

# Exposing the glass ceiling: hiring practices and gender equality in the UK labour market

By Emma Duchini and Stefania Simion



# Kind

together

compassionate

# commitment

loyalty

responsibility

Reading a job advertisement is the first step when looking for a job. But is there a relationship between a firm's hiring practices (i.e. how it advertises a job) and its gender equality? We conduct a text analysis of UK job listings, focusing on implicit gender biases, the offer of flexible work arrangements and the decision to post wages. We find that firms' hiring practices are correlated with indicators of their gender equality.

While gender-targeted job advertisements have been banned in most countries, the wording of a job listing is not necessarily gender neutral.

Implicit Association Tests (IAT) show that adjectives frequently encountered in job advertisements such as 'cooperative' and 'committed' tend to be associated with female figures, while traits such as 'competitive', or 'ambitious' are mostly related to male figures. We explore whether the vocabulary employed in job listings helps predict the degree of gender equality in a firm. Research has also shown that women have a stronger preference for flexible working than men, and are less likely to bargain about their pay (Goldin, 2014; Liebbrandt and List, 2015). We want to understand whether the offer of flexible work arrangements correlates with a firm's gender composition, and study if upfront wage information predicts gender pay differentials.

In 2018 and 2019, more than 10,000 UK firms were required to publicly disclose their gender pay gap and gender composition – which we will call GPG indicators. With an average of 40% of women in the top quartile of the wage distribution, and the median gender pay gap at around 12%, data from this pay transparency regime suggest that women still face a (in-)visible glass ceiling in the UK labour market.

We combine the GPG indicators with Burning Glass Technologies (BGT) job advertisement data. BGT offers

more than 50 million individual job vacancies over the period 2012-2019.<sup>1</sup> These are collected from a wide range of online job listing sites and crucially provide the text of the job advertisement and occupational identifiers. Around one third of vacancies also include the name of the employer, which allows us to merge this dataset with firms' GPG indicators.<sup>2</sup> We explore three key dimensions in this matched data set: gendered wording, flexible working arrangements and wage posting.

### Gendered wording

Job advertisements usually describe the ideal candidate, listing a series of desirable behaviours and traits. Psychology literature shows that women are less likely to apply for vacancies citing attributes that are stereotypically associated to men (Gaucher et al, 2011). To study whether these implicit biases predict the degree of gender equality in a firm, we exploit a list of so-called gendered words developed by psychologists through IAT. We assign a gender score to each vacancy, defined as the difference between the number of 'feminine' and 'masculine' words over the total number of words in the job advertisement. A positive (negative) gender score means the vacancy is female-oriented (male-oriented), while a neutral advertisement has a zero score. Figure 1 presents the relative frequency of gendered words (figures a and c), and shows that only a minority of job ads can be classified as gender neutral (graph b).



process, we find that only 22% of job vacancies post automatically identifiable information on wages.

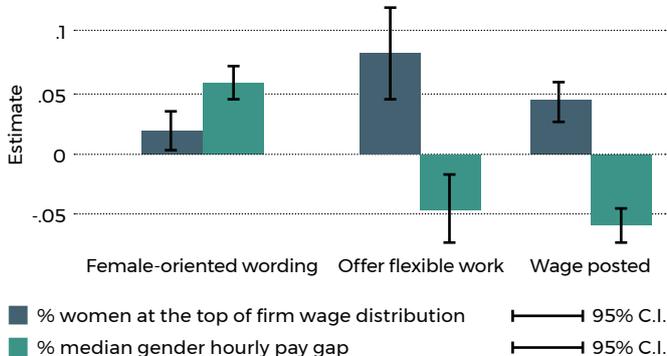
Considering all three dimensions together, Figure 3 shows that there is considerable variation across occupations and industries in these hiring practices, with some positive correlations across them. In particular, occupations with a higher share of female-oriented vacancies tend to have a higher proportion both of flexible positions and of vacancies posting wage information.

### How do hiring practices correlate with gender equality within a firm?

In Figure 4, we correlate these hiring practices with the GPG indicators to show several novel stylised facts. All three blue bars show that firms adopting these hiring practices over the observed period have a higher proportion of women at the top of the wage distribution. As for the relationship with the gender pay gap (green bars), unexpectedly, a more female-oriented job ad wording is associated with a larger gender pay gap (leftmost bar), pointing to the complexity of these relationships. However, firms offering more flexible working have a smaller gender pay gap (central bar), suggesting that full-time FWA may help employees manage work and family duties, without incurring wage penalties. Similarly, the rightmost bar shows that wage posting is also associated with a lower gender pay gap, highlighting its potentially beneficial effects for gender equality.

These are only correlations and should not be interpreted as causal relationships. Recruitment practices may be a proxy for broader management strategies. Also, hiring practices may be female-oriented because a firm has a higher proportion of women at the top, and not vice versa. Said differently, we do not know to what extent changing these dimensions of the recruitment process

**Figure 4: Hiring strategies and gender pay gap indicators conditional correlations**



Source: BGT 2014-2019, and Gender Pay Gap Reporting. Note: The Bar graph reports estimated coefficients from regressions of GPG indicators (averaged across 2017/18 and 2018/19) on hiring strategies (averaged over the period 201/15-2018/19), the occupational composition of firms' vacancies and their sector. The sample includes firms publishing GPG indicators both in 2017/18 and 2018/19, with non-missing registration numbers, and perfectly matched with BGT. N. observations = 4,722.

may crack the glass ceiling. Yet, this analysis shows that hiring practices are related to gender equality within a firm, something that HR recruiters may want to know when designing a new position and its job advertisement. ◀

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### Publication details

This article is based on Duchini, E., Simion, S., and Turrell, A. (2020). Pay Transparency and Cracks in the Glass Ceiling, *CAGE Working Paper* (no. 482).

### Further reading

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### Footnotes

1. As BGT expressed concern over the quality of data at the beginning of the sample, we exclude the first two years.

2. In Duchini et al. (2020), we show that this restricted sample represents well the occupational distribution of the UK labour market. To merge it with GPG data, we use a cosine similarity name-matching algorithm for company names, and retain only firms with an exact match, representing two third of the GPG sample with non-missing company registration numbers.

3. Note that here we do not consider flexible work arrangements that give the employer discretion over scheduling, such as shift work or on-call work (Adams et al., 2020).