New JNCHES

Higher Education gender pay gap data

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New Joint Negotiating Committee for Higher Education Staff

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New JNCHES: Higher Education gender pay gap data

Foreword

We are delighted to present here the report from the work commissioned in 2015-16 through New JNCHES examining gender pay gap data in the higher education (HE) sector. This is the first time of which we are aware that this level of analysis has been done and we believe the data now presented provide both greater insight into the nature of the pay gaps observable in HE and also provide a platform from which future HE sector benchmarking can be done.

The gender pay gap figure measures differences in pay between men and women and, at sector level, includes jobs of different size and level. It should perhaps be emphasised that any pay gap is not of itself an indicator of a failure to provide equal pay for work of equal value but, more often, of the different representation of men and women at higher grades or levels. The HE sector has a strong track record in equal pay auditing, as earlier JNCHES reports have shown, and we continue to emphasise the importance of this activity, alongside examination of gender pay gaps, at regular intervals to check the efficacy of grading and job evaluation systems. Chapter 7 of this report identifies the New JNCHES guidance and materials that have supported progress in this area.

This report goes further in its sector-specific analysis by looking at pay gaps and gender balance at contract level, thus giving a new degree of granularity to the data. The levels are however still broad and, at sector level, will inevitably fail to differentiate for geography or institution type but, perhaps most critically, for discipline or specialism. There is also some analysis, where the data are sufficiently reliable, of the part-time workforce and this is an important dimension we encourage institutions to consider. We are pleased that the concerns with sector-level data reliability for part-time senior staff surfaced through this joint work have been taken forward by HESA and will be addressed in its next data collection. While there are complicated questions around both women's choices and opportunities regarding part-time employment, employers undoubtedly need to examine their data for part-time and for fixed or short-term employees in their pay gap analysis and their consequent action planning.

The issues behind gender pay gaps are complex and societal and while not all addressable by individual employers the July 2015 New JNCHES Gender Pay Working Group Report identified a wide range of actions being taken by HE institutions. We can be encouraged by the data in this report which show that progress is being made in closing gender pay gaps within HE; also looking at comparison data beyond HE it is possible to see, for example, that overtime and bonuses can be a contributing factor in many sectors but do not appear to be significant in our sector analysis. However, we can equally see that more needs to be done. While the overall trend in HE is positive, we can clearly see the issue with lack of representation of women in more senior roles in our sector and this certainly points to one area where there is more to be done. While beyond the scope of this report, we also need to be mindful of pay gaps for other staff who belong to a protected characteristic – for example, race pay gap and disability pay gap – and of the issues for people who have more than one protected characteristic.

We now have Government action, as well as commitments in the devolved nations, to ensure that gender pay gap reporting is integral for all large employers with a requirement for open reporting on gender pay across their organisation. The examination of gender pay gaps is an extremely useful exercise in highlighting areas for further investigation. New JNCHES guidance has identified particularly that those above 5 per cent should be examined but we also note the EHRC recommendation to examine where data show a pattern of within grade gaps above 3 per cent.

We hope that HE sector employers will be able to draw some additional insights from looking at and making use of the benchmarking data now available in this report and its accompanying interactive charts. Views will be sought on its usefulness, with the aspiration being to continue to produce the core data and charts for the recommended benchmarks.

We know that it is not enough simply to examine the data but that organisations need to address the challenges that their data present and develop their own action plans to enable all talent to progress in their organisation. We know that the recognised trade unions will be an important partner in this and encourage institutions to work with them on this important shared agenda.

Helen Fairfoul

Chief Executive, UCEA
and on behalf of
participating HE employers

Donna Rowe-Merriman

Senior National Officer, Education and Children's Services, UNISON
and on behalf of the officers of GMB and EIS

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1 Executive summary

The findings in this report analyse the gender pay gap and balance within HE and compares them with other parts of the UK economy where data are available.

This report builds on previous New JNCHES work, which included a literature review on the factors affecting the gender pay gap and case studies on what higher education (HE) institutions are doing to tackle them (see chapter 7).

The interactive charts which accompany this report provide a more comprehensive view of the trends and the key findings are summarised below:

- An analysis of basic salaries collected by HESA reveals that the gender pay gap for full-time staff has narrowed for both academic and professional services staff groups (Figure 1). Between 2003/04 and 2014/15, the median gender pay gap for full-time academics narrowed from 10.3 per cent to 5.7 per cent, while the median gender pay gap for full-time professional services staff narrowed from 12 per cent to 5.7 per cent. A small uptick in the median, though not mean, academic data from 2013/14 to 2014/15 is noted and this points to the case for regular reporting of the data.

- There are more significant pay gaps (outside ±5 per cent boundaries[1]) for full-time senior staff than full-time staff on the 51-point pay spine (Figure 4 and Figure 7). HESA data typically show that no significant median pay gaps appear where women made up at least 40 per cent of the full-time employee group.

- There were no pay gaps within contract levels for part-time staff on the 51-point pay spine in 2014/15, except in four levels where pay gaps were in favour of women (Figure 5). Pay gaps for part-time senior staff were not analysed in this report because of data reliability issues but the figures have been included in the interactive charts. UCEA has taken forward the reliability issue and has secured HESA's agreement to improve the reliability of salary data by implementing tighter validation rules in the staff record from 2015/16 (see chapter 6.4).

- Unlike in the whole economy, pay gaps in the HE sector do not significantly vary by overtime pay or bonuses (Figure 9 and Figure 10), according to the Office for National Statistics' (ONS) Annual Survey of Hours and Earnings (ASHE).

- The pay gap in the HE sector shows a downward trend, and has fallen more rapidly compared to the whole economy particularly in the last five years, according to the ONS (Figure 11). Looking at hourly earnings excluding overtime, the gender pay gap in HE narrowed from 18.9 per cent to 11.1 per cent. In comparison, the gender pay gap in the

[1] In this report a 'significant' pay gap is where the figure is outside the ±5 per cent boundary. However it should be noted that 'recurring differences of 3 per cent or more merit further investigation' according to the Equality and Human Rights Commission's equal pay review guidance for larger organisations: www.equalityhumanrights.com/en/multipage-guide/step-4-causes-gender-pay-differences
The New JNCHES guidance on equal pay reviews within institutions says that pay gap analysis should 'identify any instances (by grade or by job) where the pay gap is significant (i.e. exceeds 5 per cent).' www.ucea.ac.uk/en/publications/index.cfm/epr13

whole economy fell less rapidly, from 15.5 per cent to 9.6 per cent. The wider education sector, which covers all phases including HE, has seen a small increase in its gender pay gap over the same period, from 10.1 per cent in 2002 to 10.8 per cent in 2015.

- In 2015, seven out of eight HE major occupations have gender pay gaps which are in line with or lower than 'Not HE' counterparts based on full-time hourly earnings excluding overtime. The exception is elementary occupations where the pay gap is 20 per cent in HE compared to 13.3 per cent for 'Not HE' comparators. Were any HE institution to find such a gap across their 'elementary occupation' grades it would naturally point to a need to understand the causes.

- The Steering Group for this project recommends that the following time series sector benchmarks be updated annually so that HE institutions may compare their progress against the sector. These benchmarks will be published annually on the UCEA website and the data may be linked to the trade unions' websites (see box below).

Recommended sector benchmarks

1. Median and mean gender pay gap by full-time staff category using HESA staff data (Figure 1).

2. Median gender pay gap by contract level for full-time staff using HESA staff data (Figure 4 and Figure 6).

3. HE, education whole economy median and mean pay gaps for full-time employees using ONS ASHE data (Figure 11).

4. Median gender pay gap by HE and 'Not HE' full-time professional occupations using ONS ASHE data (Figure 14)

5. Median gender pay gap by HE teaching professionals in the sector, HE teaching professionals not in the HE sector and secondary teaching professionals for full-time employees using ONS ASHE data (Figure 20).

2 Background and purpose

The purpose of this project is to provide high quality benchmarking data and like-for-like analysis on the gender pay gap in HE. The project fulfils a commitment made by the parties to the New JNCHES 2015-16 pay round, to work together to produce the following agreed outputs:

- A report which analyses current and historical gender pay gap and gender balance in higher education as well as benchmark comparators where available. Analysis would include gender pay gap and gender balance within HE by contract level and also occupational comparisons outside HE where possible.

- As part of the report, a recommendation for an approach to sector gender pay gap benchmarking, using figures which can be easily tracked and reported year on year.

- Interactive charts of a selection of gender pay gap and gender balance benchmarks in Excel or Tableau (published on the UCEA website), which will enable individuals to do their own analysis.

The report adds to previous New JNCHES research which has included reviewing the literature on why the gender pay gap exists and case studies on what HE institutions are doing to tackle them (see chapter 7).

3 Membership of the project Steering Group

The members of the Steering Group convened to manage this project, which consisted of representatives from all five New JNCHES trade unions and employer representatives, are listed below. The Equality Challenge Unit (ECU) was also represented at the meetings and provided assistance during the production of this report. **Representatives of the Technical Group are highlighted in bold.**

Employers

Sue Chambers, Aberystwyth University
Helen Fairfoul, UCEA
Laurence Hopkins, UCEA
Hayfa Mohdzaini, UCEA
Andrew Mullen, University of Manchester
Naina Patel, University of the Arts London

Trade unions

Andrea Bradley, EIS
Alison Carlisle, GMB
Helen Carr, UCU
Bridget Henderson, Unite
Sharon Holder, GMB
Liz Lawrence, UCU
Robert Massie, Unite
Davena Rankin, UNISON
Donna Rowe-Merriman, UNISON

Equality Challenge Unit

Ellen Pugh, ECU

4 Findings

In this chapter we explore the gender pay gap and gender balance for different staff groups using data from HESA and the Office for National Statistics (ONS).

For brevity, only a selection of the gender pay gap and balance charts are included in the report. Readers are encouraged to explore the interactive charts which accompany this report.

4.1 Gender pay gap and balance by HE staff categories

According to HESA staff data, the gender pay gap for the sector has significantly narrowed over the last decade. The median gender pay gap fell from 21.7 per cent in 2003/04 to 13.1 per cent in 2014/15 (see the line with square markers in Figure 1). The mean gender pay gap fell from 18.9 per cent in 2003/04 to 14.1 per cent in 2014/15 (Figure 2). Note that between 2013/14 and 2014/15, while the academic pay gap saw an uptick at the median, a downward trend continued at the mean. Conclusions cannot be drawn from one year's data but such movements affirm the importance of regular data reporting. These figures are based on the median and mean annual basic salaries[2] of men and women across full-time roles.

The Equality and Human Rights Commission's guidelines on the analysis of pay data to carry out equal pay audits in large organisations state that 'there are benefits in presenting both the median and the mean together when describing average pay'. The median tends to be less affected by the presence of a small number of high earners and the mean can capture differences across distribution. In line with these guidelines, the report provides both the median and the mean gender pay gap by full-time staff category in HE. These can be found both in the report and in the accompanying tables.

The gender pay gaps are much lower than the sector figure when we consider academic and professional services staff separately. This is because the pay distributions for the two populations are different – professional services staff tend to be paid less than academics[3]. In 2003/04 the median pay gap was 10.3 per cent for academic staff (diamond markers in Figure 1) and 12 per cent for professional services staff (triangle markers in Figure 1). The median gender pay gap for the staff groups fell to 5.7 per cent respectively in 2014/15. A similar falling trend can be seen for mean pay gaps for both staff groups (Figure 2).

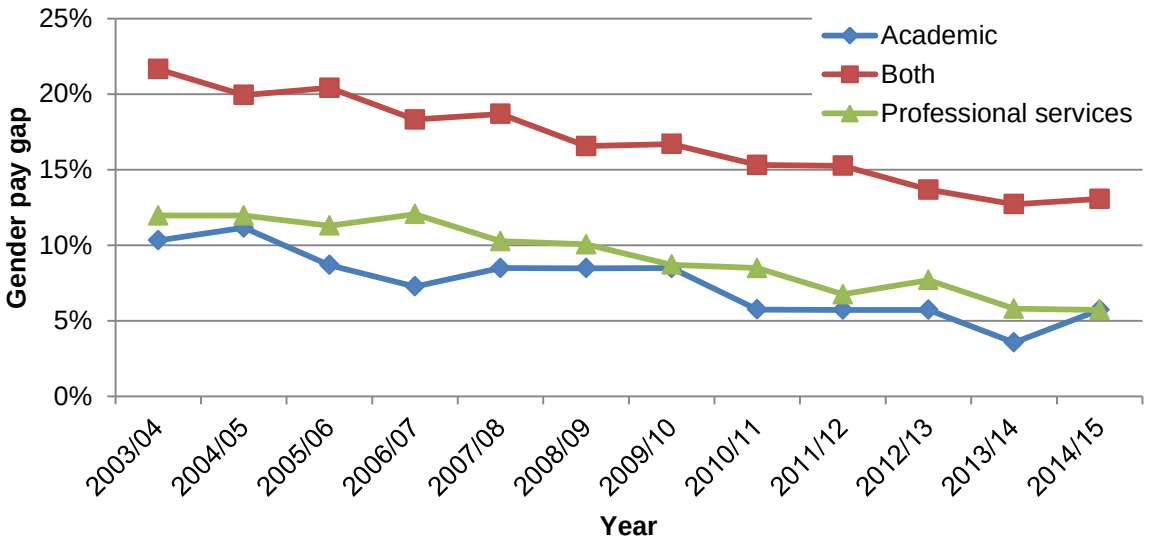
In terms of gender balance, the biggest improvement is in the academic staff group, where females accounted for 40.1 per cent of the workforce in 2014/15 compared to only 35.5 per cent in 2003/04 (Figure 3). At contract level "F1 Professor the gender balance is however

[2] Basic salary in the HESA record captures the gross basic salary per annum (full-time equivalent) in pounds sterling, as stated in the contract at the reference date, or at the end of the contract, if earlier. Further information available from HESA: www.hesa.ac.uk/collection/c14025/a/salref/

[3] When we rank employee pay from the lowest to the highest, the median pay is at the middle of the pay distribution. The median male and median female basic salaries for professional services staff are lower than the median male and median female basic salaries for academic staff. When we combine both staff groups, we get a different median male and median female basic salary. We therefore see a wider pay gap when both staff categories are combined than when we analyse them separately because women are over-represented in professional services roles and under-represented in academic roles. And as mentioned earlier, academic roles tend to attract higher salaries than professional services roles.

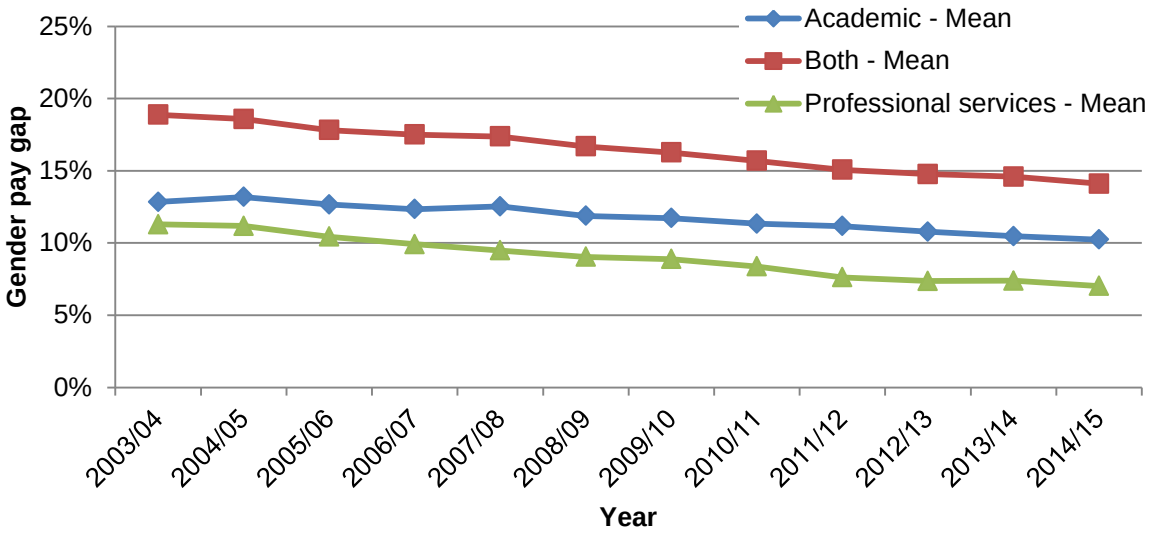
lower, at 23.7 per cent. On the other hand the gender balance for professional services staff has remained relatively static with women slightly over-represented in the group (55 per cent in 2014/15).

Figure 1: Median gender pay gap by full-time staff category, 2003/04 to 2014/15



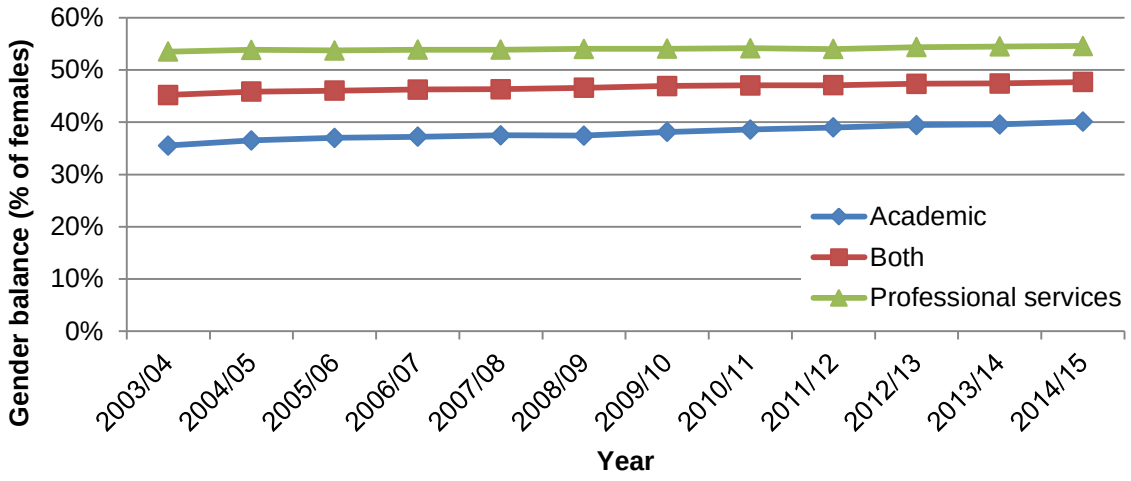
Source: Data commissioned from HESA.

Figure 2: Mean gender pay gap by full-time staff category, 2003/04 to 2014/15



Source: Data commissioned from HESA.

Figure 3: Gender balance (% of females) by full-time staff category, 2003/04 to 2014/15



Source: Data commissioned from HESA.

4.2 Gender pay gap and balance by HE contract levels

In this section we assess the gender pay gaps within contract levels[4] by comparing men's and women's basic pay at the median, upper quartile and lower quartile[5]. These pay gaps are further analysed by full-time and part-time contracts. We then comment on the reliability of HESA pay data and then briefly discuss the gender balance. It is only for the HESA data that we assess pay gaps at quartiles, and by full-time and part-time contracts, as this is population rather than sample data.

The accompanying charts present the gender pay gaps and balance by contract level and year using HESA data. However, our ability to comment on the long-term trend by contract level is limited because HESA only began collecting the contract level field from 2012/13. So the commentary in this section largely focuses on 2014/15, the latest published data.

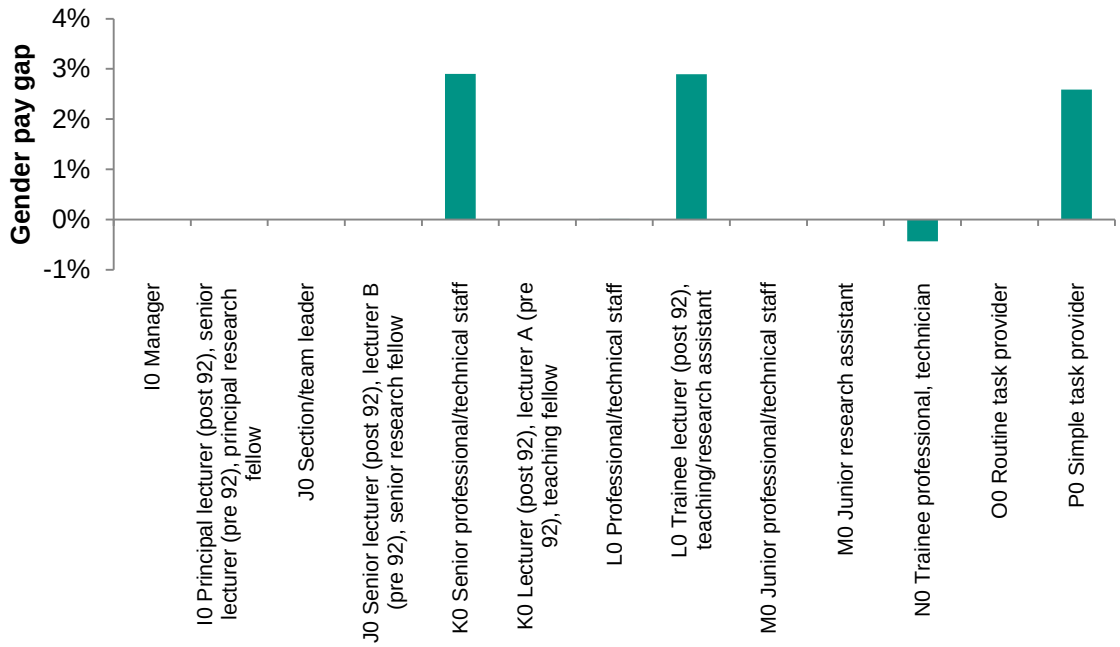
Staff on 51-point pay spine (contract levels I0 to P0)

For full-time staff in contract levels overlapping the 51-point pay spine (contract levels I0 to P0), no significant gender pay gaps (outside ±5 per cent boundaries) at the median were found in 2014/15 (Figure 4). Besides a significant pay gap for L0 trainee lecturers of 5.2 per cent at the upper quartile in 2013/14, no significant pay gaps within levels were found at the medians or quartiles from 2012/13 for full-time staff in this group.

A similar picture can be seen for part-time staff on the 51-point pay spine with a few exceptions (Figure 5). In most cases the significant pay gaps within levels were in favour of women for this group. Typically significant gaps were found when salaries are compared at the quartiles rather than at the median. For example in 2014/15, the upper quartile pay gap at level M0 junior research assistant was in favour of women (-6.1 per cent).[6]

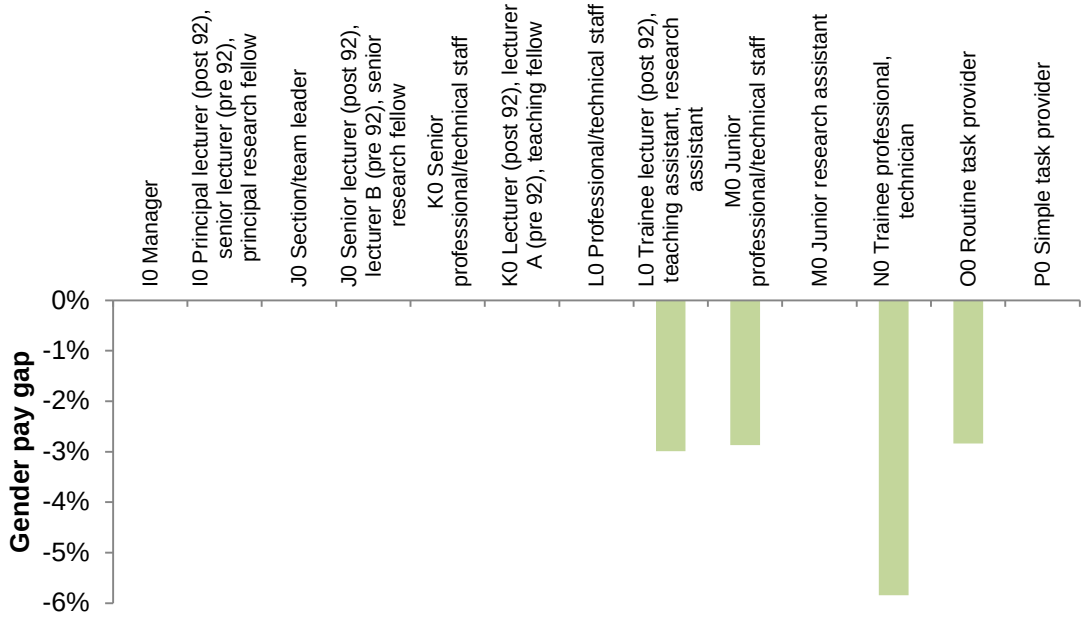
[4] Note that contract levels are not the same as grades. Grades and corresponding pay bands vary between HEIs. See HESA definition for contract levels: www.hesa.ac.uk/collection/c14025/a/levels/
[5] See the Methodology chapter for the definition of median, lower quartile and upper quartile
[6] For a detailed discussion on the reasons behind the pay gaps see section 7 for a summary and links to previous New JNCHES reports in 2014/15 and 2009/10.

Figure 4: Median gender pay gap by contract level for full-time staff on the 51-point pay spine, 2014/15



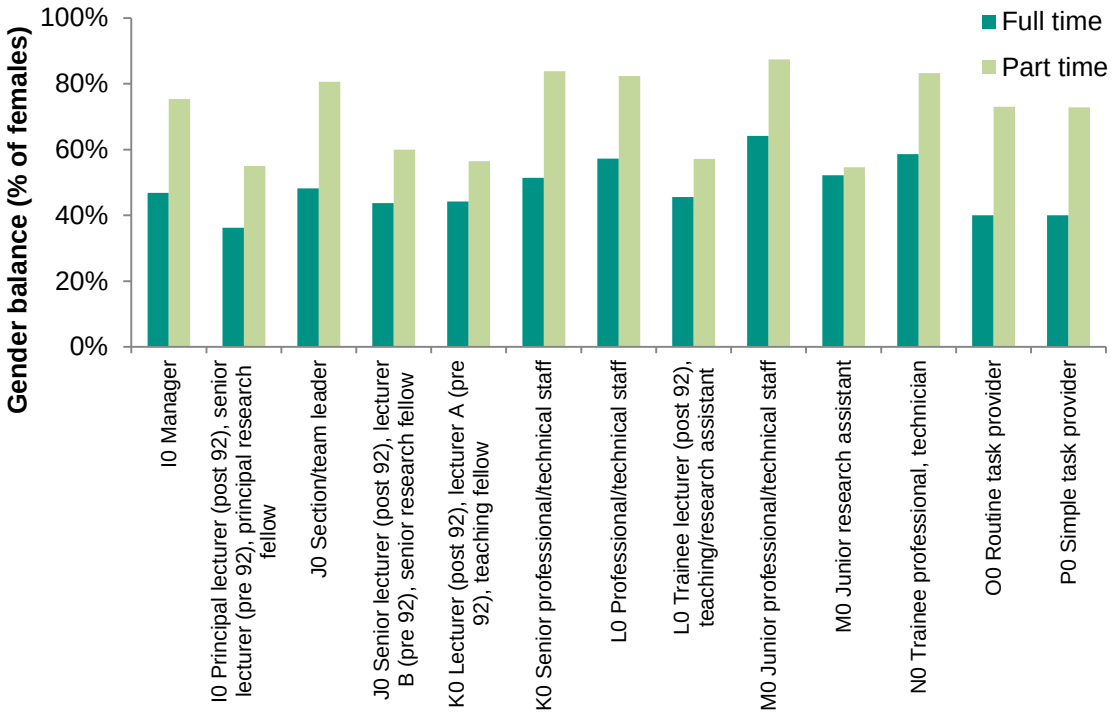
Source: Data commissioned from HESA.

Figure 5: Median gender pay gap by contract level for part-time staff on the 51-point pay spine, 2014/15



Source: Data commissioned from HESA.

Figure 6: Gender balance for full-time and part-time staff on the 51-point pay spine, 2014/15



Source: Data commissioned from HESA.

Senior staff (contract levels A0 to F2)

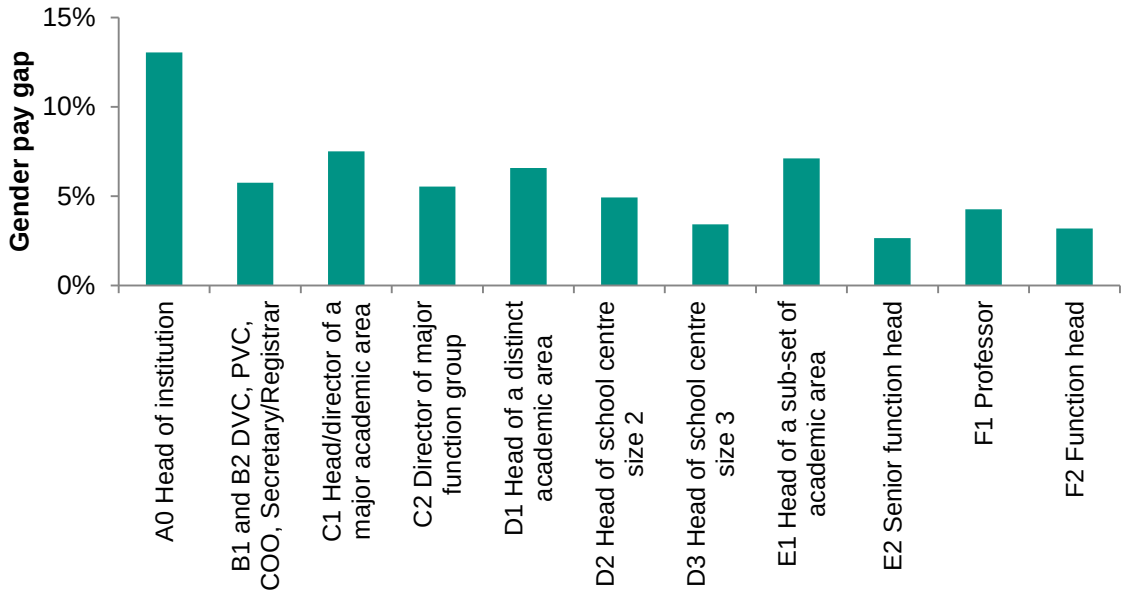
For full-time senior staff (contract levels A0 to F2), no significant median pay gaps within levels were found for academic levels D2 head of school centre size 2, D3 head of school centre size 2 and F1 professor in 2014/15. Similarly, full-time professional services senior staff in levels E2 senior function head and F2 function head had no significant pay gaps within levels (Figure 7).

Where significant pay gaps within levels for senior staff existed, they were in favour of men. For full-time senior staff in 2014/15, the largest median pay gap was at A0 head of institution level, at 13 per cent. The significant pay gaps for other full-time senior staff levels were lower than for heads of institutions, between 5.5 per cent (level C2) and 7.5 per cent.

Upper quartile pay gaps are typically higher than those at the median, but this is not always the case. For example, the upper quartile pay gap for full-time heads of institutions was not significant (3.8 per cent) in 2014/15. This is because the spread of salaries for men and women for different groups may not be the same. In 2014/15, significant pay gaps for full-time senior staff levels at the upper quartile were wider than at the median, ranging from 6.5 per cent (level F1) to 11.9 per cent (level D1).

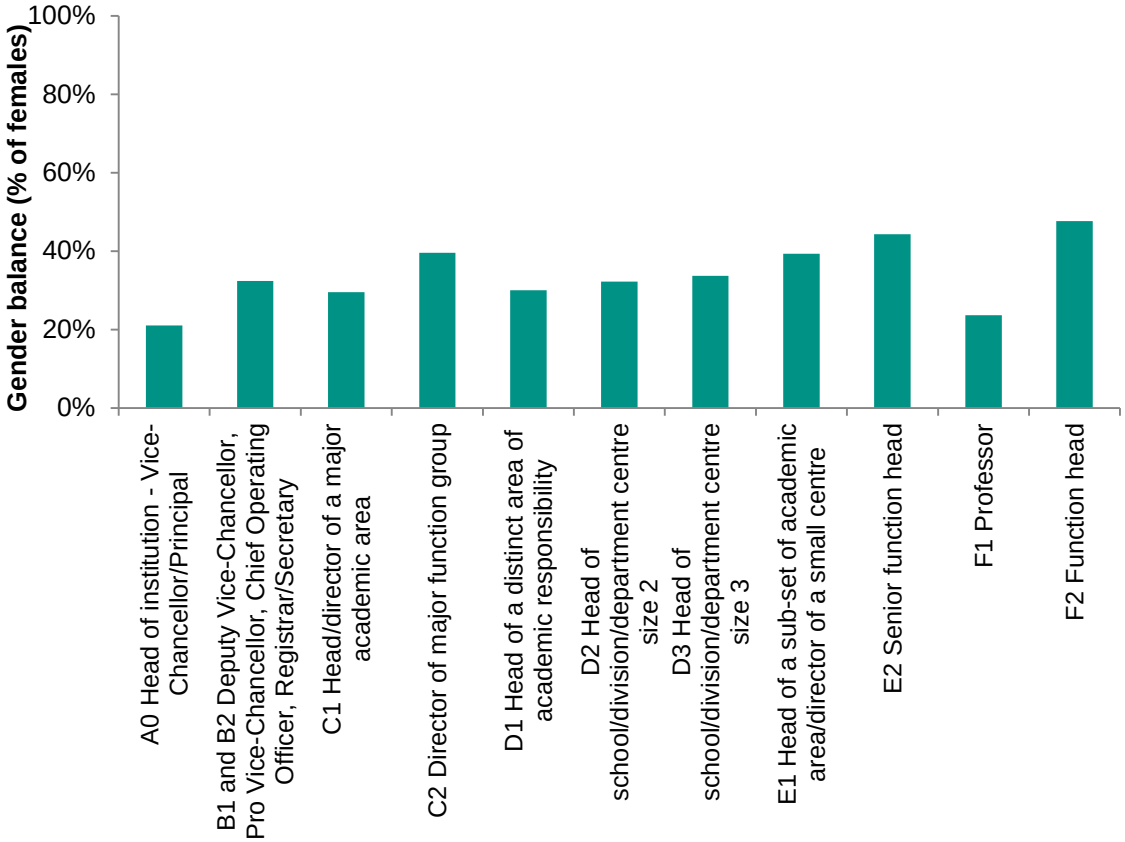
Pay gaps for part-time senior staff are not analysed in this report because the data are less reliable (see chapter 6.3 for a more detailed discussion). However the figures are provided in the accompanying interactive charts.

Figure 7: Median gender pay gap by contract level for full-time senior staff, 2014/15



Source: Data commissioned from HESA.

Figure 8: Gender balance for full-time senior staff, 2014/15



Source: Data commissioned from HESA.

Gender balance

Looking at full-time employees in 2014/15, there were no significant median pay gaps within levels where women made up at least 40 per cent of the full-time workforce (see Figure 6 and Figure 8).

Women tend to be underrepresented still at senior levels and the data show that this is typically accompanied with significant median pay gaps within levels. In 2014/15, 21 per cent of A0 head of institution level staff were women compared to 40 per cent at P0 simple task provider level. The median gender pay gaps for full-time staff in those levels were 13 per cent and 1.8 per cent respectively.

However there are a few cases where significant pay gaps do not appear where women accounted for less than 40 per cent of a full-time employee group. For example the median gender pay gap for full-time professors in 2014/15 was 4.3 per cent and only 23.7 per cent of them are women.

4.3 Balance by gender, ethnicity and disability

In addition to analysing the gender pay gap and gender balance, the New JNCHES Steering Group agreed to explore gender balance further by ethnicity and disability through the ECU statistical reports. The most recent ECU statistical report at the time of writing provided an analysis of this using HESA 2013/14 staff data[7]. Although the report does not provide pay gap data by a combination of protected characteristics, it does provide gender pay gap figures by each type of protected characteristic.

It should be noted that pay systems may be open to challenge on grounds of gender, ethnicity, disability or other protected characteristics defined under the Equality Act 2010[8].

According to the ECU's analysis by gender and ethnicity, 11 per cent of female employees were black or minority ethnic (BME) while 12.6 per cent of male employees were BME. The percentages of BME staff within the professorial and senior management categories were much lower than the figures for all staff by gender and ethnicity. As Table 1 shows, for example, the percentage of female senior managers who were identified as BME was 3.4 per cent or 7.6 percentage points lower than the percentage of female employees who were BME. The ECU statistical report does not provide gender and ethnicity balance analysis for professional services staff.

Table 1: Balance by gender and ethnicity, 2013/14

	No. white	No. BME	Total	% BME
Female	**176,705**	**21,795**	198,500	**11.0%**
Female - professorial	3,780	325	4,105	7.9%
Female - non-professorial	65,800	9,350	75,150	12.4%
Female - senior management	430	15	445	3.4%
Female - other academic	69,150	9,660	78,810	12.3%

[7] www.ecu.ac.uk/publications/equality-higher-education-statistical-report-2015/

[8] Statement 11 of the Equality Act 2010 Code of Practice states: 'Although this code relates to equal pay between women and men, pay systems may be open to challenge on grounds of race, age or other protected characteristics under the Equality Act 2010': www.equalityhumanrights.com/sites/default/files/equalpaycode.pdf

	No. white	No. BME	Total	% BME
Male	**145,350**	**21,045**	166,395	**12.6%**
Male - professorial	12,680	1,280	13,960	9.2%
Male - non-professorial	70,495	12,475	82,970	15.0%
Male - senior management	975	60	1,035	5.8%
Male - other academic	82,205	13,695	95,900	14.3%

Source: ECU statistical report 2015 using HESA 2013/14 staff data.

Note: The professorial category includes academic staff in level F1 professor, while the non-professorial category includes all academic levels except F1 professor. The senior management category includes academic staff in levels A0 to C2, while the other academics group includes all academic levels except A0 to C2.

In addition to balance analysis by gender and ethnicity, the ECU statistical report also provided balance analysis by gender and disability. According to HESA 2013/14 data, 4.5 per cent of female staff disclosed as disabled compared with 4 per of male staff. Female staff made up just over half (56.7 per cent) of all disabled staff.

4.4 Gender pay gap and balance in the HE sector and comparators

Unlike HESA, the Office for National Statistics' (ONS) Annual Survey of Hours and Earnings (ASHE) enables direct earnings comparisons between HE sector, the whole economy and other sectors. In addition, the ONS' ASHE enables us to analyse the gender pay gap for different types of earnings. **Unless stated otherwise, the pay gaps stated in this section are based on the median earnings of full-time male and female employees.**

Pay gaps including and excluding overtime pay and bonuses

In order to assess whether men receive more overtime pay and higher bonuses than women or vice versa in certain sectors, we analyse the median pay gaps for four types of earnings from 2002. This is the only section where the pay gaps are assessed by the four types of earnings (see also Table 5 for the complete definitions):

1. **Weekly pay – gross**: includes overtime pay and bonuses
2. **Weekly pay – excluding overtime**: excludes overtime
3. **Hourly pay – excluding overtime**: excludes overtime
4. **Basic pay – including other pay**: excludes overtime pay and bonuses

The accompanying charts show that the gender pay gaps for the HE sector vary little regardless of whether overtime pay or bonuses are included – the pay gaps were between 11.1 and 11.3 per cent in 2015 (Figure 9).

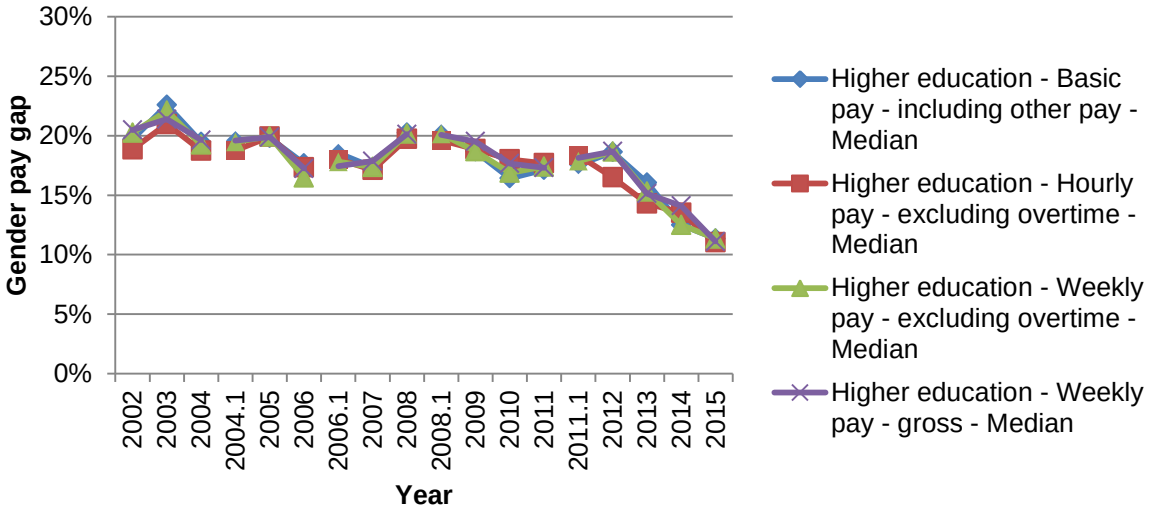
In contrast, the difference in pay gaps was more pronounced for the whole economy, and was widest when overtime pay and bonuses were included (Figure 10). The gross weekly pay was 16.9 per cent while weekly pay excluding overtime was 14 per cent. When bonuses and overtime pay were excluded, the pay gap narrowed a little to 13 per cent.

When the pay gap for the whole economy was based on hourly pay and not weekly pay and excluded both overtime and bonuses, it dropped to 9.3 per cent (Figure 10). This is because the ONS defines full-time employment as 30 or more hours a week. Looking at the basic paid hours worked for full-time employees, the middle 80 per cent of men worked between

35 to 40 hours a week, while the middle 80 per cent of women worked between 32.5 to 40 hours a week.

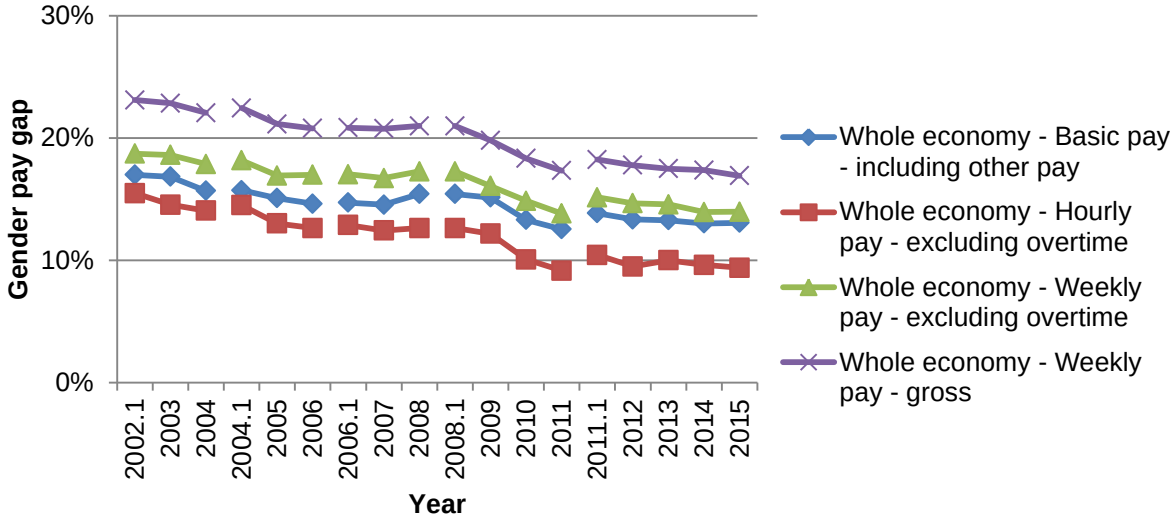
A similar picture to the whole economy can be seen in the private sector.

Figure 9: HE sector full-time employee median pay gap by type of earnings



Source: ONS ASHE tables 16.1a, 16.2a, 16.3a and 16.6a.

Figure 10: Whole economy full-time employee median pay gap by type of earnings



Source: ONS ASHE tables 16.1a, 16.2a, 16.3a and 16.6a.

Note: Two sets of figures are presented in the years where the ONS has changed methodology where data are available. For example, the methodology for producing the figures in 2004 is consistent with that for 2003, while the methodology for producing the figures in 2004 is consistent with that for 2005. This applies to all time series charts in this report which use ONS data.

Comparison of pay gap trends based on hourly earnings excluding overtime

We now compare the pay gaps in the HE sector against comparators using ONS' preferred measure, by analysing median hourly earnings excluding overtime for full-time male and female employees. The accompanying charts present the tables and charts with data from 2002 onwards.

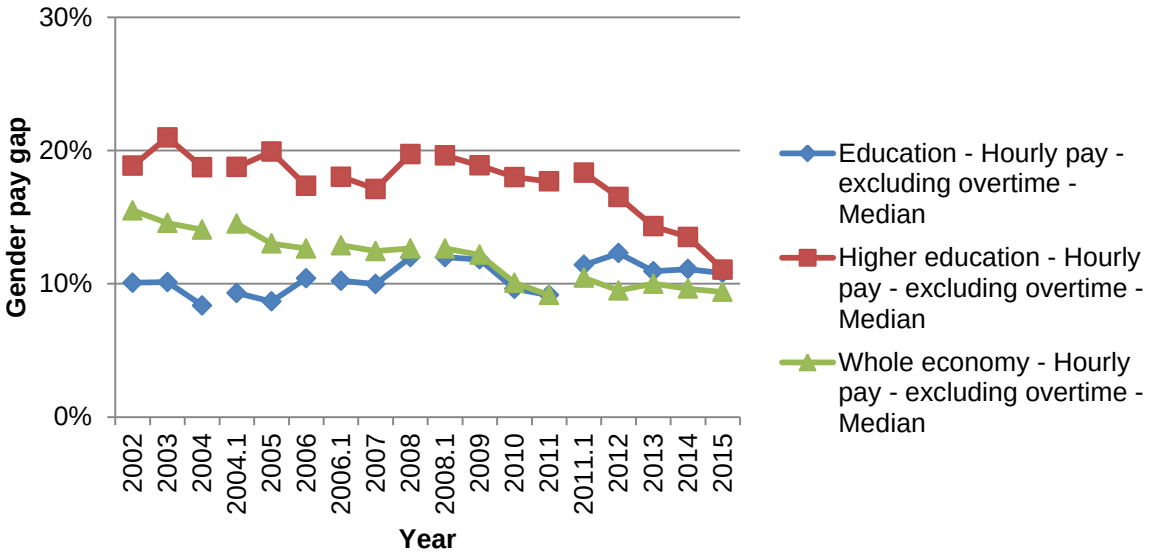
While the gender pay gap for HE has been higher than for the whole economy, HE's gender pay gap is closing faster (Figure 11). In 2015 the gender pay gap for HE was 11.1 per cent (1.7 percentage points above that for the whole economy), down from 18.9 per cent in 2002 (3.4 percentage points above that for the whole economy).

The wider education sector, which the HE sector is part of, has seen a small increase in its gender pay gap over the same period, from 10.1 per cent in 2002 to 10.8 per cent in 2015. This was also the case for comparator sectors human health and social work activities and the public sector.

On the other hand, the public administration and defence sector saw a sharp fall in its gender pay gap over same period, from 28.3 per cent in 2002 to 17.2 per cent in 2015. Meanwhile the private sector's gender pay gap narrowed more slowly, from 21.3 per cent in 2002 to 17.2 per cent in 2015. Further sectors are presented in the accompanying interactive charts.

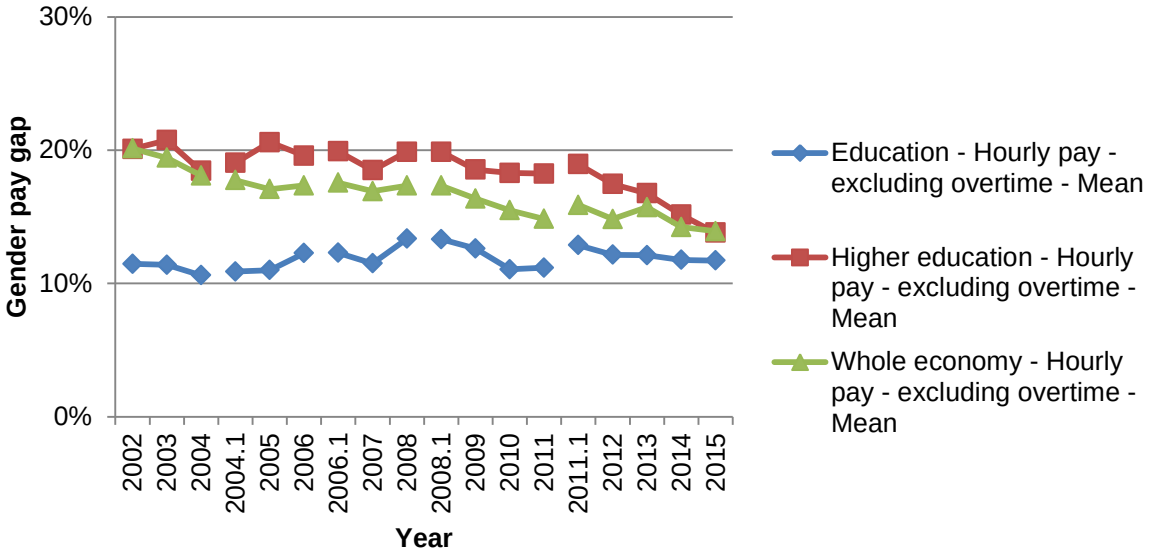
The mean pay gap trend is similar to the median pay gap trend for higher education, education and the whole economy (Figure 11 and Figure 12). Higher education typically has a wider mean pay gap than that for the whole economy. However the mean pay gap figures for both sectors are closer to each other than their corresponding median pay gap figures. The mean pay gaps in 2002 were 20.1 per cent for both sectors. In 2015 the mean pay gaps narrowed to 13.8 per cent for higher education and 13.9 per cent for the whole economy.

Figure 11: HE, education and whole economy median pay gaps compared



Source: ONS ASHE table 16.6a.

Figure 12: HE, education and whole economy mean pay gaps compared



Source: ONS ASHE table 16.6a.

Note: Two sets of figures are presented in the years where the ONS has changed methodology where data are available. For example, the methodology for producing the figures in 2004 is consistent with that for 2003, while the methodology for producing the figures in 2004 is consistent with that for 2005. This applies to all time series charts in this report which use ONS data.

Gender balance

At sector level, the gender balance data do not seem to explain the extent of the gender pay gap. For example, in 2015 the data show that despite women being over-represented in human health and social work activities (71.9 per cent of jobs held by women), the gender pay gap for this sector is higher when compared to HE (18.1 per cent vs 11.1 per cent in 2015 respectively).

The incremental improvements reported in HESA staff data are not visible in ONS' ASHE data. According to the ONS, the gender balance for the sector has remained relatively unchanged, at 46 per cent in 2004 and 45.3 per cent in 2015. The sampling approach may explain the difference between HESA and ONS figures. HESA includes all employees at HEIs receiving public funding while the ONS samples 1 per cent of employees through Pay As You Earn (PAYE) records.

4.5 Gender pay gap and balance in selected HE occupations and comparators

The gender pay gap and balance figures by occupations in HE and 'Not HE' are less reliable because the ASHE data are less reliable (Table 2). The ONS marks less reliable figures in blue and unreliable figures with 'x' – these are summarised in the earnings by occupation table in the accompanying charts.

Where samples are unreliable (marked 'x') for only one of the genders, it is likely because that gender is under-represented in that occupation. For instance, the estimated number of full-time male employees in secretarial and related occupations in HE was unreliable for all years from 2002 onwards, suggesting that men are underrepresented in this role in the sector.

Where samples are unreliable for both genders, then it is likely because the role is not common in the sector. Process, plant and machine operatives, for example, are not commonly found in HE.

Despite the limitations, the data are useful for identifying occupational segregation and whether this pattern is unique to the HE sector or common in other parts of the economy. Before we look at the trend from 2002, we begin by analysing the gender pay gap for HE and 'Not HE' in 2015.

Gender pay gaps in 2015

Table 2 shows there are sufficient data to calculate the gender pay gap for eight out of nine major occupation groups in the HE sector. Major occupations, according to the ONS standard classification (SOC), have one-digit SOC codes. Each major occupation contains more detailed occupational categories, organised by the nature of qualifications, training and experience. Managers, directors and senior official occupations start with ONS standard occupation classification (SOC) codes 1 while elementary occupations start with SOC codes 9.

Looking the eight major occupations in Table 2 which have pay gap figures, the gender pay gap in HE is lower than 'Not HE' comparators except for elementary occupations. For example, the pay gaps for professional occupations are 8.1 per cent in HE compared to 11.3 per cent for 'Not HE' comparators.

Professional occupations include teaching and research academics and are by far the most common job in HE, with approximately 262,000 full-time jobs according to the ONS. Within this group, the most common job is HE teaching professionals and, despite the name, a small number actually work outside the HE sector (16,000 full-time jobs). These are bespoke data ordered from the ONS, which split the HE teaching professionals sample available in the standard ASHE tables on the ONS website into two groups – those who work in HE and those who work outside HE, for example, in technical and vocational secondary education[9]. For more information on the rationale, see the data specification for gender pay gap analysis in chapter 6.3.

In 2015 the gender pay gap for HE teaching professionals in the sector was 6.4 per cent and 11.8 per cent outside HE. In comparison, the gender pay gap for secondary teaching professionals is 3.6 per cent in the same year. One difference is that women are under-represented among HE teaching professionals sample (35.8 per cent in HE) but are over-represented among secondary teaching professionals sample (60 per cent).

Associate professionals (which includes technicians), the next most common occupation in HE with an estimated 62,000 full-time jobs, has a pay gap of 4.7 per cent in HE compared to 11.5 per cent for 'Not HE'. The pay gap for third most common occupation in HE – administrative and secretarial occupations (around 56,000 full-time jobs) – is 2.1 per cent compared to 6.2 per cent for 'Not HE' comparators.

[9] In addition to technical and vocational secondary education, there is a small but significant number of 'Not HE' HE teaching professionals working in the private sector – see the Methodology chapter for definitions of 'HE' and 'Not HE'.

For elementary occupations, the pay gap for full-time employees is 20 per cent in HE compared to 13.3 per cent for 'Not HE' comparators. This occupation group includes security staff, porters, cleaners and catering staff.

Table 2: Gender pay gaps and balance by occupation for full-time HE and 'Not HE' employees, ASHE 2015 hourly pay excluding overtime

SOC code	Occupation	Gender pay gap (%)		Gender balance (% females)	
		HE	'Not HE'	HE	'Not HE'
1	Managers, directors and senior officials	8.7%	19.1%	55.0%	30.9%
2	Professional occupations	8.1%	11.3%	40.1%	45.7%
3	Associate professional and technical occupations	4.7%	11.5%	46.8%	37.9%
4	Administrative and secretarial occupations	2.1%	6.2%	73.2%	68.4%
5	Skilled trades occupations	8.6%	24.7%	#N/A	7.1%
6	Caring, leisure and other service occupations	6.9%	7.7%	44.4%	75.2%
7	Sales and customer service occupations	-26.3%	4.3%	#N/A	52.5%
8	Process, plant and machine operatives	#N/A	21.4%	#N/A	12.1%
9	Elementary occupations	20.0%	13.3%	38.5%	26.3%
2311	HE teaching professionals	6.4%	11.8%	35.8%	45.5%
2119	Natural and social science professionals n.e.c	11.2%	-2.1%	29.4%	40.0%
2426	Business and related research professionals	1.3%	10.6%	35.7%	44.4%
311	Science, engineering and production technicians	17.2%	17.4%	#N/A	19.8%
313	Information technology technicians	4.1%	9.2%	#N/A	24.5%
41	Administrative occupations	7.5%	6.1%	70.2%	64.1%
4135	Library clerks and assistants	-15.9%	5.6%	#N/A	#N/A
42	Secretarial and related occupations	#N/A	-9.6%	#N/A	90.5%
4215	Personal assistants and other secretaries	#N/A	0.1%	#N/A	95.3%
9272	Kitchen and catering assistants	-22.3%	-2.0%	#N/A	52.4%
9233	Cleaners and domestics	8.6%	3.7%	#N/A	55.3%

Source: Data commissioned from the ONS.

Note 1: Figures are highlighted where earnings or estimated number of jobs for either genders for that occupation are less reliable, according to the gender with the least statistically robust figure.
Note 2: The occupations in the table were selected from previous New JNCHES work. See Methodology in chapter 6.

Key	Statistical robustness
CV <= 5%	Estimates are considered precise
CV > 5% and <= 10%	Estimates are considered reasonably precise
CV > 10% and <= 20%	Estimates are considered acceptable
#N/A = CV > 20%	Estimates are considered unreliable for practical purposes

The trend from 2002 to 2015

The ONS has changed the ASHE methodology a number of times during the observation period. In the accompanying charts, a year is suffixed with '.1' to indicate the point at which ONS moved to a new methodology. As a result, the trend appears more erratic when we review earnings by occupation, sector and gender than when we consider earnings at sector level. This effect is further compounded by the fact that ASHE samples 1 per cent of Pay As You Earn (PAYE) records, which means that different employees get included in ASHE year on year.

When we look at the major occupations (one-digit SOC) from 2002, only seven of the major occupations have sufficient data to plot the gender pay gaps for full-time employees. These are illustrated in the charts that follow, from Figure 13 to Figure 19.

Looking at the charts, five of the seven HE major occupations historically have lower pay gaps than 'Not HE' comparators for most of the period from 2002 to 2015:

- Managers, directors and senior officials (SOC 1)
- Associate professional and technical occupations (SOC 3)
- Administrative and secretarial occupations (SOC 4)
- Skilled trades occupations (SOC 5)
- Caring, leisure and other occupations (SOC 6)

Professional occupations (SOC 2) in HE, until 2014, historically had a wider pay gap than 'Not HE' comparators. As for elementary occupations (SOC 9), the pay gap in HE had been mostly narrower than 'Not HE' comparators up until around 2009. Since 2009 the pay gap for elementary occupations has been wider in HE than outside HE.

Historically HE teaching professionals within the sector had a similar pay gap to secondary teaching professionals (Figure 20). The exception is during the period between 2011 and 2013 when the pay gap for secondary teaching professionals temporarily narrowed.

Over the period from 2002 to 2015, the pay gap in HE appears to have narrowed for four out of seven major occupations (see Table 3), with falls between 6.1 and 9.2 percentage points. In contrast, the gender pay gap for associate professional and technical occupations has increased over the same period, up by 8.4 percentage points. The gender pay gap seems relatively unchanged for professional occupations and caring, leisure and other service occupations over the same period.

The ONS reclassification of occupations in 2011 appears to have sharply increased the pay gap of 'Not HE' professional and associate professionals from 2011 onwards (Figure 14 and Figure 15). The reclassification does not seem to have affected the gender pay gap figures for professional and associate professional occupations in HE.

Gender balance

In terms of gender balance, HE has a higher percentage of females in managers, directors and senior official roles than outside HE (55 per cent vs. 30.9 per cent females respectively in 2015) – see Table 2. Caring, leisure and other service occupations in HE are relatively gender balanced compared to 'Not HE' counterparts (44.4 per cent vs. 75.2 per cent females

respectively in 2015). For the other six major occupations in HE, the gender balance is broadly in line with 'Not HE' counterparts after taking into account data reliability.

The gender balance by ASHE major occupations does not seem to explain the extent of the gender pay gap as well as HESA data by staff groups or contract levels. Besides concerns about data reliability, the main thing to note is that ASHE occupations do not align with HESA contract levels. A professor in level F1 and lecturer in level K0 would both be coded under SOC 2 – professional occupations in ASHE.

Table 3: Change in gender pay gap in HE by occupation, full-time employees from 2002 to 2015

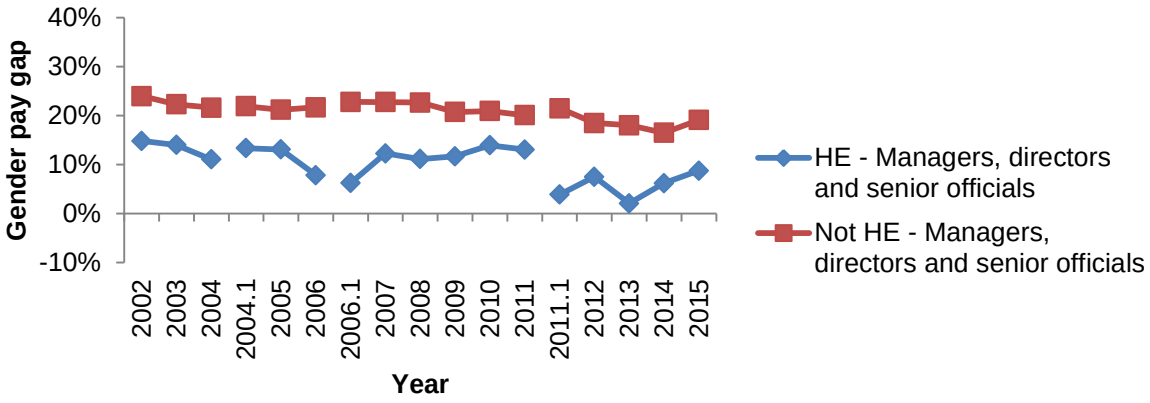
SOC code	Major occupation	2002	2015	Change (% points)
1	Managers, directors and senior officials	14.8%	8.7%	**-6.1**
2	Professional occupations	8.1%	8.1%	**0.0**
3	Associate professional and technical occupations	-3.7%	4.7%	**8.4**
4	Administrative and secretarial occupations	9.9%	2.1%	**-7.8**
5	Skilled trades occupations	17.8%	8.6%	**-9.2**
6	Caring, leisure and other service occupations	4.8%	6.9%	**2.1**
9	Elementary occupations	27.1%	20.0%	**-7.1**

Source: Data commissioned from the ONS.

Note: Figures are highlighted where earnings or estimated number of jobs for either genders for that occupation are less reliable, according to the gender with the least statistically robust figure.

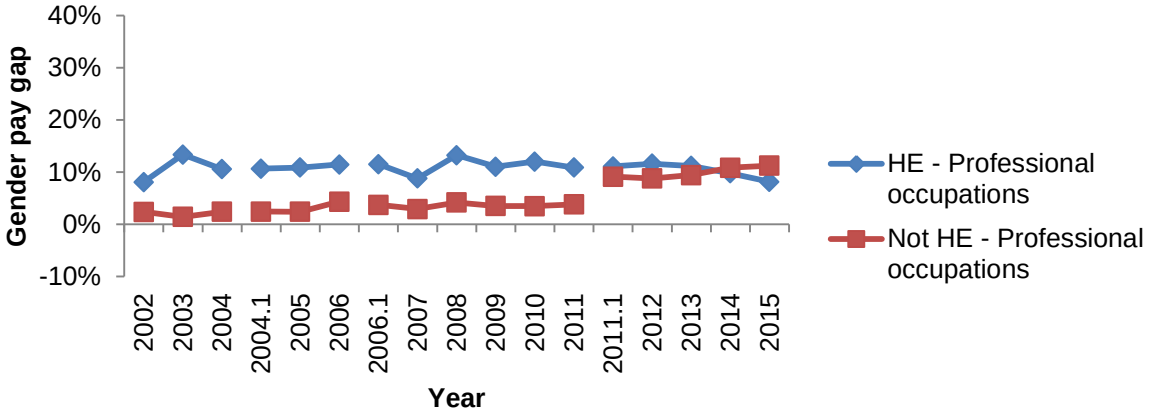
Key	Statistical robustness
CV <= 5%	Estimates are considered precise
CV > 5% and <= 10%	Estimates are considered reasonably precise
CV > 10% and <= 20%	Estimates are considered acceptable
#N/A = CV > 20%	Estimates are considered unreliable for practical purposes

Figure 13: Median gender pay gap by HE and 'Not HE' full-time managers, directors and senior officials, 2002 to 2015



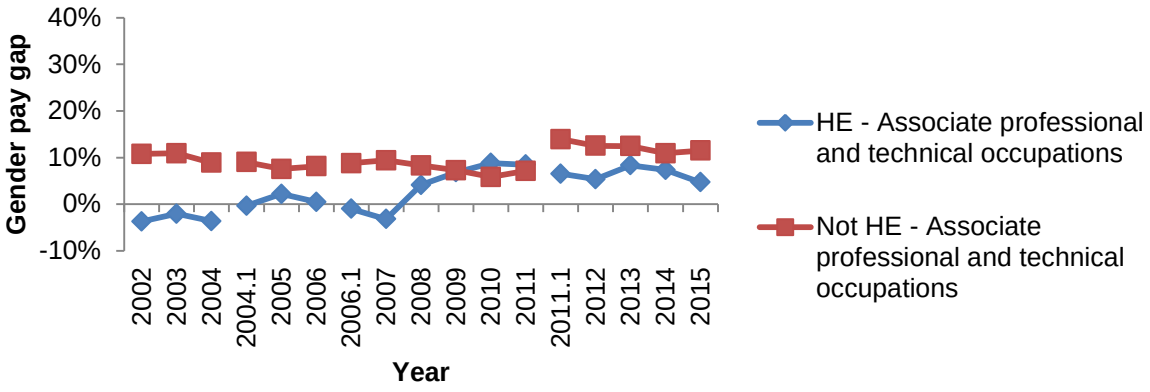
Source: Data commissioned from the ONS.

Figure 14: Median gender pay gap by HE and 'Not HE' full-time professional occupations, 2002 to 2015



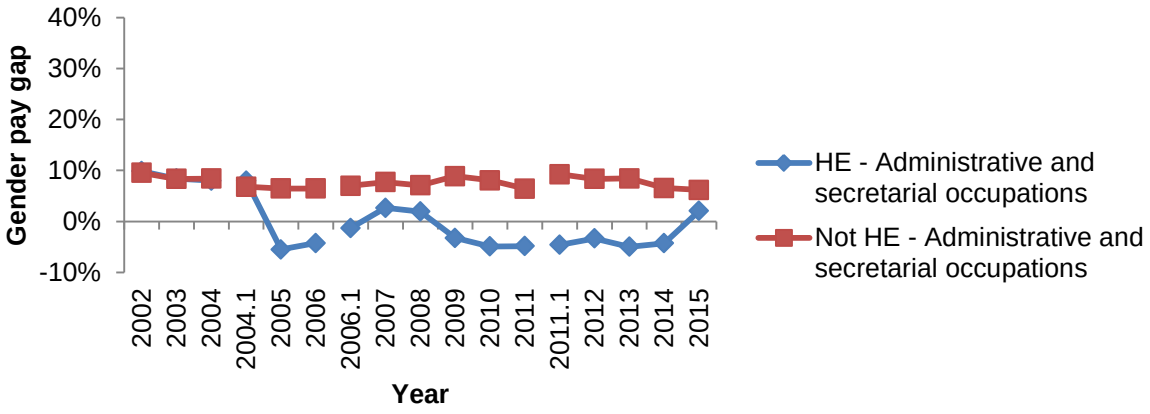
Source: Data commissioned from the ONS.

Figure 15: Median gender pay gap by HE and 'Not HE' full-time associate professional and technical occupations, 2002 to 2015



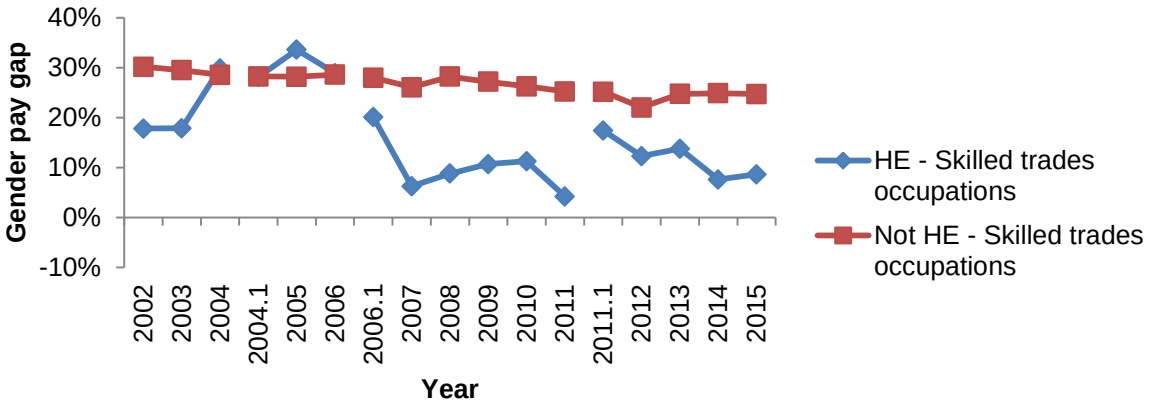
Source: Data commissioned from the ONS.

Figure 16: Median gender pay gap by HE and 'Not HE' full-time administrative and secretarial occupations, 2002 to 2015



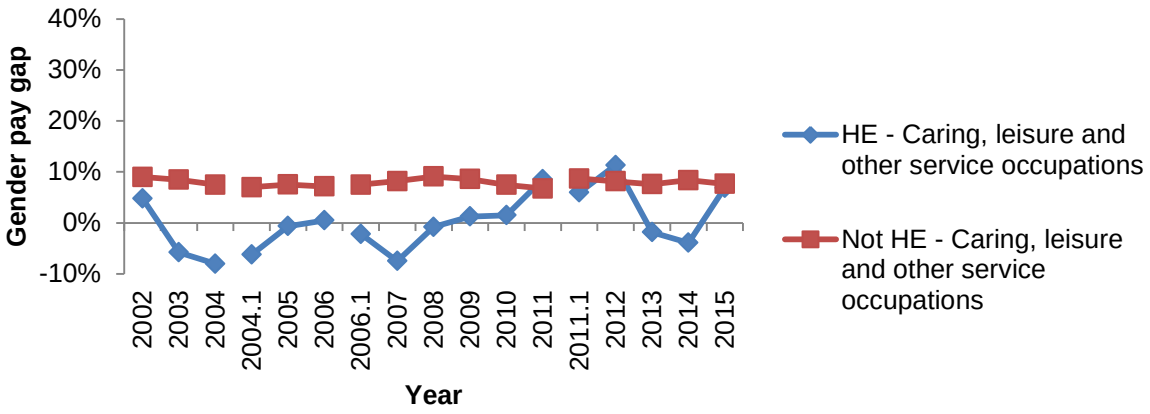
Source: Data commissioned from the ONS.

Figure 17: Median gender pay gap by HE and 'Not HE' full-time skilled trades occupations, 2002 to 2015



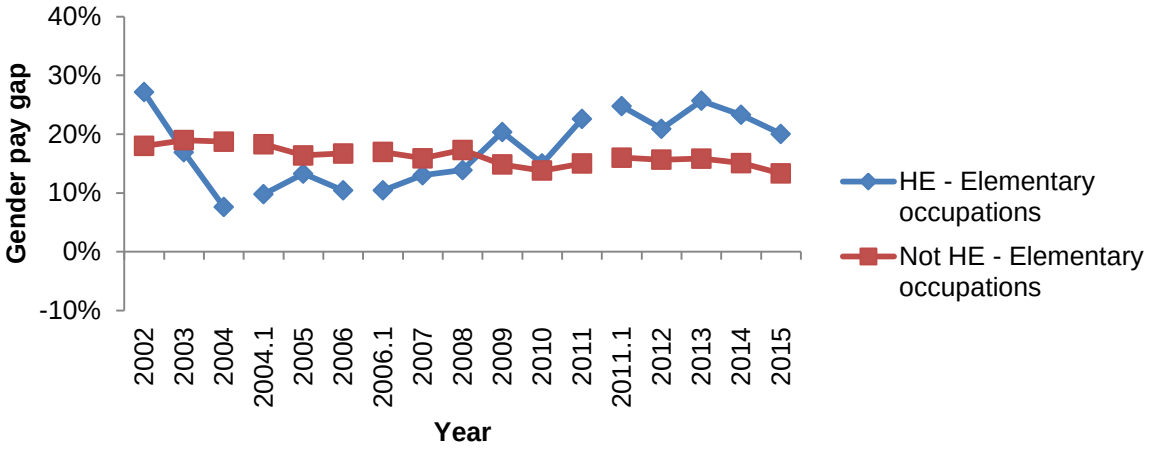
Source: Data commissioned from the ONS.

Figure 18: Median gender pay gap by HE and 'Not HE' caring, leisure and other service occupations, 2002 to 2015



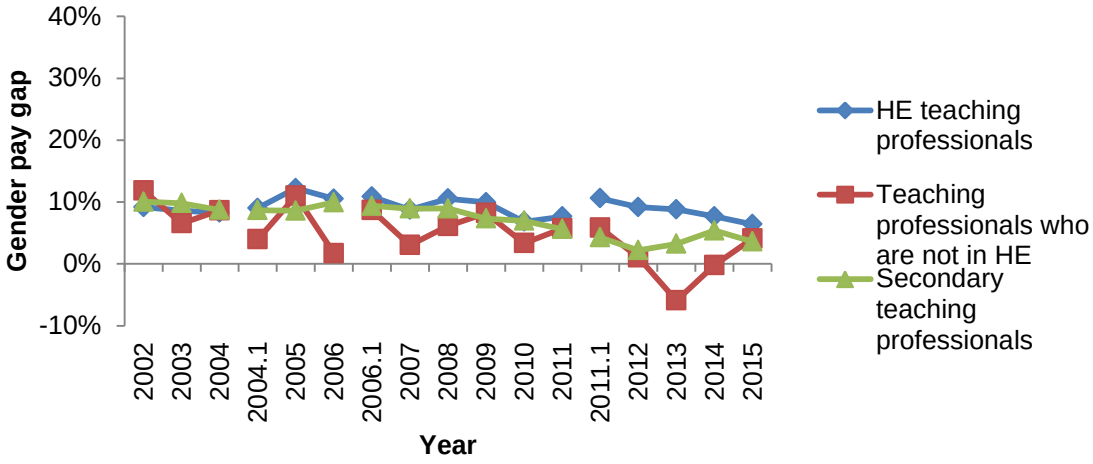
Source: Data commissioned from the ONS.

Figure 19: Median gender pay gap by HE and 'Not HE' elementary occupations, 2002 to 2015



Source: Data commissioned from the ONS.

Figure 20: Median gender pay gap by HE, 'Not HE' and secondary teaching professionals, 2002 to 2015



Source: Data commissioned from the ONS.

Note: Two sets of figures are presented in the years where the ONS has changed methodology where data are available. For example, the methodology for producing the figures in 2004 is consistent with that for 2003, while the methodology for producing the figures in 2004 is consistent with that for 2005. This applies to all time series charts in this report which use ONS data.

5 Recommendations

The Steering Group recommends that the following time series sector benchmarks be updated annually so that HE institutions may compare their progress against the sector. Subject to consultation with sector employers, these benchmarks would be published annually on the UCEA website and may be linked from the trade unions' websites:

1. Median and mean gender pay gap by full-time staff category using HESA staff data (Figure 1).

2. Median gender pay gap by contract level for full-time staff using HESA staff data (Figure 4 and Figure 6).

3. HE, education whole economy median and mean pay gaps for full-time employees using ONS ASHE data (Figure 11).

4. Median gender pay gap by HE and 'Not HE' full-time professional occupations using ONS ASHE data (Figure 14)

5. Median gender pay gap by HE teaching professionals in the sector, HE teaching professionals not in the HE sector and secondary teaching professionals for full-time employees using ONS ASHE data (Figure 20).

The Steering Group notes that in order for part-time staff to be included as a sector benchmark, partners would need to work together to improve the reliability and validity of the data.

6 Methodology

One of the important outputs of this report is to recommend an approach to gender pay gap benchmarking in the HE sector, establishing figures which can be readily tracked and reported year on year.

The initial data specification proposed gender pay gap and gender balance analysis by the following variables – the potential data sources are in brackets:

- Contract levels (HESA).
- Academic and professional services staff groups (HESA).
- Full-time and part-time employment (HESA).
- Occupations – HE and Not HE comparators. This includes bespoke ONS data which compare the HE teaching professionals occupation in the sector against those who are employed outside HE (ONS ASHE).
- Sector – HE and Not HE comparators (ONS ASHE).
- Country – the UK and other countries (Eurostat, OECD, US Bureau of Labor Statistics).

However, the final element in the specification has not been examined in this report, it having been concluded that it was more important to explore the UK data and to incorporate further requests from the trade unions, as follows:

- Whether pay gaps at the upper quartiles are wider than at the median and lower quartile for certain employee groups.
- Whether the pay gaps are because of payments on top of basic pay which disproportionately benefited one gender.
- Whether the intersection of gender with ethnicity and disability amplifies any existing gender imbalance.

The project specification was further refined by the Steering Group and the details finalised during the first technical meeting.

Once the bespoke data were received from HESA and the ONS, these were compiled by UCEA Research team members[10] into interactive charts and shared with the trade union members of the Technical Group. ONS data, unlike HESA, are stored in multiple files. To ensure accuracy of the ASHE compilation, a Visual Basic program was written to automate data extraction and compilation.

When the report was presented at the second Steering Group meeting, it was decided that it would be appropriate to present both the mean and median pay gap figures for some benchmarks. This decision was made against the backdrop of Government plans to require large organisations in England to report both the mean and median gender pay gap figures for all staff.

6.1 Gender pay gap calculation

The ONS' preferred headline gender pay gap figure is based on median hourly earnings excluding overtime for full-time employees. The data, which are collected through the ASHE,

[10] Hayfa Mohdzaini and Barbara Pitruzzella.

define the gender pay gap as the difference between male and female earnings as a percentage of male earnings:

Gender pay gap = (male earnings – female earnings) / male earnings * 100

The HESA data in contrast record annual basic salaries rather than the hourly earnings excluding overtime used by the ONS. As such, the gender pay gap calculated using basic salaries reported through HESA is therefore not directly comparable with the gender pay gap calculated using hourly earnings excluding overtime using ASHE data.

When analysing a gender pay gap, it is helpful also to consider the gender balance of a particular sample to see if the overrepresentation of a particular gender is skewing the pay gap. To provide context on the gender pay gaps, the report also looks at gender balance, reported as the percentage of females and the number of employees in that sample.

6.2 Quartiles, medians and means defined

Upper quartile: The point in the range where 25 per cent of the sample is above and 75 per cent below the figure quoted in the table.

Lower quartile: The point in the range where 75 per cent of the sample are above and 25 per cent below the figure given in the table.

Median: The point at which 50 per cent of the sample is above and 50 per cent below when the remuneration indicators or individual salaries are listed in order of magnitude.

Mean: The arithmetic mean value of the figures within the sample.

6.3 Data specification

The final data specification included analysing the gender balance against ethnicity and disability protected characteristics, using available data from the ECU. There were several aspects of the original proposed project specification that were amended at the first Steering Group meeting. This section now reflects the specification decisions taken by the Steering Group and Technical Group.

HESA contract levels

The interactive charts reports full-time, part-time and all employee gender pay gaps at the median and quartiles by contract level from HESA 2012/13[11] onwards.

B1 and B2 are combined because it is common for B1 senior academics to have a significant oversight of academic functions as well as professional services functions. Academic and professional services staff share the same contract levels in the record from I0 to P0. In these cases the academic employment function field[12] is used to differentiate between academic and professional services staff. Analysis for academic staff is from level C1 – head/director of a major academic area to level M0 – junior research assistant (shaded in the table below).

[11] www.hesa.ac.uk/collection/c12025/a/levels/
[12] www.hesa.ac.uk/collection/c14025/a/acempfun/

Table 4: HESA contract levels

Contract level	Staff category	Role
A0	Senior management	A0 Head of Institution - Vice-Chancellor/Principal
B1 and B2 combined	Senior management	B1 and B2 Deputy Vice-Chancellor, Pro Vice-Chancellor, Chief Operating Officer, Registrar/Secretary
C1	Academic	C1 Head/director of a major academic area
D1	Academic	D1 Head of a distinct area of academic responsibility centre size 1
D2	Academic	D2 Head of school/division/department centre size 2
D3	Academic	D3 Head of school/division/department centre size 3
E1	Academic	E1 Head of a sub-set of academic area/director of a small centre
F1	Academic	F1 Professor
I0	Academic	I0 Principal lecturer (post 92), senior lecturer (pre 92), principal research fellow
J0	Academic	J0 Senior lecturer (post 92), lecturer B (pre 92), senior research fellow
K0	Academic	K0 Lecturer (post 92), lecturer A (pre 92), teaching fellow
L0	Academic	L0 Trainee lecturer, teaching assistant, research assistant
M0	Academic	M0 Junior research assistant
C2	Professional services	C2 Director of major function group
E2	Professional services	E2 Senior function head
F2	Professional services	F2 Function head
I0	Professional services	I0 Manager
J0	Professional services	J0 Section/team leader
K0	Professional services	K0 Senior professional/technical staff
L0	Professional services	L0 Professional/technical staff
M0	Professional services	M0 Junior professional/technical staff
N0	Professional services	N0 Trainee professional, technician
O0	Professional services	O0 Routine task provider
P0	Professional services	P0 Simple task provider

Academic and professional services staff groups

The interactive charts include a time series gender pay gap analysis for full-time academic staff from 2001/02 and for professional services staff from 2003/04 using HESA data.

Workforce breakdown regarding gender, ethnicity and disability

The report references the available ECU statistical data on staff gender balance by gender, ethnicity and disability:

www.ecu.ac.uk/guidance-resources/using-data-and-evidence/statistics-report/

Sector

The interactive charts compare the full-time gender pay gap and gender balance in the HE sector (SIC 854) against comparator sectors and by four types of earnings. SIC is short for Standard Industrial Classification. The purpose of exploring four types of earnings is to see whether men are more likely to receive bonuses and overtime payments than women or vice versa.

HE comparator sectors are listed below and can be downloaded from the ONS website and are publicly available ASHE tables:

1. Public sector – ASHE table 13.
2. Private sector – ASHE table 13.

3. Public administration and defence; compulsory social security – ASHE table 16.
4. Education – ASHE table 16.
5. Human health and social work activities – ASHE table 16.

Table 5 shows the ONS definitions for the four selected earnings. The coverage includes PAYE-registered employees on adult rates whose earnings for the survey pay period were not affected by absence and excludes:

- the self-employed;
- jobs within the armed forces;
- employees not paid during the survey pay period;
- those who did not work a full week;
- those whose earnings were reduced because of sickness; and
- certain types of seasonal jobs (e.g. employees taken on for only summer or winter work).

Table 5: ASHE earnings definitions

Basic pay – including other pay	**Definition** All pay relating to the pay period before deductions for PAYE, National Insurance, pension schemes, student loan repayments and voluntary deductions. **Includes:** • all basic pay • paid leave (holiday pay); • maternity pay; • sick pay; • area allowances (e.g. London); • car allowances paid through the payroll; • on call and standby allowances; • clothing; and • first aider or fire fighter allowances. **Excludes:** • overtime; • shift premium; • bonus or incentive pay; • redundancy; • arrears of pay; • tax credits; • profit share; • expenses; • pay for a different pay period; • shift premium pay; • the value of salary sacrifice schemes; and • benefits in kind.

Hourly pay – excluding overtime	**Definition** All pay relating to the pay period before deductions for PAYE, National Insurance, pension schemes, student loan repayments and voluntary deductions. **Includes:** • basic; • shift premium; • bonus or incentive pay; and • any other pay relating to work carried out in the pay period. **Excludes:** • overtime; • expenses; • payments in kind; • the value of salary sacrifice schemes; • payments of arrears from another period made during the survey period; and • any payments due as a result of a pay settlement but not yet paid at the time of the survey.
Weekly pay – excluding overtime	**Definition** All pay relating to the pay period before deductions for PAYE, National Insurance, pension schemes, student loan repayments and voluntary deductions. **Includes:** • basic; • shift premium; • bonus or incentive pay; and • any other pay relating to work carried out in the pay period. **Excludes:** • overtime; • expenses; • payments in kind; • the value of salary sacrifice schemes; • payments of arrears from another period made during the survey period; and • any payments due as a result of a pay settlement but not yet paid at the time of the survey.
Weekly pay – gross	**Definition** All pay relating to the pay period before deductions for PAYE, National Insurance, pension schemes, student loan repayments and voluntary deductions. **Includes:** • basic; • overtime; • shift premium; • bonus or incentive pay; and • any other pay relating to work carried out in the pay period. **Excludes:** • expenses; • payments in kind; • the value of salary sacrifice schemes; • payments of arrears from another period made during the survey period; and • any payments due as a result of a pay settlement but not yet paid at the time of the survey.

Occupation

The interactive charts show ASHE data for full-time employees split by occupation, sector (HE vs. not HE) and gender reported as hourly earnings excluding overtime from 2002 onwards.

Employees who work in HE are defined as those who work in the higher education industry (SIC 854) and whose organisations' Inter-Departmental Business Register (IDBR) legal statuses are either 'non-profit body or mutual association' or 'central government'. Based on this definition, individuals who work in private sector higher education would be grouped under 'Not HE'.

The work compares the gender pay gap and gender balance of HE teaching professionals in the HE sector (HE Sector, SOC 2311) against secondary teaching professionals (SOC 2314) and professional occupations (SOC 2). SOC is short for Standard Occupational Classification.

The 'HE teaching professional in HE sector' earnings data exclude individuals who do not work in higher education, and are specially ordered because these are not separated in the public ASHE tables (for HE teaching professionals). HE teaching professionals data include all academics, i.e. both those on and above the 51-point pay spine, but exclude those designated as researchers. 'Not HE' HE teaching professionals typically work in either technical and vocational secondary education or the private sector.

The approach for analysing 'HE teaching professional in HE sector' earnings data are the same as the approach taken in the New JNCHES Pay in HE reports[13].

In addition to HE teaching professionals, we also compare the full-time gender pay gap for the following key occupations in the HE sector against those outside the sector; the occupations have been selected where there are sufficient data within the ASHE to enable comparisons to be done.

1. Science, engineering and production technicians – SOC 311
2. Information technology technicians (mean) – SOC 313
3. Library clerks and assistants (mean) – SOC 4135
4. Secretarial and related occupations – SOC 42
5. Administrative occupations – SOC 41
6. Kitchen and catering assistants (mean) – SOC 9272
7. Cleaners and domestics (mean) – SOC 9233
8. Business and related research professionals – SOC 2426
9. Natural and social science professionals n.e.c. – SOC 2119

We also compare the gender pay gap and gender balance by one-digit SOC in HE against counterparts across other parts of the economy where data are sufficiently reliable:

1. Managers, directors and senior officials – SOC 1
2. Professional occupations – SOC 2
3. Associate professional and technical occupations – SOC 3
4. Administrative and secretarial occupations – SOC 4

[13] See for example www.ucea.ac.uk/en/publications/index.cfm/payhe2013

5. Skilled trades occupations – SOC 5
6. Caring, leisure and other service occupations – SOC 6
7. Sales and customer service occupations – SOC 7
8. Process, plant and machine operatives – SOC 8
9. Elementary occupations – SOC 9

6.4 Limitations

While the project examines the gender pay gap, the Steering Group noted that additional variables could be of interest in analysis of this kind. While this project has not been able to present combined analysis looking at gender pay differences by other characteristics, such as ethnicity and disability, such data on these characteristics within the HE workforce that is available (from the ECU statistical reporting) is presented and referenced within the report.

For bespoke data orders, the turnaround time is approximately two to three months for the ONS data and 25 working days for HESA data. In order to meet the project timelines, UCEA purchased bespoke data ahead of the project. Therefore some changes to the initial specification were dependant on whether the data are either publicly available or available through the bespoke data which UCEA had ordered ahead of the project.

Thirdly, the project scope does not include action planning to address pay gaps, an activity which customarily follows an institution-level equal pay review exercise. Instead, a key output of the project is to recommend suitable sector benchmarks to supplement equal pay review work.

HESA data reliability

As noted in the findings (chapter 4), the work has thrown up some concerns regarding data reliability. For example, the pay gaps for part-time senior staff in 2014/15 are wider, some greater than 20 per cent. One issue is that the samples are small (fewer than 100) but it is apparent that the results are further compromised by coding errors. A close examination of salaries by gender at the median and quartiles for this group suggests that the very large pay gaps reveal that female senior staff salaries were as low as £18,031. The £18,031 basic pay, according to HESA staff record 2014/15, was for a part-time female director of a major function (level C2) at the lower quartile. The lower quartile basic pay for male staff for the same group was £65,434, giving an unusually high basic pay gap of 72.4 per cent.

HESA staff returns ask that part-time salaries should be converted to full-time equivalent but validation rules only exclude salaries below £4,900 regardless of contract level[14]. So a low full-time equivalent senior staff salary of £18,031 would not be captured by HESA's validation rules and therefore appears in the record despite its questionable validity. It is possible that some of the lower senior staff salaries are prorated and have not been converted to annual full-time equivalent. It is also possible that some individuals may have been assigned to the wrong contract level.

The issue of HESA data reliability for part-time staff has previously been raised in the New JNCHES Pay in HE reports.

[14] www.hesa.ac.uk/collection/c15025/a/salref/

UCEA on behalf of the Steering Group has raised this issue with HESA. Following a series of discussions, HESA has agreed to tighten the salary validation rules for staff records from 2015/16 to minimise coding errors. This includes raising the minimum salary validation threshold to £45,000 for senior staff in contract levels A0, B1, B2, C1, D1, D2, D3 or E1.[15]

7 Previous New JNCHES reports related to the gender pay gap

This report adds to previous New JNCHES work related to the gender pay gap:

- **New JNCHES gender pay working group report (2014/15)**: Six in-depth case studies on how employers are tackling the gender pay gap. The case studies highlighted the role of the Framework Agreement and Athena SWAN charter in encouraging policies and practices which help reduce the gender pay gap. It also cited recent academic research which explains why the gender pay gap is still pervasive – in many occupations those who are able to work continuous hours and be available to work at particular times are paid significantly more than those who are not. For this pattern to change, certain types of workers need to be given greater autonomy and the ability to seamlessly substitute for each other.
  www.ucea.ac.uk/en/publications/index.cfm/njgender

- **Results of the 2013 survey of equal pay reviews (2012/13):** The survey found that the majority of HEIs (71 per cent) have undertaken an equal pay review since 2010, which included an analysis of gender pay gaps within grades. Length of service was the commonly cited objective justification for pay gaps, followed by workforce composition and pay protection arrangements.
  www.ucea.ac.uk/en/publications/index.cfm/jnchesep2013

- **New JNCHES Equal pay reviews guidance for higher education institutions (2012/13):** This guidance provides a checklist of things for HEIs to consider when conducting equal pay reviews. This is the latest version of the guidance, which has been updated to reflect the introduction of the Equality Act 2010.
  www.ucea.ac.uk/en/publications/index.cfm/epr13

- **New JNCHES equality working group overview report (2009/10)**: Reviewed the following three reports and concluded that the survey findings are promising but there is still work to be done and processes to improve.
  www.ucea.ac.uk/en/publications/index.cfm/njeor

- **New JNCHES equal pay review case studies (2009/10)**: Six case studies on how HEIs have implemented equal pay reviews at their institutions.
  www.ucea.ac.uk/en/publications/index.cfm/eprcase

- **New JNCHES Results of the 2010 survey of equal pay reviews (2009/10)**: The survey revealed that the percentage of HEIs that have undertaken an equal pay review has increased since 2007. Like the 2013 survey, length of service, workforce composition and pay protection arrangements were the most common reasons for

[15] www.hesa.ac.uk/collection/c15025/a/salref/

pay gaps which were objectively justified.
www.ucea.ac.uk/en/publications/index.cfm/njsureqpay

- **New JNCHES the gender pay gap – a literature review (2009/10):** The literature review discussed seven factors which could positively or negatively affect the gender pay gap: 1) female participation in the labour market, 2) human capital, 3) occupational segregation, 4) part-time work and caring responsibilities, 5) valuation of women's work, 6) discrimination, 7) structural and institutional factors.
  www.ucea.ac.uk/en/publications/index.cfm/njgpygap

- **JNCHES work-life balance guidance for higher education institutions (2007/08)**: Included a section on equal opportunities and pay: "Action to foster more equal opportunities and to ensure delivery of equal pay for work of equal value is at the heart of this Framework Agreement, and needs to underpin its implementation at local level."
  www.ucea.ac.uk/en/empres/paynegs/jnches-agree/index.cfm

www.eis.org.uk
www.gmb.org.uk
www.ucea.ac.uk
www.unison.org.uk