

# **The shattered glass ceiling and a narrowing gender pay gap in NHS foundation trusts: gender and salaries of chief executives**

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# THE SHATTERED GLASS CEILING AND A NARROWING GENDER PAY GAP IN NHS FOUNDATION TRUSTS

## Gender and salaries of Chief Executives

### ABSTRACT

Female chief executive officers (CEOs) of NHS Foundation Trusts have increased from 37% in 2012/13 to 47% in 2017/18. This paper shows that, in the 5-year period analysed, the gender pay gap (GPG) has narrowed to become insignificant. The paper suggests the improvement of female presence and the narrowing of the GPG go hand-in-hand, at least for these public sector top managers. It also provides indication that the gender pay gap is multifaceted, women may sacrifice high salaries for future financial security.

**Keywords:** NHS Foundation Trust; CEO; glass ceiling; remuneration; Gender pay gap,

### Impact statement

For CEOs of NHS Foundation Trusts gender parity has been reached. In this context over a 5-year period (2013-2018), salary differences between female and male CEOs have narrowed to an insignificant level. Results suggest that shattering the glass ceiling helps to reduce the GPG, and hence gender inequalities. The study also provides original insights into different components of the GPG: salary and pension benefits and the interplay of female risk aversion.

# **THE SHATTERED GLASS CEILING AND A NARROWING GENDER PAY GAP IN NHS FOUNDATION TRUSTS**

## **Gender and salaries of Chief Executives**

### **1. Introduction**

Gender equity in terms of both the access and promotion of women to top management positions and remuneration are, despite improvements, an issue in the political agenda of many developed countries. European Union (EU) countries have adopted strong positions in favour of equal opportunities. However, women tend to face difficulties accessing jobs with the highest salaries and the presence of women in top management seats is very low, that is, a glass ceiling effect exists (Alkadry and Tower, 2006; Arulampalam et al, 2007; Christofides et al, 2013). The presence of women on boards has been studied both in the private (see e.g. Sign and Vinnicombe, 2004; Sign et al, 2015; Vinnicombe et al, 2015) and in the public sector (e.g. Ellwood and Garcia-Lacalle, 2015). Female promotion to top management positions is still on the agenda for gender equality, and this issue might have hidden other aspects, such as a possible gender pay gap (GPG) in those positions. Even after reaching top positions, the remuneration women receive is usually lower than that of men (Elkinawy and Stater, 2011; Gregory-Smith et al, 2014; McGee et al. 2015; Merluzzi and Dobrev, 2015; Goh and Gupta, 2016; Blau and Kahn, 2017; Carter et al, 2017). However, academic literature is needed to show a better picture of gender equality after the implementation of new legislation and initiatives, especially in the public sector.

Regarding salary differences between women and men, evidence confirms that the public sector is a fairer employer (Lewis et al, 2018) than firms. Equality policies are more evident in the public sector, which usually manages equality with substantive

support practices, such as considering it during recruitment and selection as well as the provision for flexible working and family friendly practices (Jones et al 2018). These practices facilitate that women can combine work with upbringing children and are expected to reduce gender pay differentials by reducing vertical segregation. Although the GPG is lower in the public than in the private sector, it is still persistent across the two sectors (Bishu and Alkadry, 2017). The gaps in salary and total pay levels are lower in firms with a higher proportion of female presence on the board (Carter et al, 2017).

The UK enforced the gender equality duty in April 2007 *'in recognition of the need for a radical new approach to equality'* (GED 2006, p.2). The aim of the duty included the narrowing, and eventually the elimination, of the GPG. In the UK, the GPG for full-time employees is higher in the private (15.9%) than in the public sector (13.1%), but the figure for the public sector is the highest since 1999 (see McGuinness and Pyper, 2017). According to the Office for National Statistics (ONS, 2017), the GPG for full-time employees has narrowed during the last two decades, but improvements depend on the region. Devolved nations are closer to pay equality than England, and, in fact, in Northern Ireland the pay gap is in favour of women. In England, women earn 10% less than men, but there are differences between regions, with northern regions showing a lower GPG. London, which had the lowest GPG in the UK in 1997, has made no improvements in these two decades and now shows the worst figure. Jones et al (2018) consider that the years of public sector austerity after the 2010 financial crisis, represent a stalling point in the long-term narrowing of the GPG in the UK. So, despite apparent improvements in shattering the glass ceiling and equal remuneration, the GPG is a persistent problem acknowledged by the two main political parties. One of the first statements of Theresa May as Prime Minister was *'If you're a woman, you will earn less than a man'*, while Jeremy Corbyn asserted during a campaign speech in July 2016, *'Last year Britain was*

*ranked 18th in the world for its gender pay gap ... We can and must do far better.*' (see Elming et al, 2016, p. 4).

The Foundations Trust (FTs) of the National Health Service (NHS) provide a unique context in which to study the GPG at the top of the managerial ladder, the CEO position, because female presence on these boards is already substantial (Ellwood and Garcia-Lacalle, 2015) with a much higher proportion of women than in private sector firms.. The focus of our analyses is on NHS FTs because these organisations have boards of directors of a similar structure to those of commercial companies but with representation from local communities and stakeholders (see Ellwood and Garcia-Lacalle, 2015). Each FT has the ability to set the remuneration of its board members and report their remuneration on an individual basis (see Garcia-Lacalle et al, 2018).

FTs provide over half of the hospital, mental health and ambulance services in England. FTs are distinct bodies that are part of a wide range of NHS organisations including clinical commissioning groups and arm's-length bodies. The FTs authorised at the end of the 2017/18 financial year generated total operating income of more than £52 billion with 750,000 whole time equivalent staff (NHS Improvement, 2018a). By focusing on one single type of organisation and on one single board seat, organisational differences can be discarded in the analysis of the GPG. This paper examines the evolution of chief executive officers (CEOs) female presence in FTs from the end of the financial year 2012/13 to the end of 2017/18, covering a 5-year period. It also analyses CEO salaries to detect any potential GPG and its progression. FT boards are characterised by a significant female presence (Ellwood and Garcia-Lacalle, 2015, Sealy, 2017). A high female presence on boards is expected to have a positive effect in reducing the GPG among their members. Our study provides insights into the debate about female presence

and gender pay differences by analysing these aspects for a specific public sector board seat with individual information, rather than for cohorts of workers with statistical data.

The paper is structured as follows. Section 2 reviews the glass ceiling effect and the GPG in the public sector. The FT context is briefly presented in Section 3. Section 4 presents our research design, including the sample selection and the explanation of the empirical analyses conducted. Section 5 presents the results, which are discussed in Section 6. Finally, conclusions are drawn in Section 7.

## **2. The glass ceiling effect and the GPG in the public sector**

One main reason for salary differences between men and women is the lower percentage of women in better remunerated jobs. Bradley et al (2015) report that gender discrimination is substantial in some public sector occupations, in particular for ‘higher level occupations’, whereas they do not find a gender gap for nurses. Kuhlmann et al (2017), in a study of large publicly funded academic health centres of four EU countries, report that, although the percentage of female medical students and doctors in these countries is within the 40–60% gender balance zone, women are less well represented among specialists and remain significantly under-represented among senior doctors and full professors. These authors state that there has been progress in closing the gender leadership gap on boards and other top-level decision-making bodies, but the gap remains in other academic levels. De Paola et al (2017) explain the lower probability of applying for promotion among Italian female academic professionals due to gender differences in risk-aversion and self-confidence and fear of discrimination. Therefore, in some public sector entities, gender traits may also be part of the glass ceiling effect. In a similar way, Bosquet et al (2013) find that, once in a promotion contest, there are no gender differences

in promotion, but women have a substantially lower probability than men to enter the promotion contest. They explain their results using two main arguments. First, although women are not discriminated during the contest, they believe they will be and, hence, decide not to enter in the promotion process. Second, differences in contest participation may be partly driven by differences across genders in preferences for taking part in a competitive process, which may be the result of women being less confident than men. Lower confidence levels may be due to differences in building confidence during early childhood. Bosquet et al (2003) also note that, in the promotion processes, ‘candidates for full professors are typically between 30 and 40 years of age, when family constraints are likely to be substantial’ and may be more onerous for women.

Private-life factors, such as marital status and parenthood, are also used to explain part of the GPG (e.g. Geiler and Renneboog, 2015; Grund, 2015; Hardoy et al, 2017). In Norway, the GPG in management positions increases considerably after the arrival of the first child and, nine years after the firstborn child, the GPG has increased by around 5% (Hardoy et al, 2017). Geiler and Renneboog (2015) find that, for board members excluding the CEO, there is a GPG which increases after marriage and parenthood. Grund (2015) finds a larger GPG for employees with children, indicating that parental leave is much more pronounced for women than men, although the GPG also exists for employees without children.

Despite legislation and social change, gender continues to play a major role in predicting salaries. However, studies have shown that the public sector is a more favourable context for females than the private sector (Bishu and Alkadry, 2017; Jones et al, 2018). A decade ago, Arulampalam et al. (2007) demonstrated that, in many European countries, the GPG in the public sector was much lower than in the private sector and quantified this difference in a range of between 6 and 16 per cent. More recent data for

Switzerland also shows that a GPG exists in the public sector, but smaller than in the private sector (Anastasiade and Tille, 2017). Antón and Muñoz (2015) find a substantially lower GPG in the Spanish public sector. Albæk et al (2017), after controlling for segregation -measured as the proportion of females in occupations, industries, establishments and job cells- have not found any GPG in the Danish public sector.

The GPG may be narrower in the public sector than in the private sector, but the academic literature indicates that the gap depends on the skills and ranks of workers. Anastasiade and Tille (2017) show that in the public sector the GPG occurs uniformly both in lower and in higher remunerated jobs, whereas in the private sector, this difference is greater in lower remunerated jobs and lower in higher remunerated jobs. As regards overall salary differences between the public and the private sector, Antón and Muñoz (2015) show that there is a positive wage premium to public sector employment concentrated on low-skilled workers, while high-skilled individuals in the public sector suffer a pay penalty in relation to the private sector. This salary structure seems to be a constant in other countries, like France, the UK and Italy (Lucifora and Meurs, 2006). However, there are differences between the three countries; in Italy and France, collective bargaining and trade unions favour a more egalitarian wage structure based on observable characteristics. In the UK, higher employer discretion in wage setting contributes to increase pay dispersion. Giordano et al (2015), for a sample of EU countries, also find a pay differential in favour of the public sector that is generally higher for women at the low tail of the wage distribution.

Outside the European context, the GPG in the public sector varies depending on the country studied. In the Australian public sector, where the average GPG reported is of around 8%, the effect of discrimination on pay is greater in managerial and clerical occupations (Bradley et al, 2015). In Japan and South Korea, the GPG is also smaller in



the public sector than in private companies (Cho et al, 2010; Morikawa, 2016). In South Korea, two factors explain the much lower GPG in the public sector (Cho et al, 2010). First, the self-selection by female workers with high levels of human capital who decide to enter the public sector. Second, the greater levels of institutional efforts, e.g. wage structure, the enforcement of gender equality related laws, and the provision of paid family leave to lower the GPG within the public sector.

In the U.S. public sector setting, there is also evidence of a GPG. For public officials in similar positions, the GPG ranged from \$5,035 to \$9,577 (Alkadry and Tower, 2006). In the same context, Alkadry and Tower (2011) conclude that gender affects the amount of authority that is delegated to an employee, which, in turn, affects the variance in pay between men and women. The GPG has narrowed over the past 35 years in state governments, although the main progress was before 2000 (Lewis et al, 2018). Barbezat and Hughes (2005) reported, for academic centres, that male faculty members earned around 20% more than comparable female colleagues. Despite recent efforts to eliminate discrimination, the gender-based inequity, including unequal salaries, persists in both public and private non-profit research universities (Rabovsky and Lee, 2017). Nonetheless, these authors estimate a lower GPG than previous studies. In the healthcare sector, Desai et al (2016) report reimbursement differentials between women and men in a large proportion of medical specialties, even after adjusting for productivity, amount of work and years of experience. Continuing in the U.S. healthcare sector, Brickley et al (2010) find a negative association between compensation and being a woman among hospital CEOs, although the difference is not statistically significant.

Differences in compensation levels are sometimes explained because of variable components of the remuneration. McGee et al (2015) find that women are less likely than men to receive competitive compensation. Kulich et al. (2011) find that bonuses awarded

to men are larger than those allocated to women because managerial compensation of male executive directors is much more performance-sensitive than that of female ones. Le et al (2011) show that females are much more risk averse than males, but differences in attitudes towards economic risk explain only a small part of the GPG. A greater female risk aversion explains why female executives hold significantly lower equity incentives and demand larger salary premiums for bearing a given level of compensation risk (Carter et al 2017). This aspect is important because gender differences in salary negotiations can affect the variable part of the remuneration either because women are less likely to engage in bargaining than men (see Del Bono and Vuri, 2011) or because when there is no explicit statement that wages are negotiable, men are more likely to negotiate for a higher wage than women (Leibbrandt and List, 2015).

### **3. Female presence and remuneration in NHS FT boards**

Data from the NHS Employers organisation (NHSEmployers, 2018) shows that 77% of the NHS workforce is made up of women, but they have a lower representation in top jobs. Women represent 45% of the medical staff and 47% of very senior manager roles in the NHS. However, female presence in these positions is variable. The Sealy report (Sealy, 2017) shows that the proportion of female-held seats on boards is, on average, 41%, ranging from 8.3% to 80%, with differences depending on the type of NHS organisation analysed (trusts, clinical commission groups or arm's-length bodies). Women represent 85% of chief nurses but only 26% and 25% for chief finance and medical officers, respectively, with an unbalanced proportion of women on the non-executive seats of the NHS boards, one-third women, two-thirds men. NHS organisations present better figures regarding female presence on boards than private sector entities (see Sealy, 2017). This is most likely due to the high presence of women in the NHS as a

whole and the result of a number of initiatives to improve gender equality on boards. The NHS has embraced the target of 50% women on its boards by 2020 (Sealy, 2017) and it also has action plans aimed at increasing the number of women in leading posts (Newman, 2015). The *NHS Improvement* organisation, which is responsible for overseeing FTs among other NHS organisations, is tasked with improving leadership diversity in the NHS. It regularly measures and publishes different aspects related to board diversity (e.g. gender or ethnicity) as a way to achieve diverse boards (NHS Improvement, 2018b).

The FT Code of Governance includes provisions about the establishment of a remuneration committee composed of non-executive directors, which sets the remuneration of the executive directors, including the CEO. Specific gender figures for FTs show that, for the 2010/11 financial year, there was a significant presence of women on FT boards, with an average of 40% for executive directors and 32% for non-executive directors (Ellwood and Garcia-Lacalle, 2015). More recent figures confirm the high female presence, 42.7% of female directors in the FTs for 2017 (see Sealy, 2017). As previously stated, a high female presence on the FT top managerial level is expected to have a positive effect in reducing the GPG. In addition, Ellwood and Garcia-Lacalle (2016) describe the FT context as a context with unequivocal compliance with the structures of corporate governance, which most likely helps to enhance the role of the remuneration committees of FT boards. Strong governance mechanisms are important in mitigating potential opportunistic remuneration behaviours from CEOs (Newton, 2015) and in improving the functioning of monitoring mechanisms such as the remuneration committees.

FTs must disclose detailed information about the remuneration of executive and non-executive members of the board, in the form of a table in the remuneration section of the annual report. The information includes salary and allowances, other remuneration,

performance-related bonuses, taxable benefits and information about pension benefits. This information allows us to study possible pay gaps considering the different ways in which CEOs can be remunerated, such as salary, bonuses and long-term remuneration received in the form of pension benefits.

In terms of possible remuneration differences due to performance bonuses, the study of Garcia-Lacalle et al (2018), conducted for the 2012/13 financial year, reports almost no bonus payments to the executive directors of the FTs. These authors argue that these organisations are reluctant to, and might have difficulties in, adopting performance-related remuneration, which reduces the potential effect of risk-aversion differences when negotiating salaries in this setting.

#### **4. Research design. Sample and Methodology**

Our sample consists of the total number of FTs authorised at the end of two financial years: 2012/13 and 2017/18, 145 and 152 respectively. During 2017/18, employers with 250 or more employees in Great Britain are legally required to report annually on the GPG within their organisation. This measure, approved in 2015, has most likely increased the sensitivity towards the GPG in the UK. The 2012/2013 year has been chosen to have a 5-year period to observe the long-term evolution of both female presence and possible salary gaps.

The gender of the CEO has been obtained from the annual reports of each year, taking into account the person occupying this position at the end of the financial year (31<sup>st</sup> March), either on interim or permanent basis. For the 2017/18 year, 3 people were acting as the CEO of two FTs, because of strategic alliances or a merger process. In order to include 1 CEO per FT, for the description of female presence, 3 CEOs have been accounted twice. We have also computed the number of women on the top seat for non-

executive directors, that is, the chairperson. This way, a better picture of female presence on boards is presented.

For the remuneration analyses, only those CEOs that have been in the seat during the whole year have been included, so remuneration is considered on an annual basis for all CEOs. The final sample for the analysis of remuneration and GPG consists of 114 FTs for 2012/13 and 113 FTs for 2017/18. These figures represent a very significant proportion of all FTs, around 75% of the total number of FTs authorised at the end of each year. For 2017/18, the FTs in which their CEOs received remuneration from two entities have not been included in the analyses because their remuneration is not established under the assumption of full-time dedication to a single FT. The remuneration figures of one female CEO have not been included because disclosures indicate that she is performing medical duties, which represent the main part of her total remuneration, so the assumption of full-time dedication to the board is not fulfilled. Finally, another female CEO has a salary in the range of other CEOs, but the pension benefits presented an extremely high value, 5 times more than any other CEO. Thus, we have not included her data in the analysis of pension benefits and total remuneration.

Remuneration analyses are focused on the CEOs, and figures have been obtained from the remuneration section of the FTs' annual reports. In the remuneration reports, salary, other remuneration and performance bonuses are presented in bands of £5,000. Taxable benefits, which include benefits-in-kind, are usually presented rounded to the nearest £100. The disclosure of the information for pension benefits is enhanced in the annual reports of the 2017/18 year, and they are presented in bands of £2,500. The middle point of the band has been taken for the analyses. Our analyses have consisted on a combination of different univariate analyses. Box-plot analyses have been carried out to obtain a graphical representation of the numerical data of salaries through their quartiles.

The bottom of the box is the first quartile, whereas the top of the box is set by the third quartile. The band inside the box is the median (second quartile) of the sample. The extended lines from each side of the box represent the variability outside the upper and lower quartiles. Box-plots are very useful for identifying outliers and extreme values. Outliers, represented by circles, are values with a distance greater than 1.5 times the length of the box from the percentiles 75 (above) and 25 (below). Extreme values, marked with asterisks, are exceptional values with a distance greater than 3 times or more the length of the box. In addition, we have carried out descriptive and T-test of means, to compare whether two groups (in this case, men and women CEOs) have different average values. These analyses have been carried out for different remuneration levels: i) salary and ii) salary plus other remuneration, taxable benefits and performance bonuses for the two years, 2012/13 and 2017/18. Additionally, for 2017/18, pension benefits for those CEOs that report some amount and total remuneration, which includes all remuneration components, have also been computed. The amount included in pension benefits *comprises all pension-related benefits including the cash value of payments in lieu of retirement benefits and all benefits in year from participating in pension schemes* (see NHS Improvement, 2017, p. 38-39).

## **5. Analysis of results**

Table 1 shows the number and percentage of female CEOs at the end of the two financial years analysed and the evolution during the 5-year period. At the end of the 2012/13 financial year, of the 145 FTs, 54 had a female CEO (37.2%). This figure increases up to 72 of the 152 FTs (47.4%) at the end of the 2017/18 year, which represents an increase of more than 25% of female presence in the 5-year period. Female presence

has reached almost the 50%, thus, parity exists for the CEO seat and it is possible to assert that the glass ceiling is broken in this prominent seat of the FTs. Our figures for the chairperson confirm previous studies of lower female presence on the most important non-executive seat of NHS boards. Despite a significant increase in the 5-year period, less than one third of the FTs, 48 out of 152 (31.8%), had a chairwoman at the end of the 2017/18 year.

**Table 1.** Women on top of the NHS FTs boards of directors.

	2012/13 (145 FTs)		2017/18 (152 FTs)		Δ 5-year period	
	N	%	N	%	N	%
Female CEOs	54	37.2	72	47.4	18	33.3
Female Chairs	35	24.3*	48	31.8	13	30.8

Note: \* Over 144 FTs. One FT had vacant the chair of the board at the end of 2012/13.

Figure 1 shows the box-plot representation of the salary, the main component of the remuneration, according to the gender of the CEOs for the two years. The overlapping of the boxes for men and women indicates that the distribution of the two samples is similar. However, the female sample presents a lower median (the line in the middle of each box) and a ‘narrower’ box, that is, a more concentrated distribution around the median. Therefore, these box-plots show that women tend to have lower salaries and that the variability in salaries tends to be higher for men. In 2012/13 year, the box-plot shows one extreme value for the male sample with a salary of £347,500. Extreme values are exceptional and might cause a misrepresentation of the overall situation analysed, therefore this case is removed from the descriptives and from the T-test of means analyses to obtain a better overall picture of what is happening in the FT context. There is also one outlier, one woman that had the lowest salary, £87,500. For 2017/18, the box-plot shows 2 outliers in the male sample, who had the highest salaries of all CEOs, and 2 outliers in

the female, also because of high salaries, although lower than those of some men. We have kept these cases for subsequent analyses.

**Figure 1.** Box-plot representation of CEO salaries (£000) for 2012/13 (n=114) and 2017/18 (n=113)

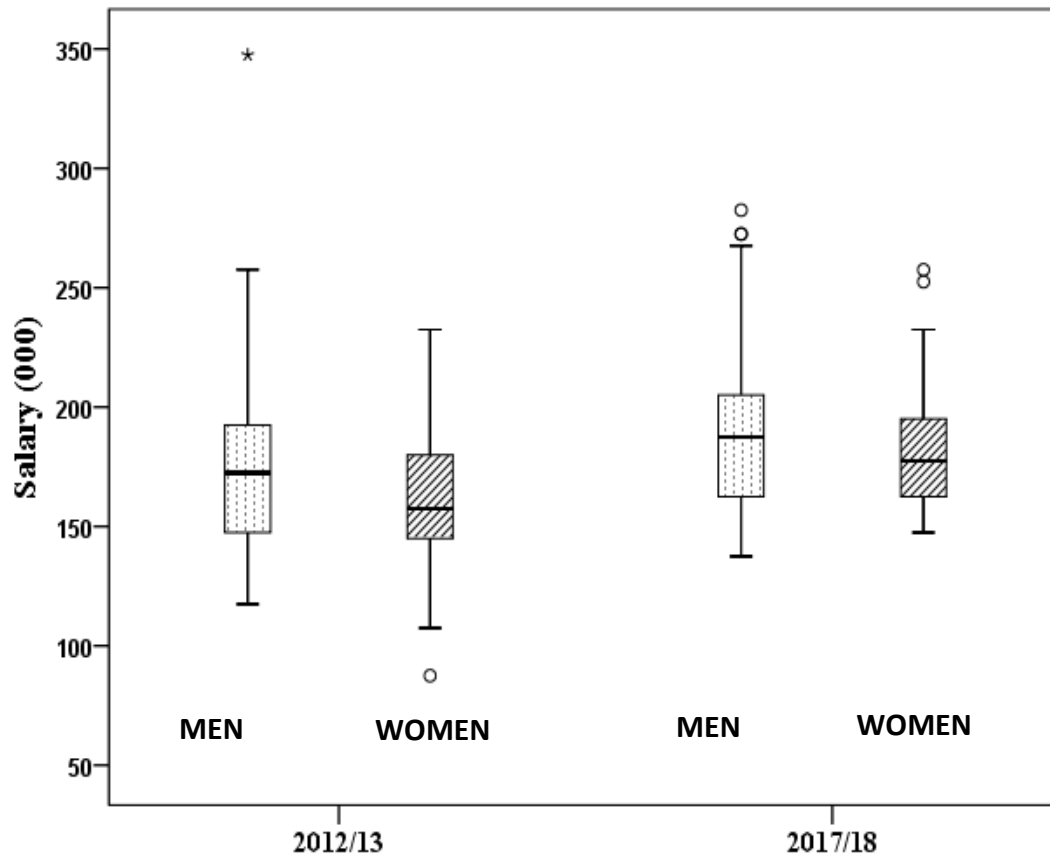


Table 2 presents the main descriptives and the result of the T-tests of two different remuneration levels for 2012/13 of the remaining 113 CEOs after removing the extreme case detected.

**Table 2.** Descriptive statistics and T-test result for the 2012/13 financial year

Salary (£000)							<i>Significance of the T-test</i>
	N	Mean	Std. dev	Min	Max	Median	
<b>Female</b>	47	161.86	27.24	87.50	232.50	157.50	<i>0.03**</i>
<b>Male</b>	66	175.17	34.62	117.50	257.50	170.00	
<b>Total</b>	113	169.64	32.31	87.50	257.50	162.50	
<b>Salary+Taxable benefits+Other remuneration (£000)</b>							



	<b>N</b>	<b>Mean</b>	<b>Std. dev</b>	<b>Min</b>	<b>Max</b>	<b>Median</b>	<b>Significance of the T-test</b>
<b>Female</b>	47	163.89	28.09	87.50	232.50	157.50	0.013**
<b>Male</b>	66	179.58	38.33	117.50	305.00	172.50	
<b>Total</b>	113	173.05	35.17	87.50	305.00	167.50	

\*\* significant at the 0.05 level

Table 2 shows that female CEOs had an average salary of almost £162,000 during 2012/13, whereas the average salary of their male counterparts was more than £175,000. The salary difference is, on average, £13,300 lower for women, that is, 7.5% lower than men. The T-test indicates that the difference of means is statistically significant. When other components of remuneration are included in the analysis, mainly benefits-in-kind, other remuneration and performance bonuses, the average salary of female CEOs increases by about £2,000, whereas for men, the increment is, on average, almost £4,000. This results in a total difference of almost £16,000 and the significance of the T-test almost reaches the 0.01 level of significance. The inclusion of the previously removed extreme value would have increased the remuneration differences and the significance of the T-test.

Table 3 presents figures for the remuneration levels of the 2017/18 financial year. In addition to the information presented in Table 2, Table 3 presents figures for the remuneration received as pension benefits and the total remuneration received by CEOs, that is, salary, other remuneration and pension benefits. For pension benefits, figures refer only to those CEOs whose FTs report some amount in this component of CEO remuneration in the remuneration section of the annual report. As explained in the methodology section, pension benefits and total remuneration of one female CEO have not been included because of the extreme figures presented in the remuneration report in comparison with the rest of the CEOs.

**Table 3.** Descriptive statistics and T-test result for the 2017/18 financial year

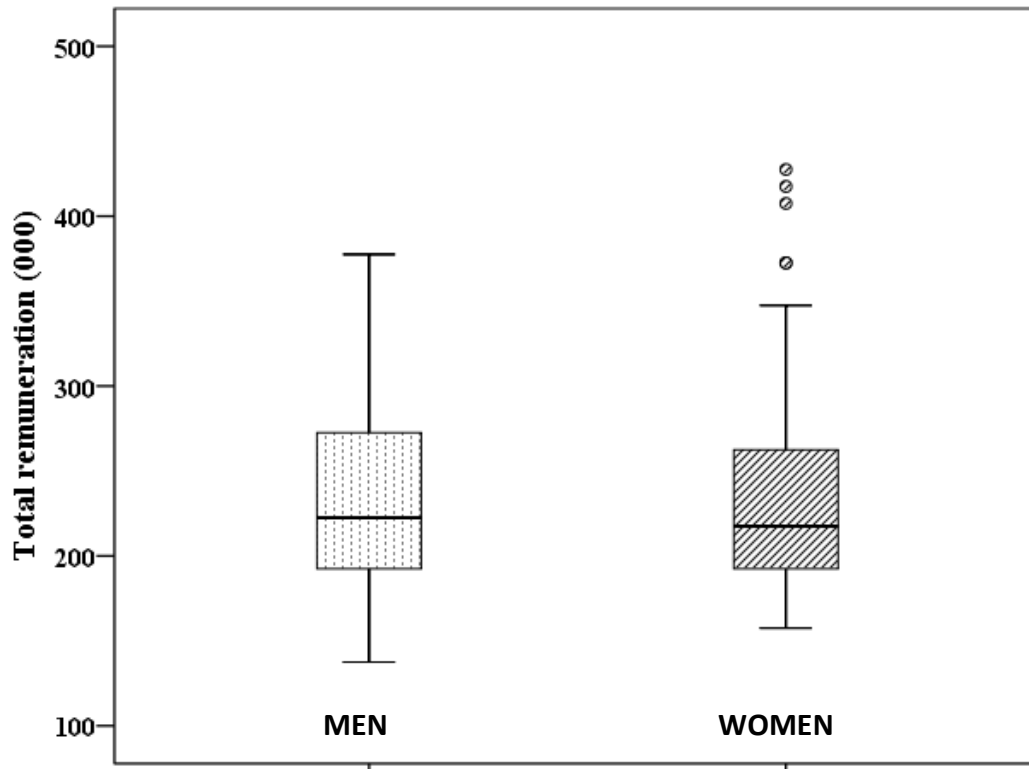
<b>Salary (£000)</b>							
	<b>N</b>	<b>Mean</b>	<b>Std. dev</b>	<b>Min</b>	<b>Max</b>	<b>Median</b>	<b>Significance of the T-test</b>
<b>Female</b>	55	181.59	27.35	142.50	257.50	177.50	<i>0.191</i>
<b>Male</b>	58	189.83	38.46	122.50	282.50	182.50	
<b>Total</b>	113	185.82	33.63	122.50	282.50	177.50	
<b>Salary+Taxable benefits+Other remuneration (£000)</b>							
	<b>N</b>	<b>Mean</b>	<b>Std. dev</b>	<b>Min</b>	<b>Max</b>	<b>Median</b>	<b>Significance of the T-test</b>
<b>Female</b>	55	183.43	26.49	147.50	257.50	177.50	<i>0.119</i>
<b>Male</b>	58	193.02	37.68	137.50	282.50	187.50	
<b>Total</b>	113	188.35	32.93	137.50	282.50	182.50	
<b>Pension benefits (£000) (only for those that report some amount)</b>							
	<b>N</b>	<b>Mean</b>	<b>Std. dev</b>	<b>Min</b>	<b>Max</b>	<b>Median</b>	<b>Significance of the T-test</b>
<b>Female</b>	41	77.35	67.09	6.75	256.25	51.25	<i>0.147</i>
<b>Male</b>	40	59.54	38.71	1.25	153.75	51.25	
<b>Total</b>	81	68.55	55.34	1.25	256.25	51.25	
<b>Total remuneration (£000)</b>							
	<b>N</b>	<b>Mean</b>	<b>Std. dev</b>	<b>Min</b>	<b>Max</b>	<b>Median</b>	<b>Significance of the T-test</b>
<b>Female</b>	54	242.40	69.00	157.50	427.50	217.50	<i>0.446</i>
<b>Male</b>	58	233.55	53.01	137.50	377.50	222.50	
<b>Total</b>	112	237.81	61.12	137.50	427.50	222.50	

In 2017/18, the difference of the salaries between female and male CEOs has diminished, on average, to less than £8,500, which results in a lower salary than men of less than 5%. In this year, the difference of the means is no longer statistically significant. The medians have also reduced their difference in £7,500, from £12,500 in 2012/13, to £5,000 in 2017/18. Therefore, the 5-year period has resulted in a significant narrowing of the salary gap. When other components of remuneration are included, mainly benefits-in-kind and performance bonuses, the increment of the remuneration level is lower than in 2012/13, with an increase of less than £2,000 for women and about £3,200 for men. The

remuneration difference increases to almost £10,000, but it is not statistically significant, and still less than 5% lower for women than men.

The information provided for 2017/18 about pension benefits allows a better analysis of the total remuneration of the CEOs, and the results are very interesting. For the CEOs included in the NHS pension scheme, 81 of 112 (72%) cases analysed, women receive pension benefits of around £18,000 more than men. The median of the pension benefits is the same for women and men and the mean difference is not statistically significant. The same median value and the much higher standard deviation of this remuneration component for women are an indication that, rather than being a general characteristic of women receiving more pension benefits than men, some few female CEOs are receiving relatively high pension benefits. The inclusion of the pension benefits to all other remuneration components results in the reversion of the pay gap. Women receive, on average, a total remuneration of £242,400, which is around £8,900 (3.8%) higher than men, with the difference being not statistically significant. In this year, the minimum total remuneration is for a man and the maximum for a woman. The median value of the total remuneration, £5,000 lower for women, indicates that the reversion of the differences of means is a consequence of few women getting a higher remuneration in the form of pension benefits, as explained before, than because of a generalised situation. Figure 2 shows the box-plot distribution of the total remuneration for men and women, which is very illustrative. As this information is only available for the 2017/18, only this year is presented in the graph. The figure shows that the median and third quartile of the distribution are lower for women than men. The total remuneration of 5 women are represented as outliers, 2 of them with the same value but lower than some men, and 3 of them with the highest total remuneration in 2017/18.

**Figure 2.** Box-plot representation of CEO total remuneration (£000) (n=112) for 2017/18



## 6. Discussion

Female presence and gender pay gaps (GPG) have been extensively researched in private sector organisations. In the boards of directors of this sector, gender inequality is frequently reported by both academic studies and official figures, supporting the glass ceiling effect. The existence of a GPG is also found and usually attributed to some kind of discrimination. However, in the boards of directors of the public sector, these issues have received less attention. Although the public sector is a more egalitarian context, existing literature shows that the GPG also exists, albeit to a lesser extent than in the private sector.

The FTs of the NHS provide a key public service. They are managed by boards of directors which have moved from less than 38% female presence to more than 47%

during the last 5 years. Thus, the proportion of female CEOs falls within the 45-55 percent range to be considered a 'truly balanced' situation (see Sealy, 2017). However, as different reports show, the glass ceiling seems to exist in other board seats. We have also computed the number of women in the most prominent non-executive seat of the board, the chair. The proportion has increased from 24.3% to 31.6%. Thus, for chairpersons, parity has not been achieved yet. This result, together with the figures reported above, are consistent with the findings of Ellwood and Garcia-Lacalle (2015), who found that female presence in the non-executive seats of the board is lower than for the executive seats, suggesting that the appointment of women for non-executive seats may be influenced by similar factors that result in a lower democratic representation of females in parliaments. These results also show that women may find it easier to climb stairs for some board seats than for others. As the nomination and remuneration committees are made of non-executive board members, the inclusion of more women as non-executives might help to increase female presence further in the executive seats and to reduce the GPG.

The box-plot analysis has shown that salaries present a similar distribution between men and women for the two years studied. However, the mean values of the salaries are lower for women than for men, and the T-test analysis has shown that female CEOs had a significantly lower salary than their male counterparts in 2012/13, which amounted to about £13,000. The gap was even wider when other remuneration was included in the analysis. Five years later, the salary gap has been reduced to less than £8,500. The reduction is more evident in terms of the proportion that the gap represents in comparison to the salary of male CEOs, narrowing from 7.5% to less than 5%, and the T-test shows that the gap in 2017/18 is no longer statistically significant. Even though bonuses are not frequent in NHS FTs (see Garcia-Lacalle et al, 2018), when other components of remuneration are included in the analyses, such as benefits-in-kind and

performance bonuses, the gap is greater, but remains statistically non-significant. These findings, together with the more stretched box-plots for men's salary, could be an indicator that male CEOs in NHS FTs are more prone to negotiate their salaries and other components of their remuneration. As shown by Lucifora and Meurs (2006), higher employer discretion in wage setting may contribute to increase pay dispersion in the UK.

Figures disclosed in the annual reports for 2017/18 have allowed us to study an important component of the remuneration, pension benefits, and to include it for the analysis of the total remuneration of the CEOs. This reverses the GPG, and results in a higher total remuneration average for women than men. However, the median value is lower for women. Thus, the 'reversion' effect is due to some few women getting very high pension benefits rather than benefiting most women. Overall, these results are consistent with those found by Brickley et al (2010) in the US, who found a negative association between compensation and being a woman among hospital CEOs, although the difference is not statistically significant. These results also support the idea that men negotiate differently than women some components of their remuneration and that women may sacrifice higher salaries for future financial security in the form of higher pension benefits.

During a 5-year period, the GPG has narrowed in a way in which it is no longer statistically significant. In 2017/18, the gap may be important in absolute terms, more than £8,000 for the salary and almost £10,000 when benefits in kinds and bonuses are included, but these differences are not so important when observed in relative terms. Our analyses do not allow us to affirm that differences for some components of the remuneration are due to some kind of discrimination. The salaries of the CEOs also depend on organisational aspects (such as the size of the FT, the type of services provided and location) or human capital aspects (such as tenure and professional experience). It is

also possible, as stated, that women and men negotiate salaries in a different way, which would be signalling gender traits differences. Median figures are systematically unfavourable for women and some kind of discrimination, or some gender traits that influence remuneration, cannot be completely discarded. However, the remuneration distributions shown by the box-plot graphs, with quite similar distributions for the two genders, suggest that differences are most likely due to organisational, human capital factors or differences in salaries negotiation between men and women rather than due to discrimination. The reversion of the GPG for 2017/18, when total remuneration is considered, helps us to support the argument that there is no discrimination. Moreover, the FT context is a favourable setting for women: public sector organisations, where regulation is better enforced; in a sector, healthcare, characterised by a high female presence in most levels; and with boards of directors with a significant female presence moving to parity. Further research should help to ascertain whether gender traits and discrimination are behind remuneration differences or whether they are mainly explained by organisational or human capital factors.

To conclude this section, it is worth highlighting the limitations of our empirical analyses. First, salary information is provided in the remuneration reports in bands of £5,000 (£2,500 for pension benefits). Therefore, we do not have the exact amount for the remuneration of each CEO, and we have used the middle of the bands for our analyses. Exact figures could lead to some different results. Second, we have computed female presence and salary variation over a 5-year period, but we cannot ensure whether the increases have taken place regularly on a yearly basis or whether fluctuations exist within this period. Further research could extend the analysis to include more years and yearly trends. Further research on pension benefits is also needed. The pension benefits differences in our study may be explained by CEO's age differences between men and

women or because of women's personal choice for present salary sacrifices in exchange of greater pension contributions. This possibility would be signalling a trade-off between salary and pension benefits, thus the interplay of female risk aversion when setting overall remuneration. In addition, , there are two pension schemes in the NHS, the 1995/2008 Scheme and the 2015 Scheme, which may also cause differences in pension benefits. Finally, tax penalties may affect pension contributions and generate gender differences: if an individual's total pension savings exceed the lifetime allowance, tax charge is due on the excess benefits (NHSemployers, 2019). Nonetheless, our figures provide interesting insights about the gender issue in organisations that manage a huge amount of public resources and are so important in the lives of citizens.

## **7. Conclusions**

The glass ceiling might not be removed in the NHS as a whole, but for the most prominent executive seat of the board of directors of Financial Trusts (FTs), the CEO, the women-men relationship has almost reached parity in 2017/18 (47-53%), so the glass ceiling is shattered for this top position in FTs. However, previous studies and official figures, as well as our own figures for the chairperson indicate that, despite improvements, gender equality has not been reached for certain top-management positions. These results suggest that climbing stairs may be easier for some board seats than for others.

Our analyses of the gender pay gap (GPG) evolution in a 5-year period, the financial years 2012/13 and 2017/18, indicate a narrowing of the gap, which has become statistically non-significant in the last financial year. The NHS context, in general, and the structure of the boards of directors of its FTs in particular, should be favourable for women and help to reduce possible discrimination towards them. Reaching parity may be



a factor that helps narrowing the GPG in the boardroom. The fact that, on average, the total remuneration of the CEOs has become higher for women than men supports the idea that the salary gap is not due to discrimination but perhaps other traits such as female preference to be more risk averse and hence sacrifice present salary for future financial security. There is still a gap, not statistically significant but important in monetary terms, for the main component of the remuneration, the salary. However, the component of the remuneration that is higher for some women is pension benefits. Further research is needed to explain the causes of these differences in remuneration levels in specific top management positions.

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