

New JNCHES
Equality Working
Group

The Gender Pay Gap - A Literature Review

NEW JNCHES
New Joint Negotiating Committee
for Higher Education Staff

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1 Executive Summary

As part of the New JNCHEs Equality Working Group's (EWG) work on gender equality, UCEA co-ordinated research on the systemic issues in relation to the gender pay gap (GPG) with a view to producing updated guidance on ways to tackle this issue. It was decided by the EWG that a review of relevant literature on the subject would be undertaken to inform this work which accompanies additional research by the EWG on Equal Pay Reviews in HEIs.

Key findings of the literature review

1. **The gender pay gap refers to the difference between men's pay and women's pay as a percentage of men's pay.** If the gender pay gap is 15% then women, on average, earn 15% less than men. Gender pay gaps can be either positive or negative, with a negative gender pay gap indicating that women earn, on average, more than men. Gender pay gaps are an important element in analysing and monitoring progress on equal pay both nationally and within organisations.
2. **While the overall definition of the gender pay gap is widely shared, its exact measurement varies.** The Office for National Statistics uses the median (middle data point) hourly earnings excluding overtime to calculate the gap, while the Equalities and Human Rights Commission, along with, *inter alia*, the OECD, prefer to use the mean (central tendency) hourly earnings. There are advantages and disadvantages to each approach.
3. **Gender pay gaps can be used for a range of comparisons.** These range from single economy-wide figures for full-time pay to enable international comparisons, to calculations based on occupational groups that are job evaluated as being comparable as part of an organisation's equal pay audit.
4. **The current gender pay gap in the UK, based on median hourly earnings excluding overtime for full-time workers, is 12.2%, while based on the mean it is 16.4%.** The gender pay gap for part-time employees, based on median hourly earnings excluding overtime, is -2.0%, while based on the mean it is 13.2%. The gender pay gap for all employees (part-time and full-time) is 22.0% (median) or 20.2% (mean) depending on the measure used.
5. **The UK's gender pay gap is high by international standards.** The Trades Union Congress (TUC) note that the overall gender pay gap in the UK is one-third higher than the EU average and the OECD equality database shows that it is also above the OECD average. The OECD suggests that the UK's overall gap is mainly higher due to the higher prevalence of part-time work and women's participation in these jobs.
6. **Early approaches to explaining the gender pay gap used a 'human capital' model.** This theory contends that because females anticipate less time in the labour market, they invest less time and money into education and training and therefore do not reap comparable rewards to males in the labour market. As a consequence employers anticipate this tendency which has a compounding effect.
7. **Following on from the human capital approach, it has been popular to 'decompose' and quantify the influence of a range of observable characteristics, such as education and age, on the gender pay gap and the extent to which this explains the gap.** This approach attempts to

identify the core elements responsible for the difference between male and female wages. These analyses will provide a measure of the level of the gap that is 'explainable' with the unexplainable element often labelled as resulting from unobservable factors such as discrimination.

8. **Other 'institutional' approaches identify the structural elements of the labour market and organisational characteristics which influence pay gaps between men and women.** Research has found that much of the difference between gender pay gaps between countries is due to structural differences in labour markets such as union density and patterns of wage bargaining rather than differences in the characteristics of females in the workplace. This suggests that improvements in the gender pay gap in recent periods may be due to structural changes in the labour market more so than changes in organisational behaviour or the increased educational attainment of females.
9. **Despite some practical and academic challenges in analysing the gender pay gap, research to date has uncovered a range of important issues that contribute or are related to the gender pay gap.** A significant review of the gender pay gap by the UK Government Equalities Office concludes that the most important factor influencing the gender pay gap is the effects of interruptions to employment and the lack of 'good' part-time work. These findings are supported by numerous studies.
10. **Horizontal and vertical segregation of the labour market feature prominently in most research.** Horizontal segregation refers to the existence of, usually lower-paid, 'women's jobs', where women are disproportionately represented while vertical segregation refers to the low representation of women among higher paid senior positions within a given occupation.
11. **Despite significant equal pay initiatives in local government and the health sector, there has been little progress in recent years in closing the gender pay gap in the public sector,** which currently stands at 14.6% (based on mean full-time hourly earnings) up from 13.9% in 2008. While the gap is significantly lower than the full-time private sector gender pay gap (21.6%), the private sector gap has fallen five percentage points since 1997.
12. **Part of the lack of progress in the gender pay gap in the public sector is explained by the lack of representation of females in senior management roles in the sector.** Women represent 53% of all employees in the civil service, but occupy only 33% of senior management roles.
13. **According to ONS ASHE data for 2009, the overall HE full-time gender pay gap is 18.6% based on median hourly earnings excluding overtime and 18.5% based on average earnings.** The part-time gender pay gap is 26.5% based on the median and 22.5% based on the mean. The gender pay gap is relatively lower at the lower end of the wage distribution
14. **At 12.7%, the gender pay gap between full-time HE teaching professionals is higher than all other teaching professional groups.** However, the gap in higher education has reduced significantly from 2008, when it was 16.3%, while the pay gap between men and women in primary and nursery education and further education has increased.
15. **There is significant occupational segregation in the HE sector.** Women are also more likely to be working part-time than men in most occupations.

For example, 84% of female cleaners, catering assistants, security officers, porters and maintenance workers and 59% of female technicians work part-time. Women are also under-represented in senior positions; only 19% of full-time professors and just 14.4% of university vice-chancellors are female.

16. **The evidence suggests that real differences can be made by institutions and organisations in addressing the gender pay gap.** Flexible working practices, transparency in pay, 'good' part-time work opportunities, training and career development, equality proofed pay systems and the National Minimum Wage are all positively associated with reducing the gender pay gap.

2 Introduction

There has been continued progress in gender equality in paid employment over the past 35 years since the implementation of the Equal Pay Act. The gender pay gap (GPG), which measures the percentage gap between the pay of women and men as a proportion of men's pay, currently stands at 16% based on average full-time hourly earnings, down from 37% three decades ago and 21% in 1997. However, according to the Equality and Human Rights Commission's (EHRC) triennial review of evidence, progress is now "grinding to a halt".¹

Despite the fall in the pay gap over the last 25 years, the UK's pay gap by international standards is still high and other indicators of the progression of women in the labour market, particularly into positions of power, are poor. For example, it will take 200 years (or 40 elections) to achieve an equal number of women in Parliament at current progress² and only 12.2% of FTSE 100 Directors were female in 2009³. Far from being a separate issue, the lack of women in senior management positions is a key contributor to the size of the GPG.

In HE, heads of institutions are disproportionately male as are senior managers and professors. In 2008, only 14% of university vice-chancellors were female, compared to 31% of further education college principals, 34% of head teachers in secondary schools and 20% of local authority chief executives.⁴ Women comprise 43% of all academic staff in the UK but only 19% of those in professor or head of department positions.⁵ Consequently, 23% of male academic staff earned more than £50,000 in 2008/09 compared to only 9% of female academic staff.⁶

Achieving pay equality (equal pay for work of equal value) is not just a moral nicety but a legal and economic imperative. Studies have also shown that addressing the gender pay gap in the UK would provide significant gains in economic productivity as a result of improved skill utilisation. The Women and Work Commission estimated that closing the gender pay gap would result in a £23 billion increase in GDP⁷ while the TUC estimates that the under-utilisation of women's skills, partly due to the lack of suitable part-time work opportunities, costs the economy £11bn per year.⁸

Promisingly, government and organisational policies can make a difference. Employees have access to some form of flexible working practice in nine-out-of ten organisations⁹, over half of employers offer parental leave that goes beyond the

¹ 'Gender pay gap progress 'grinding to a halt'', BBC News Online, 11.10.2010. <http://www.bbc.co.uk/news/uk-11511714>. The full EHRC report *How Fair is Britain* (2010), can be found at: <http://www.equalityhumanrights.com/key-projects/triennial-review/full-report-and-evidence-downloads/>

² EHRC, 2010.

³ 'FTSE firms 'failing women bosses'', *BBC News*, 19.11.2009. <http://news.bbc.co.uk/1/hi/business/8366765.stm>.

⁴ Ibid.

⁵ Equality Challenge Unit (2010), *Equality in higher education: statistical report*, ECU.

⁶ Ibid.

⁷ Women and Work Commission (2009), *Shaping a Fairer Future: A review of the recommendations of the Women and Work Commission three years on*, Government Equalities Office.

⁸ Trade Unions Congress (2008), *Closing the Gender Pay Gap: An update report for TUC Women's Conference 2008*.

⁹ Family Friendly Working Hours Taskforce (2010), *Flexible Working: working for families, working for business*, CIPD. http://www.cipd.co.uk/subjects/hrpract/flexibleworkingpractices/flexible_working_families_business.htm

statutory minimum¹⁰ and the introduction of National Minimum Wage in 1999 reduced the GPG for the bottom decile of the earnings distribution from 11.6% in 1998 to 7.1% in 2008¹¹. However, research highlights that there are still numerous barriers to women entering and sustaining paid employment opportunities at a level commensurate with their skills and ability.

This report provides a detailed overview of literature on the GPG in order to provide the HE sector with an accessible assessment of the evidence base and how it relates to HE. It begins with an overview of equal pay law in European and the UK and concludes with a series of key issues, opportunities and challenges for the HE sector. The main body of the report addresses the definition and measurement of the GPG, what existing research suggests is responsible for the difference between the pay of men and women, and what the GPG actually is in the UK, the public sector and higher education. It concludes with a summary of policies and measures proposed by the literature to address the GPG.

3 Equal pay

As the GPG is the primary mechanism for monitoring progress towards equal pay, it is important to understand the concept of equal pay and related legislative instruments. The Equal Pay Act 1970, as amended, and the Sex Discrimination Act 1975 are the foundation of UK legislation covering equal pay and are the mechanisms whereby Article 141 of the Treaty of Rome, which has primacy in all European Union (EU) Member States, has been transposed into UK statute. This section provides a short background to these measures and related developments.

3.1 Early equal pay cases in the UK

Although equal pay has a relatively short legislative history, both in the UK and internationally, the concept that women should receive equal pay for work of value equal to the work of the opposite sex has much earlier origins. In one notable example, the 'match girls' of Bryant and May demanded equal pay for equal value for work in 1888, instigating an early example of strike action by female labour in the UK. Female workers at the Bryant and May factory had responded to the firing of other female workers that had refused to continue working under terms of employment that dictated lower pay than their male counterparts. While this industrial action was successful, and led to the Trades Unions Congress (TUC) passing a resolution in favour of the principle of equal pay for women, legislation in the UK that would prevent such discriminatory practices would not emerge until almost a century later.

The first piece of gender specific legislation related to employment was the Sex Disqualification (Removal) Act, which entered into force in 1919 and made it illegal for women to be denied access to a range of professions and vocations on the basis of their sex or marriage. Although this legislation was welcomed by equal rights proponents, its practical effects were minimal.¹² It was not until the Post-War period, following a significant increase in the paid female labour force¹³, that significant measures of redress were discussed, legislated and implemented.

¹⁰ CIPD (2005), *Flexible Working: Impact and Implementation – An Employer Survey*. <http://www.cipd.co.uk/NR/rdonlyres/257CE4EE-356B-43F5-8927-5C86203D7AA1/0/flexworksurv0205.pdf>

¹¹ Department for Business Innovation and Skills (2009), 'The National Minimum Wage Regulations 2009 – Final Impact Assessment', BIS. <http://www.berr.gov.uk/files/file51722.pdf>

¹² Townsend-Smith (1986), *Sex Discrimination in Employment*, London: Sweet & Maxwell.

¹³ For example, in 1921 only 8.7% of married women were in employment; by 1951 this had increased to 21.7%. Townsend-Smith, 1986.

3.2 International action on equal pay

While UK legislation was slow to respond to these pressures, there was a growing international consensus in the 1950s that issues pertaining to the equality of the sexes in employment needed to be addressed. In 1951, the International Labour Organisation (ILO), the United Nations body that sets internationally recognised labour standards, passed Convention 100 on Equal Remuneration, which states:

“Each Member shall, by means appropriate to the methods in operation for determining rates of remuneration, promote and, in so far as is consistent with such methods, ensure the application to all workers of the principle of equal remuneration for men and women workers for work of equal value.”¹⁴

Similarly, the Treaty of Rome, which established the legal framework of the European Economic Community in 1957, contained a short paragraph which set out the principle of equal pay for equal value.¹⁵ The Article enshrined the concept of equal pay in Community law and laid the foundation for equality legislation and policy in Europe that was to follow. The definition of equal pay for equal value was clarified in the European Economic Community equal pay Directive 75/117/EEC, which prohibits all discrimination on the grounds of sex in relation to pay.¹⁶ This Directive along with seven other Directives were incorporated into a single Directive in 2006 (2006/54/EC) to bring more clarity to Community law in the field of equal treatment between women and men.¹⁷ Under the provisions of this Directive, it is illegal to discriminate against women in the labour market and pay women lower wages than men when doing the same work or work that is of an equal value within any country in the European Union.

The EU has continued to take action and implement policies and legislation to tackle both gender discrimination and the GPG. Between 1999 and 2005, reducing the GPG was part of the European Employment Strategy (EES) with Member States being asked to formulate targets to achieve a ‘substantial’ reduction in both the public and the private sector through a multi-faceted approach. The 2002 Employment Guidelines noted that strategies could include reviewing job classification and pay systems, improving data and monitoring and improving awareness raising and transparency.¹⁸ Since 2005, the EES has focused on the integration of employment policies with micro and macro-economic strategies, the GPG has shifted from a target with a specific timeframe to inclusion in two general guidelines.¹⁹

In 2006, the EU launched the *Roadmap for equality between women and men 2006-2010* which sets out priorities for EU action in the field of gender equality including

¹⁴ <http://www.ilo.org/ilolex/cgi-lex/convde.pl?C100>

¹⁵ While this is often viewed as an example of the progressive nature of the European community, some argue that Article 141 (previously 119) was included largely as a concession to the French who already had equal pay legislation and feared that they would be at a comparative disadvantage. Townsend-Smith, 1986.

¹⁶ In addition to the 1975 Directive, there are several pieces of EU legislation promoting gender equality and tackling gender discrimination that have primacy in UK law including Directive 2000/43/EC, which makes it illegal to discriminate on the basis of sex, ethnic origin, age, religion or disability in employment and Directive 2000/78/EC, which makes it illegal to discriminate in services, including education, on these bases, with the exception of religion.

¹⁷ <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2006:204:0023:0036:en:PDF>

¹⁸ <http://www.eurofound.europa.eu/eiro/2002/01/study/tn0201101s.htm>

¹⁹ Janneke Plantenga and Chantal Remery (2006), The gender pay gap. Origins and policy responses. A comparative review of thirty European countries, Equality Unit, European Commission.

eliminating the GPG.²⁰ This was followed in 2007 by the Communication 'Tackling the pay gap between women and men', which looked at the causes of the GPG and recommended a series of actions including: ensuring better application of existing legislation; promoting equal pay among employers; and supporting the exchange of good practice across the EU and its social partners.²¹

3.3 The UK Equal Pay Act

Despite the progress in Europe and internationally, the UK took its time in developing and implementing equal pay legislation that met international and European employment standards. While the Conservative Government implemented a policy of equal pay for 'like work' in the non-industrial Civil Service in 1955, it took the UK 19 years to ratify the ILO Convention and therefore be legally bound by its provisions (the US is still yet to ratify²²).

The Labour Government finally entrenched equal pay into law in 1970. This followed significant organised action by female sewing machinists at the Ford factory in Dagenham in 1968 and the National Joint Action Campaign Committee for Women's Equal Rights in 1969. The Labour party had included a Charter of Rights for all employees in its 1964 manifesto that included the right to equal pay for equal work. After six years, this took the form of the Equal Pay Act, which prohibits discrimination in relation to contractual terms – including terms relating to matters other than pay. 'Pay' in the Act is defined as contractual benefits received by an employee, even indirectly, from the employer in respect of their employment.

While the Equal Pay Act entered the statute book in 1970, it was decided that, given the widespread existence of separate pay scales for men and women in companies in the UK at the time, the Act would not come into force until 1975.²³ During this five year transition period the GPG decreased significantly. The Sex Discrimination Act was also enacted in 1975 and made it unlawful to discriminate on gender grounds in a range of circumstances including employee dismissal, terms of employment and access to promotion and training. It is broader in scope than the Equal Pay Act, applying to the supply of goods and services, education and vocational training as well as employment.

The Equal Pay Act was also passed in anticipation of Britain's entry into the European Economic Community, which would mean that Article 141 would need to be transposed into statute law. However, in its original formulation, the Act did not give the right to equal pay for equal value, but the right to equal pay where work was broadly similar or rated as equivalent by a job evaluation system. At the time the TUC had argued that this did not meet the requirements of Article 141 and its effects would be limited due to occupational segregation. The then Secretary of State for Employment and Productivity, Barbara Castle responded that the Treaty Article was "far from satisfactory" and "too abstract a concept to embody in legislation".²⁴ In 1975, EC Directive 75/117 sought to define the principle of equal pay in Article 119 as "for the same work or for work to which equal value is attributed". This eventually forced an amendment to the Equal Pay Act in 1983²⁵ following infringement proceedings by

²⁰ Communication from the Commission to the Council, the European Parliament, the European Economic and Social Committee and the Committee of the Regions, 'A Roadmap for equality between women and men 2006-2010', COM(2006) 92 final.

²¹ Ibid.

²² The other ILO member countries that have yet to ratify are Bahrain, Bermuda, French Polynesia, Guadeloupe, Martinique, Qatar and West Bank & Gaza Strip.

²³ Income Data Services (2008), *Equal Pay*, IDS.

²⁴ Aileen McColgan, 'Equal Pay and the Law': <http://bit.ly/dgs2t9>

²⁵ Equal Pay (Amendment) Regulations 1983 SI 1983.1794 extended the bases for claiming equal pay to include cases where the claimant and their comparator are employed on work of equal value.

the European Court of Justice, which ruled in 1982 that the legislation had to be changed.

Equal pay legislation in the UK has had a significant impact on employment practices in the UK, the modernisation of pay frameworks across the public sector being a prime example. The duty on public employers to ensure equal pay for work of equal value, which came into force in April 2007, was in-part the catalyst for widespread reforms of pay and conditions in areas such as local government and the NHS. These sectors embarked on massive modernisation programmes which included streamlining pay negotiation mechanisms, wholesale job evaluations and harmonising workforce conditions.

3.4 The Equality Act 2010

The vast majority of the provisions of the Equality Act 2010 were enacted in October 2010. The Act streamlines existing equality legislation across the six main equality strands (age, disability, faith, gender, race and sexuality – referred to in the legislation as “protected characteristics”) to improve consistency in the application of the law while maintaining the framework already in place. With regard to equal pay, the new Act allows direct pay discrimination claims to be made even if no-one in the organisation is doing equal work and the Act makes it illegal for employers to restrict employees from having discussions about differences in pay related to protected characteristics.

A number of provisions in the Act, many of which introduced new employer obligations, are still under review by the current government. One of the most important omissions, and the most relevant to this paper, is the duty on large employers to publish their GPG, which is likely to be replaced with a provision based on voluntary adherence. However, the draft public sector Equality Duty, which will apply to higher and further education bodies, requires public bodies with more than 150 employees to annually publish data on the equality of their workforces including the GPG.²⁶ The consultation on this document ends in November and is expected to come into force in April 2011.

²⁶ Government Equalities Office (2010), *Equality Act 2010: The public sector Equality Duty – Promoting equality through transparency – A consultation*, GEO. <http://bit.ly/9elwRO>

4 The gender pay gap

The women's rights movement has provoked remarkable changes in the civic and political rights of women across the world in the past 150 years. As these rights were enshrined in most countries, the focus shifted towards economic rights and the ability of women to forge economic independence free from discrimination. The previous section set out the legislative changes that enacted the right of women to pay equal to that of men for work of equal value. With the legislation in place, the measurement of the extent to which this has been reached has increased in importance.

The GPG is now the main indicator of the extent to which there is equal pay in the labour market and the workplace. It is the accepted measure of policy makers, economists and statisticians in the OECD, the European Commission, NGOs and governmental bodies in the UK. It is also now used by many organisations and institutions as a measure of the pay parity between men and women in their workforce.

Analysis of the GPG and its drivers has demonstrated the effects of national pay bargaining on equal pay, isolated the effects of discrimination in the workplace, emphasised the effects of occupational segregation, and provided a valuable benchmark measure for countries and organisations to track their progress towards fairer outcomes in the labour market.

Despite its acceptance as a measure in tackling labour market inefficiencies and discrimination, the utility of the GPG has occasionally been questioned.²⁷ Take for example this statement from the forward of a publication on the GPG in the UK by the Institute for Economic Affairs:

“There may be legitimate reasons why employers wish to pay men and women differently. Discrimination for the sake of it is, however, highly unlikely. If women are paid less than men, why not make some men redundant and only employ women, thus increasing profits? One would expect this process to lead to a reduction in the pay gap – indeed the process could go on until the gap was eliminated. If there really is a pay gap between men and women caused by discrimination then shareholders will pay a heavy price.”²⁸

Contrast the statement above with the conclusions of a Trades Union Congress report published in the same year and based on the same data:

“...great strides have been made by women both in the labour market and in society. However, the persistence of a significant gender gap points not only to women's continuing experience of discrimination within the workplace, but to other trends that have a serious impact on women's lives, such as occupational segregation, a disproportionate share of caring responsibilities, lack of well-paid, high quality part time work and the undervaluation of work done by women.”²⁹

At its heart, this appears to be a disagreement about the normative judgement implied by the GPG; put simply, the view that equality will only be reached when there is no gap and hence any gap is an indictment upon the inequality of the labour market and its constituent institutions and employers. In practice, employees and

²⁷ For example, J. Shackleton (2008), *Should We Mind the Gap? Gender Pay Differentials and Public Policy*, The Institute for Economic Affairs.

²⁸ Booth in Shackleton, 2008.

²⁹ TUC, 2008.

employers alike recognise that the measure is useful for highlighting and addressing equal pay issues, but requires interpretation.

The vast majority of employees are in favour of the indicator, while the use of the measure by companies is mixed. According to the Fawcett Society, 89% of women and 81% of men support the requirement on employers to check whether or not females and males in their organisation are paid equally and that gaps are uncovered.³⁰ However, according to a survey of non-public sector organisations by the EHRC, only 43% had conducted an analysis of their GPG with just 19% communicating this outside of the HR team.³¹ The motivating factors for those organisations who had conducted gap analyses were largely 'push' factors, including legislation, employee complaints, and equal pay cases. The EHRC conclude:

“The low priority afforded to pay transparency within the human resources and corporate cultures of many organisations represents a major barrier. When equal pay is not recognized as a business priority it is perhaps not surprising that a significant proportion of employers remain unclear about what the gender pay gap is, and what measuring or publishing it involves.”

As this report attempts to highlight, the GPG is a useful measure, but it must be interpreted with reference to the economic, institutional and cultural context for it to have any meaning. For example, as an extreme case, Bahrain has a negative GPG (women on average earn more than men), yet few economists would conclude that the Bahraini labour market is more favourable to women than other countries. Rather, this exception is explained by the relatively few women who enter paid employment in the country and those that do are well educated and from upper socio-economic backgrounds.³² Similarly, the ITUC highlight a study on Brazilian trade liberalisation, which found that opening up markets to free trade decreased the gender wage gap, but only as a result of depressing overall wages, with men being affected worse than women.³³

4.1 Measuring the gender pay gap

The GPG is a measurement of the percentage difference between male and female hourly earnings as a proportion of male hourly earnings. Separate GPGs are usually calculated for full-time and part-time employment with the full-time measure usually used as the headline figure in international comparisons. A positive measure indicates the extent to which females earn, on average, less per hour than their male counterparts. Occasionally annual or monthly salaries are used, but use of these can be misleading for reasons set out below.

It is common to use hourly rates excluding overtime since females are less likely to work overtime due to family commitments and therefore its inclusion would overestimate the gap.³⁴ As Figure 1 shows, the average actual weekly hours of work in a main job for males has stayed around five hours longer than females for the past sixteen years. The average working week has decreased slightly for both groups with the average week for males falling from 40.1 hours in 1993 to 38.5 hours in 2009. For females the average week has fallen from 34.3 hours to 33.7 hours. Males and

³⁰ Rowena Lewis and Sharon Smee (2009), *Closing the Gap*, Fawcett Society.

³¹ Lorna Adams, Katie Gore and Jan Shury (2009), *Gender pay gap reporting survey 2009*, EHRC. The same survey also found that 49% of organisations gave no information at all to staff about pay and only 35% made staff aware of what pay band they are in.

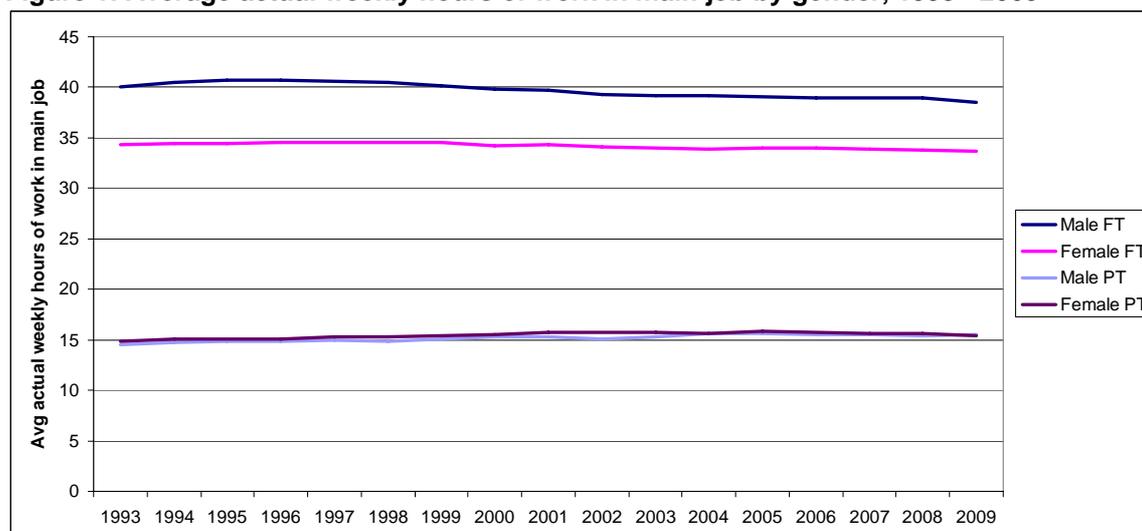
³² International Trade Union Confederation (2008), *The Global Gender Pay Gap*, ITUC.

³³ Ibid.

³⁴ Debra Leaker, 'The gender pay gap in the UK', *Economic & Labour Market Review*, Vol. 2, No. 4, April 2008.

females work similar average weekly hours in part-time employment (15.5 hours and 15.4 hours respectively) and have barely changed over the period.

Figure 1: Average actual weekly hours of work in main job by gender, 1993 - 2009



Source: Labour Force Survey.

Many institutions and economists prefer to use the median (middle point) rather than the mean (central tendency) of the data since this can again distort the measurement due to the irregular distribution of pay data and the distortive effects of a relatively small number of high earners in the labour market – this is discussed in more detail in section 5. As Figure 2 on page 13 illustrates, the two measures provide noticeably different numbers. However, often both the mean and the median will be given in GPG analyses and some organisations, such as the EHRC, prefer to use the mean as the key measure since concentration of male earners at the top of the wage distribution relative to women is an important issue.

A range of datasets include measures of pay and as such there are often multiple measures for a given country, however there will usually be an official earnings survey conducted that is used to inform cross country comparisons such as those produced by the OECD. In the UK, the most commonly used data set for earnings is the Office for National Statistics' Annual Survey of Hours and Earnings (ASHE), which is produced annually and uses payroll data covering one per cent of total employment. ASHE data is deemed to be more accurate than other earnings data such as that produced by the Labour Force Survey (LFS) since it records actual pay rather than reported pay. However, the LFS and the British Household Panel Survey are often used in regression analyses³⁵ since they record a greater number of individual characteristics.³⁶

At the organisational level, GPG measurements are central to equal pay reviews, which assess the extent to which equal pay is provided to men and women in an organisation, the explanation of any significant pay gaps and the development of an action plan to address gaps where there is no satisfactory explanation.³⁷ When equal pay audits/reviews are undertaken, there are a number of GPGs that may be calculated as outlined in Box 1.

³⁵ A technique used for modelling and analysing the relationship between a dependent variable (e.g. pay) and one or more independent variables (e.g. education, age, gender).

³⁶ Leaker, 2008.

³⁷ Sue Hastings (2010), *Promoting equality in pay – A practical resource for conducting equal pay reviews in higher education*, ECU.

Box 1

Single Figure: The most straightforward measure is a 'Single Figure' which gives the overall gap between male and female pay for all employees, both part-time and full-time. Although this is comprehensible, it does little to identify where pay gaps might be occurring within an organisation or compare 'like for like'.

Pay grade and type of work: This provides a measure of within grade and within occupation pay gaps. The Fawcett Society notes that this measure is useful for tackling pay discrimination for like work, particularly with regard to bonuses, starting salaries and performance related pay. It also helps identify gender segregation within occupations but does not provide any detail on the pay gaps between work of equal value.

Full pay audits: A full pay audit allows an organisation to compare the pay of men and women doing work of equal value within an organisation. A full pay audit is comprehensive and not merely a statistical analysis. It requires job evaluation to be undertaken using an accepted method, such as Hay, the identification of gaps and the production of an action plan to tackle the gaps that are identified.

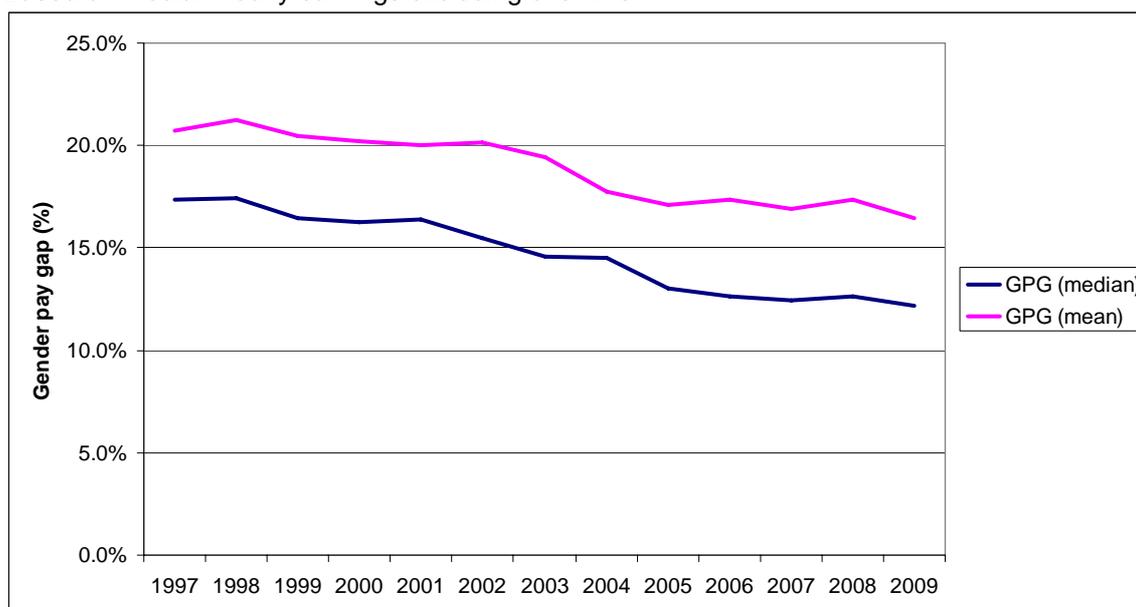
Source: Lewis and Smee, 2009.

4.2 The gender pay gap in the UK

Over the past thirty years there has been a considerable decrease in the GPG in full-time employment in the UK. Each generation of women has done better relative to men than the previous generation, but the pace of improvement has slowed – possibly since most overt discriminatory employment practices have now been eliminated and women's labour market participation has levelled off – see section 5.1.³⁸ As Figure 2 shows, the GPG in full-time employment has fallen markedly since 1997 with the median falling from 17% to 12% over the period and the mean falling from 20% to 16%. The steep drop in the GPG between 2002 and 2005 is potentially a result of the introduction of the minimum wage in 1999, which disproportionately improved the wages of female employees at the lower end of the wage distribution.³⁹

Figure 2: Gender pay gap in full-time employment in the UK, 1997 – 2009

Based on median hourly earnings excluding overtime



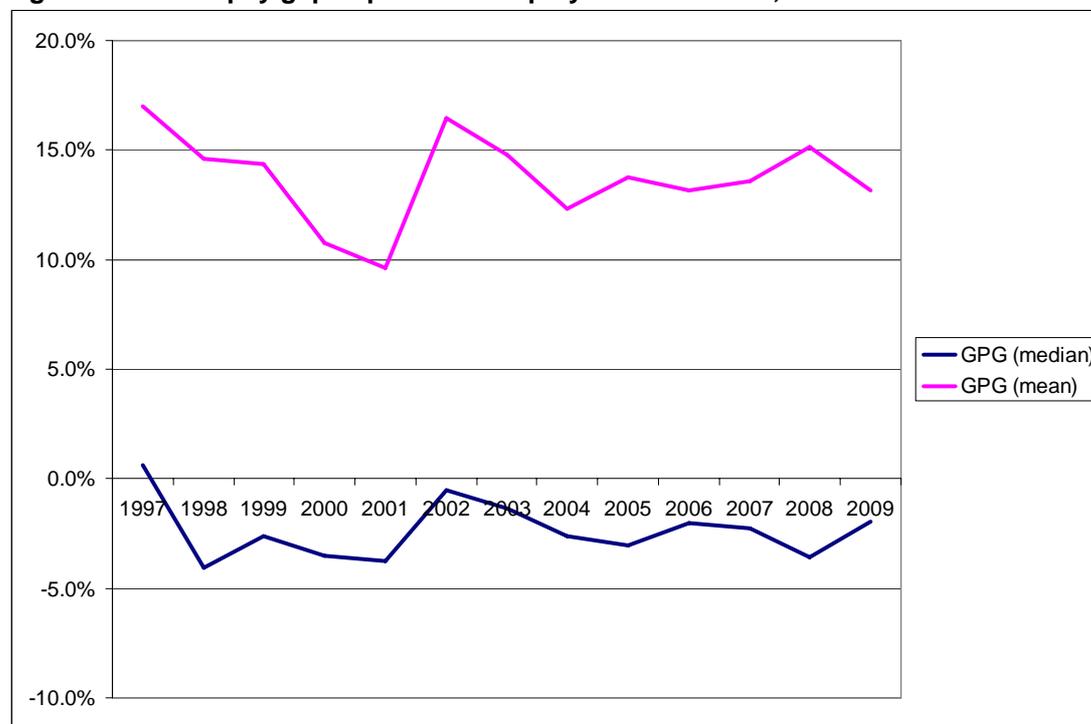
Source: ONS Annual Survey of Hours and Earnings.

³⁸ Alan Manning, 'The gender pay gap', *Centrepiece*, Summer 2006

³⁹ The gender pay gap at the bottom decile (lowest ten per cent of earners) declined from 11.6% in 1998 to 7.1% in 2008. <http://www.berr.gov.uk/files/file51722.pdf>

The trends in the part-time GPG are less obvious and differ markedly depending on which measure is used. On the median measure favoured by many, including the ONS, the part-time GPG has remained negative since 1998 with only small variations between 0% and -5% – see Figure 3. However, the mean measure, used by the EHRC, shows a GPG fluctuating between 10 to 17% over the last twelve years.

Figure 3: Gender pay gap in part-time employment in the UK, 1997 - 2009



Source: Annual Survey of Hourly Earnings.

4.2.1 International comparisons

The existing evidence suggests that the UK has a higher GPG than most comparable countries. However, compared to many developed nations including Germany, France and Sweden, the UK has made significant progress in closing the GPG in the past thirty years.

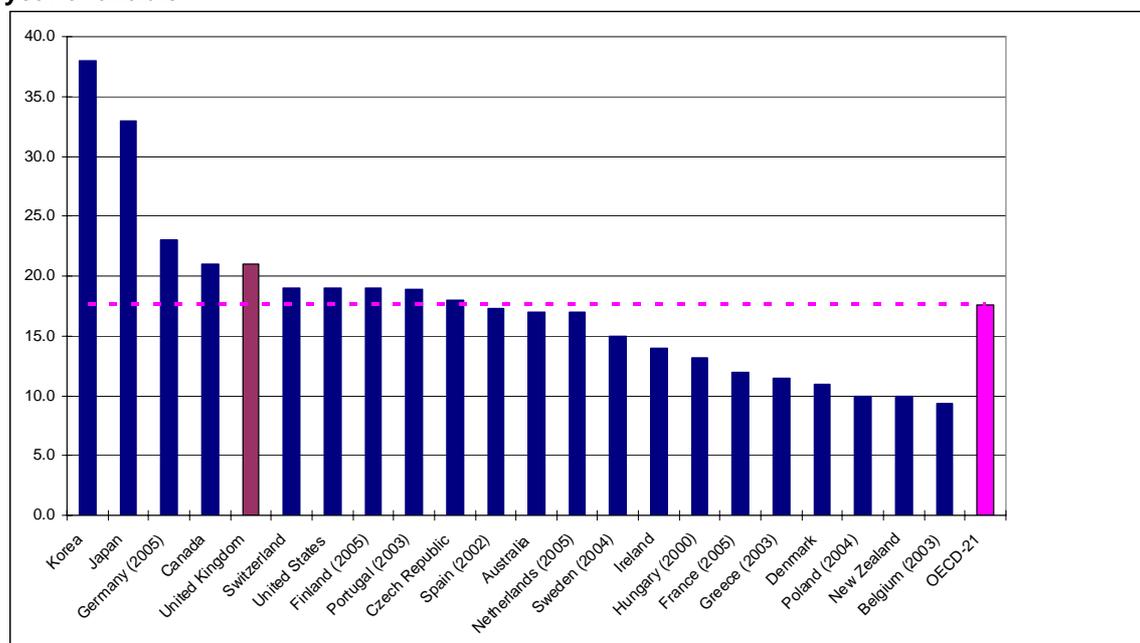
The TUC highlights that the GPG in the UK is one-third higher than the EU average and suggests that this is partly due to the high proportion of females in part-time employment.⁴⁰ Its report for the 2008 TUC Women's Conference notes that, at 77.6% (2006), the UK is just below the EU-15 average (78.1%) in terms of the female share of part-time employment, but above both the OECD (72.1%) and G7 average (72.7%). The UK also has a greater number of women working in part-time work as a proportion of the total female workforce (38.8%) compared to both the OECD average (26.4%) and the EU-15 average (31.7%). Only Switzerland and the Netherlands had a higher proportion of female workers in part-time employment in 2006.

As Figure 4 illustrates, the GPG between the median earnings of full-time employees in OECD countries in 2006 varied considerably, from 38.0% in Korea and 33% in Japan to 10.0% in New Zealand and 9.3% in Belgium. According to this set of OECD data, the UK has a GPG of 21.0% compared to the OECD-21 average of 17.6%. While this may reflect poorly on the UK, it is worthwhile comparing recent trends rather than a single point in time. Figure 5 shows that the UK has made significant progress in reducing the GPG by over 14 percentage points on the OECD measure

⁴⁰ TUC, 2008.

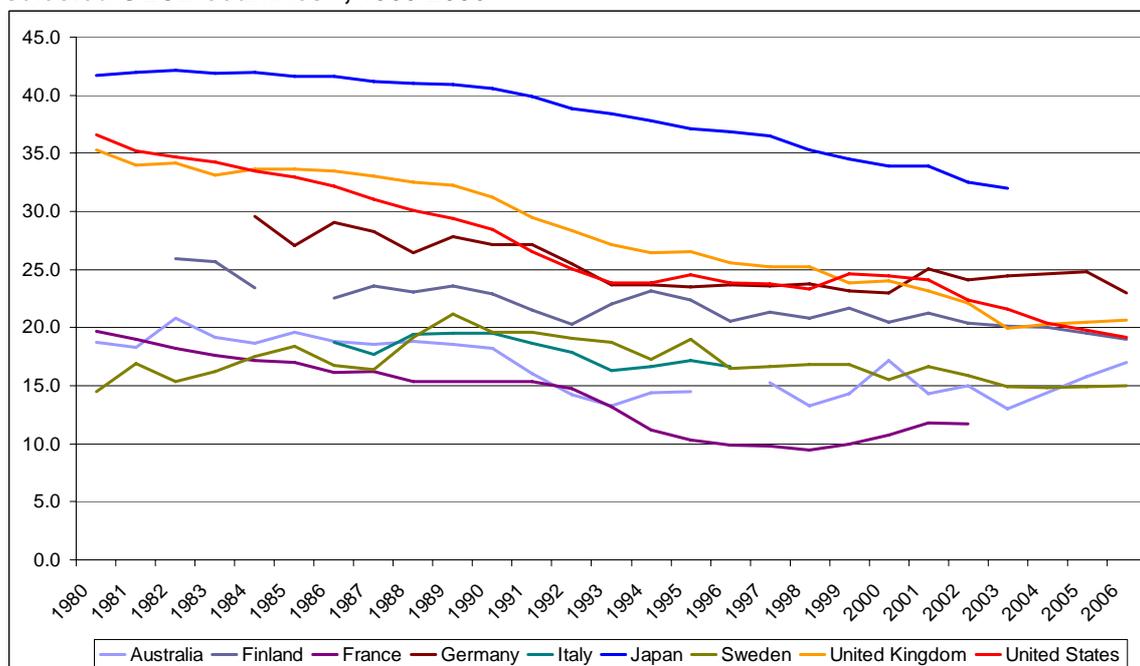
in 26 years. While it has followed a similar trend to the United States, which implemented its equal pay act twelve years earlier, it has overtaken Germany and caught up with Finland while progress in some of the countries that are below the OECD average, such as Sweden, has stagnated or, in the case of Australia and France, reversed.

Figure 4: Gender pay gap in median earnings of full-time employees, 2006 or latest year available



Source: OECD Earnings database.

Figure 5: Trends in gender pay gap in median earnings of full-time employees in selected OECD countries⁴¹, 1980-2006



Source: OECD Earnings database.

⁴¹ Selection based on the existence of a largely uninterrupted long run time series for the country. The full data is available from the OECD: <http://www.oecd.org/dataoecd/1/35/43199347.xls>

It is difficult to provide a comprehensive overview of the different policies related to improving pay parity between men and women in other countries; however there is considerable variation, even in the European Union. In a study for the European Commission Equality Unit on the policy responses of thirty European countries to the GPG, Plantenga and Remery⁴² found that policies tend to focus on three areas:

- Measures to improve the implementation of equal pay legislation, including additional legislation and increasing wage transparency.
- Equal opportunities policies that aim to increase the continuity of women's employment e.g. affordable childcare and improved leave arrangements.
- Addressing wage inequality, particularly improve the remuneration of low-paid, and predominantly female, jobs and undertaking job evaluations.

Sweden's policies on improving equal pay are cited by the Fawcett Society as particularly progressive. Its publication 'Closing the Gap' explains how legislation passed in 1991, which mandated all organisations with 25 or more employees to carry out three yearly pay equality action plans, led to pay adjustments in 11% of employers and a pay gap of just 3% for women working in male dominated professions.⁴³

⁴² Plantenga and Chantal Remery, 2006.

⁴³ Lewis and Smee, 2009.

5 Factors influencing the gender pay gap

The literature identifies a number of personal, institutional and structural influences that affect the GPG. The level of labour market participation among females, the relative split between part-time and full-time working, and the occupational profile of females compared with males are regularly highlighted as having a significant influence, either positive or negative, on the GPG. Research also suggests that there are a range of non-gender related factors that have significant bearing on the GPG which are related to generic changes in the labour market itself. It is also apparent from the literature that a significant proportion of the GPG cannot be explained by reference to observable variables such as level of education and number of dependents. The gap that is unexplained, or at least a portion of it, is often referred to as evidence of a labour market where employers discriminate in favour of male workers.

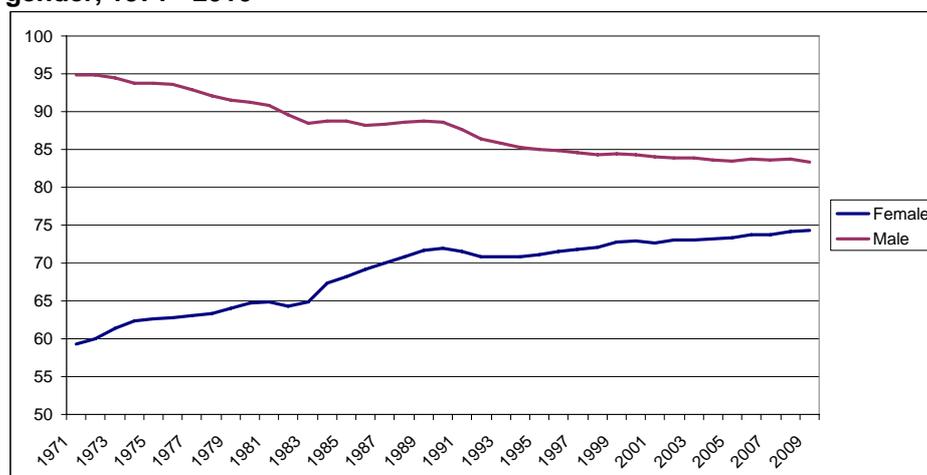
This section outlines the key factors that are addressed by the literature as having an influence, either positive or negative, on the GPG:

- Female participation in the labour market
- Human capital
- Occupational segregation
- Part-time work and caring responsibilities
- Valuation of women's work
- Discrimination
- Structural and institutional factors

5.1 Female participation in the labour market

The labour market has been transformed by a significant increase in the number of women either taking up employment opportunities or looking for work, commonly referred to by statisticians as 'economically active'. As Figure 6 shows, the proportion of females classified as economically active has increased from less than 60% to almost 75% in four decades (although the trend has slowed since the early 1990s), while the rate for their male counterparts has fallen from 95% to just under 85%.

Figure 6: Percentage of working age population classified as 'economically active' by gender, 1971 - 2010



Source: Labour Force Survey

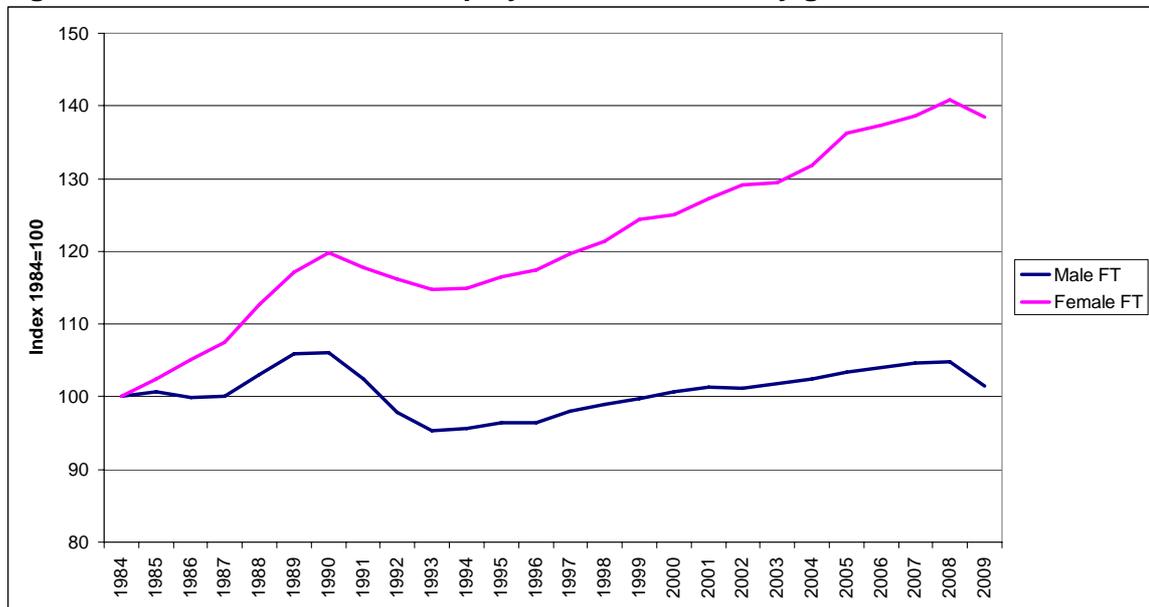
This rise in labour market participation has resulted in a significant and mostly sustained increase in the number of females in full-time and part-time employment. The increase in the number of females in full-time employment since 1984 compared

to the same figure for males, as shown in Figure 7 is striking. While the number of males in full-time employment is almost the same now as it was in 1984, the number of females in full-time employment has increased by almost 40%. The effects of the last recession (1990-91) on employment are clear and affected male workers disproportionately, partly due to the tendency for males to be in manufacturing jobs. The graph also shows the effects of the recent recession on employment, halting fifteen consecutive years of growth in the number of females in full-time employment.

While three quarters of those in part-time employment are female, there has been a considerable increase in the number of male part-time workers. Although the number of females in part time work has increased by 32%, as illustrated in

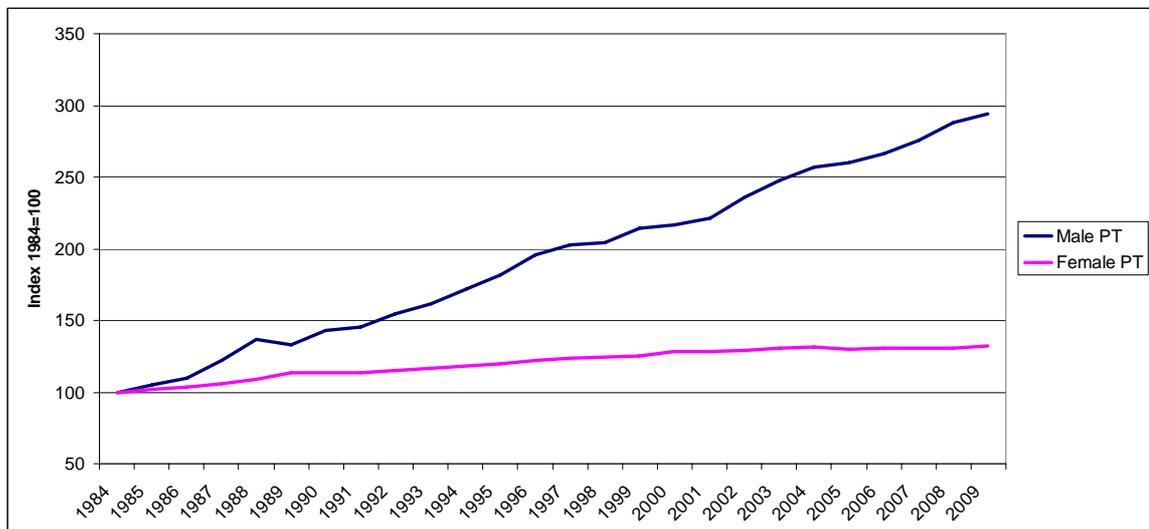
Figure 8, the number of males in part-time employment has increased by a staggering 194%. Only 13% of the labour force in part-time employment was male in 1984 compared to 24% in 2009. Perhaps more significantly, males account for 47% of the 2.6m net increase in part-time employment since 1984.

Figure 7: Increase in full-time employment since 1984 by gender, 1984 - 2009



Source: Labour Force Survey.

Figure 8: Increase in part-time employment since 1984 by gender, 1984 - 2009



Source: Labour Force Survey.

The increase in female participation alongside their movement and acceptance into senior management roles is thought to have helped the fall in the GPG from the 1970s to the early 1990s. While the proportion of women who are economically active is increasing more slowly than in previous decades, the number of women entering full-time employment has increased by 25% since the mid-1990s and the number of men entering part-time employment has increased 200%. While Figure 6 suggests that the gender split in the workforce is reaching some sort of equilibrium, Figure 7 and

Figure 8 show that there are still important shifts occurring, both of which have a significant impact on the GPG.

5.2 “Human capital”

An early theory that sought to explain the gap between male and female earnings in the labour market was ‘human capital theory’ which posited that the proclivity of individuals to invest in training and the acquisition of skills depends on the anticipated returns they will receive as a consequence of investment. Since females will get less return on these skills than their male counterparts because they have more breaks from employment, they are less likely to invest in education.⁴⁴ Furthermore, businesses are less likely to hire females since they will anticipate getting less return on training investments made.⁴⁵ As female participation in the labour market increases, women are therefore more likely to invest in their own human capital and their relative wages will increase. While academic applications of the theory continue, it provides a very narrow explanation of gender differences in pay.

It is also worth noting that while educational attainment levels among women in the UK have risen, the link between increased education and the GPG is complex. The GPG is actually higher among employees with post-compulsory education, perhaps reflecting a higher degree of vertical segregation (see section 5.3) within graduate occupations. For example, the pay gap between male and females with degree or equivalent qualifications is 18.6% while the pay gap between males and females with GCSE grades A-C or equivalent is 12.7%.

5.3 Occupational segregation

One of the most commonly cited explanations for the GPG is the occupational segregation of the sexes, whereby women tend to be in lower paid occupations in men. Segregation is commonly referred to as either ‘vertical’, where males occupy higher paid and skilled positions within the same occupation, or ‘horizontal’, where females are employed in different and predominantly low-paid occupations from males. The ‘female occupations’ are often referred to as the ‘five c’s’: cleaning, catering, caring, cashiering and clerical work. Economists suggest that wages tend to be depressed in ‘female’ occupations because the greater prevalence of part-time opportunities and labour market discrimination can result in an over-supply of female labour for these jobs.⁴⁶

Horizontal segregation in the UK is significant and its importance to the GPG has been well established. An ITUC report that looked at GPGs across the world found that occupational segregation in the UK is more pronounced than most of its European comparators as a result of the high proportion of women in part-time work.⁴⁷ According to the Kingsmill Report on Women’s Employment and Pay, 60% of

⁴⁴ Gary Becker (1971), *Human Capital: A Theoretical and Empirical Analysis, with Special Reference to Education*, 2nd ed., National Bureau of Economic Research.

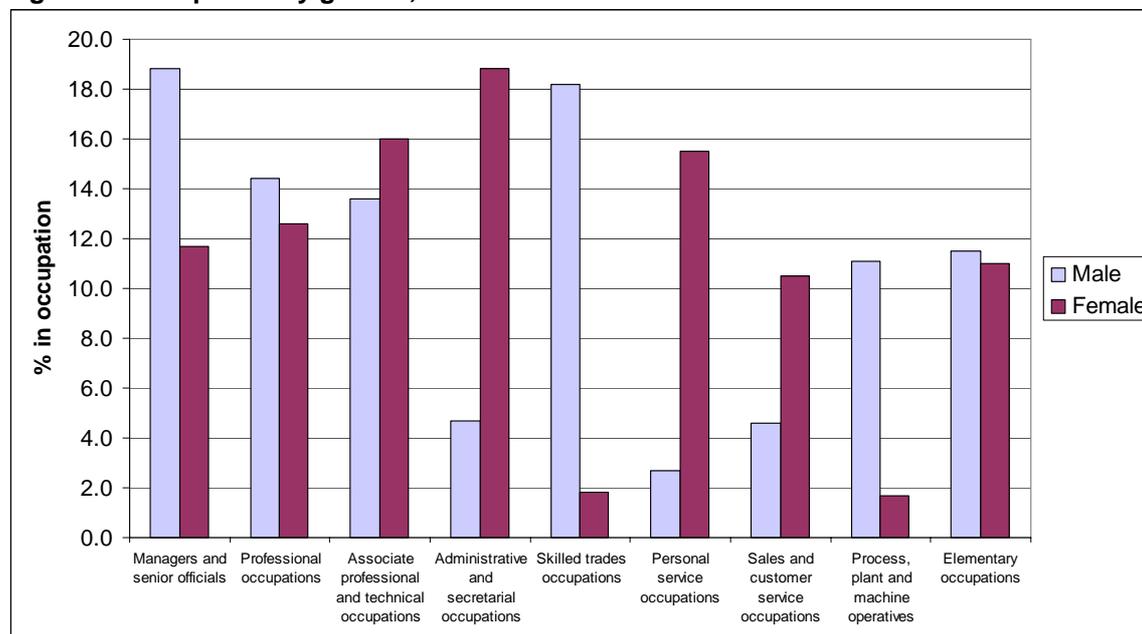
⁴⁵ Francine Blau and Lawrence Kahn, (2000), ‘Gender differences in pay’, National Bureau of Economic Research.

⁴⁶ Blau and Kahn, 2000.

⁴⁷ ITUC, 2008.

females in the UK occupied ten out of a total of 77 recognised occupations.⁴⁸ The International Labour Organisation lists 110 major occupation groups in their classification of occupations (ISCO). In OECD countries for which information is available, half of all women work in eleven or fewer of these occupations.⁴⁹

Figure 9: Occupation by gender, 2009



Source: Annual Population Survey, Jan – Dec 2009.

Gender stereotyping, poor career guidance, occupational location of part-time work opportunities and societal norms are identified as contributing to the replication of horizontal segregation. However, Occupational segregation increases significantly between 27 and 35, suggesting that the distribution of females across the occupations is not necessarily dictated by pre-labour market choices about education and careers.

Vertical segregation, or the lack of women in senior board and executive level roles, is a perennial issue across all sectors of the workforce and has proved to be a stubbornly difficult area for improvement. Only one-third of managers in companies in the EU and just 12.2% of FTSE 100 directors are female.⁵⁰ Manning and Petrongolo suggest that the 'glass ceiling' may be a critical factor contributing to the rapid increase in the GPG in later working life. Figure 10 shows how the percentage of females in employment in managerial occupations roughly keeps pace up until 34 years of age, at which point the proportion of males who are managers continues to rapidly increase, while the proportion of females who are managers increases at a slower rate until levelling off between ages 35 to 50. The same analysis of those employed in professional occupations in the working life cycle shows a different picture with the proportion of males and females in these jobs being roughly equivalent throughout the life cycle – see Figure 11.

The relatively low representation of women in management positions may explain why the gender pay gap rises steadily with age and peaks for women in their 40s. As Figure 12 shows the GPG for age groups 18-21 and 22-29 is less than five percent,

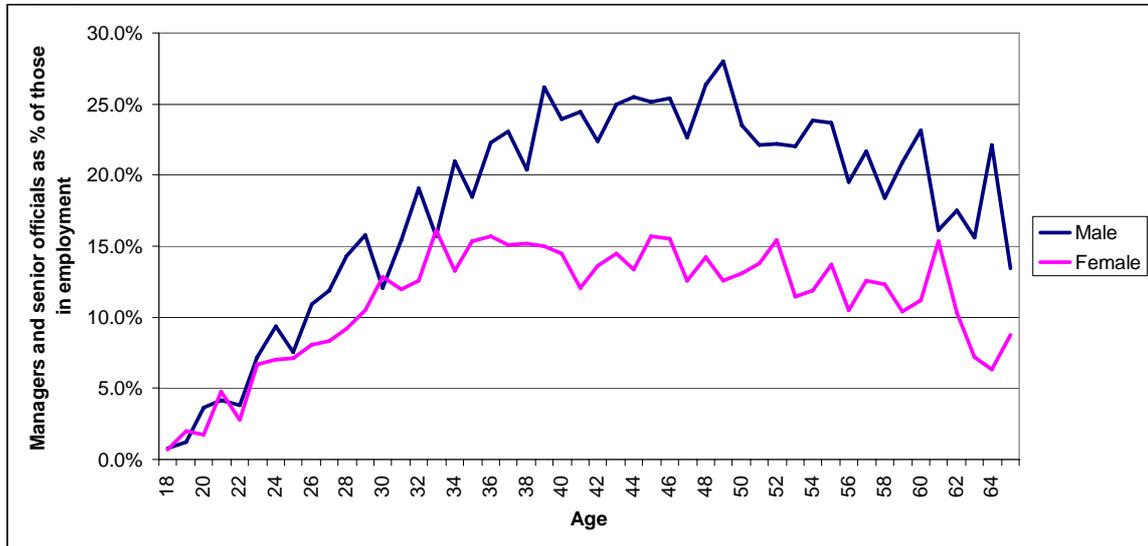
⁴⁸ Income Data Services, 'Understanding Reward: Gender segregation', *IDS Pay Report 931*, June 2005.

⁴⁹ OECD Fact Sheet – Women and Men in OECD Countries.

⁵⁰ European Foundation for the Improvement of Living and Working Conditions (2006), 'The Gender Pay Gap: Background Paper'.

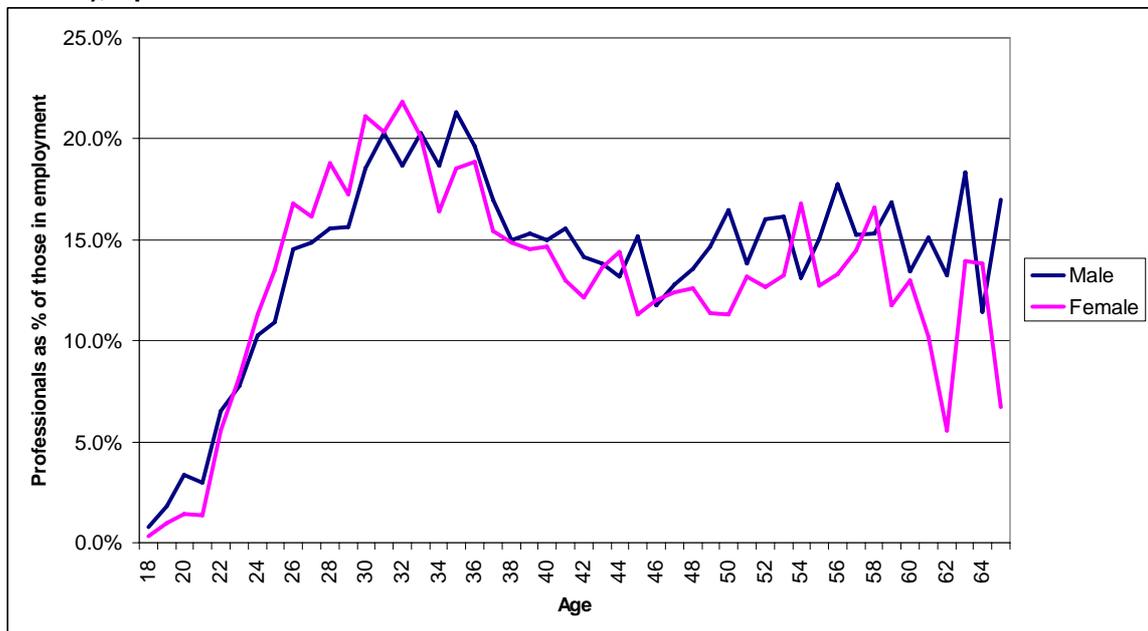
while women between the ages of 40 and 59 earn, on average, more than 20% less than men of the same age. Vertical segregation is also related to caring responsibilities, as explored further in 5.5, and reflects both the impact of years out of the labour market as well as the lack of suitable and flexible management positions for women with childcare responsibilities.

Figure 10: Percentage of female and male managers in the working life cycle (aged 18 – 65), April – June 2010



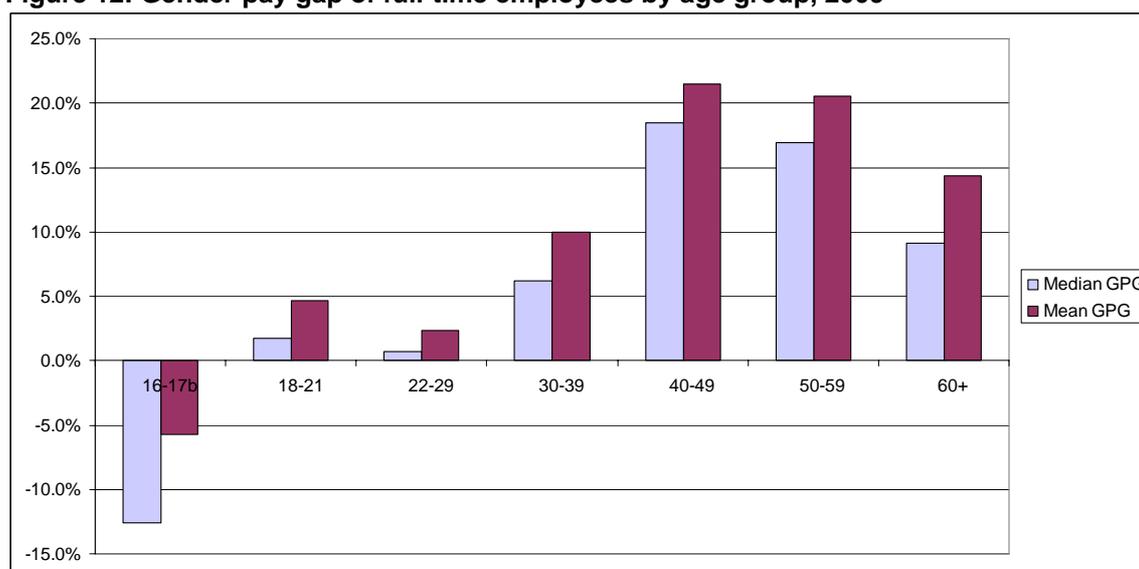
Source: Labour Force Survey, April-June 2010, updated from Manning, 2006.

Figure 11: Percentage of female and male professionals in the working life cycle (aged 18 – 65), April – June 2010



Source: Labour Force Survey, April-June 2010.

Figure 12: Gender pay gap of full-time employees by age group, 2009



Source: ASHE, 2009.

Personality differences are popularly cited as a reason for women failing to progress in organisations; the typical arguments outlined by Pfeffer in a blog for the Harvard Business Review:

“The evidence shows that women are less power-oriented than men. Women have more negative attitudes toward holding power, they are less likely to pursue power-based influence strategies, they are more bothered by and disfavor hierarchical relationships, they are less motivated to dominate others, and they are less likely to take actions to attain power. Moreover, in situations such as salary negotiations, studies show that women often believe that they deserve less than similarly qualified men and are, as a consequence, likely to demand less and to press their salary demands with less vigor.”⁵¹

Despite individual studies suggesting these gender differences, Manning notes that the evidence suggests that this has little explanatory power with regard to the GPG.⁵² This was also the conclusion of research on female progression in the German labour market which found that only 8.6% of the inequality of career chances between men and women could be explained by differences in personality.⁵³

The ‘sticky floor’, which refers to the inability of women to progress from low-paid positions, is also often mentioned in the literature with regard to vertical segregation and is largely linked to the lack of progression opportunities in part-time jobs.

5.4 Sectoral segregation

As with occupations, there are significant differences between the sectors that men and women tend to work in. As Figure 13 shows, women are considerably more likely to be in health and social work and education sectors than men, who are more likely to be in manufacturing, construction and transport, storage and communications. Similar proportions of both the sexes are in real estate and business activities and the wholesale and retail trade. Because health and social work and education tend to be delivered by the public sector, women are significantly more likely to work for a

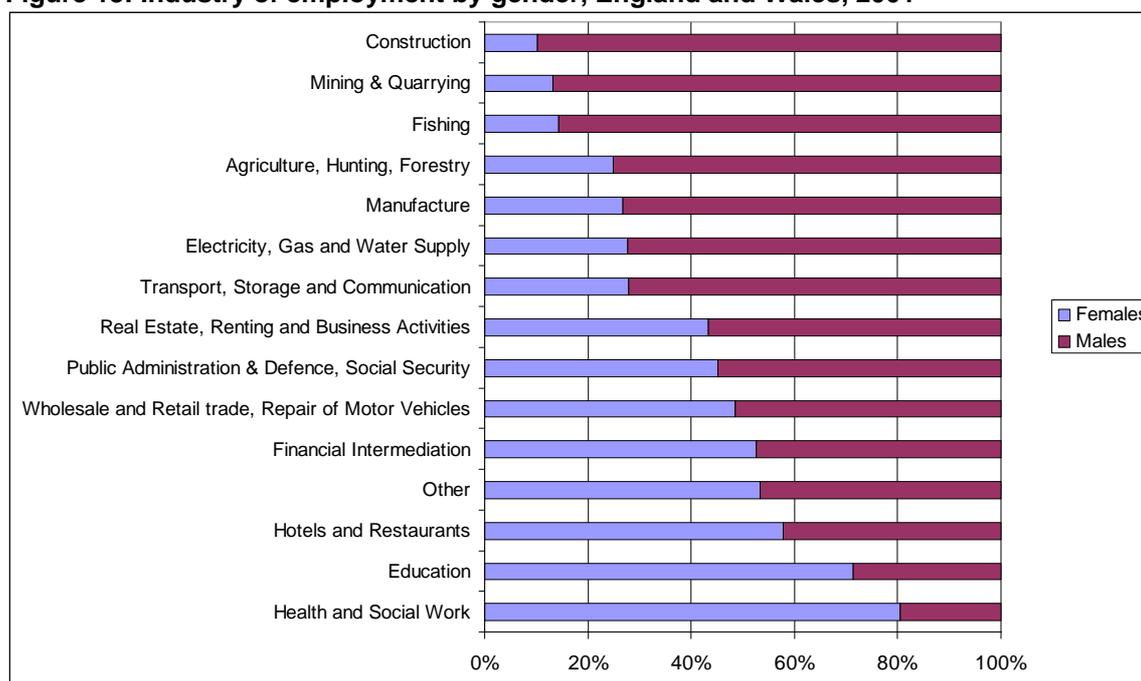
⁵¹ http://blogs.hbr.org/cs/2010/08/women_and_the_uneasy_embrace_o.html

⁵² Alan Manning, ‘The gender pay gap’, *Centrepiece*, Summer 2006.

⁵³ Simon Fietze, Elke Holst, Verena Tobsch (2010), *Germany’s Next Top Manager: Does Personality Explain the Gender Career Gap?*, Discussion Paper No. 5110.

public sector employer. According to the EHRC, 40% of women work in the public sector compared to only 15% of men.

Figure 13: Industry of employment by gender, England and Wales, 2001



Source: Census, 2001.

5.4.1 Gender pay gap in the public sector

Despite significant equal pay initiatives in local government and the health sector, there has been little progress in recent years in closing the full-time GPG in the public sector, which currently stands at 14.6% up from 13.9% in 2008 (based on average hourly earnings excluding overtime).⁵⁴ While the gap is significantly lower than the full-time private sector GPG (21.6%), the private sector gap has fallen five percentage points since 1997. Income Data Services suggest that the forthcoming pay freezes in the public sector will increase the GPG in the whole-economy since a restriction on public sector pay disproportionately affects women who comprise three-quarters of NHS and local authority roles and over 70% of school teachers.⁵⁵

Part of the lack of progress in the GPG in the public sector is explained by the lack of representation of females in senior management roles in the sector. Women represent 53% of all employees in the civil service, but occupy only 33% of senior management roles. Income Data Services point out that only 6.2% of women employed in the NHS are in medical or dental staff grades, or employed as GPs, compared to 28.5% of men.⁵⁶

However, there is significant variation within the public sector both in terms of the current GPG and recent progress. There are even examples where there is a negative GPG, indicating a pay gap in favour of women, although this accounts for only a small number of occupations. For example, the GPG for 'Healthcare practice managers' was 19.4% in 2009 and has increased 0.9 percentage points since 2004. By contrast, the GPG for social workers is -3.1% and has decreased 1.4% since 2004. A significant decrease has been seen in the GPG for Paramedics, decreasing from 18.8% in 2004 to -1.7% in 2009, while two of the largest occupational increases were for senior officers in fire, ambulance and related professions (+12.3 percentage

⁵⁴ IDS (2010), based on ASHE 2009.

⁵⁵ IDS (2010), *Pay in the public services 2010*.

⁵⁶ Ibid.

points between 2004 and 2009) and public service administrative professionals (+8.2).

5.5 Part-time work and caring responsibilities

The proportion of females in part-time work and the quality of the part-time work available in the UK are closely associated with its relatively high GPG by international standards. Around one in five jobs in the UK is part-time, but four-in-ten females work in part-time employment – these proportions have remained constant since the early 1990s.⁵⁷

While opportunities for part-time work in the UK have increased in aggregate, there are concerns about the quality of these jobs, particularly pay, career progression, training and other conditions of employment. For example, based on median earnings, part-time employees earn around 40% less than full-time employees.⁵⁸ In a study on the trends in female labour force participation, the OECD notes that part-time work is characterised by:

“Poor wages and benefits, asocial or excessively flexible hours, low job tenure, absence of training, or few prospects of promotion.”⁵⁹

In shifting to part-time work, women are also likely to downgrade their occupational status due to the lack of suitable part-time opportunities that fit their skill set. Research has found that a third of female corporate managers move to a lower skill occupation after having a child with two-thirds of these moving into clerical work.⁶⁰ The Gender and Employment in Local Labour Markets project found that 2.8 million women, 54% of all women working part-time, were working in part-time jobs which demanded lower qualifications, responsibility and skills than jobs for which they were previously employed.⁶¹

The common explanation for the noticeable increase in the GPG as women get older (see Figure 12 on page 22), particularly between age 35 and 45, is that interruptions to employment because of caring responsibilities are more likely. While there is credence to this explanation, it does not explain this increase in its entirety and does not explain why females who stay in the labour market still have 12% wage gap on average.

Motherhood has a demonstrable influence on the likelihood that a women will work part-time, with full-time work falling from 90% to just 40% on the birth of a first child.⁶² Many studies also have found a strong negative relationship between the number of dependents and female earnings, while no relationship exists for males. However, the EHRC notes that educational attainment has an important impact on this relationship. In its publication *How Fair is Britain* (2010), it notes that women with degrees have only a 4% loss in lifetime earnings as a result of motherhood compared

⁵⁷ Diana Kasparova, Nick Wyatt, Thomas Mills, Sam Roberts (2010), ‘Pay: Who were the winners and losers of the New Labour era?’, Provocation Paper No. 8, The Good Work Commission.

⁵⁸ Office for National Statistics, ‘Low pay estimates’, April 2008.

<http://www.statistics.gov.uk/pdfdir/lpay1108.pdf>

⁵⁹ OECD Economics Department (2004), ‘Female Labour Force Participation: Past trends and main determinants in OECD countries’, OECD.

<http://www.oecd.org/dataoecd/25/5/31743836.pdf>

⁶⁰ TUC, 2008.

⁶¹ Sue Yeandle, ‘Local Labour Markets and the Gender Pay Gap’, paper to the European Sociological Association Interim Conference, Lisbon, 6 -8 September 2006.

⁶² Diana Perrons (2009), ‘Women and Gender Equity in Employment – Patterns, progress and challenges’, IES Working Paper WP23.

to a 25% loss for those with mid-level qualifications and a 58% loss for those with no qualifications.⁶³

Caring responsibilities have an effect on the types of jobs that women can do as well as, importantly, the distance that women can travel to work. As the TUC notes, women are disproportionately responsible for the care of children, the elderly and disabled relatives and, due to the lack of support for individuals who wish to combine their caring duties with full-time employment, there are few alternatives to part-time work for these women.⁶⁴ The Work Foundation emphasise that, largely due to caring responsibilities, women's commuting time is constrained, further reducing job options.⁶⁵

Research by Manning and Swaffield found that half of the GPG is due to differences in labour market attachment and receipt of training, with the main cause being the breaks that women take from employment when they have children.⁶⁶ Manning notes:

“The problem is not that women are choosing one career – such as hairdressing – rather than another – such as plumbing. It is that they are continuing to choose family over career at some point in their life.”⁶⁷

However, caring responsibilities cannot explain the GPG that exists prior to taking on responsibilities for elderly or children. A study by the Equal Opportunities Commission (EOC) in 2002 based on a survey conducted in 1998, found that, three years after graduating, female graduates were earning less than males with degrees in the same subject and also earned less than males in the same industry and same occupation.⁶⁸

5.6 Valuation of women's work

The economic value placed on work disproportionately done by women is also seen to be a key contributor to the gap between male and female earnings. The review undertaken by the Women and Work Commission in the UK found that the definition of low skill jobs is based on stereotypical views rather than the actual skills required of the job. The view that 'women's work' is under-valued is widely recognised in the literature. For example, Chicha notes that:

“Influence of prejudices and stereotypes on job evaluation methods serves to reinforce and maintain gender pay disparities...traditional job evaluation methods overlooking or undervaluing important aspects of female jobs.”⁶⁹

Similarly, Perrons concludes:

“In many ways the organisation of the workplace and the domestic division of labour retain the imprint of a male breadwinner society which presents a challenge to gender equity within employment and in society more generally.”⁷⁰

⁶³ EHRC, 2010.

⁶⁴ TUC, 2008.

⁶⁵ Kasparova et al, 2010.

⁶⁶ Alan Manning and Joanna Swaffield (2005), 'The Gender Gap in Early Career Wage Growth', CEP Discussion Paper No. 700. <http://cep.lse.ac.uk/pubs/download/dp0700.pdf>.

⁶⁷ Ibid.

⁶⁸ Kate Purcell (2002), *Qualifications and Careers*, Equal Opportunities Commission.

⁶⁹ Chicha, M.T. (2006), *A Comparative Analysis of Promoting Pay Equity: Models and Impacts*

⁷⁰ Perrons, 2009.

A study by Grimshaw and Rubery for the EOC in 2007 looked into the valuation of women's work with respect to men's.⁷¹ They identify two main components of under-valuation – first, women are, on average, paid less than men for the same performance in the same jobs; second, the main jobs that women do tend to attract lower wages than the jobs men tend to do. The authors of the study outline five 'Vs' involved in creating differences between women and men's pay – see Box 2.

Box 2

The five Vs that create the gender pay gap (Grimshaw and Rubery, 2007)

Visibility – Women's skills are not recognised by pay and grading bands and as a result there is little room for career progression or promotion.

Valuation – Even where women's skills are recognised they are not given a high value. Valuation still tends to be based on a 'male skills model'.

Vocation – The assumption that women's skills are 'natural' underlies their low valuation.

Value added – Men's jobs tend to be in high value added processes, which lead to them being more highly rated, even where there is little difference between the skills involved.

Variance – Women's caring responsibilities underpins an idea that their work is in a separate sphere and part-time work is synonymous with unskilled work by both employers and women alike.

Stereotypes are also important in shaping career decisions well before entry into the labour market. While difficult to measure or isolate the impact of these factors empirically, most research recognises that social and cultural context plays an important role in shaping labour market decisions and outcomes.

5.7 Discrimination

Discrimination by employers refers to the preference for one type of employee to the exclusion of another based entirely on group membership.⁷² Discrimination takes two forms. 'Taste' discrimination is based on the individual preferences of the employer while 'statistical' discrimination is the result of having imperfect information about potential employees. In the latter case the employer anticipates future performance on the basis of elements of the individual's identity (such as race or gender) rather than solely on the basis of information that they have related to the past performance of the individual.

While it is typical to focus on one strand of discrimination at a time, the evidence suggests that discrimination can occur on the basis of intersections between elements of individual identity rather than on the basis of a single characteristic. As noted by Burri and Schiek:

“Gender discrimination occurs not only as isolated form of discrimination, but also affects women who simultaneously are suffering from discrimination on grounds of their racial and ethnic origin, their age, their disability, their sexual orientation and their religion or belief.”⁷³

⁷¹ Grimshaw and Rubery, 2007.

⁷² Becker, 1971.

⁷³ Susanne Burri and Dagmar Schiek (2009), *Multiple Discrimination in EU Law – Opportunities for legal responses to intersectional gender discrimination?*, European Network of Experts in the Field of Gender Equality.

Multiple discrimination is recognised by European Law in the equality related Directives 2000/43 and 2000/73. The Equality Act 2010 originally included provisions to bring cases of discrimination under a maximum of two protected characteristics but this provision is yet to be enacted.

5.8 Structural and institutional factors

Because the GPG explicitly draws attention to the difference between male and female pay, it often follows that analyses look at the differences between men and women in the labour market. However, the structural and institutional features of the labour market can have an important impact on the pay gap, particularly when assessing improvements over time. Organisations are also important and there are firm level factors that should be taken into consideration. Recent research suggests that occupational segregation and wage structure have played a greater role in recent changes to the GPG than gender specific characteristics, which have played only a minor role.⁷⁴ As Perrons notes:

“Focusing on individual variables tends to emphasise ‘gender deficits’ rather than context and overlooks how the work environment, labour market and wider economy are shaped by gendered norms and assumptions that operate to women’s disadvantage.”⁷⁵

The wage structure, that is the array of prices for labour and the monetary returns to skills, has an important effect on the GPG due to the distribution of male and female employees in different sectors and occupations. As Figure 14 show, the distribution of wages for female employees is considerably different from the distribution of wages for men. Compared to male wages, female wages are far more concentrated towards the lower end of the wage distribution with only a thin wedge earning above £700 per week. By comparison, male wages are distributed more evenly with a far larger proportion of employees earning over £700 per week.

As a consequence of these differing distributions, changes to the wage structure impact women differently for men. For example, one of the most important aspects of the wage structure with regard to the GPG is the wage floor or minimum wage. According to Blau and Kahn, because the female wage distribution lies below the male distribution⁷⁶, policies that consciously raise the minimum wage rate (irrespective of gender) will lower male-female wage differentials.⁷⁷ When there is rising inequality in wages, there is the opposite effect.⁷⁸

While minimum wage increases have been a positive influence on decreasing the GPG, Blau and Kahn’s research also finds that the occupations where males dominate have seen larger increases to wages than female occupations.⁷⁹ While the increase to skills does increase the GPG, Blau and Kahn report that this has been offset by improvements in gender-specific factors, such as improved educational outcomes.

⁷⁴ Plantenga and Remery, 2006.

⁷⁵ Perrons, 2009.

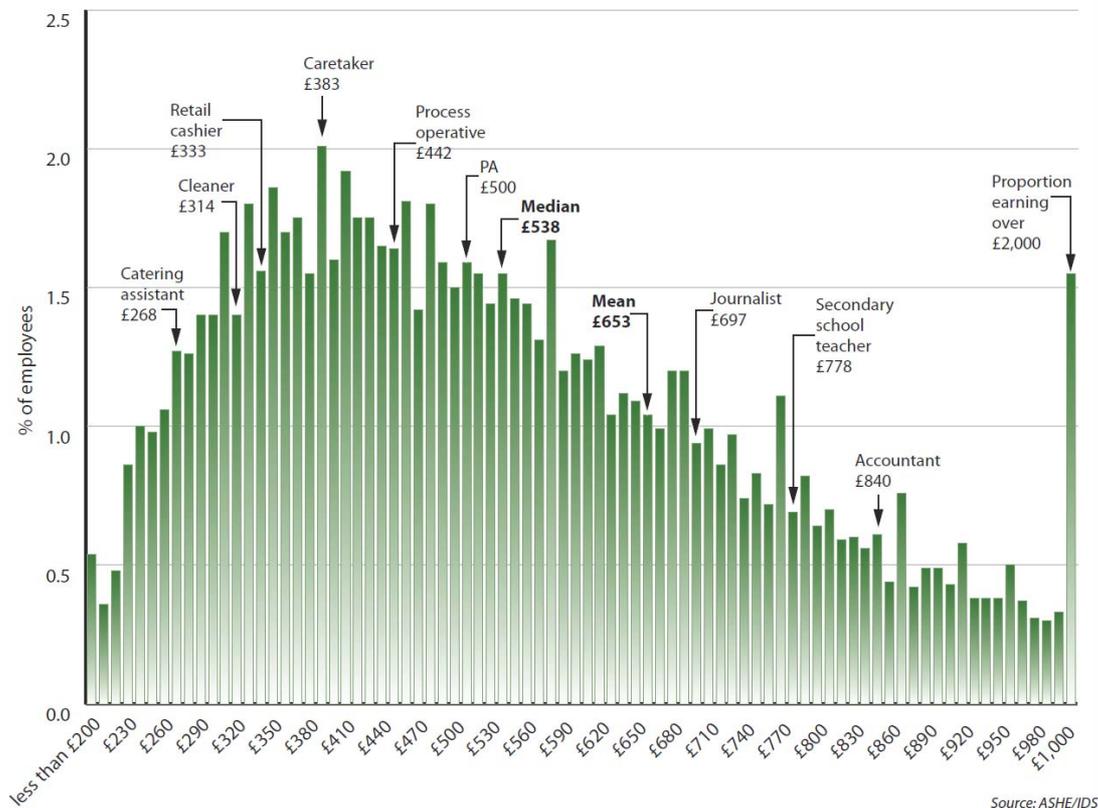
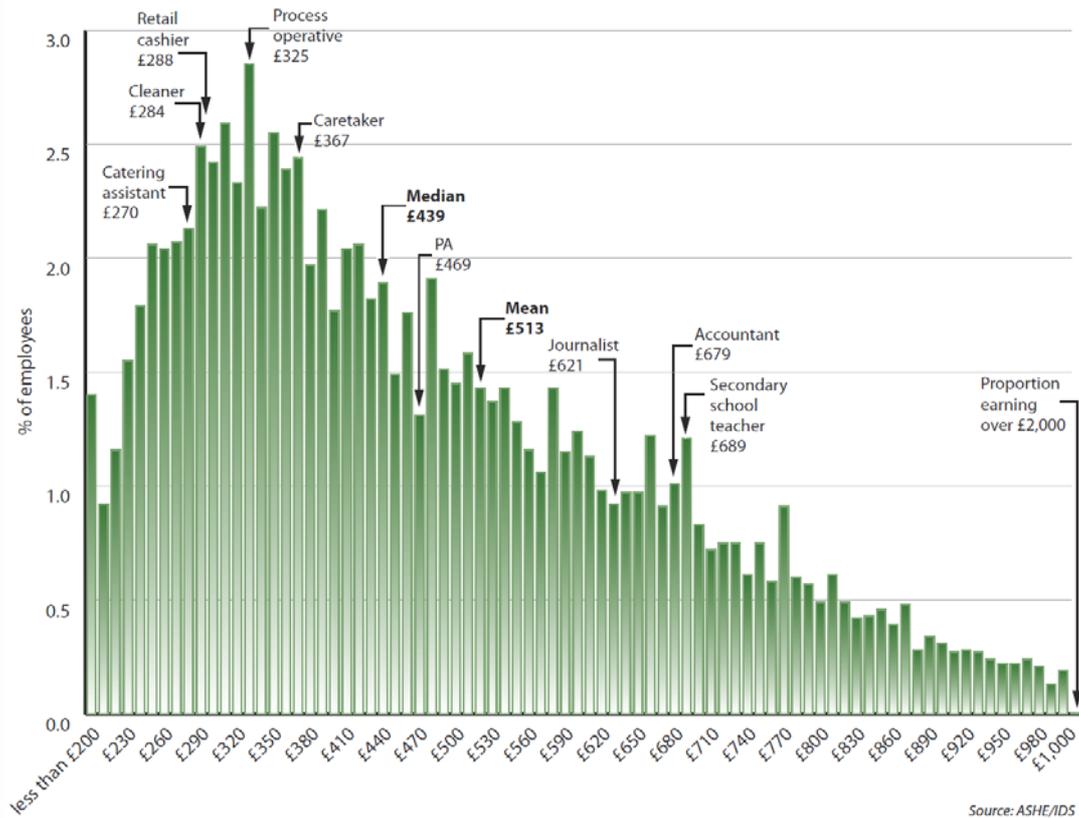
⁷⁶ Research by the Institute of Public Policy Research in 2006 found that 29% of women in employment were low paid compared to only 16% of men. Graham Cooke and Kayte Lawton (2008), *Working Out of Poverty*, IPPR.

⁷⁷ Blau and Kahn, 2000.

⁷⁸ Susan Harkness, ‘The Gender Earnings Gap: Evidence from the UK’, *Fiscal Studies* (1996), Vol. 17, No. 2, pp. 1-36.

⁷⁹ Ibid.

Figure 14: Distribution of gross weekly earnings for full-time female (top) and male (bottom) employees, April 2010



Reproduced with permission from Incomes Data Services, 2011.

A falling GPG does not always mean improving conditions for women workers. Because of the complex structure of the labour market and the wages assigned to individuals, improvements in the GPG in some parts of the labour market may mask deteriorations in other areas. Harkness notes that increasing wage inequalities may

disguise improvements in employment as a result of gender-specific factors and therefore emphasises that analyses must distinguish between the effects of both.

“Comparisons of male and female earnings may not be the best indicator of changes in the relative labour market position of women in a period of rapidly-rising wage inequality. This is because if, for example, returns to ‘skill’ rise, then women, because they have on average fewer labour market skills than men, will see a fall in their relative earnings. Thus while rising wage inequality disproportionately penalises women, the resulting fall in the mean gender earnings ratio does not reflect a deterioration in the relative labour market position of women as a result of gender-specific factors.”⁸⁰

As such, Harkness emphasises the importance of looking at changes to the GPG across the wages spectrum as improvements in the GPG do not necessarily occur uniformly across the labour market.⁸¹

The nature of industrial relations can also have a significant impact on the GPG. Analysis of the ‘WageIndicator’ dataset, which provides internationally comparable data on wages, found that trade union membership is positively correlated with a lower GPG among unionised employees in the majority of countries than for non-unionised employees.⁸² Similarly, Blau and Kahn explain that more unionised economies and companies tend to have lower overall wage dispersion and, because of the concentration of women in low-paid jobs, this tends to lead to a lower GPG.⁸³ They note that a considerable portion of the GPG in the US is a result of wage differentials that result from decentralised pay setting institutions.⁸⁴

Plantenga and Remery note that:

“The current trend towards a more decentralized and individualized system should in this respect be assessed as a rather worrying development. As wages are increasingly set at local or company level, inter-firm and inter-industry wage differences may increase, thereby potentially increasing the gender pay gap. In addition, the rise of a variable and performance-based pay system may increase the overall wage difference between men and women. In fact women seem to be swimming upstream: women with an improved educational background, fewer children and shorter periods of employment interruption are confronted with a labour market with growing wage differentials and a reduced share of collectively agreed wages and wage components. As a result, the differences in wages remain more or less the same. This conclusion emphasizes the need for effective policies targeting both female labour market participation as well as institutional factors like wage formation systems and the overall wage inequality.”⁸⁵

Despite strong indications that it has had a positive impact on the GPG, the evidence for centralised bargaining is not always clear cut. In a study on the gender wage gap in Australia, Britain, Japan and the US for the period 1969-1976, Gregory found that the institutions of wage determinations in these countries explained a significant proportion of the difference in progress on tackling the GPG.⁸⁶ In particular, the

⁸⁰ Blau and Kahn, 2000.

⁸¹ Harkness, 1996.

⁸² ITUC, 2008.

⁸³ Blau and Kahn, 2000.

⁸⁴ Blau and Kahn, 2000.

⁸⁵ Plantenga and Remery, 2006.

⁸⁶ Gregory in Anne Daly, Kawaguchi, Akira, Meng, Xin and Mumford, Karen A., The Gender Wage Gap in Four Countries (January 2006). IZA Discussion Paper No. 1921. Available at SSRN: <http://ssrn.com/abstract=878308>

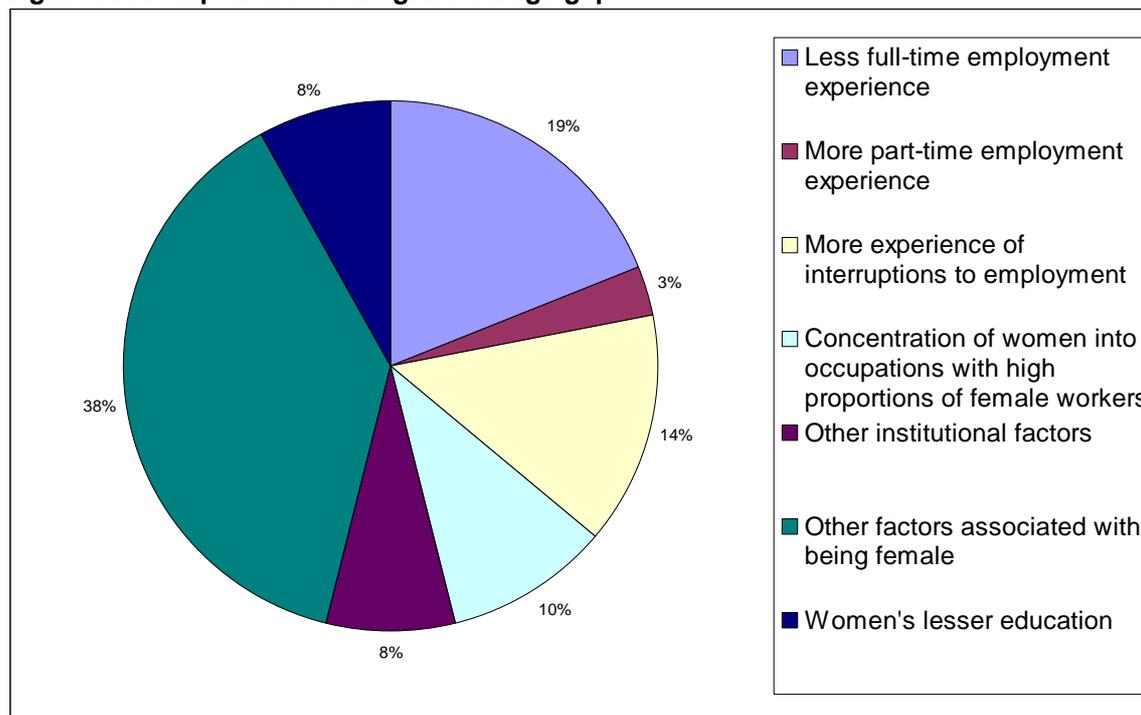
centralised systems of wage determination in Australia and Britain helped facilitate the implementation of equal pay in organisations while the low trade union density in the US led to less progress in comparison. However, a follow up study by Daly, Kawaguchi, Meng and Mumford in 2006 found that in more recent years the decentralisation of the Australian and British wage determination systems has not disadvantaged women in these countries.⁸⁷

5.9 Decomposition of the gender pay gap

There is no doubt that the GPG is influenced by a range of individual, institutional and structural factors. However, for the purposes of policy it is important to understand the relative strength of each of these factors in determining the GPG to inform strategies and policies to narrow the gap. There are a number of important studies that have investigated the personal characteristics associated with the GPG in the UK labour market.

One of the most commonly cited studies is by Olsen and Walby for the Equal Opportunities Commission (EOC) in 2004. Using data from the British Household Panel Survey⁸⁸, the authors identified the relative strength of different factors that contributed to differences in pay between women and men – see Figure 15.⁸⁹

Figure 15: Components of the gender wage gap



Source: Based on analysis of the British Household Panel Survey by Olsen and Walby, 2004. 'Other institutional factors' include the greater proportion of women working for smaller firms and the smaller proportion in a union or staff association. 'Other factors associated with being female' include direct discrimination and different preferences and motivations (some of which will be attributable to indirect discrimination or systematic disadvantage).

The strongest explanation, accounting for 36% of the pay gap was the gender differences in lifetime working patterns, followed by labour market rigidities, which accounted for 18% of the difference. According to the study, a further 8% of the gap

⁸⁷ Ibid.

⁸⁸ A weighted sample of around 10,000 adults in Britain.

⁸⁹ Wendy Olsen and Sylvia Walby (2004), 'Modelling Gender Pay Gaps', Working Paper Series No. 17, Equal Opportunities Commission.

<http://www.lancs.ac.uk/fass/sociology/papers/walby-modellinggenderpaygapswp17.pdf>

is explained by educational attainment while the remaining 38% is unexplained by unobservable characteristics and described as a combination of direct discrimination and differences in career preferences and motives. Through a regression analysis, Oslen and Walby were able to quantify how various changes in education and working patterns contributed to wages. Their significant findings are outlined in Table 1. The authors emphasise that the data shows that indirect discrimination and systemic disadvantage play a significant role in sustaining the GPG, it cannot simply be explained away by variations in education and working patterns.

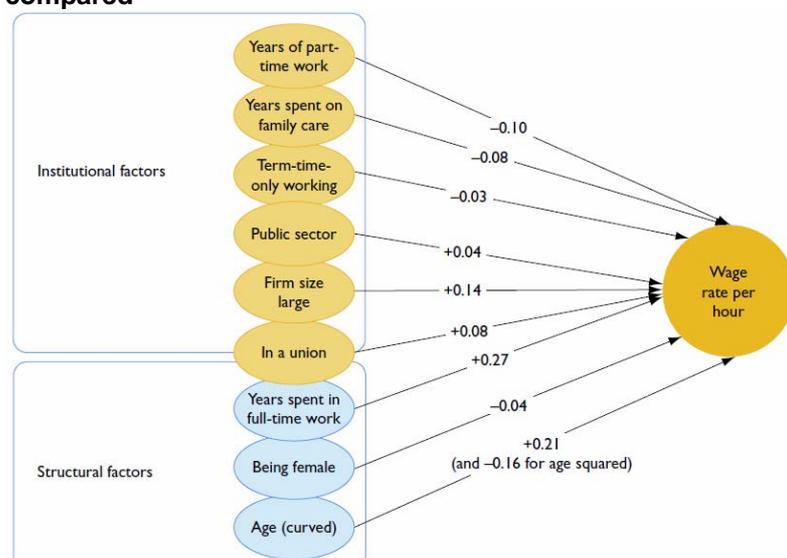
Table 1: Factors affecting women’s wages

Variable	Effect on hourly wages
One year of full-time education	6% increase
One year of full-time employment	3% increase
One year of part-time employment	1% decrease (in addition to missing out on 3% gains from one year of full-time employment)
One year of interruptions to employment (e.g. childcare)	1% decrease (in addition to missing out on 3% gains from one year of full-time employment)
Every 10 percentage points higher the proportion of men working in an occupation	1% increase
Other factors associated with being female, including direct discrimination, preferences, motivations and attitudes to the labour market.	9% decrease

Source: Based on analysis of the British Household Panel Survey by Olsen and Walby, 2004.

A similar analysis was undertaken by Olsen, Gash, Vandecasteele, Walthery and Heuvelman for a report published by the Government Equalities Office. The analysis found that years of part-time working and years spent on family care have the most negative impact on hourly wage rate while working in the public sector, for a large firm and being a member of a union have a considerable positive impact on wage – see Figure 16. Years of full-time working has the single most significant impact of any variable on average wages.

Figure 16: Institutional and structural drivers of the pay gap summarised and compared



Source: Olsen, Gash, Vandecasteele, Walthery and Heuvelman, 2010.

While this approach is adopted in numerous studies, there are limits to its explanatory power. Olsen and Walby identify two main criticisms in the literature; first, analyses of individual characteristics neglect factors associated with the structure and nature of firms and the labour market and second, there are many unobservable characteristics, the omission of which can lead to an over-estimation of the role of discrimination.⁹⁰ Research has found that non-individual factors such as industrial sector, union density and region all have an impact on the GPG in addition to individual characteristics.⁹¹

The value of these studies lies in their empirical nature and their ability to weigh the relative impact of different characteristics on the GPG. This has proved useful for policy makers who have been able to target interventions more effectively and efficiently. The final section of this report considers many of the conclusions and recommendations of the literature on how to narrow the GPG.

⁹⁰ Olsen and Walby, 2004.

⁹¹ Ibid.

6 Equal Pay and the gender pay gap in HE

No significant studies have investigated the GPG in HE in the UK but a number of publications by sector institutions and relevant trade unions have presented pay gap figures for various years and groups. There is no officially agreed upon model for calculating the GPG, which means that there is some variation in the figures that are provided, which makes direct comparisons difficult. The common separation of the workforce into academic and support staff complicates headline figures further. This section attempts to review the different measures provided and put them into context while this paper's conclusion considers the case for an agreed measure of the GPG.

6.1 Equal pay in the HE sector

Actions to modernise the workforce and organisational practices in HE have explicitly addressed gender equality. JNCHES also provided guidance in 2002, which was revised in 2007, on how to carry out equal pay reviews.⁹² In 2003, the HE employers and trade unions concluded the JNCHES Framework Agreement for the Modernisation of Pay Structures, a primary aim of which was to support the achievement of equal pay for work of equal value. The JNCHES pay agreement for 2006 – 2009 also included a strong recommendation that HEIs conduct an equal pay review within 12 months of introducing the framework and then conduct reviews regularly after that.

The sector has made recognisable progress in undertaking equal pay reviews with 80.4% having completed an equal pay review in 2010 compared to just 29.6% in 2007.⁹³ The Equality Challenge Unit (ECU) published an equal pay toolkit in 2010, which provides institutions with a resource detailing which employees the review should cover, what data is required and how data should be compared to identify significant pay gaps.⁹⁴

Since 2007, the Gender Equality Duty (GED) has placed specific obligations on public authorities as well as other scheduled employers including HE institutions. The GED requires employers to ensure that workplaces are free from sex discrimination and victimisation and to adopt an active approach to tackling gender inequalities. Specifically, the GED requires public authorities to undertake equal pay audits every three years and take action to address GPGs.

There are also examples of institutions that anticipated these changes, embarking on equal pay reviews well before the GED was in place. Sunderland, for example, was one of the first universities to undertake an equal pay audit and has published its GPG annually since 2003.⁹⁵ During this period the GPG at the university has fallen from 20.3% to 15%.

6.2 Gender pay gap in the HE sector

As with the UK workforce as a whole, the GPG in the HE sector varies depending on the measure and dataset used. In its yearly publication on pay in the public sector, Income Data Services (IDS) reports the GPG in HE based on ASHE data on teaching professionals, excluding a large proportion of the workforce who work in non-teaching roles.⁹⁶ The Equality Challenge Unit's *Equality in Higher Education – Statistical Report* for 2009 uses full-time salary data from HESA giving an overall

⁹² JNCHES (2007), 'Equal Pay Reviews – Guidance for Higher Education Institutions'.

⁹³ New JNCHES (2010), 'Results of the 2010 Survey of Equal Pay Reviews', UCEA.

⁹⁴ Sue Hastings (2010), 'Promoting equality in pay: A practical resource for conducting equal pay reviews in higher education', ECU.

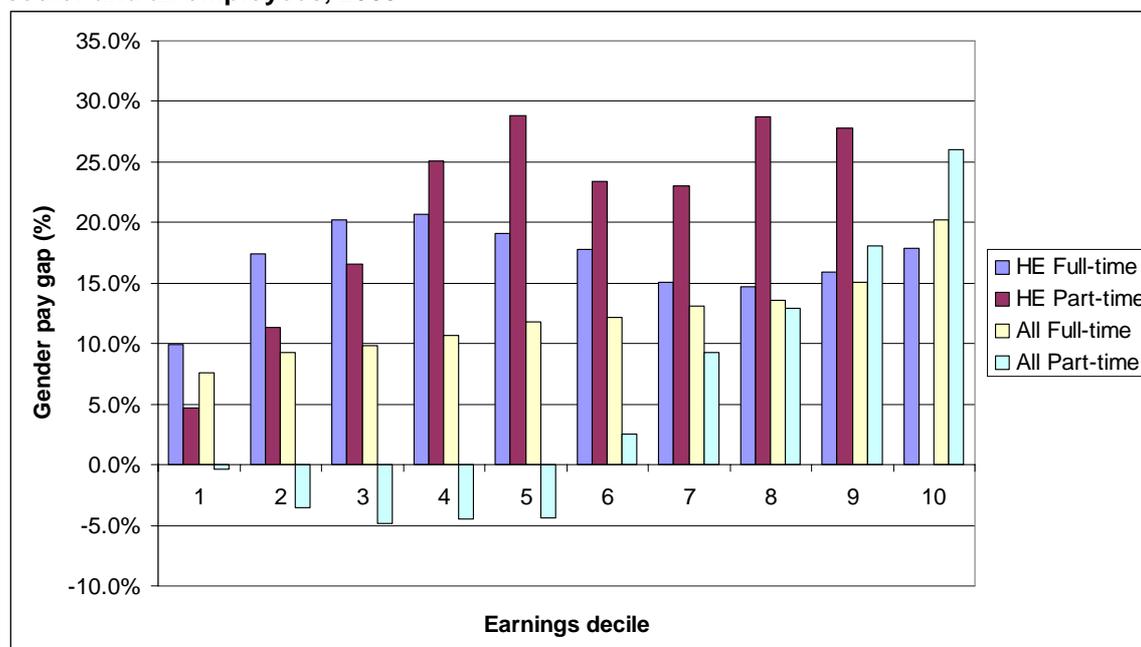
⁹⁵ Lewis and Smees, 2009.

⁹⁶ See Income Data Services (2010), *Pay in the public services 2010*, IDS.

median GPG of 18.2%.⁹⁷ While this data includes support staff, it does not account for differences in hours of work, which for reasons addressed earlier can distort the GPG. The JNCHES *Review of Higher Education Pay and Finance Data* reports the GPG in the sector based on mean hourly earnings, giving a GPG of 20.3% in 2008, compared to a UK wide GPG of 17.1% by the same measure.⁹⁸

According to ONS ASHE data for 2009, the GPG in the HE sector based on median full-time hourly earnings excluding overtime is 18.6% and 18.5% based on the mean. The corresponding figures for all employees in the UK are 12.2% and 16.4% respectively. The part-time GPG is 26.5% based on the median and 22.5% based on the mean (-2.0% and 13.2% respectively for all employees). The gender pay gap is relatively lower at the bottom end of the wage distribution, increasing for both full-time and part-time workers and peaking at the 30th percentile (20.6%) for full-time workers and the 40th percentile for part-time workers (28.8%) – see Figure 17. The GPGs by percentile are noticeably different from the economy as a whole, which has a lower GPG at each decile, except for the 90th decile for full time employees. The difference between HE GPG at each decile and the gaps for all employees are more significant than the differences for full-time pay.

Figure 17: Gender pay gap by percentile, full-time and part-time employees in the HE sector and all employees, 2009



Source: ASHE 2009 table 16.a.

According to the analysis by IDS, the GPG for teaching professionals (12.7%) is lower than the figure for the HE sector as a whole (18.5%) but is higher than all other HE teaching professional groups - Table 2. However, the gap in HE has reduced significantly from 2008, when it was 16.3%, while the pay gap between men and women in primary and nursery education and further education has increased.

⁹⁷ ECU, 2009.

⁹⁸ JNCHES (2008), *Review of Higher Education Pay and Finance*, UCEA.

Table 2: Gender pay gap for full-time teaching professionals in 2009

Education sector	Males £ph	Females £ph	GPG % 2009	GPG % 2008
Primary and nursery education	22.40	20.29	9.4	9.0
Secondary education	23.20	20.57	11.3	11.6
Further education	19.59	17.96	8.3	7.3
Higher education	26.84	23.43	12.7	16.3

Source: IDS / ASHE, 2009. Average hourly rates excluding overtime payments.

Further detail on occupational specific gender pay gaps is available from an analysis of ASHE data specially commissioned by UCEA for the updated chapters of the *JNCHES Review of Higher Education Pay and Finance Data*. Unfortunately, these figures are not directly comparable to standard measures since the figure is based on gross hourly pay. As Table 3 shows, double digit gaps exist on both the mean and median measure for full-time managers and senior officials, professional occupations, skilled trades occupations and elementary occupations. The lowest pay gaps for full-time employees are for associate professional and technical occupations and personal service occupations. For part-time employees the gender pay gap for associate professional and technical occupations and administrative and secretarial occupations is negative, indicating a gender pay gap in favour of women.

Table 3: Gender pay gap by occupation in HE, 2009 (based on gross hourly pay including overtime)

	FT GPG Median	FT GPG Mean	PT GPG Median	PT GPG Mean
Managers and Senior Officials	12.3%	17.1%	*	*
Professional Occupations	10.6%	17.0%	6.6%	9.5%
Associate Professional and Technical Occupations	5.0%	8.8%	-6.7%	-13.3%
Administrative and Secretarial Occupations	-3.0%	10.1%	-19.7%	-13.2%
Skilled Trades Occupations	14.5%	24.6%	*	*
Personal Service Occupations	4.4%	7.1%	3.8%	15.5%
Elementary Occupations	21.4%	25.0%	-1.6%	5.3%

Source: ASHE, 2009. Special ONS dataset commissioned for UCEA. Sample sizes for "Sales and Customer Service Occupations" and "Process, Plant and Machinery Occupations" are too small to be reliable. * Non-disclosable.

UCU research from 2007 suggested that the gender pay gap for academic staff in HE was 14.1%, although this was based on HESA data on monthly wages and therefore it is difficult to directly compare with other measures.⁹⁹ However, the UCU paper is useful in demonstrating the range of gender pay gaps that exist across institutions. For example, within Russell Group institutions the gap, based on UCU's measure, is 18.5% compared to 6.8% in post-92 institutions.

UCU note that the reasons for the significant difference between pre and post -92 institutions include:

- The number of clinical academics at pre-92 institutions who tend to have large pay gaps in favour of male employees.
- Pre-92 institutions employ more lower-paid research only academics, who are more likely to be female.

⁹⁹ University College Union, 'Gender pay gaps and higher education institutions 2005-06', June 2007, UCU. http://www.ucu.org.uk/media/pdf/h/9/ucu_genderpay05-06.pdf

Table 4: HEI groupings and gender pay gaps for academic staff, 2005-06

	Number of institutions	Average gender pay gap
The Russell Group	20	18.5%
Other pre-92	28	15.4%
1994 Group	18	15.0%
Post-92	53	6.8%
HE/specialist college	16	5.6%

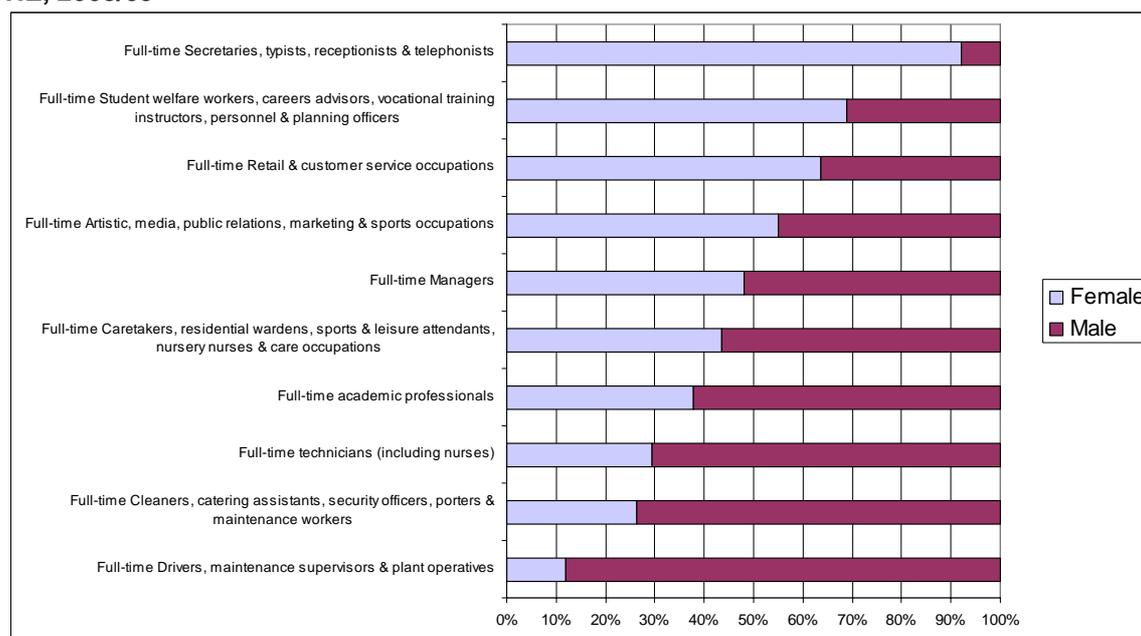
Source: UCU, 2007. Based on HESA full-time annual salary data.

6.3 HE workforce characteristics relevant to the gender pay gap

While an in-depth analysis of the gender differences within the HE workforce is not within the scope of this review, it is worthwhile to highlight some of the key characteristics of the HE workforce that relate to the determinants of the GPG as identified in previous sections.

Women comprise a slight majority of the sector workforce (53.6%¹⁰⁰) but representation is not consistent across different sub-groups. As Figure 18 shows, females are disproportionately represented in secretarial roles, administrative and customer service roles but under-represented in managerial, academic and technician roles.

Figure 18: Gender split by occupation for full-time employees (excluding atypical) in HE, 2008/09



Source: HESA, 2008/09, Table 5.

Women tend to be under-represented within senior roles in HEIs. Within full-time academic roles, only 6.5% of women are professors compared to 17.3% of male staff, who comprise 81.4% of all full-time professors.¹⁰¹ According to the EHRC, just 14.4% of vice-chancellors were female in 2007/08 compared to 31% of further education college principals and 34% (2006) of head teachers in secondary schools. However, these figures are similar to representation in HE across the EU, where women fill on average 44% of posts at lecturer level but only 18% of professorial chairs and 9% hold head of institution positions.¹⁰²

¹⁰⁰ Excluding atypical staff, HESA, 2008-09.

¹⁰¹ HESA, 2008-09.

¹⁰² Phil Baty, 'What's sex got to do with it?', *Times Higher Education*, 30.9.2010.

<http://www.timeshighereducation.co.uk/story.asp?sectioncode=26&storycode=413686&c=2>

% of women in selected top jobs (EHRC, 2008)

	2003	2004	2005	2006	2007/08
Further education college principals	25.8	28	27.5	30.7	31.4
University vice-chancellors	12.4	15	11.1	13.2	14.4
Trade union general secretaries	18.3	16.9	22.4	23	20.7
Head teachers in secondary schools	30.1	31.8	32.6	34.1	N/A
Local authority chief executives	13.1	12.4	17.5	20.6	19.5
Directors in FTSE 100 companies	8.6	9.7	10.5	10.4	11

There are considerable differences between the prevalence of part-time working among male and females working in the HE sector. Almost half of the women (45.2%) working in the sector work part-time, with significant variation by occupation. As Table 1 shows, 84.1% of females working in cleaning, catering, security, porter and maintenance occupations work part-time as well as 59.2% of female technicians and 54.2% of female managers. There are also noticeable differences within academic positions. While the proportion of teaching-only staff working part-time is similar, 26% of female teaching and research staff are part-time compared to 14% of male staff – see Table 6. Similarly, 25% of female research-only staff are part-time compared to only 10% of male staff.

Table 5: % of female staff that work part-time by occupation

Occupation	% of female staff that work part-time
Cleaners, catering assistants, security officers, porters & maintenance workers	84.1%
Technicians (including nurses)	59.2%
Managers	54.2%
Secretaries, typists, receptionists & telephonists	43.0%
Retail & customer service occupations	40.7%
Academic professionals	39.4%
Caretakers, residential wardens, sports & leisure attendants, nursery nurses & care occupations	38.5%
Drivers, maintenance supervisors & plant operatives	31.1%
Student welfare workers, careers advisors, vocational training instructors, personnel & planning officers	31.0%
Artistic, media, public relations, marketing & sports occupations	16.5%
Total	45.2%

Source: HESA, 2008/09.

Table 6: % of academic staff that is part time by gender, 2008/09

Academic Staff Group	Male	Female
Teaching only	81%	83%
Teaching & research	14%	26%
Research only	10%	25%
Neither teaching nor research	12%	22%

6.4 Academic research on the gender pay gap in HE

A small number of academic studies in both the US and the UK have looked at gender differences in pay in the HE sector. A study by Booth, Frank and Blackaby, looking at academic economists in the UK, found both a (within rank) gender pay gap

and a gender promotions gap.¹⁰³ The research found that a significant contributing driving factor to the GPG in this group was the role of outside offers, which tended to increase male pay disproportionately. A study on the status of women in the science faculty at the Massachusetts Institute for Technology found that marginalisation increased as women progressed through their careers and tenured women felt marginalised and excluded from a significant role in their departments.¹⁰⁴ This marginalisation was accompanied by differences in salary, space, awards, resources, and response to outside offers – as a result women earn less than men with comparable professional accomplishments. Ward's study on Scottish academics (across disciplines) found that the gender gap was explained by rank rather than within-rank differentials, a similar conclusion to that of Ginther and Hayes's study of US humanities academics.¹⁰⁵

Research by Connolly and Long on career progression for female scientists found that that female scientists do face a glass ceiling, although the point at which this happens depends on career in academia or research career and happens where promotion to the next stage is most demanding and difficult.¹⁰⁶ In academic science this is promotion from senior lecturer to professor – in research from scientist to senior scientist (sticky floor). Controlling for experience, responsibilities, and productive characteristics, women in universities are less likely than men to be promoted to top positions (a Chair) and in research positions less likely to be promoted out of post-doctoral posts.

7 Addressing the gender pay gap in HE

The evidence reviewed in this paper indicates that the gender pay gap is simple to understand as a measure but complex to interpret. Understanding the labour market context and the trends in female workforce participation are important as are the various factors that have been identified as contributing to the gap between male and female pay. Occupational segregation, glass ceilings, part-time working, labour market attachment and educational attainment all contribute to differences in wages between the sexes as do structural and institutional features of the labour market such as the wage structure and systems of pay setting. As research has shown, these factors have differing relative effects on the gender pay gap, with part-time working and time away from the labour market topping the list of key determinants.

The gender pay gap is not entirely explained by the characteristics of women in employment vis-à-vis men or the structural and institutional aspects identified. Gender discrimination, stereotyping and organisational cultures are still believed to play a role in the differences between the pay of women and men and thus measures to tackle these sources of inequality are still necessary.

This review shows that just as there are a number of contributing factors, there are a number of potential ways to tackle the gender pay gap. Promisingly, research indicates that interventions can have a positive effect at the national, local and organisational level. HE institutions and sector bodies have, therefore, an important

¹⁰³ Alison Booth, Jeff Frank, David Blackaby (2002), 'Outside Offers and the Gender Pay Gap: Empirical Evidence from the UK Academic Labour Market', *The Economic Journal*, Vol. 115, Issue 501, pp. 81 – 107.

¹⁰⁴ MIT, 1999, 'A study on the status of women faculty in science at MIT', *MIT Faculty Newsletter*, 11(4) Special Edition, March.

¹⁰⁵ Ward, 2000; Ginther and Hayes, 1999, 2000.

¹⁰⁶ Sarah Connolly and Susan Long (2008), "Glass ceilings – thicker at the top? Evidence on career progression for scientists from the UK", Discussion Paper No. 2008-1, The UEA Economics Research Centre.

role to play in addressing the gender pay gap in the sector. Indeed, institutions in the sector have made significant progress in modernising pay and progression systems and structures, which has improved the differential between men and women's wages.

By the same measure, institutions are not wholly responsible for the gender pay gap. Labour market structures, trends in female workforce participation and the attitudes of society are largely outside the control of higher education institutions and they can only affect change within their sphere of influence. For example, there is evidence that more neutral tax treatment of second earners in a household compared with single earners leads to an increase in female labour market participation.¹⁰⁷ This is not a get out clause for institutions, but merely recognition of the complexity of the problem.

To conclude this paper we set out policies that are proposed in the literature based on empirical evidence of success. What should be apparent is that these policies do not just focus on pay. As has been highlighted, the gap between men and women's pay within an organisation and within the economy exists for a range of reasons, the most important perhaps being the ability of women to access quality work opportunities throughout their career. The principle of many of these policies is to create an enabling work environment and the evidence suggests that this has rewards for both employer and employee alike.

Flexible working and 'family friendly' practices

Employers already have a number of statutory duties relating to flexible working and parental rights. For example, carers of both adults and children have the right by law to request flexible working arrangements to be considered by their employer and parents are entitled to both leave and statutory pay for new children. The Government has also improved access to childcare with 3 and 4 year olds guaranteed a free place in early education for 38 weeks of the year.

Flexible working practices are not only beneficial to employees but also to employers. Flexible working practices have been shown to improve retention and recruitment of women as well as improving productivity and performance. For example, according to a study by Bain & Co. covering 3,300 professional men and women, offering flexible models in high-pressure jobs improved retention of women by up to 40% and up to 25% for men.¹⁰⁸

The TUC recommends that support should be increased for all workers taking on caring responsibilities as this is vital to tackle the disproportionate share taken by women at home and will improve their opportunities and choices in the labour market.¹⁰⁹ Specifically, the right to work flexibly should be extended to all workers, there should be increased investment in childcare provision.¹¹⁰

A study by the OECD found that childcare subsidies and paid parental leave increase labour market participation among women while the provision of child benefits reduces it. While paid parental leave improves labour market attachment, there is a negative effect on earnings after 20 weeks of paid leave, suggesting the effects of weakened skills and more difficulty re-entering labour market at the previous level. Childcare support primarily boosts full-time participation.

¹⁰⁷ OECD.

¹⁰⁸ <http://www.worldatwork.org/waw/adimComment?id=43955&rssaccess=newsline-rss>

¹⁰⁹ TUC, 2008.

¹¹⁰ Ibid.

Transparency

Equal pay audits play an important role in identifying and addressing the gender pay gap. Transparency in pay can act as a driver for action on the GPG as it opens up institutions and organisations to examination, hopefully improving discussions and actions towards addressing any significant issues. The importance of improving transparency in pay has been a key part of recent government policy and legislation and there is currently a duty on public authorities to have due regard to the need to eliminate unlawful discrimination and harassment and promote equality of opportunity between men and women.

‘Good’ part-time work opportunities

The lack of part-time work opportunities for medium to high skilled individuals significantly affects the ability of women to combine caring duties and appropriately matched employment. The evidence suggests that downgrading job responsibilities is common following childbirth and that this is not necessarily a choice made by the woman. Part-time work is generally offered for low-paid, low-skill occupations with little career progression and as such every year working part-time has a negative effect on long-term income prospects. Among others, the TUC recommends that the availability of high quality and well paid part-time work should be increased to improve the matching of skills and experiences to women's employment.¹¹¹

Training

Providing women with enhanced opportunities for training and development is a key recommendation of the Government Equalities Office report on addressing the gender pay gap. The research study that informed the policy recommendations found that training is associated with higher wages and that giving women training at work could increase their workforce attachment.¹¹²

Tackling discrimination and stereotyping

Discrimination continues to be a factor in the gender pay gap and active steps to address this in the workplace will need to continue. The new Equality Act 2010 should ensure that equality and diversity issues remain on the agenda and the new provisions that allow employees to claim discrimination under two protected characteristics strengthens current legislation reflecting the existence of multiple discrimination that could not easily be claimed under previous law.

Representation

Women tend to be under-represented in senior roles in the HE sector in both academic and support roles. The proportion of females leading universities and HE colleges does not compare favourably to the composition of leaders in secondary and further education. Significant improvement in the representation of women at senior levels is likely to have a big impact on the GPG among academic and support staff, but, given low workforce turnover in the sector, this can only be achieved over the long-term. The Athena SWAN Charter, which recognises and celebrates good employment practice for women working in science, engineering and technology (SET) in the sector is important in this regard, although it is not comprehensive in its scope and membership.¹¹³

¹¹¹ TUC, 2008.

¹¹² Olsen, W. Vanessa Gash, Leen Vandecasteele, Pierre Walthery and Hein Heuvelman (2010), The Gender Pay Gap in the UK 1995–2007: Part 2 – Policy related factors offsetting women's low pay in the UK, 2004–07, Government Equalities Office.

http://www.equalities.gov.uk/pdf/301113_GEO_GenderPayGap_Part2_acc.pdf

¹¹³ <http://www.athenaswan.org.uk/html/athena-swan/>

Pay systems

The way in which pay is determined within organisations can have significant impacts on GPGs within the organisation. Policies around, *inter alia*, starting salaries, pay progression, performance related pay and market supplements can have both positive and negative effects and are often the first area of focus following an equal pay audit.

Unions and collective bargaining

International comparative research has found that those countries and industries that have strong union density are more likely to have lower than average gender pay gaps. This is also supported by firm level analyses. The National Minimum Wage is also important in setting a wage floor, which disproportionately affects women and has had a positive effect on the GPG.

While it is difficult to determine the direction of causality, and it may be that this merely reflects the nature of the, largely public sector, employers that have retained union representation, the evidence is strong enough to support the idea that trade unions have an important part to play in improving the pay of women and ensuring that employers pursue routes to achieve equal pay for work of equal value.

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