to £11,000 in earnings per year depending on the sector in which they work.

²¹ It is not currently possible to examine levels of full-time male and female occupational employment *within industries* in Annual Survey of Household Earnings (ASHE) data. However, the Annual Population Survey, while not allowing for the same delineation of working patterns or industry detail, does provide a good proxy and is shown in Appendix C.

²² This assumes reducing the pay gap by increasing female incomes rather than decreasing male incomes

²³ Based on full-time female workers receiving an hourly raise in each industry to bring earnings in line with men, and assuming a 35-hour workweek. Note - this is a highly conservative figure that only takes into consideration women currently employed full-time, so excludes part-time workers' pay gaps.

Figure 8: Potential increase in annual earnings, per woman from eliminating Scotland's gender pay gap, 2016

Source: Scottish Enterprise calculations; Annual Survey of Hours & Earnings, Office for National Statistics

ii. Easing of skills shortages

Gender pay differences may be reducing the supply of qualified female labour Scotland, contributing to recruitment challenges and skills gaps. Closing the gender pay gap may lead to a more efficient labour market in two ways.

First, raising the pay of women across occupations may encourage more women to enter the labour market and/or work more, or reduce the likelihood of them leaving the labour market. Many of Scotland's industries regularly report difficulty retaining staff²⁴, and there is evidence that female employees who believe they are fairly paid would be less likely to quit their jobs²⁵.

Second, companies who show a commitment to gender pay equality will be able to better address skills shortages with qualified female talent²⁶. The occupational groups with the highest

²⁴ *Employer Skills Survey 2015, UKCES*

²⁵ *Payscale's Compensation Best Practices Report* each year indicates that inadequate pay is the number one reason people leave an organisation

²⁶ *In a 2015 survey of 1,000 UK employees, when trying to decide between two employers, more than half of female respondents would favour the company with the smallest pay gap or the one that is more proactive in closing it*

density of skill-shortage vacancies in Scotland (skilled trades and machine operatives²⁷) are also the two most male-dominated and have high gender pay gaps. There is also evidence that a majority of women with science, technology, engineering and mathematics (STEM) qualifications in Scotland do not go on to work in STEM areas²⁸. Closing the gender pay gap can help companies that employ these occupations access *all* skills in the workforce²⁹.

iii. Enhanced employee engagement & diversity

Levels of employee engagement in the UK, and by implication Scotland, are relatively low compared to other countries. In a 2015 survey of 20 countries, the UK ranked only 12th in terms of employee engagement, below the global average³⁰.

There is strong evidence employees who believe that they are fairly paid are more engaged³¹. It follows, then, that closing Scotland's gender pay gap could result in a more engaged workforce. Businesses with high employee engagement are more productive, more profitable, more innovative and have significantly lower employee turnover and absenteeism³².

Reducing the pay gap may also improve gender diversity in some male-dominated sectors and companies, such as in manufacturing. There is a range of evidence that shows that a more gender balanced workforce is more innovative and productive³³.

6. Conclusions and policy implications

This paper has highlighted both the extent and negative consequences of Scotland's gender pay gap and that wage inequality is a barrier to economic and inclusive growth in Scotland. However, it also highlights the potential productivity and economic growth benefits of closing the gender pay gap, as well as equality benefits.

The evidence highlights that Scotland's overall pay gap is driven by a mix of the gender occupational make-up within sectors, and pay gaps within occupations caused by female career disruption and other harder to measure factors such as stereotyping and discrimination. The evidence also highlights that across many industries, women make up less than half of higher paying occupations.

Scottish Enterprise (SE) has supported efforts to reduce Scotland's gender pay gap. For example, SE is a long-standing advisory group member of **Close the Gap**, a charity focused on

²⁷ *Employer Skills Survey 2015*, UKCES

²⁸ *Tapping All Our Talents*, The Royal Society of Edinburgh, 2012

²⁹ This assumes there are sufficient women in the labor market with the desired skills

³⁰ *Global Perspectives 2015*, ORC International

³¹ *World at Work*, 2013

³² *Gallup*, 2016

³³ See for example *Women Matter*, McKinsey and *The Business Benefits of Gender Diversity*, Gallup 2014

female participation in the Scottish labour market. In addition, SE extensively promotes the **Scottish Business Pledge**³⁴, which helps to highlight the benefits of a balanced workforce, fairness and workforce engagement as well as adoption of the living wage.

The evidence presented in this paper lends support to these initiatives, and also provides for the exploration of additional policies and approaches that would help minimise the impact of career disruption and support women returning to work. These may include improving access to affordable childcare, as well as stronger incentives to encourage adoption of shared parental leave.

However, this paper also makes clear that the underlying causes of Scotland's gender pay gap are such that an appropriate response must also involve industry.

To address possible discrimination and gender bias, businesses can look to new UK gender pay reporting requirements³⁵ as a potential incentive to ensure that all employees are paid fairly and developed equally. Promoting flexible working options is also a key opportunity for businesses to fully leverage the talent of its female employees, and this should be accompanied by a revised performance management framework that is free from gender bias and that focuses increasingly on results and outcomes and less on physical presence in the workplace.

Initiatives such as SE's workplace innovation and organisational development programmes support companies to grow in a way that also helps close the gender pay gap and improve equality. Recent sector productivity plans for Food & Drink and Tourism have both included equality components, and Scotland's large finance sector (with the largest gender pay gap of any industry in Scotland and a sizable female workforce) may be an important area of future focus.

However, by establishing Scotland's gender pay gap as predominantly an *occupational* rather than simply a *sectoral* one, this paper also suggests that other approaches are necessary to tackling gender pay differences. The most impactful future interventions are likely to come from efforts to diversify and advance women's role in all workplaces across all occupations. Improved access to data surrounding the occupational distribution of women within industries will help build an appropriate evidence base by which policy interventions can be both measured and developed.

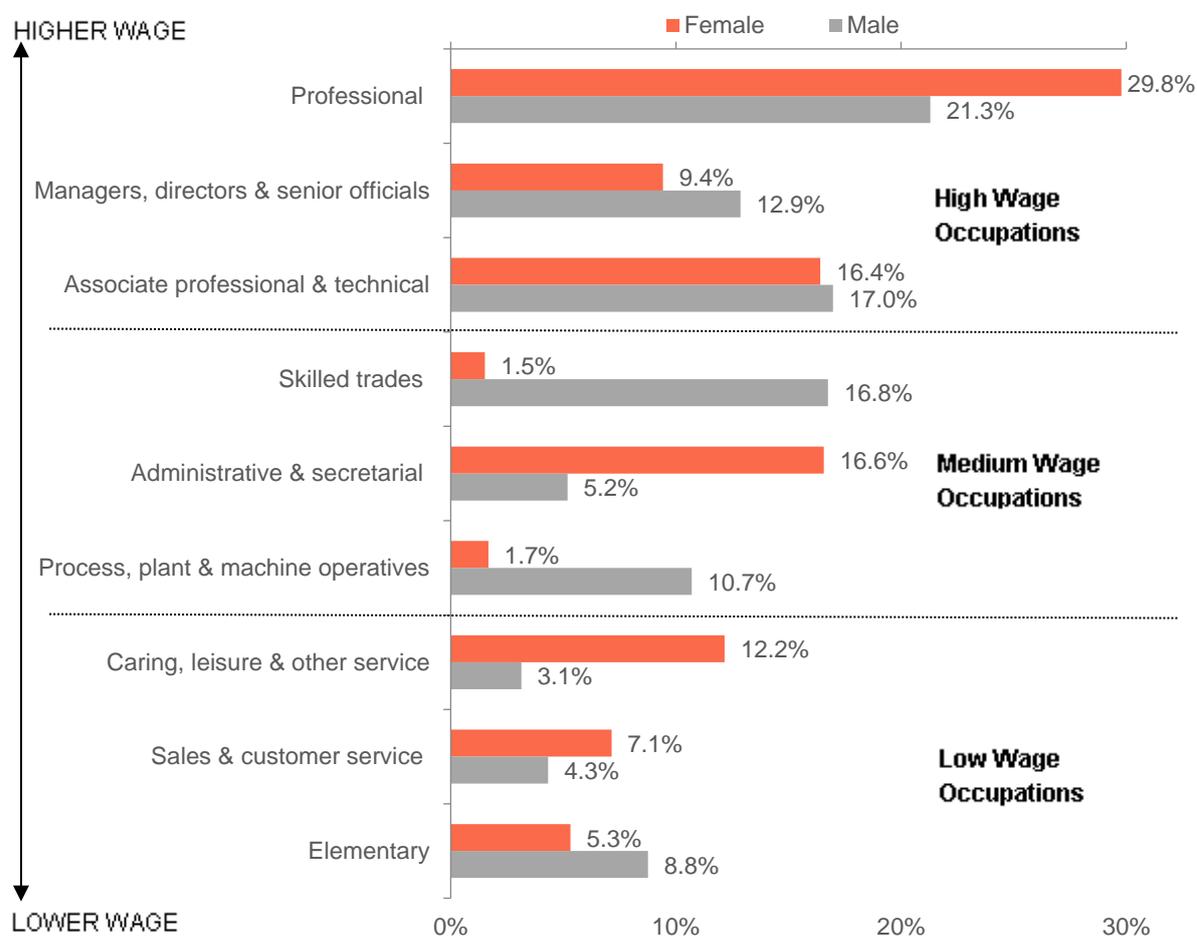
Corresponding Author

Kenny Richmond
Economics Director,
Scottish Enterprise
Kenny.Richmond@scotent.co.uk

³⁴ <https://scottishbusinesspledge.scot/>

³⁵ From 2017, UK businesses with 250 or more employees are required by law to report their pay gap

Appendix A: Occupational distribution by gender (% of male and female full-time employment), Scotland, 2016



Source: Annual Survey of Hours & Earnings, Office for National Statistics

Appendix B: Gender pay gap by detailed occupation, Scotland, 2016

Occupation (descending wage order)	Employment (000s)	Employment Share	Female Employment Share	% of Employees Who Are Female	Pay Gap
Professional	393	24.8%	29.8%	49.9%	5.3%
Science, research, engineering and technology	97	6.1%	2.9%	19.6%	11.0%
Health	113	7.1%	12.3%	71.7%	17.2%
Teaching and educational	93	5.9%	9.0%	63.4%	4.2%
Business, media and public service	91	5.7%	5.6%	40.7%	2.2%
Managers, directors & senior officials	181	11.4%	9.4%	34.3%	19.8%
Corporate managers and directors	148	9.3%	7.0%	31.1%	19.7%
Other managers and proprietors	34	2.1%	2.4%	47.1%	12.0%
Associate professional & technical	265	16.7%	16.4%	40.8%	9.1%
Science, engineering and technology	56	3.5%	1.8%	21.4%	6.6%
Health and social care	26	1.6%	2.6%	65.4%	15.6%
Protective service	42	2.7%	1.7%	26.2%	-3.4%
Culture, media and sports	11	0.7%	0.6%	36.4%	7.8%
Business and public service	129	8.1%	9.6%	48.8%	12.2%
Skilled trades	165	10.4%	1.5%	6.1%	29.3%
Skilled agricultural	11	0.7%	0.2%	9.1%	8.9%
Skilled metal, electrical and electronic	88	5.6%	0.2%	1.1%	7.9%
Skilled construction and building	37	2.3%	0.0%	0.0%	21.4%
Textiles, printing and other	28	1.8%	1.1%	25.0%	4.0%
Administrative & secretarial	157	9.9%	16.6%	69.4%	9.1%
Administrative	134	8.5%	13.5%	66.4%	7.3%
Secretarial	23	1.5%	3.0%	87.0%	8.3%
Process, plant & machine operatives	110	6.9%	1.7%	10.0%	15.7%
Process, plant and machine operatives	50	3.2%	1.5%	20.0%	26.6%
Transport and mobile machine drivers	60	3.8%	0.3%	3.3%	-3.2%
Caring, leisure & other service	109	6.9%	12.2%	73.4%	9.7%
Caring personal service	85	5.4%	10.3%	80.0%	8.2%
Leisure, travel and related personal service	24	1.5%	1.8%	50.0%	15.9%
Sales & customer service	87	5.5%	7.1%	54.0%	6.3%
Sales	51	3.2%	3.8%	49.0%	9.1%
Customer service	37	2.3%	3.2%	56.8%	1.0%
Elementary	116	7.3%	5.3%	30.2%	14.5%
Elementary trades and related	29	1.8%	0.8%	17.2%	9.7%
Elementary administration and service	87	5.5%	4.6%	34.5%	15.2%

UK data used as proxy

Source: Annual Survey of Hours & Earnings, Office for National Statistics

