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ABSTRACT

Organisational Gender Pay Gaps in the UK: What Happened Post-transparency?*

Since April 2017 UK employers with over 250 employees have been required to publicly report their gender pay gap each year. We exploit this recent source of panel data on employer-level gender pay gaps to provide new insights for the established literature on the gender pay gap based predominately on employee information. More specifically, we explore the factors associated with changing organisational gender pay gaps in the period immediately following transparency. Consistent with information, reflection and pressure brought by the legislation, we find greater narrowing of gender pay gaps in organisations with a larger initial gender pay gap. Moreover, this relationship is magnified over time, consistent with gradual and longer-term adjustment. We further find evidence that interorganisational comparisons matter. For organisations with higher gender pay gaps than the average of their intra-industry comparators, lower comparator gender pay gaps are associated with further narrowing, suggesting relative comparisons enabled by transparency per se provide a channel through which the impact of the legislation operates.

JEL Classification: J31, J38, J78

Keywords: gender pay gap, pay transparency, equality legislation

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1. Introduction

In 2015 David Cameron as the UK Prime Minister announced his aim to "end the gender pay gap in a generation".[1] Key to achieving this was the introduction of the Equality Act 2010 (Gender Pay Gap Information) Regulations 2017, requiring large employers to calculate and publicly report their organisational-level gender pay gap (hereinafter, GPG) annually. The rationale was three-fold. First, employers would be aware of the absolute GPG *within* their organisation. Second, employers (as well as employees, customers and investors) would learn the relative size of their organisational GPG, promoting comparison and competition *between* organisations.[2] Third, employers were encouraged to provide narratives (and action plans) to understand, explain and start to address their GPG.[3] While GPG transparency legislation has been introduced across several countries, including Denmark, Austria and Switzerland one of the unique features of the UK legislation is the requirement that these data are made public, including via a central government website managed by the Government Equalities Office (hereinafter, GEO) to promote comparison.[4] We use this new source of contemporary data on employer-level GPGs to provide the first analysis of changes in employer GPGs, the focus of the policy, immediately post-transparency. Consistent with the mechanisms through which the legislation was designed to operate we concentrate on the relationship between changing employer GPGs and, (1) the initial organisational GPG, and (2) the GPG among comparator organisations which we define as organisations operating in the same narrowly defined industry.

In the UK, as well as internationally, studies have used linked employee-employer data to provide new insights into the role of workplace characteristics, including employer practices (Chatterji *et al*., 2011), gender segregation (Mumford and Smith, 2009) and female managers (Theodoropoulos *et al*., 2019). Most recently, consistent with growing international attention (see, for example, Card *et al*., 2016; Kaya, 2021), Jewell *et al*. (2020) explore within and between 'firm' drivers of the UK GPG and confirm the importance of within-firm gender wage inequality, aligned to the employer focus of the transparency legislation. Existing UK evidence on organisational GPGs has, however, been based on data from the Workplace

[1] See: https://www.gov.uk/government/news/prime-minister-my-one-nation-government-will-close-thegender-pay-gap.

[2] This also enabled the media to 'name and shame' employers and sectors. See, for example, https://www.bbc.co.uk/news/business-47252848.

[3] By May 2018 48% of organisations were estimated to have provided an action plan (Government Equalities Office, 2018).

[4] The data are available at: https://gender-pay-gap.service.gov.uk/.

Employment Relations Survey and the Annual Survey of Hours and Earnings (ASHE). While the former is a nationally representative matched employee-employer dataset it is based on a sample of workplaces rather than firms, was last updated in 2011, and relies on small samples of employees who self-report pay (in bands) to generate within workplace estimates. In contrast, although ASHE contain accurate and contemporary information from employer payroll records, it is based on a 1% sample of employee jobs and thus not representative of UK employers.

We build on this evidence by exploring employer-level GPGs using the UK GPG Reporting Data (hereinafter, Reporting Data) where, standardised and established GPG measures are required from *all* in-scope employers and relate to payroll data for *all* eligible employees within the organisation. While such information has been summarised by the GEO (see, for example, GEO, 2018) and headline figures highlighted by the media, these data have received limited academic scrutiny.[5] In filling a void in UK data collection the Reporting Data is a new and underutilised resource with particular relevance for analysing the recent introduction of GPG transparency legislation. Using annual data from 2017-2020 we provide the first evidence on how employer GPGs changed immediately post-transparency.[6] Over this period employers will have had time to take proactive steps, including in relation to recruitment, retention and promotion to narrow their GPG in response to the information, reflection and pressure brought by transparency.[7] Aligned to both the motivation for transparency and bargaining theory we focus on the relationship between the initial publicly reported employer-level GPG and the subsequent change in GPGs. We explore both the initial organisational GPG and measures relating to similar organisations (defined in terms of industry), and test whether, consistent with the rationale underlying the legislation, organisations with larger absolute and relative GPGs exhibit greater narrowing.

Theory predicts that, in the presence of a GPG in favour of men, transparency will enhance information and strengthen the relative bargaining power of women, and lead to a narrowing

[5] The only exceptions are Duchini *et al*. (2020) and Ahamed *et al*. (2019). However, both studies focus on characteristics correlated with company GPGs rather than considering change over time (see Section 2 for details).

[6] The enforcement of the regulations was suspended in March 2020 due to COVID-19. Thus, in our analysis we focus on 2017-2018 but also explore longer-term changes using the subset of reporting employers (see Section 4.3).

[7] The legislation requires that employers report within one year of the data collection and the relative position of an organisation is therefore likely to become evident slowly over the course of the first year. As such, the impact of between organisation comparisons is likely to occur with a lag, particularly since in the first year most employers reported relatively close to the deadline.

GPG (see Gamage *et al*. 2020 for a similar discussion).[8] Duchini *et al*. (2020) and Blundell (2021) also argue that employer reactions are likely to differ depending on pre-transparency GPGs. For example, Blundell (2021) suggests that organisations with 'low or zero pay gaps' will have less incentive to respond. Therefore, all else constant, the influence of both employee bargaining and management changes in equality practice are likely to be greater in organisations with a larger initial GPG both in absolute and relative terms. However, as Baker *et al*. (2019) note, the relationship between the initial GPG and the impact of transparency depends on the influence of factors correlated with the initial employer GPG. In our analysis, we control for key observable employer characteristics including size, industry and region, and account for time invariant characteristics by focusing on changes in organisational GPGs. Given the nature of the Reporting Data we are, however, unable to control for pre-transparency trends, albeit these might be less informative given the structural change prompted by the legislation. In this respect, unlike recent studies which attempt to evaluate the impact of the introduction of the legislation using employee data (see, for the UK, Duchini *et al*., 2020 and Blundell, 2021), our aim is to explore whether changes in organisation GPGs post-transparency are consistent with the mechanisms through which the legislation was predicted to operate.[9] Nevertheless, if as Baker *et al*. (2019) suggest, unobserved pre-existing factors enhance the impact of transparency among organisations with a smaller initial GPG this will downward bias our estimates, leading to a lower bound interpretation of the role of the initial GPG.

We present evidence consistent with bargaining theory, that is, post-transparency employer GPGs narrowed more in organisations with a larger initial GPG. Moreover, the magnitude of this relationship is magnified over time, suggestive of longer-term change. Our findings are therefore consistent with the rationale underlying the legislation and align to recent evidence suggesting its effectiveness (Duchini *et al*., 2020 and Blundell, 2021). Further scrutiny suggests the GPG among intra-industry comparator organisations is also important. For organisations with initial GPGs above the comparator average, lower GPGs among intra-industry organisational comparators are associated with further own organisational GPG narrowing. This is consistent with the importance of *between* employer or relative comparisons, facilitated by the uniquely public dimension of the UK legislation. These

[8] If men, but not women, use GPG information in bargaining, in theory the legislation could widen the GPG given the presence of firms with a GPG in favour of men. Additional channels through which narrowing might occur due to the public nature of the information, including media attention and public scrutiny.

[9] Recent studies that explore the causal effect of GPG transparency legislation internationally include Bennedsen *et al*. (2019) (Denmark) and Gulyas *et al*. (forthcoming) and Böheim and Gust (2021) (Austria).

patterns are common across organisations regardless of sector or workforce composition by gender.

The remainder of this paper is structured as follows: Section 2 provides a brief overview of the UK legislation and summarises recent evidence on the impact of corresponding transparency legislation internationally. Section 3 provides details of the Reporting Data and measures applied in this analysis. Section 4 sets out our analysis and findings relating to both the influence of the initial absolute and relative GPG on narrowing post-transparency. Section 5 concludes.

2. GPG Transparency

2.1 GPG Reporting in the UK

The transparency legislation extended existing UK equality legislation (Equality Act, 2010) and requires that employers (from the public, private and voluntary sectors) with more than 250 employees report six organisational level equality indicators based on standardised measures, facilitating comparability across employers and over time.[10] Reflecting the government's emphasis on employers as decision takers in relation to pay and promotion, the focus is entirely at the employer level. The measures include mean and median hourly GPGs, gender bonus gaps and the percentage of women at quartiles of the wage distribution (see GEO, 2018 for further details). In the context of the academic literature, the information reflects the raw (or unadjusted) GPG, rather than the unexplained (or adjusted) GPG which accounts for gender differences in personal and work-related characteristics of employees. Organisations are required to calculate these measures on a 'snapshot' date each year, which for private (and voluntary) sector employers is 5th of April and for public sector employers is 31st of March. There is a legal requirement to report these figures to the GEO within a year, and the report must be signed off by a senior person within the organisation.[11] While not all employers reported by the deadline, 100% of all employers deemed in scope of the regulations reported in the first year (GEO, 2018), which we refer to throughout as 2017 based on the snapshot date.[12] The information from each employer is made available publicly through a central website facilitating comparisons between employers. The latter

[10] The exclusion of smaller organisations was motivated by both concerns over data reliability and the burden on employers. The legislation covers employers in Britain and does not apply in Northern Ireland.
[11] Only basic checks of the reporting figures are undertaken by the GEO. The accuracy of the data therefore depends on the employer, who can revise their submission should errors be identified.
[12] While there are no automatic or direct sanctions, the Equality and Human Rights Commission can investigate organisations suspected of not reporting and can require employers to provide this information. Those who continue not to do so can be fined (see Francis-Devine and Pyper, 2020).

distinguishes the UK legislation from much of the corresponding legislation internationally which, despite often requiring more detailed GPG information from employers, including for example, by occupation, has focused on transparency among employees *within* organisations (see, for example, Denmark and Austria).

To our knowledge only two previous academic papers have utilised these data.[13] Duchini *et al*. (2020) merge GPG Reporting Data from 2017 and 2018 with information on job advertisements from Burning Glass Technologies to explore whether features of job adverts are correlated with company GPGs in each year. Interestingly they find that organisations in industries with a high GPG pre-transparency are more likely to include wage information in job advertisements post-transparency, consistent with a differential organisational response. In the same study, they also explore the impact of the first reported GPG on performance measured by cumulative abnormal returns among companies listed on the London Stock Exchange. Perhaps the closest usage to our own, Ahamed *et al*. (2019) link the 2017 and 2018 Reporting Data to the Financial Analysis Made Easy (FAME) database to identify the relationship between company GPGs and the composition of corporate boards, finding a smaller GPG in firms with foreign directors. While they control for a series of time varying observable firm characteristics, they treat each firm-year observation as independent and do not explore changes within employers as we do here.

2.2 The Impact of Pay Transparency

Our analysis is complementary to the international literature on pay transparency, where the focus in relation to gender has been on attempting to evaluate its impact on the GPG. In terms of transparency legislation, studies have typically applied a difference-in-differences methodology based on firm size eligibility to employee information and, where significant, have found an increase in female relative to male earnings, although often through a downward trend in male wages (see Bennedsen *et al*., 2022 for Denmark, Gulyas *et al*., forthcoming for Austria and Duchini *et al*., 2020 for the UK). Several of these studies consider heterogeneity in the impact of transparency, including in relation to pre-existing employer characteristics. However, they find mixed evidence in relation to the employer GPG. Bennedsen *et al*. (2022) find evidence of a greater GPG narrowing in firms with a higher initial GPG (as measured by the industry-occupation average), whereas Baker *et al*. (2019) and Gulyas *et al*. (forthcoming) suggest transparency further widened the GPG

[13] Descriptive statistics based on these data are also reported by Blundell (2021), but his analysis is based on the ASHE.

between firms and, in the context of UK higher education, Gamage *et al*. (2020) find no relationship between the initial university GPG and impact of transparency. There is therefore no consensus as to whether the impact of transparency has been greater among the organisations it was particularly designed to target. This evidence, however, tends to be based on the impact of the introduction of the legislation, utilise employee level data and assess the impact on unexplained GPGs despite these not being the focus of the legislation. In contrast, our analysis explores this issue by analysing trends in employer GPGs post-transparency, as defined by legislation, and conducted utilising the Reporting Data itself.

3. GPG Reporting Data

We use the Reporting Data made available from the GEO in November 2021 which contain annual information for all employers reporting their GPG, from 2017 (required to report by 2018) to 2021 (required to report by 2022).[14] We consider employer-level outcomes directly targeted by the policy and focus on the average (mean) organisation hourly GPG each year, measured during the pay period containing the snapshot date and defined in terms of the percentage of the relevant male average hourly earnings.[15] These measures are aligned to the Office for National Statistics preferred measures, since the figures relate to employees earning their usual full basic pay (i.e. excluding absence) and exclude overtime payments but include performance-related pay in the reference period. Employers are, however, required to weight full- and part-time employees equally in their calculations rather than use full-time equivalents, with the result that organisational GPGs are likely overestimated given lower paying females are typically overrepresented in part-time work (Mumford and Smith, 2009).

Given changes in GPG reporting requirements due to COVID-19 we initially focus on the first two years of reporting, that is, 10,670 and 10,865 employers in 2017 and 2018 (required to report by 2018 and 2019) respectively.[16] Descriptive statistics relating to mean organisational GPGs in each year are presented in Table 1.[17,18] A positive value indicates a GPG favouring men. As shown in Table 1 (Panel A), organisational GPGs take positive, negative (in favour of women) and zero values, and while the average organisational GPG in

[14] These data contain a unique organisation identifier for linking across reporting years. The number of reporting organisations change over time due to both changes in those defined as in scope of the legislation and those that use the service to report voluntarily (see later discussion).
[15] Our findings are robust to alternatively using the median GPG (see Section 4.5).
[16] Reporting of 2019 figures (in 2020) was voluntary given the suspension of enforcement of the regulations due to COVID-19, and for 2020 reporting deadlines were extended by six months. However, given the timing of our data, all organisations reporting by the extension will be included.
[17] Measures reflect the final report for the reporting year and therefore the most accurate/updated GPG figures.
[18] In sensitivity analysis we exclude GPG outliers (see Section 4.5).

2017 is 14.33%, there is stark variation across organisations as illustrated by the difference between the 90th and 10th percentiles of the GPG distribution. One year on, the corresponding figures are very similar, with a slight decrease in the average GPG reported.

Given the policy, motivated by the national GPG in favour of men, focused on narrowing positive organisational GPGs, and because of the complexity in interpretation introduced by including negative GPGs, we restrict our analysis to the 84.22% of organisations with a positive GPG in both 2017 and 2018.[19] From these, we construct a balanced panel of organisations and focus on changes in organisational GPGs. After removing organisations with missing values on any of our variables of interest (see below) we have information on 7,530 employers. Among these organisations we observe a relatively small but narrowing GPG between 2017 and 2018 (see Table 1, Panel B).

[Table 1 here]

In terms of employer characteristics, the Reporting Data contain detailed administrative information, including organisation name, address, industry (5-digit Standard Industrial Classification (SIC) code), organisation-size (banded) and public/private sector. This allows us to control for the wider industrial and regional labour market context in which the organisation operates. The data also contain administrative information, including whether the organisation is in scope of the legislation, that is, has 250 or more eligible employees.[20] The data do not contain information on the characteristics of the workforce and so we are unable to control for occupational composition or the prevalence of part-time employment.[21] Further details of all explanatory variables and their means, measured in 2017 are included in Appendix Table A.1.

[19] As Blundell (2021) notes there is no evidence that employers with GPGs in favour of women have been subject to media attention. Nevertheless, we explore the robustness of our findings to analysing the absolute GPG among the entire sample (see Section 4.5).
[20] Organisations outside the scope of the legislation were encouraged to use the service and report their GPG but comprise less than 1% of our sample. We control for voluntary reporters in our analysis but also explore the sensitivity of the findings to their exclusion (see Section 4.5).
[21] We are, however, able to consider the role of the percentage of the workforce that is female (see Section 4.4).

4. Empirical Analysis and Results

4.1 Initial GPG

To explore the change in GPG immediately post-transparency our GPG equation initially takes the form:

$$\Delta GPG_j = \alpha + \boldsymbol{X_{j2017}\mu} + \varphi GPG_{j2017} + \varepsilon_j \quad (1)$$

where the annual (2017-2018) percentage point change or difference in the natural logarithm of the mean GPG in firm j (ΔGPG_j) is regressed on a set of organisation characteristics in 2017 ($\boldsymbol{X_{j2017}}$), the GPG in 2017 (GPG_{j2017}), and ε_j is the random error term. Percentage point changes reflect absolute changes in the GPG (i.e. $\Delta GPG_j = GPG_{j2018} - GPG_{j2017}$) whereas we approximate percentage changes using differences in the natural logarithm of the GPG (i.e. $\Delta lnGPG_j = lnGPG_{j2018} - lnGPG_{j2017}$) which therefore adjust for differences in the level of the initial GPG facilitating more accurate comparisons across employers. Negative values of ΔGPG_j ($\Delta lnGPG_j$) therefore indicate absolute (proportional) GPG narrowing. In focusing on change over time, the specification accounts for fixed observed and unobserved employer characteristics which determine the GPG but, unlike using employer fixed effects, allows us to control for observable employer characteristics in the first reporting year. We estimate equation (1) both excluding and including organisation characteristics $\boldsymbol{X_{j2017}}$ namely a set of industry (19 SIC section) dummies, region fixed effects, a set of variables which control for employment size (in bands) and a control for being in scope of the legislation.[22] Together these control for differences in the change in GPG relating to industry, region, organisation size and reporting voluntarily. Theory would predict that transparency acts to enhance the information and bargaining power of female employees and improve women's relative pay (Cullen and Pakzad-Hurson, 2021), leading to a greater narrowing of the GPG in organisations with a larger initial GPG ($\varphi < 0$), or convergence between organisations, all else constant.[23]

The ordinary least squares (hereinafter, OLS) estimates presented in Table 2 illustrate the association between the initial organisational GPG and the percentage point and percentage change in the mean GPG over the first two reporting years. Regardless of specification, the negative coefficient estimates indicate convergence in employer GPGs over time, that is, the

[22] Region refers to the employer address which may not coincide with the location of workplaces. Given the relationship between industry and sector we do not control for the latter but explore heterogeneity by sector in Section 4.4.

[23] As noted above this is likely to be reinforced by managers reaction to new information.

GPG narrows more in organisations with a higher initial GPG. After accounting for other organisational characteristics, a one percentage point increase in the initial GPG is associated with a greater annual decline in the GPG by 0.12 percentage points (approximately 0.7%), that is, the GPG narrows most in organisations where transparency exposed greater pay disparities, consistent with the rationale and targeting of the legislation.

[Table 2 here]

4.2 Relative GPG

In addition to exploring the initial absolute GPG we also explore the extent to which the relative GPG matters given the uniquely public nature of transparency in the UK. Indeed, media attention has focused on comparison of employer GPGs and 'naming and shaming' employers with large positive GPGs. Consistent with this, we explore the relationship between the change in the GPG and a comparator GPG measured in 2017, conditional on own initial GPG. More specifically, we construct an average GPG among other organisations in the same industrial division (88 SIC 2-digit categories) excluding the organisation itself (the 'leave-one-out' mean), in 2017 ($\overline{GPG}_{-j2017}$).[24,25] This is added to equation (1) as follows:

$$\Delta GPG_j = \alpha + \boldsymbol{X_{j2017}\mu} + \varphi GPG_{j\mathbf{2017}} + \delta\overline{GPG}_{-j2017} + \varepsilon_j \quad (2)$$

The significance of δ in equation (2) would be consistent with the importance of the size of GPGs in comparator organisations, or the relative situation, being related to changes in the organisational GPG over time. A positive (negative) coefficient would suggest a larger average GPG among comparators, or industry norm, is associated with a widening (narrowing) GPG. We hypothesise that, all else constant, the comparisons facilitated by transparency, whether among employers, employees or the public, will generate pressure for employers above their comparators to narrow their GPG. As such, in equation (3) we allow the relationship between the change in GPG and $\overline{GPG}_{-j2017}$ to vary depending on whether the organisation's initial GPG is above their industry comparator mean ($GPG_{j\mathbf{2017}} > \overline{GPG}_{-j2017}$) by including an interaction term as follows:

[24] We calculate these relative to the average based on the entire 2017 sample who would form the real-world comparator. On average there are 109 organisations within each division. One organisation is excluded from our analysis due to the absence of a comparator within the SIC division. A further nine SIC divisions contain less than five comparators, but the findings are robust to the exclusion of these observations (results available upon request).

[25] We explore the findings with respect to alternative measures of the comparator GPG in Section 4.5.

$$\Delta GPG_j = \alpha + \boldsymbol{X_{j2017}\mu} + \varphi GPG_{j\mathbf{2017}} + \delta\overline{GPG}_{\text{-}j2017} + \gamma\mathbb{I}\left(GPG_{j\mathbf{2017}} > \overline{GPG}_{\text{-}j2017}\right) \quad (3)$$
$$+ \eta\overline{GPG}_{\text{-}j2017} \times \mathbb{I}\left(GPG_{j\mathbf{2017}} > \overline{GPG}_{\text{-}j2017}\right) + \varepsilon_j$$

where $\mathbb{I}(\cdot)$ is an indicator function. Conditional on the own initial GPG, greater pressure for employers further above their comparators to narrow their GPG would be consistent with an increase in the comparator mean GPG reducing GPG narrowing ($\eta > 0$). Given our comparator is based on SIC industrial divisions we estimate specifications which exclude and then include controls for broader industry (SIC section).

These estimates are presented in Table 3, where columns 1 and 2 relate to equation (2), and column 3 relates to equation (3). Despite the addition of the comparator GPG, the coefficient on the initial GPG remains similar to that in Table 2, with a higher own GPG associated with greater narrowing. Importantly, after the inclusion of the initial GPG, the comparator GPG is positive and significant, suggesting that the relative GPG also matters (column 1). The positive coefficient is consistent with organisations with a high comparator GPG, conditional on their own GPG, facing less pressure to narrow. This is true even after controlling for industry section (column 2). Interestingly the coefficients on own and comparator GPG are of similar magnitude but opposing sign suggesting that increases in own GPG and reductions in comparator GPG would have a similar narrowing influence. The estimates in column (3) confirm it is in organisations with a higher GPG than their comparator average where the comparator GPG is important. For these organisations, a 1% increase in $\overline{GPG}_{\text{-}j2017}$ reduces GPG narrowing by 0.10 percentage points (or approximately 1.9%). Moreover, even with a zero average comparator GPG, being above the comparator average is associated with narrowing by 1.5 percentage points (or approximately 31%).[26] Nevertheless, one could argue that the one-year period might be too early to capture the role of relative GPG comparisons, and hence, we consider longer-term adjustment in what follows.

[Table 3 here]

4.3 Longer-term Analysis

To capture longer-term change, we also estimate the same models for those reporting data on the 2019 and 2020 snapshot dates, recognising reporting of the 2019 figures (in 2020) was voluntary.[27] The extended period has the advantage that both employees and organisations

[26] In our data the comparator average GPG ranges from -3.47% to 31.1%.
[27] In our data, relatively few organisations (854) (345 in our balanced panel subsample) have yet reported their GPG for 2021 and so we do not consider this here.

will have greater time to assess their relative position, react to the information brought by transparency and for changes introduced in response to take effect. The extended period also provides a more sustainable measure of these relationships post-transparency.

Our estimates based on equation (3), where the change in the mean GPG from 2017 to 2019 and 2020 respectively are considered, are presented in Table 4.[28] The core patterns are similar to that observed in 2018, with a greater narrowing of the GPG observed in organisations with larger initial GPGs, consistent with these patterns reflecting more permanent and sustainable changes post-transparency. Indeed, in contrast with evidence from Blundell (2021) of an immediate and persistent impact of the legislation, the pattern appears to be one of a more pronounced narrowing influence of the initial GPG over time, consistent with gradual adjustment.[29] Being initially above the industry comparator average remains important over the longer-term and, among organisations above the comparator average, the comparator GPG is positively related with GPG narrowing in both 2019 and 2020, consistent with the lasting importance of relative comparisons based on the initial GPG report.

[Table 4 here]

4.4 Heterogeneity Analysis

We include interaction terms in equation (3) to explore heterogeneity in the relationships between the change in GPG and initial and comparator GPGs by key organisation characteristics. We first explore sectoral differences and test whether a given initial and comparator GPG is associated with a greater narrowing among public sector organisations, consistent with greater public scrutiny, prior evidence of the public sector being a 'beacon of good practice' (Jones *et al*., 2018) and higher union density which has previously been argued to facilitate bargaining post GPG transparency (see Baker *et al*., 2019).[30] Second, using a binary measure capturing above or below 50%, we allow the impact of the initial GPG to vary depending on whether the majority of the workforce is female in 2017 to explore whether, consistent with greater bargaining power, the initial and comparator GPG matters more in organisations with a higher female concentration in the workforce.[31]

[28] Coefficient estimates based on equations (1) and (2) are also available upon request.
[29] See Section 4.5 for the corresponding analysis of a balanced sample of organisations.
[30] The Public Sector Equality Duty required public sector organisations in Wales and Scotland to report their GPG before the introduction of transparency legislation. Our findings are not sensitive to excluding these organisations (estimates available upon request).
[31] The proportion of the workforce that is female is constructed using the average of the information provided across the four quartiles of the wage distribution. Should the organisational GPG narrow from higher female wage claims employer cost potentially provides an opposing influence.

Consistent with this, and aligned to arguments in Theodoropoulos *et al*. (2019) relating to female managers, we also consider female concentration in the upper quartile of the overall wage distribution as a proxy for female influence and ability to bargain within the organisation. Finally, we further interact the initial and comparator GPG with a dummy variable for large organisations (measured as 1,000 or more workers) given the potential relationship between size, public scrutiny, media attention and concern for reputation.[32]

We present these estimates in Table 5 and observe no significant differences in terms of narrowing by sector, female workforce composition or organisation size. We also observe few significant differences in terms of the interaction between these characteristics and the coefficient on own GPG or comparator GPG suggesting the importance of the absolute and relative GPG across organisations, despite differences in institutional arrangements, female workforce composition and size.[33] There are two partial exceptions. Consistent with enhanced influence and bargaining power, having a larger proportion of females in the upper pay quartile strengthens the relationship between the percentage narrowing of the GPG and the initial GPG. In contrast to our priors, however, the initial and comparator GPG has a smaller influence on the percentage point change in the GPG in large relative to smaller employers, perhaps reflecting greater costs for large organisations in adjusting their GPG via female wages.[34]

[Table 5 here]

4.5 Robustness

Appendix Tables A.2-A.3 explore the robustness of our key results to changes in the measure of the GPG, our sample and model specification. Estimates relating to percentage point changes and differences in the natural logarithm are presented in Panels A and B respectively. Appendix Table A.2 shows that our findings in relation to both the initial and comparator GPG are robust to excluding organisations out of scope of the legislation, using the median rather than mean organisational GPG, excluding outliers from the dependent variable, including the entire sample rather than focusing on organisations with positive

[32] In their analysis of US pay secrecy bans which affect individual pay negotiations Burn and Kettler (2019) argue that there are more opportunities to use internal comparators to bargain in large firms. However, they find no evidence of this in their data.

[33] We find similar patterns if instead we impose a threshold of 75% female. Despite Gamage *et al*. (2020) finding evidence of GPG narrowing in UK higher education post-transparency and attributing this to female wage bargaining, femaleness of the workforce is similarly found to be unimportant.

[34] Consistent with this, the narrowing relationship between being above the comparator average GPG and the GPG is smaller in large organisations (coefficient estimates available upon request).

GPGs, construction of the comparator mean using broad rather than narrow industry classifications, adding controls for SIC division fixed effects and using industry rather than comparator means.[35] Interestingly, the findings are very similar when using the median organisational GPG, with a one percentage point increase in the GPG associated with -0.17 percentage points (approximately 0.9%). In Appendix Table A.3, we further demonstrate that the findings in relation to the extended post-transparency period are evident among a common subsample who provide GPG reports each year and therefore do not reflect changes in the composition of organisations reporting during the suspension.

5. Conclusion

New data on employer GPGs generated by the introduction of transparency legislation in the UK provide an opportunity to contribute novel insights to the extensive literature on the GPG based on analysis of employee data. We further argue that the focus on employers is particularly timely given the emphasis on narrowing organisational GPGs in the legislation. Utilising the panel nature of these data we explore whether post-transparency GPGs narrowed to a greater extent in organisations with a larger initial GPG, aligned to bargaining theory. We further explore whether the initial relative GPG matters, that is, whether there is evidence that intra-industry comparisons facilitated by transparency are associated with further narrowing. In doing so our analysis considers several of the mechanisms which motivated the introduction and design of the legislation and, through which, it was intended to operate.

Our evidence suggests that, among organisations with a positive GPG, an increase in the initial GPG is associated with greater narrowing one-year post-transparency, or that there is convergence in organisational GPGs over time. In this respect the findings are consistent with the GPG information encouraging employee bargaining and/or enhancing employer action in relation to equality with differential impacts across organisations and a particular influence on those which the legislation was designed to target. The relationship remains evident and is magnified when the post-transparency period is extended, suggesting that the legislation is associated with both sustainable changes and gradual adjustment. Furthermore, conditional on the initial employer GPG, for organisations with a GPG above the average of their intra-industry comparators, a lower comparator average GPG is associated with greater GPG narrowing. This is consistent with the importance of industry norms and relative comparisons

[35] Outliers are defined as the top and bottom 1% of the ΔGPG_j or $\Delta lnGPG_j$ distribution (column 3). For the entire sample we focus on the relationship between the absolute initial and comparator GPG and change in the absolute GPG (column 4).

facilitated by the uniquely public element of transparency in the UK. Our evidence thus extends recent studies which suggest the legislation has been effective, by showing that post-transparency trends in the GPG differ between organisations, with greater narrowing for those with both a high own and relative GPG, aligned to the aims of the legislation.

References

Ahamed, M., Wen, J. and Gupta, N. (2019) Does board composition affect the gender pay gap?, *Economics Letters*, 184.

Baker, M., Halberstam, Y., Kroft, K., Mas, A. and Messacar, D. (2019) Pay transparency and the gender gap, NBER Working Paper No. 25834.

Bennedsen, M., Simintzi, E., Tsoutsoura, M and Wolfenzon, D. (2022) Do firms respond to gender pay gap transparency?, *Journal of Finance*, Online first. https://doi.org/10.1111/jofi.13136

Blundell, J. (2021) Wage responses to gender pay gap reporting requirements, Centre for Economic Performance Discussion Paper No.1750.

Böheim, R., and Gust, S. (2021) The Austrian pay transparency law and the gender wage gap IZA DP No. 14206.

Burn, I. and Kettler, K. (2019) The more you know, the better you're paid? Evidence from pay secrecy bans for managers, *Labour Economics*, 59: 92-109.

Card, D., Cardoso, A. R. and Kline, P. (2016) Bargaining, sorting, and the gender wage gap: quantifying the impact of firms on the relative pay of women, *The Quarterly Journal of Economics*, 131(2): 633–686.

Chatterji, M., Mumford, K. and Smith, P. (2011) The public-private sector gender wage differential: Evidence from matched employee-workplace data, *Applied Economics*, 43(26): 3819–3833.

Cullen Z.B. and Pakzad-Hurson B. (2021) Equilibrium effects of pay transparency, NBER Working Paper No 28903.

Duchini, E., Simion, S. and Turrell, A. (2020) Pay transparency and cracks in the glass ceiling, CAGE Working Paper, No 482.

Francis-Devine, B. and Pyper, D. (2020) The gender pay gap, House of Commons Briefing Paper No. 7068.

Gamage, D., Kavetos, G., Mallick, S. and Sevilla, A. (2020) Pay transparency initiative and gender pay gap: Evidence from research intensive universities in the UK, IZA Discussion Paper No 13635.

Government Equalities Office (2018) Gender Pay Gap Information Regulations: Summary of reported data for 2017/18, October 2018.

Gulyas, A., Seitz, S. and Sinha, S. (forthcoming) Does pay transparency affect the gender wage gap? Evidence from Austria, *American Economic Journal: Economic Policy*.

Jewell, S., Razzu, G. and Singleton, C. (2020) Who works for whom and the UK gender pay gap, *British Journal of Industrial Relations*, 58(1): 50-81.

Jones, M., Makepeace, G. and Wass, V. (2018) The UK gender pay gap 1997-2015: What is the role of the public sector?, *Industrial Relations,* 57(2): 296-319.

Kaya, E. (2021) Gender wage gap across the distribution: What is the role of within- and between-firm effects?, *IZA Journal of Development and Migration*, 12(1).

Mumford, K. and Smith, P. N. (2009) What determines the part-time and gender earnings gaps in Britain: evidence from the workplace, *Oxford Economic Papers*, 61(1): 56–75.

Theodoropoulos, N., Forth, J. and Bryson, A. (2019) Are women doing it for themselves? Gender segregation and the gender wage gap, IZA Discussion Paper No. 12657.

Table 1: Summary Statistics

Panel A	2017			2018		
	Mean	10th percentile	90th percentile	Mean	10th percentile	90th percentile
Mean GPG (%)	14.33	-1.0	31.8	14.19	-1.0	31.3
	[100]			[99.02]		
	(14.96)			(14.25)		
% positive		87.54			87.69	
% zero		0.76			0.82	
N		10,670			10,865	
Panel B	2017			2018		
	Mean	10th percentile	90th percentile	Mean	10th percentile	90th percentile
Mean GPG (%)	18.01	4.2	33.3	17.63	4.0	32.9
	[100]			[97.89]		
	(12.13)			(12.09)		
N			7,530			

Notes: Authors' calculations based on the first two years of Reporting Data (Panel A) and a balanced panel subsample with positive GPGs in 2017 and 2018 (Panel B). Figures in ( ) are standard deviations and those in [ ] are percentages of the 2017 GPG.

Table 2: Change in Employer GPGs 2017-2018, Initial GPG

	Percentage points		Difference in logs	
GPG_{j2017}	-0.106***	-0.123***	-0.006***	-0.007***
	(0.008)	(0.008)	(0.001)	(0.001)
Organisational controls	No	Yes	No	Yes
Adjusted-R^2	0.054	0.065	0.017	0.022
N	7,530	7,530	7,530	7,530

Notes: (i) Estimates are based on an OLS equation modelling the change in employer GPGs in percentage points and via differences in the natural logarithm. (ii) Robust standard errors in parentheses. (iii) * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$. (iv) Organisational controls refer to industry section, region, employment size and being in-scope of the legislation. All models contain a constant term.

Table 3: Change in Employer GPGs 2017-2018, Relative GPG

	Percentage points			Difference in logs		
GPG_{j2017}	-0.127***	-0.129***	-0.134***	-0.008***	-0.008***	-0.008***
	(0.009)	(0.009)	(0.014)	(0.001)	(0.001)	(0.001)
$\overline{GPG}_{-j2017}$	0.113***	0.085***	0.030	0.008***	0.006**	-0.006
	(0.014)	(0.021)	(0.024)	(0.001)	(0.002)	(0.003)
$\mathbb{I}(GPG_{j2017} > \overline{GPG}_{-j2017})$	-	-	-1.500***	-	-	-0.310***
			(0.359)			(0.050)
$\overline{GPG}_{-j2017} \times$	-	-	0.103***	-	-	0.019***
$\mathbb{I}(GPG_{j2017} > \overline{GPG}_{-j2017})$			(0.026)			(0.003)
Industry section	No	Yes	Yes	No	Yes	Yes
Adjusted-R^2	0.065	0.068	0.070	0.022	0.023	0.031
N	7,530	7,530	7,530	7,530	7,530	7,530

Notes: (i) Estimates are based on an OLS equation modelling the change in employer GPGs in percentage points and via differences in the natural logarithm. (ii) Robust standard errors in parentheses. (iii) * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$. (iv) All models contain controls for region, employment size, being in-scope of the legislation, and a constant term.

Table 4: Change in Employer GPGs from 2017, Longer-term Analysis

	2019		2020	
	Percentage points	Difference in logs	Percentage points	Difference in logs
GPG_{j2017}	-0.150***	-0.008***	-0.241***	-0.011***
	(0.016)	(0.001)	(0.023)	(0.001)
$\overline{GPG}_{-j2017}$	0.050	0.044	-0.010	-0.009
	(0.028)	(0.004)	(0.044)	(0.005)
$\mathbb{I}(GPG_{j2017} > \overline{GPG}_{-j2017})$	-2.476***	-0.391***	-2.306**	-0.365***
	(0.474)	(0.069)	(0.742)	(0.081)
$\overline{GPG}_{-j2017} \times$	0.133***	0.023***	0.115**	0.020***
$\mathbb{I}(GPG_{j2017} > \overline{GPG}_{-j2017})$	(0.031)	(0.004)	(0.044)	(0.004)
Adjusted-R^2	0.091	0.039	0.130	0.050
N	4,584	4,584	4,108	4,108

Notes: (i) Estimates are based on an OLS equation modelling the change in employer GPGs from 2017 to 2019 and to 2020 in percentage points and via differences in the natural logarithm. (ii) Robust standard errors in parentheses. (iii) * p < 0.05, ** p < 0.01, *** p < 0.001. (iv) All models contain controls for industry section, region, employment size, being in-scope of the legislation and a constant term.

Table 5: Change in Employer GPGs 2017-2018, Initial GPG, Heterogeneity Analysis

	Percentage Points				Difference in logs			
GPG_{j2017}	-0.125***	-0.113***	-0.104***	-0.149***	-0.007***	-0.007***	-0.005***	-0.008***
	(0.015)	(0.018)	(0.025)	(0.018)	(0.001)	(0.001)	(0.001)	(0.001)
Public sector	2.168	-	-	-	-0.065	-	-	-
	(1.237)				(0.160)			
Majority female	-	0.234	-	-	-	0.122	-	-
		(0.534)				(0.093)		
Female upper quartile	-	-	0.432	-	-	-	0.180	-
			(1.536)				(0.242)	
Large organisation	-	-	-	-0.870	-	-	-	-0.062
				(0.468)				(0.092)
GPG_{j2017} x Public sector	-0.101	-	-	-	-0.002	-	-	-
	(0.060)				(0.002)			
GPG_{j2017} x Majority female	-	-0.049	-	-	-	-0.001	-	-
		(0.031)				(0.002)		
GPG_{j2017} x Female upper quartile	-	-	-0.089		-	-	-0.007*	-
			(0.062)				(0.003)	
GPG_{j2017} x Large organisation	-	-	-	0.062*	-	-	-	0.002
				(0.028)				(0.002)
$\overline{GPG}_{\text{-}j2017} \times \mathbb{I}(GPG_{j2017} > \overline{GPG}_{\text{-}j2017})$	0.103***	0.105**	0.076	0.137***	0.020***	0.016***	0.012*	0.022***
	(0.026)	(0.034)	(0.053)	(0.032)	(0.003)	(0.004)	(0.006)	(0.004)
$\overline{GPG}_{\text{-}j2017} \times \mathbb{I}(GPG_{j2017} > \overline{GPG}_{\text{-}j2017}) \times$ Public sector	-0.101	-	-	-	-0.011	-	-	-
	(0.086)				(0.011)			
$\overline{GPG}_{\text{-}j2017} \times \mathbb{I}(GPG_{j2017} > \overline{GPG}_{\text{-}j2017}) \times$ Majority female	-	-0.018	-	-	-	0.008	-	-
		(0.052)				(0.006)		
$\overline{GPG}_{\text{-}j2017} \times \mathbb{I}\left(GPG_{j2017} > \overline{GPG}_{\text{-}j2017}\right) \times$ Female upper quartile	-	-	0.097	-	-	-	0.024	-
			(0.126)				(0.015)	
$\overline{GPG}_{\text{-}j2017} \times \mathbb{I}\left(GPG_{j2017} > \overline{GPG}_{\text{-}j2017}\right) \times$ Large organisation	-	-	-	-0.112*	-	-	-	-0.009
				(0.049)				(0.006)
Adjusted-R^2	0.072	0.071	0.071	0.072	0.032	0.031	0.032	0.031
N	7,530	7,530	7,530	7,530	7,530	7,530	7,530	7,530

Notes: (i) Estimates are based on an OLS equation modelling the change in employer GPGs in percentage points and via differences in the natural logarithm. (ii) Robust standard errors in parentheses. (iii) * p < 0.05, ** p < 0.01, *** p < 0.001. (iv) All models contain controls for industry section, region, being in-scope of the legislation and a

constant term. With the exception of analysis of large organisations, employment size is also included as a control. All models also include interactions between the selected organisational characteristic and $\overline{GPG}_{\text{-}j2017}$, and $\mathbb{I}(GPG_{j2017} > \overline{GPG}_{\text{-}j2017})$.

Appendix

Table A.1: Sample Means for All Variables, 2017

Variable	%
GPG_j	18.01
$\overline{GPG}_{-j}$	14.76
$\mathbb{I}(GPG_j > \overline{GPG}_{-j})$	57.42
$\overline{GPG}_{2017}$	14.78
Industry (SIC 2007)[a]	
Agriculture, forestry and fishing	0.43
Energy and water	1.59
Manufacturing	13.48
Construction	3.43
Distribution, hotels and restaurants	16.01
Transport and communication	8.56
Banking and finance	25.79
Public admin, education and health	25.14
Other services	5.56
Employment size (workers)	
< 250	3.68
250-499	44.20
500-999	24.49
1,000-4,999	22.20
5,000-19,999	4.71
20,000+	0.72
Region	
North East	7.33
North West	11.13
East Midlands	11.61
West Midlands	9.32
London	28.00
South East	18.03
South West	7.49
Wales	2.02
Scotland	4.90
Northern Ireland	0.17
Public sector	16.31
Female majority	45.35
Female upper quartile	37.10
N	7,530

Notes: Authors' calculations based on a balanced panel of employers with positive GPGs from the Reporting Data 2017-2018. (i) Variable means are based on estimation sample and are rounded to two decimal places. (ii) [a]Sample means are provided for broad industry groups for conciseness, but more detailed groups available upon request.

Table A.2: Change in Employer GPGs 2017-2018, Initial and Relative GPG, Sensitivity Analysis

Panel A: Percentage Points	In-scope subsample	Median GPG	Remove ΔGPG_j outliers	Full 2017-2018 panel sample	Broad industry comparator	Industry division fixed effects	Comparator replaced by industry mean
GPG_{j2017}	-0.134***	-0.169***	-0.077***	-0.366*	-0.121***	-0.133***	-0.134***
	(0.015)	(0.0166)	(0.009)	(0.159)	(0.014)	(0.015)	(0.015)
$\overline{GPG}_{-j2017}$	0.030	0.022	0.000	0.179*	-0.447	0.864*	0.024
	(0.024)	(0.026)	(0.018)	(0.089)	(0.527)	(0.357)	(0.024)
$\mathbb{I}(GPG_{j2017} > \overline{GPG}_{-j2017})$	-1.467***	-0.081*	-1.645***	-1.189	-1.604***	-1.751***	-1.516***
	(0.360)	(0.330)	(0.287)	(0.961)	(0.430)	(0.364)	(0.360)
$\overline{GPG}_{-j2017} \times$	0.010***	0.069**	0.079***	0.309**	0.100***	0.125***	0.103***
$\mathbb{I}(GPG_{j2017} > \overline{GPG}_{-j2017})$	(0.026)	(0.027)	(0.020)	(0.119)	(0.030)	(0.026)	(0.025)
Adjusted-R^2	0.069	0.085	0.049	0.199	0.067	0.076	0.070
N	7,484	6,401	7,442	8,965	7,530	7,530	7,530
Panel B: Difference in logs	In-scope subsample	Median GPG	Remove $\Delta lnGPG_j$ outliers	Full 2017-2018 panel sample	Broad industry comparator	Industry division fixed effects	Comparator replaced by industry mean
GPG_{j2017}	-0.008***	-0.009***	-0.005***	-0.012***	-0.007***	-0.007***	-0.008***
	(0.001)	(0.001)	(0.001)	(0.002)	(0.001)	(0.001)	(0.001)
$\overline{GPG}_{-j2017}$	-0.005	-0.010**	-0.002	0.002	-0.017	0.101***	0.007*
	(0.003)	(0.004)	(0.002)	(0.003)	(0.045)	(0.014)	(0.003)
$\mathbb{I}(GPG_{j2017} > \overline{GPG}_{-j2017})$	-0.305***	-0.456***	-0.184***	-0.333***	-0.271***	-0.348***	-0.322***
	(0.050)	(0.056)	(0.036)	(0.050)	(0.052)	(0.050)	(0.049)
$\overline{GPG}_{-j2017} \times$	0.019***	0.024***	0.010***	0.023***	0.017***	0.022***	0.020***
$\mathbb{I}(GPG_{j2017} > \overline{GPG}_{-j2017})$	(0.003)	(0.003)	(0.002)	(0.003)	(0.003)	(0.003)	(0.003)
Adjusted-R^2	0.031	0.055	0.030	0.034	0.026	0.038	0.032
N	7,484	6,401	7,370	8,874	7,530	7,530	7,530

Notes: (i) Estimates are based on an OLS equation modelling changes in employer GPGs in percentage points (Panel A) and via differences in the natural logarithm (Panel B). (ii) Robust standard errors in parentheses. (iii) * p < 0.05, ** p < 0.01, *** p < 0.001. (iv) All models contain controls for industry section, region, employment size, being in-scope of the legislation (except column 1) and a constant term. (v) Among the entire 2017-2018 panel sample (column 4) we focus on the change in the absolute GPG and the absolute initial and comparator GPG. As such, the coefficients measure movement towards/away from a zero GPG.

Table A.3: Change in Employer GPGs from 2017, Longer-term Sensitivity Analysis

Panel A: Percentage Points	2018	2019	2020
GPG_{j2017}	-0.115***	-0.151***	-0.241***
	(0.017)	(0.017)	(0.023)
$\overline{GPG}_{-j2017}$	0.021	0.048	-0.010
	(0.030)	(0.030)	(0.044)
$\mathbb{I}(GPG_{j2017} > \overline{GPG}_{-j2017})$	-1.162*	-2.371***	-2.306**
	(0.456)	(0.495)	(0.742)
$\overline{GPG}_{-j2017} \times \mathbb{I}(GPG_{j2017} > \overline{GPG}_{-j2017})$	0.069*	0.124***	0.115**
	(0.031)	(0.033)	(0.044)
Adjusted-R^2	0.062	0.096	0.130
N	4,108	4,108	4,108
Panel B: Difference in logs	2018	2019	2020
GPG_{j2017}	-0.007***	-0.009***	-0.011***
	(0.001)	(0.001)	(0.001)
$\overline{GPG}_{-j2017}$	-0.004	-0.005	-0.009
	(0.004)	(0.003)	(0.005)
$\mathbb{I}(GPG_{j2017} > \overline{GPG}_{-j2017})$	-0.233***	-0.396***	-0.365***
	(0.063)	(0.070)	(0.081)
$\overline{GPG}_{-j2017} \times \mathbb{I}(GPG_{j2017} > \overline{GPG}_{-j2017})$	0.014***	0.022***	0.020***
	(0.004)	(0.004)	(0.004)
Adjusted-R^2	0.036	0.049	0.050
N	4,108	4,108	4,108

Notes: (i) Estimates are based on an OLS equation modelling changes in employer GPGs in percentage points (Panel A) and via differences in the natural logarithm (Panel B) for a balanced panel sample of organisations 2017-2020. (ii) Robust standard errors in parentheses. (iii) * p < 0.05, ** p < 0.01, *** p < 0.001. (iv) All models contain controls for industry section, region, employment size, being in-scope of the legislation, and a constant term.