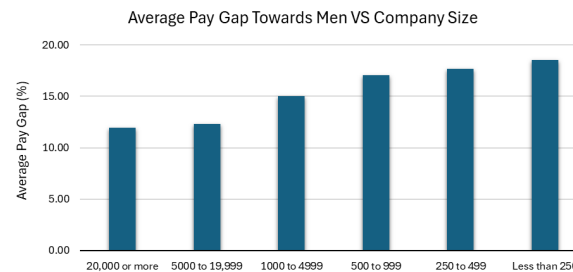
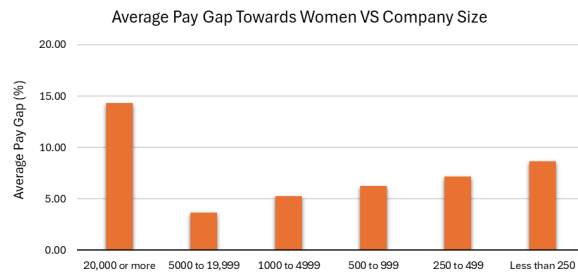


1. Definitions

The median pay gap was used as the averaging metric for this analysis. The median pay gap is calculated by subtracting the pay of the middle-ranking woman (50th percentile) from the pay of the middle-ranking man, normalized against the pay of the middle-ranking man. The average pay gap towards women is the average calculated from negative median pay gap values. The average pay gap towards men is the average calculated from positive median pay gap values. The dataset was cleaned to remove missing data, duplicates, and outliers before analysis. No pay gap data (zero values) was not included for this analysis.

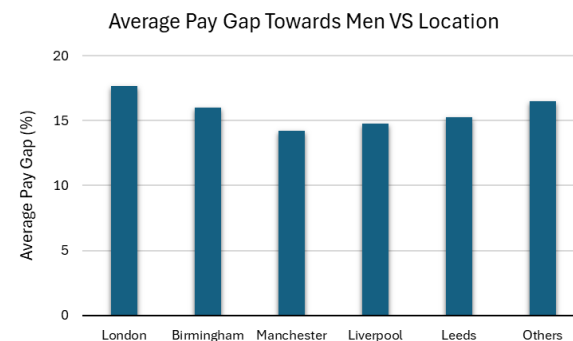
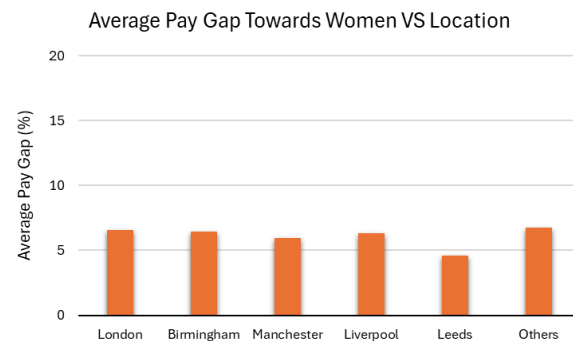
2. What is the average pay gap for companies with different number of employees, skewed towards either men or women?



There is a clear trend of average pay gap towards men increasing as company size decreases, indicating a decrease in women holding senior roles in smaller companies. In contrast, the highest pay gap towards women was reported at 14.3% for companies with 20,000 or more employees, however, this data came from 2 companies and might not be significant. Overall, smaller companies have less formalized HR policies leading to more biasness in their pay decisions. Also, UK companies with less than 250 employees are not

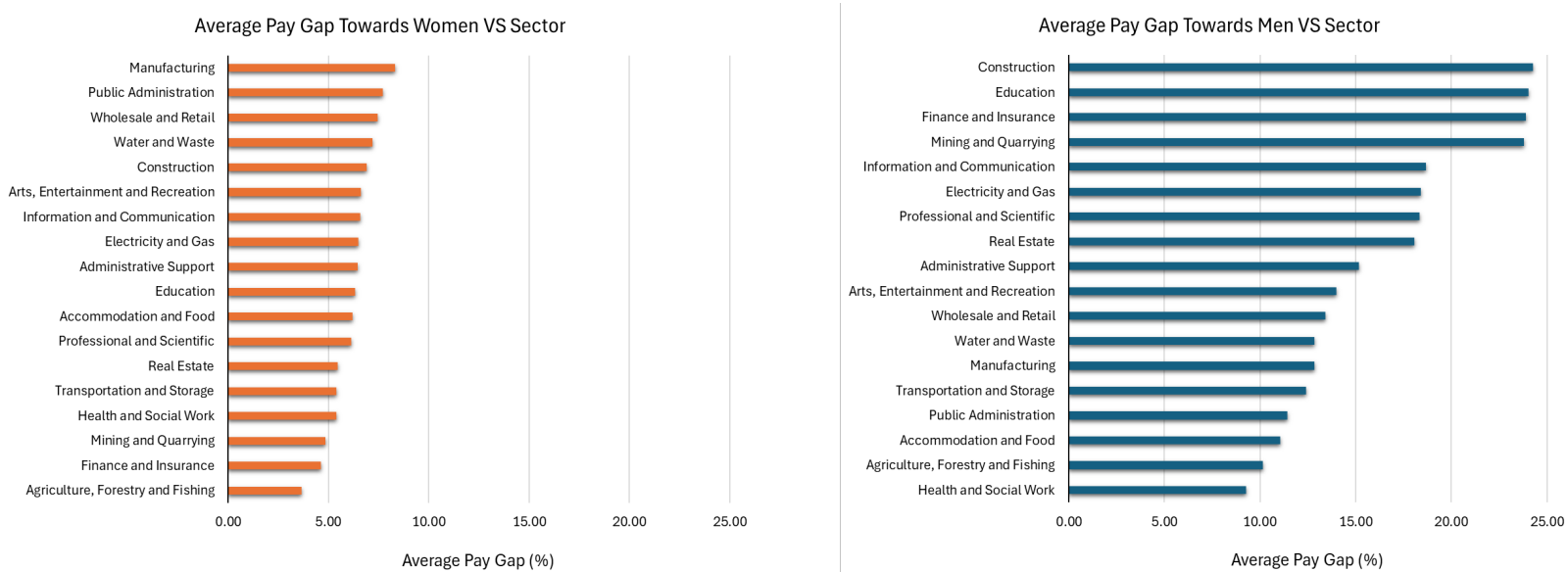
legally required to report gender pay gap data and experience less regulatory oversight.

3. What is the average pay gap in London, Birmingham, Manchester, Liverpool, and Leeds, skewed towards either men or women?



London has the largest population followed by Birmingham, Manchester, Liverpool and Leeds. London has the highest average pay gap towards both men and women at 17.66% and 6.59%, respectively. However, no clear trend was observed between population size and pay gap.

4. What is the average pay gap for companies in different sectors, skewed towards either men or women?



The top sectors with average pay gap heavily skewed towards men are construction, education, finance, and mining. Both construction and mining are male-dominated industries with less participation from women. Whereas in the finance and education sectors, women are heavily underrepresented in senior or high-paying roles. The top sectors with average pay gap skewed towards women are manufacturing, public administration, and retail, likely due to higher female representation in senior roles in these sectors. However, overall, the average pay gap skewed towards women are significantly lower than that for men.

5. Limitations of Analysis

The gender pay gap is not the same as unequal pay, which is defined in the UK under the Equality Act, as paying women less than men for performing equal work. Unfortunately, the data is not granular enough to establish if equal work was performed and cannot be used to make claims of unequal pay. Instead, the data tells us which companies, locations, and sectors are hiring less women for senior or highly paid roles.

6. Recommendation

The data collection process can be improved by providing a detailed breakdown on the gender, years of experience, job function, employment status, and titles of employees of each company. Overall, more regulatory oversight should be placed on smaller companies with < 500 employees and companies operating in the construction, education, finance, and mining sectors.