ADAHACK 2022 PROJECT PRESENTATION

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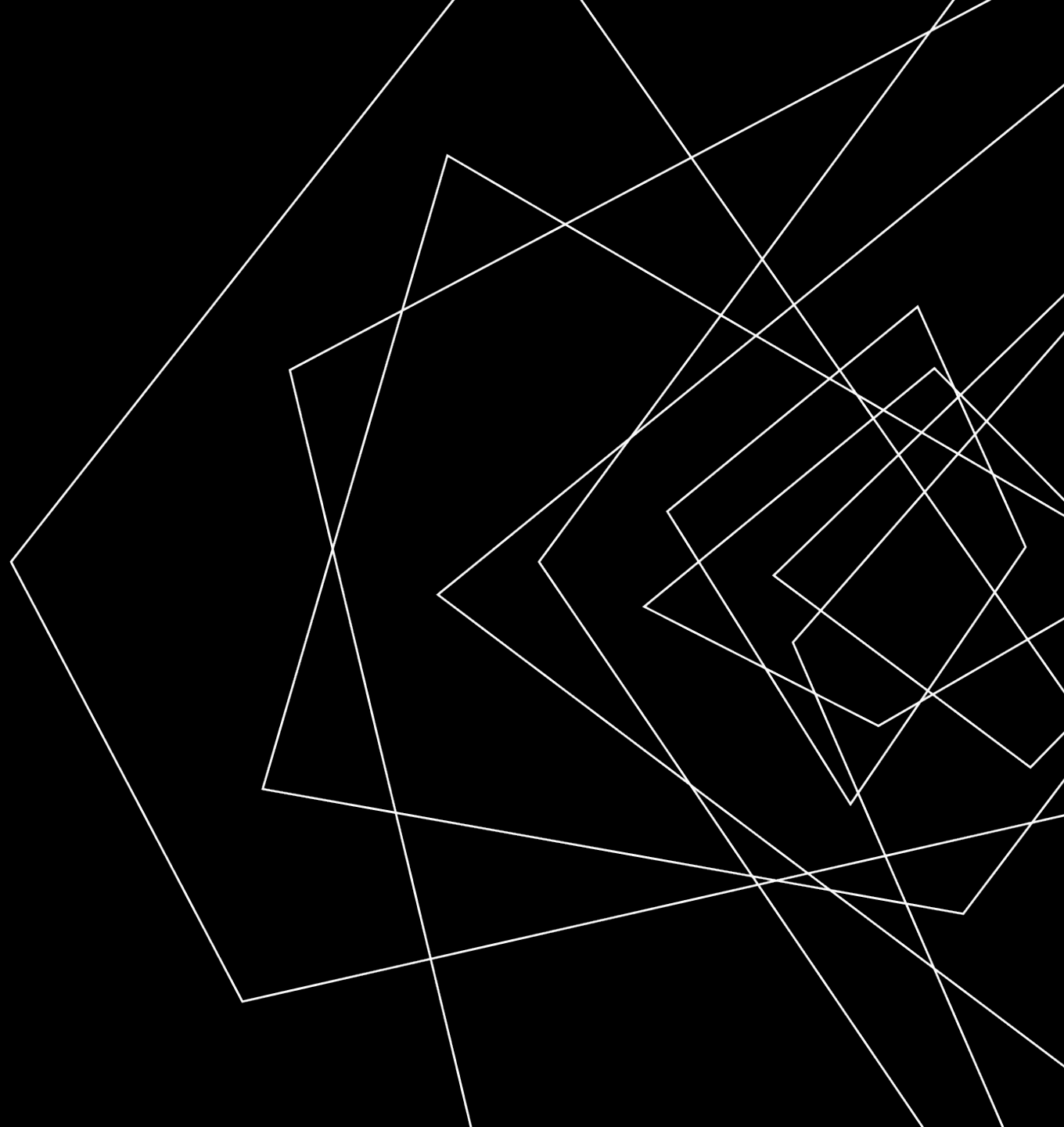

PROBLEM INTRODUCTION

The aim of the project, is to investigate the gender equality situation regarding promotions by researching into the staff data of a chosen firm from a public database on Kaggle. From this we set out to make meaningful conclusions about promotion opportunities within the workplace.

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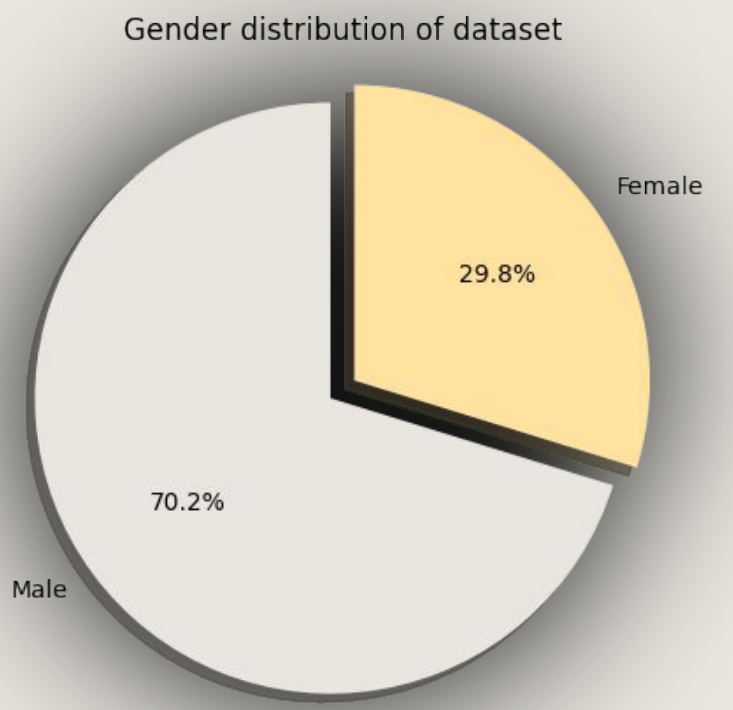
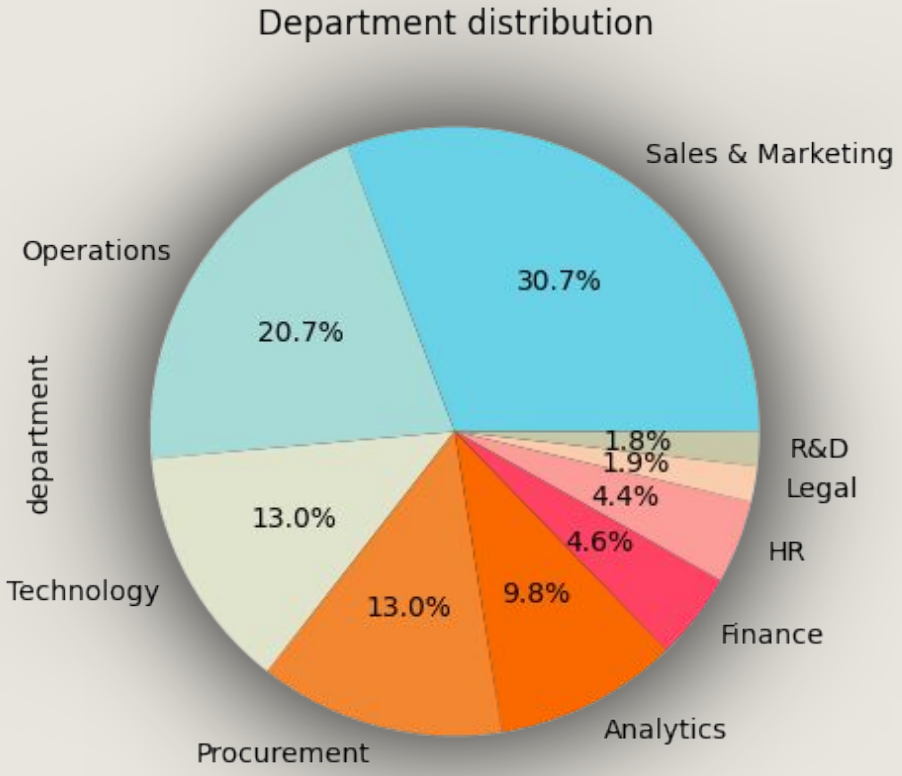
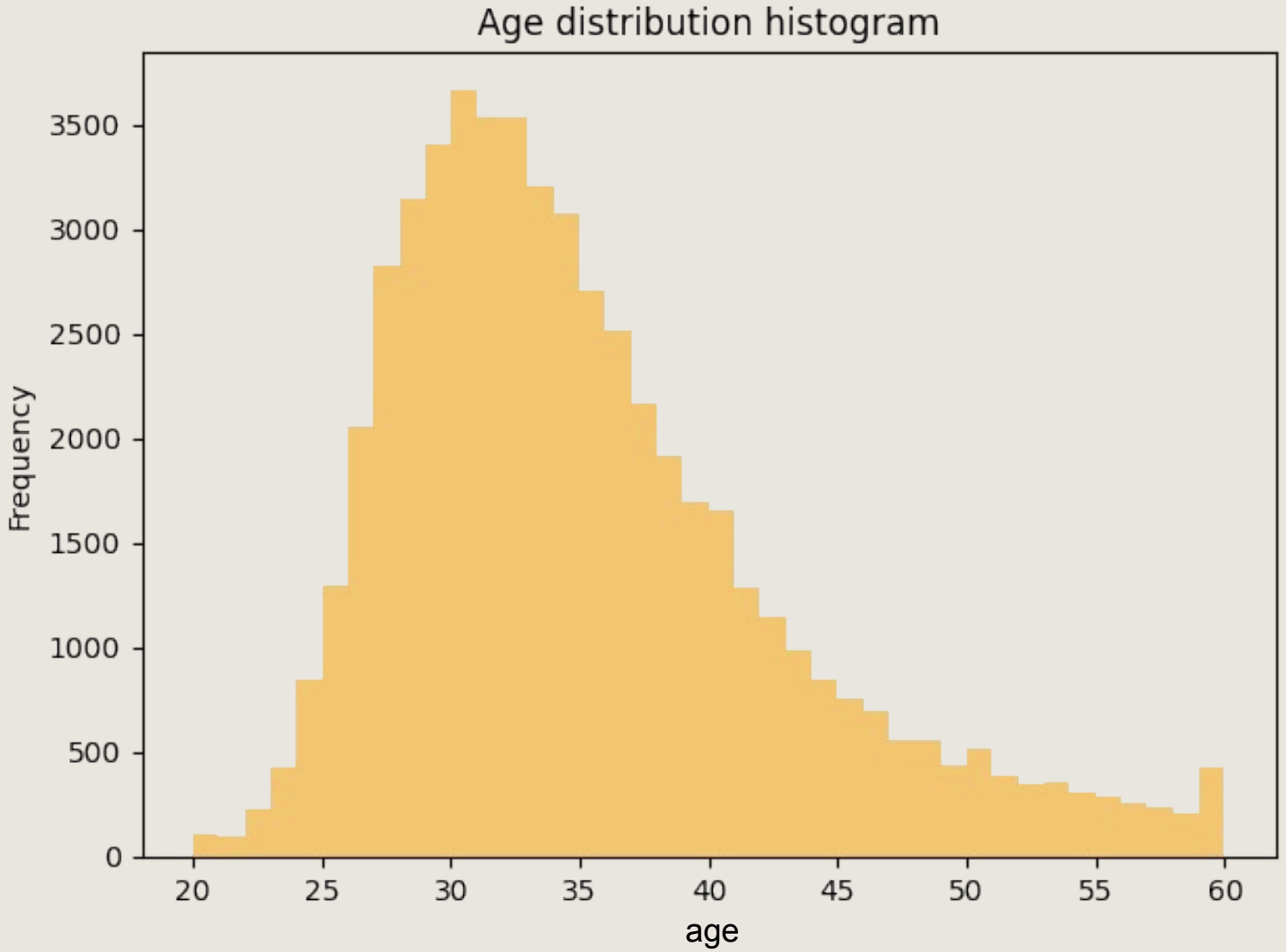




5.4k
records

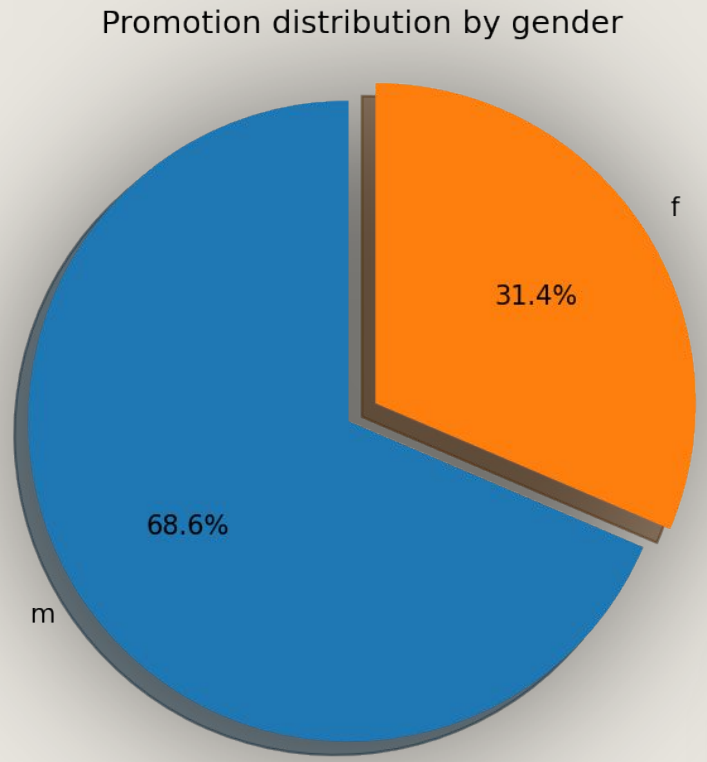
1.6k
gender minorities

ABOUT THIS DATASET:



Representative sample of employees due to normal distribution

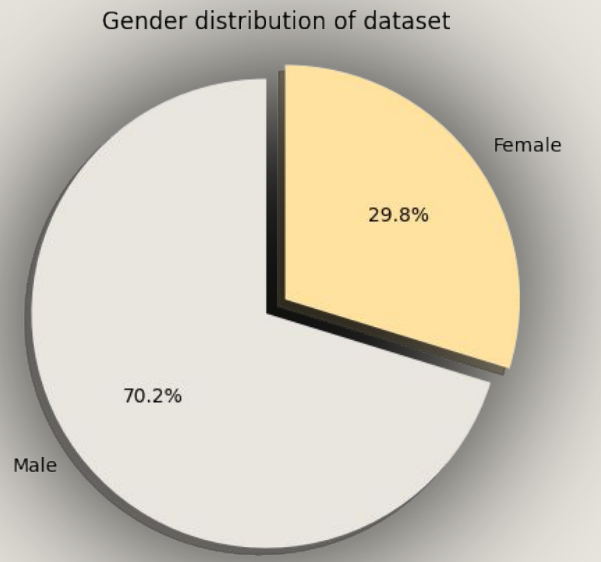
Who gets promoted earlier?



We weren’t able to find any significant difference in the amount of promotions depending on gender.

As we can see the distribution seems equal compared to the actual divide of gender

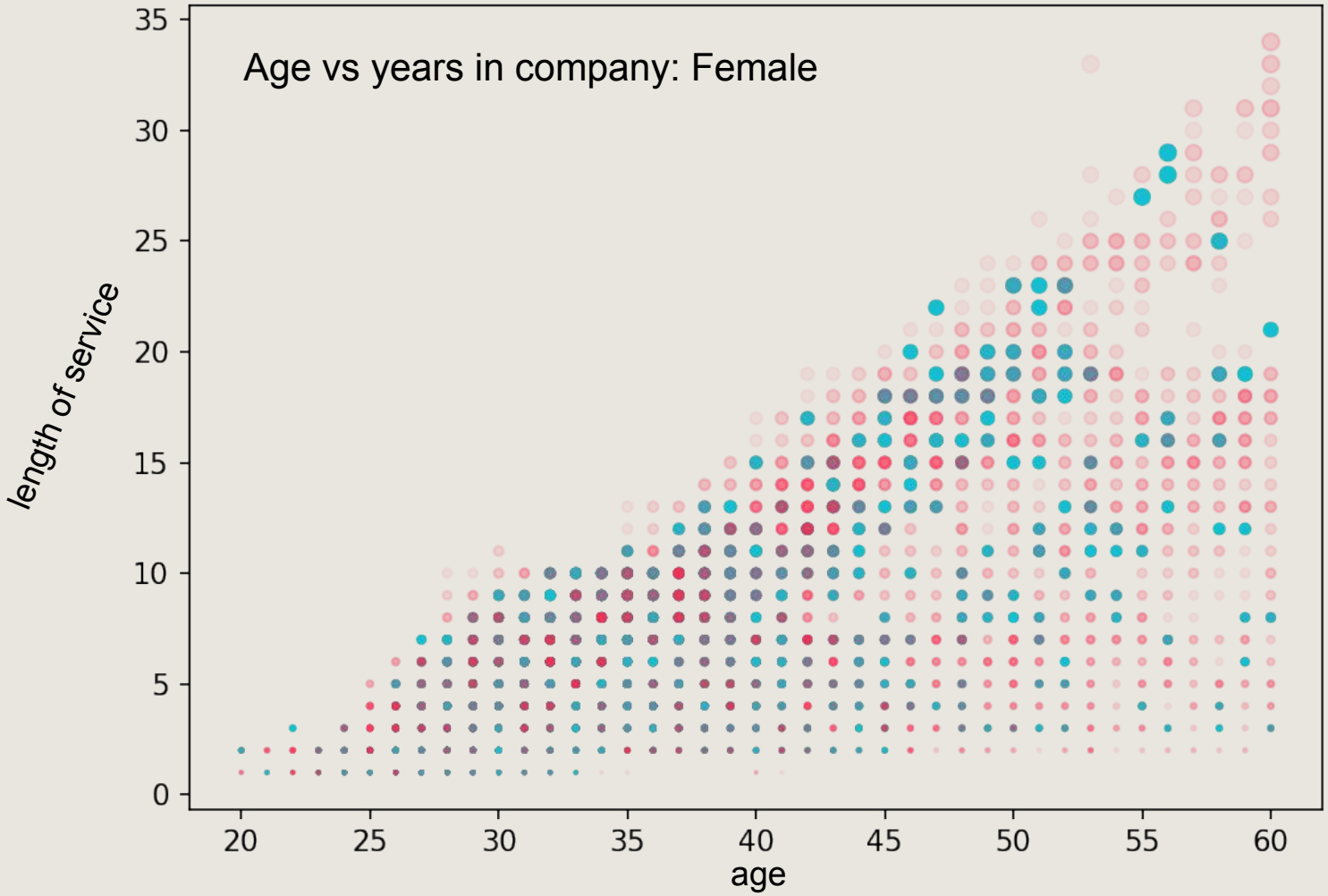
remember:



Who gets promoted earlier?

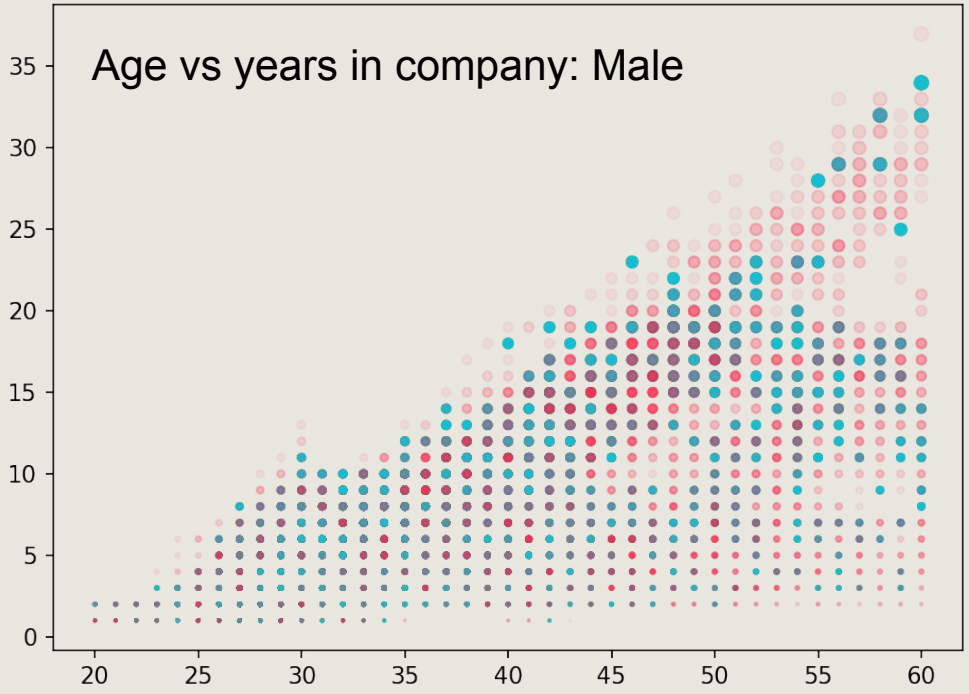
hasn't been promoted

has been promoted

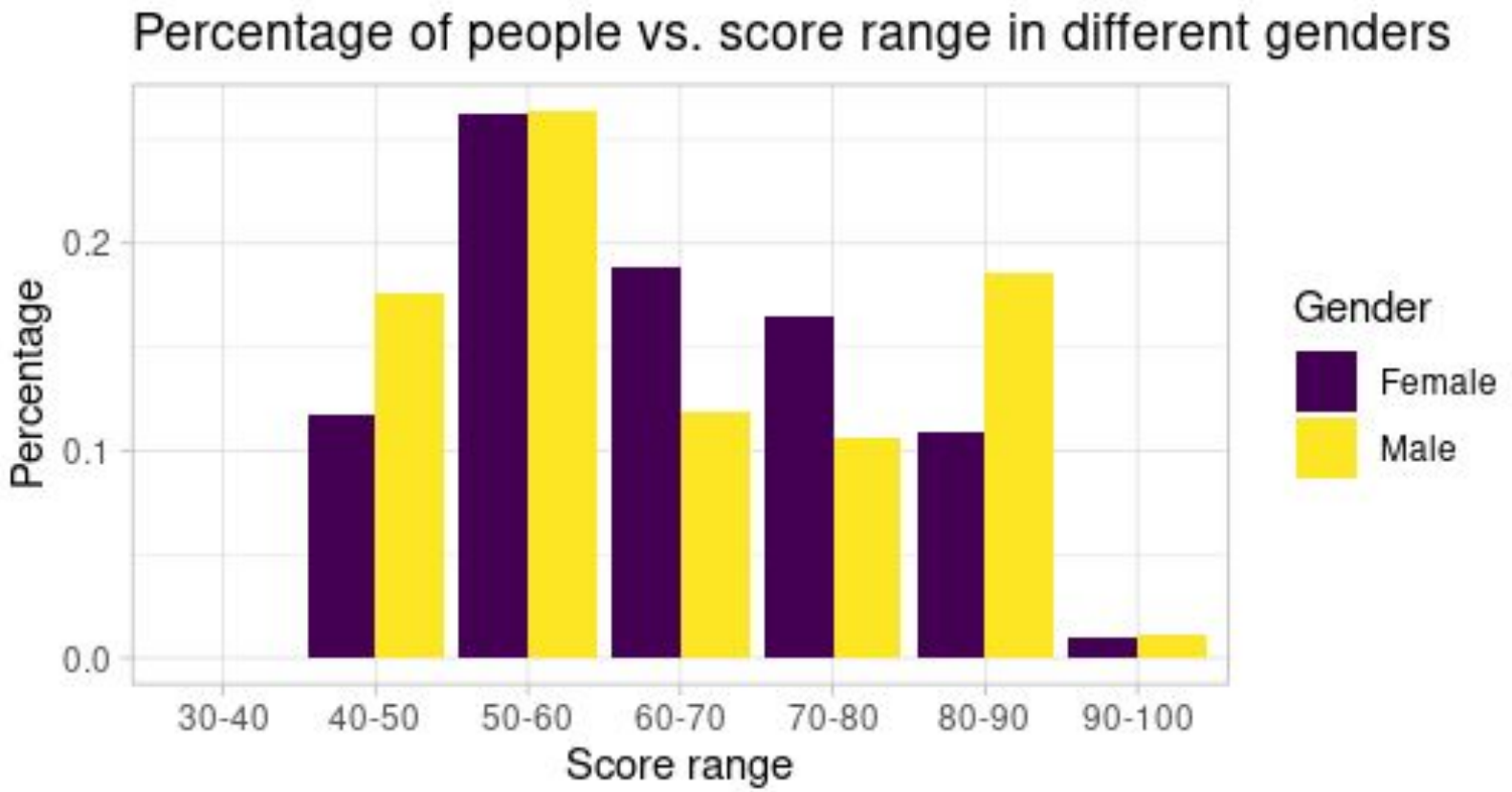


The lack in difference in promotions depending on gender can be seen more in depth here.

As have concluded that there aren't any significant difference between these two groups, not even taking into account age bins



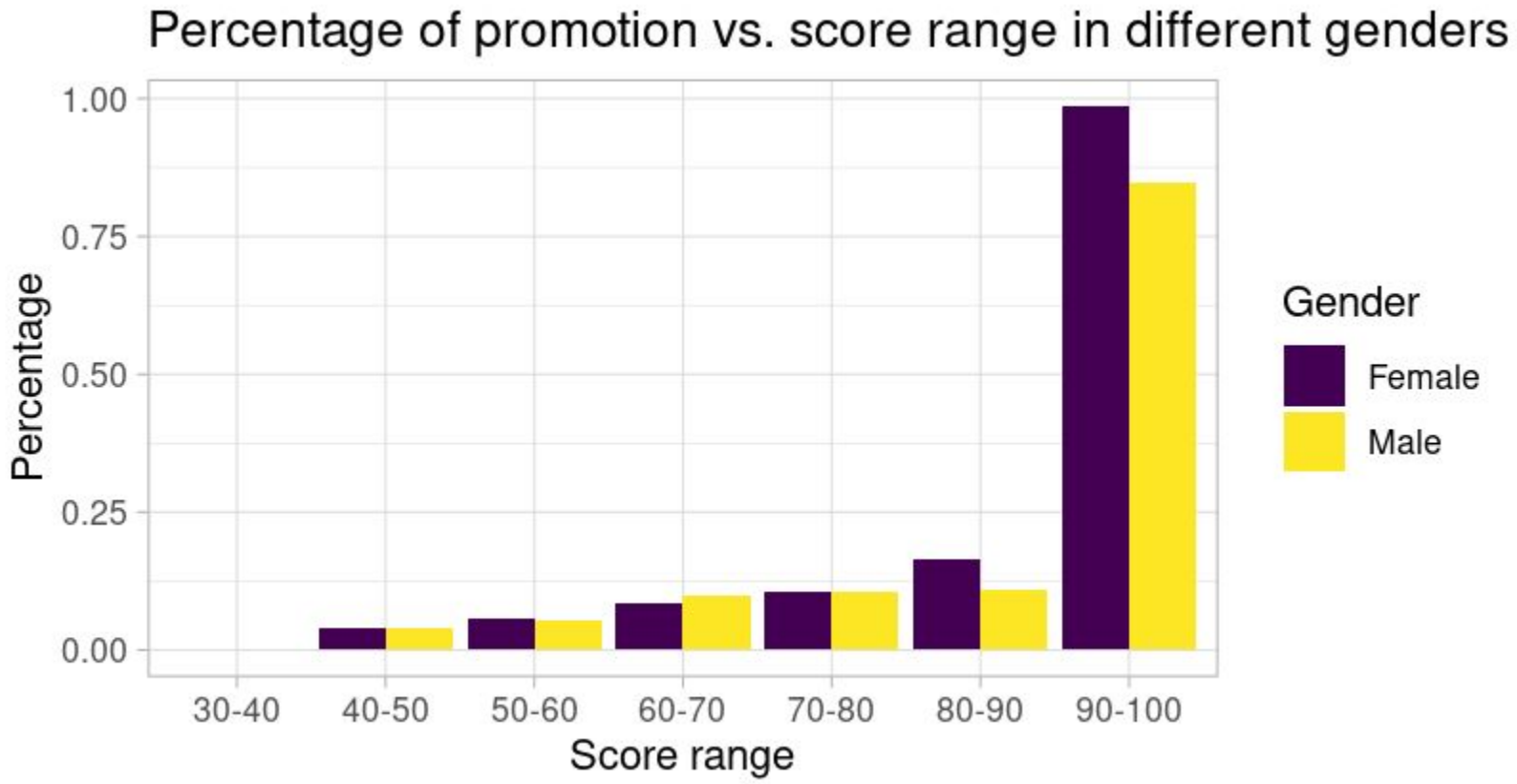
Gender Related to Average Training Score



There are 2 males who scored in the range (30,40), which is less than 0.1 percent of the total number of male.

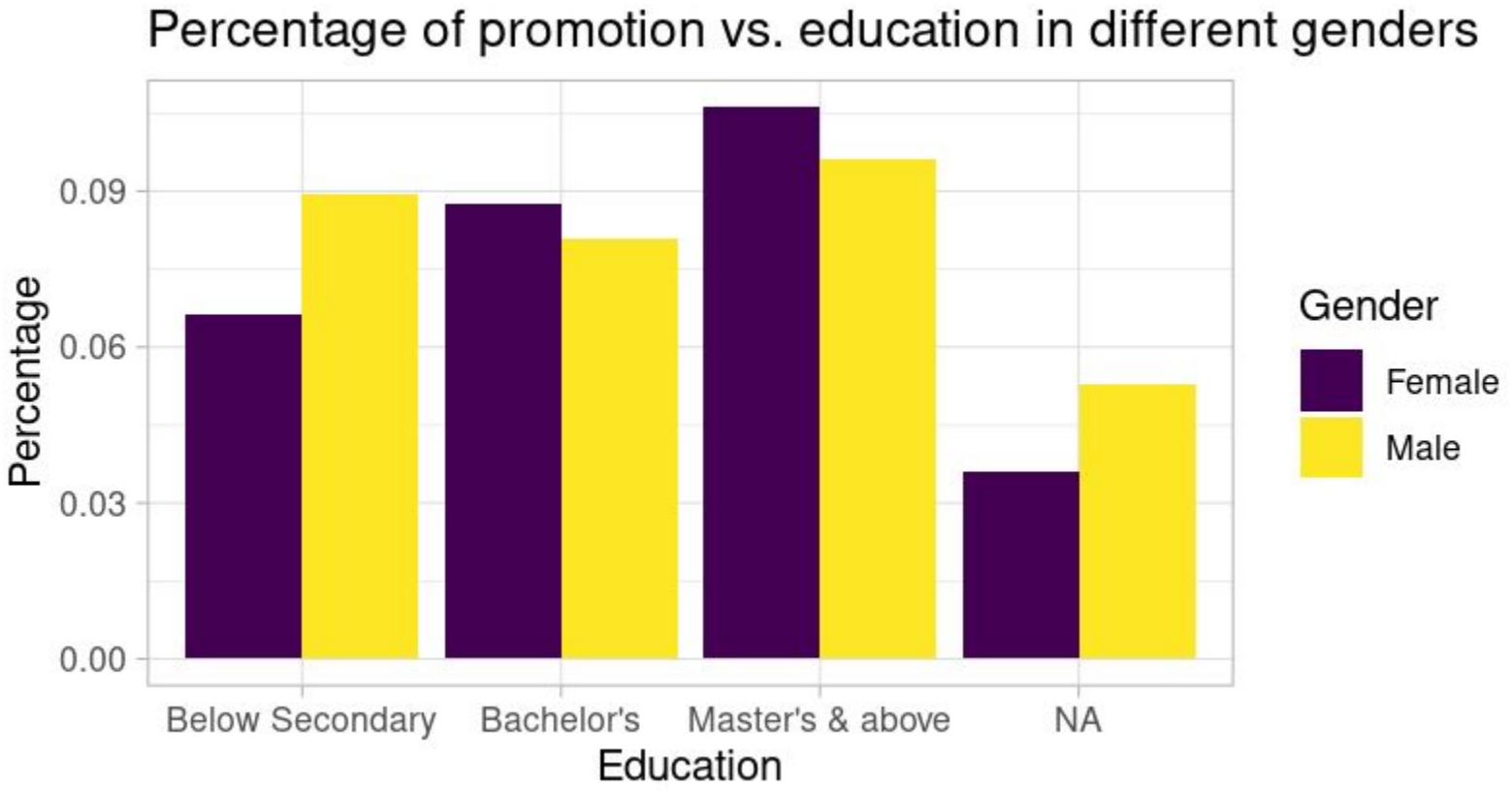
From this observation we can see that males tend to have a higher variance in average training score. Given the average of both genders are relatively the same.

Promotions situations



From this plot, it's reasonable for us to accept the conclusion that in almost every score range, males and females have similar percentages of promotion, if females are not slight better.

This could be a good sign for gender equality improvement.



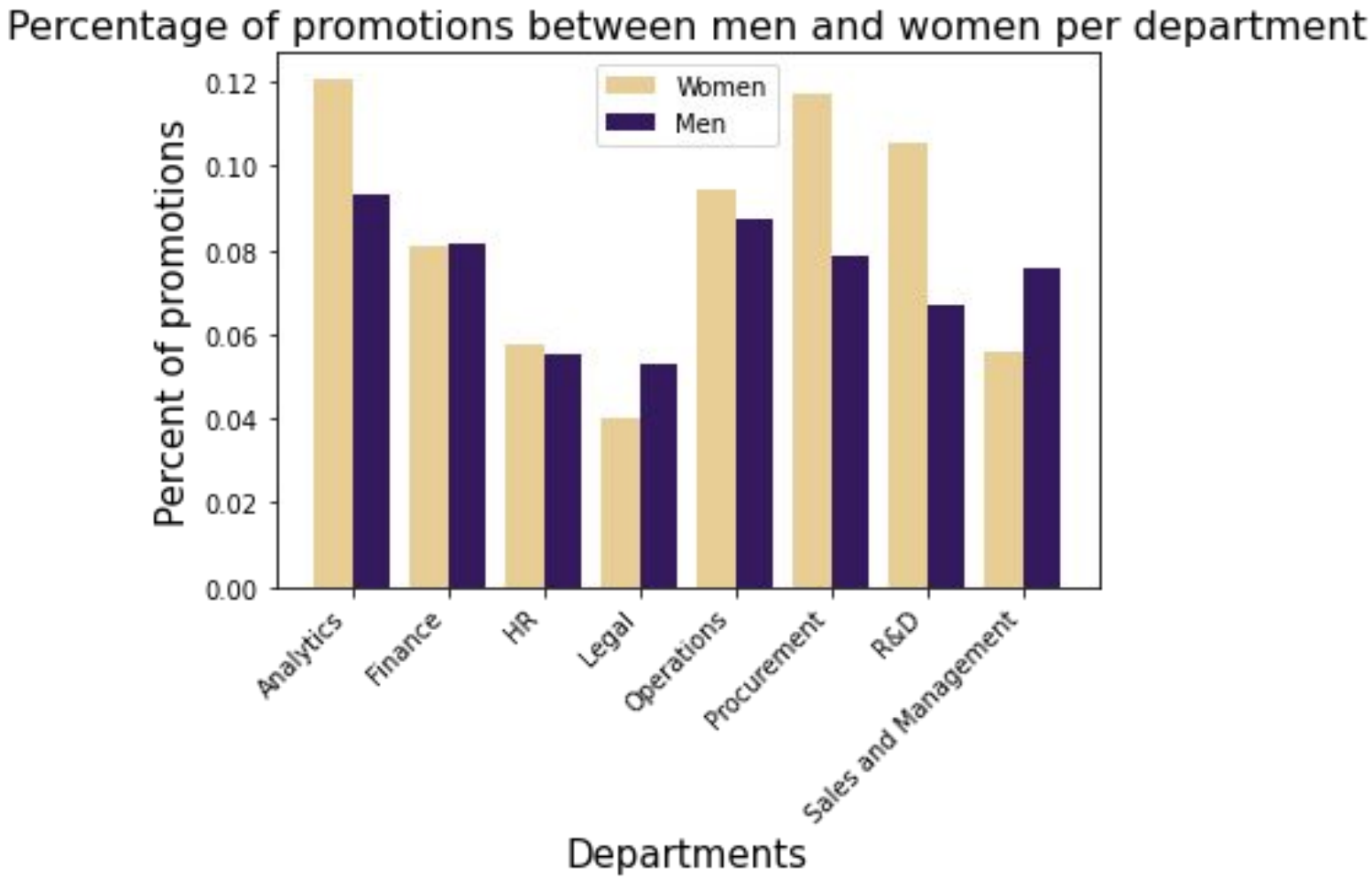
Similarly,. the trend observed in the previous plot can also be seen here. However, the “N/A” and “Below Secondary” parts are interesting. It may still indicate some potential inequality.

Promotions by Department

What can we see from this visualisation :

- ➔ Percentage of women receiving a promotion out of total women per department is overall larger than their male counterparts
- ➔ Disparity in Analytics, Procurement, R&D and Sales and Management
- ➔ Men overtaking women largely only in legal and sales and management

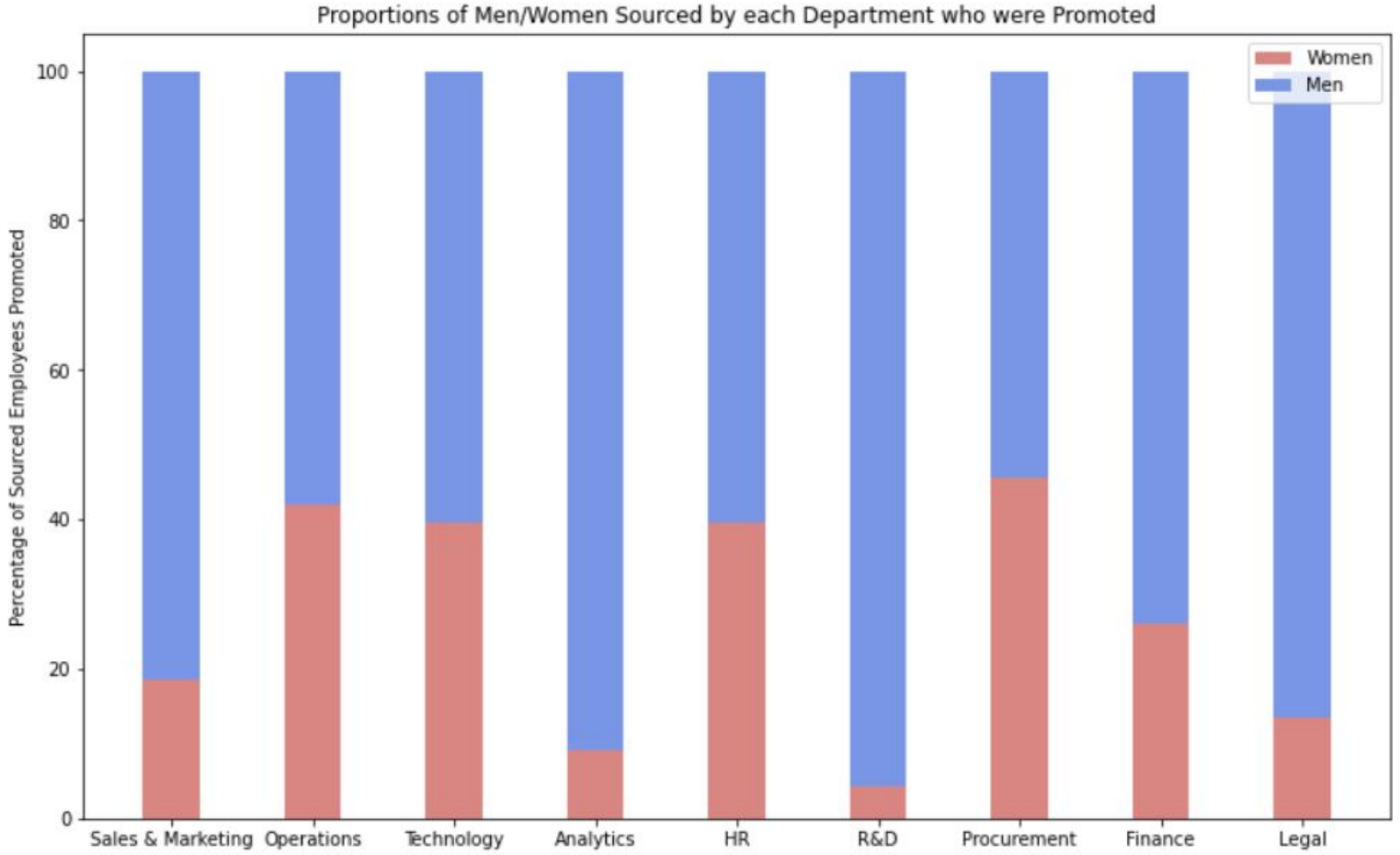
Further analysis possible: Why?



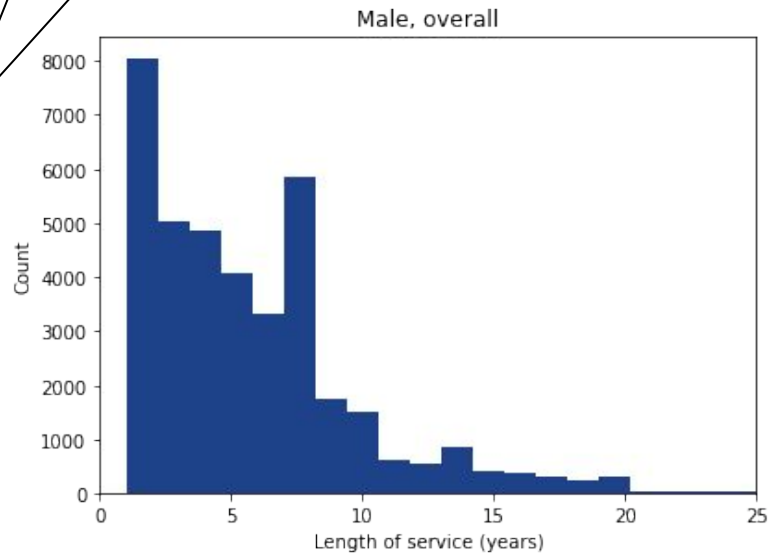
Proportions of Sourced Employees Promoted

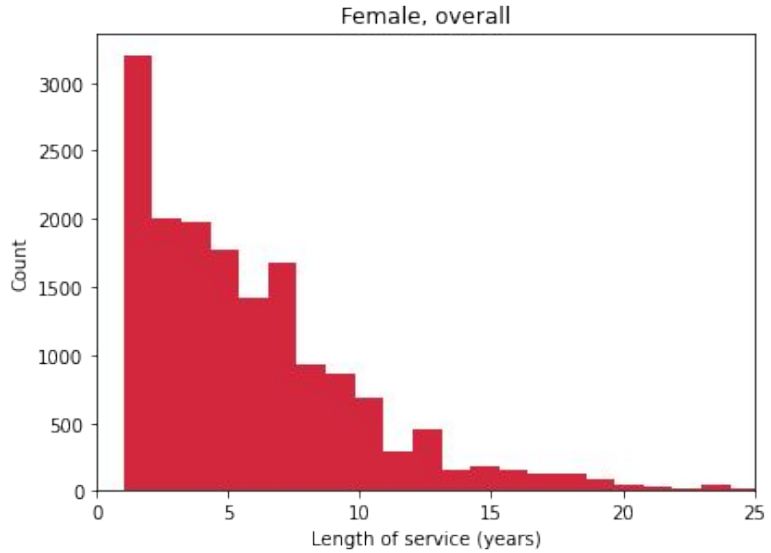
As seen in the neighbouring chart:

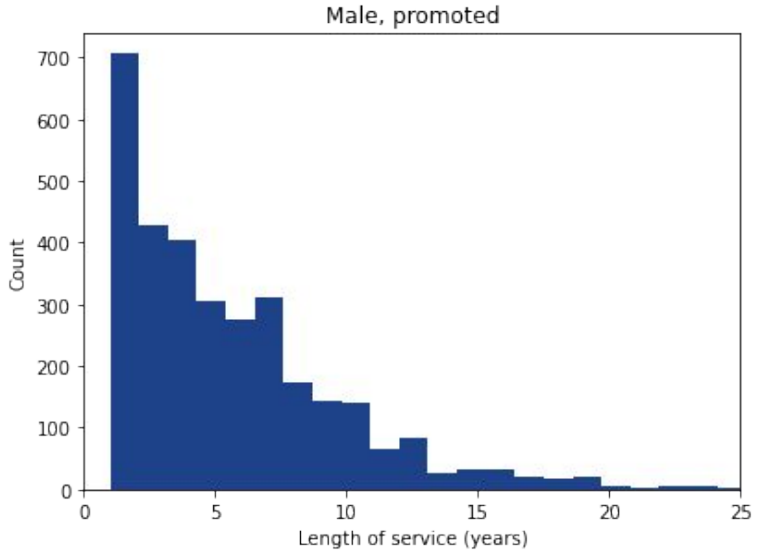
- ➔ The proportions of those sourced by each department getting a promotion reflects the gender imbalances of the departments' populations.
- ➔ Of those sourced by the R&D department, over 90% of those promoted were male. Although this matches the fact that ~90% of the department is male, it does show that sourcing employees has not been used to counterweight the male dominance in higher positions.

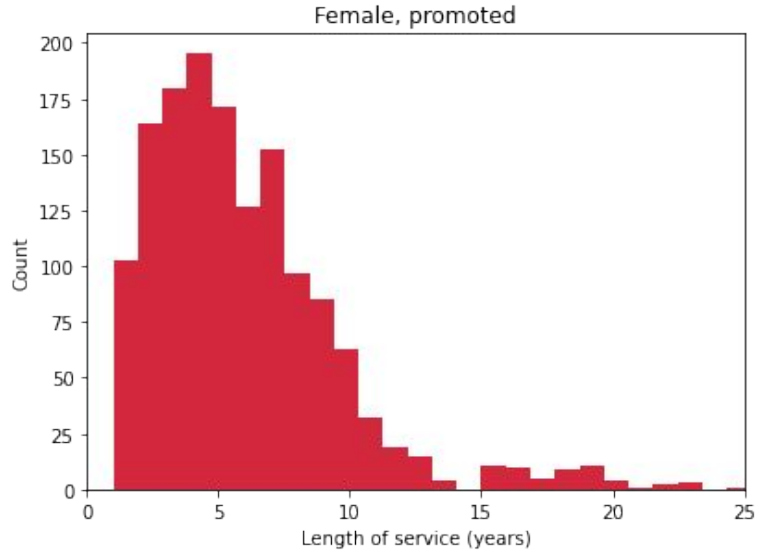


How long must women work for the company before they get promoted?









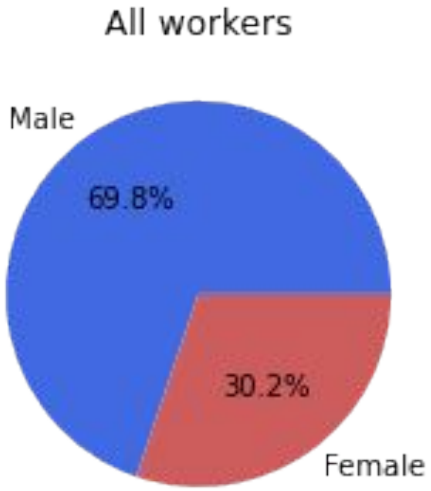
- ➔ Most men who get promoted receive their promotion in their first year of working at the company.
- ➔ There is a much smaller percentage of women being promoted in their first year. They tend to have to work at the company for 3-5 years before they receive a promotion.

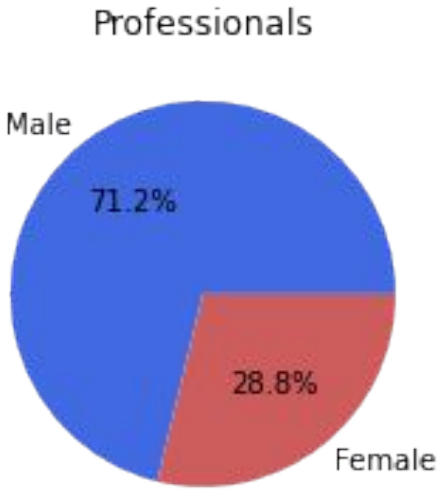
Reflection

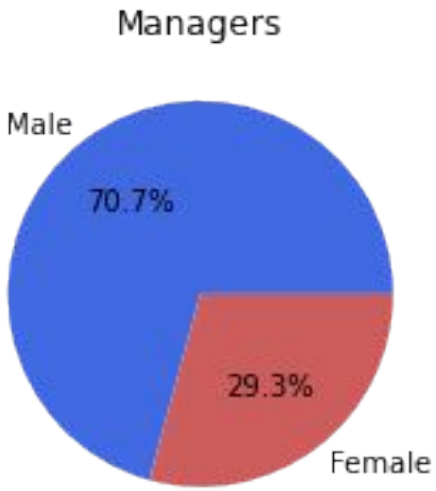
Upon looking at our data we made a very positive discovery that many of the women in this company had a seemingly equal chance of promotion to their male counterparts.

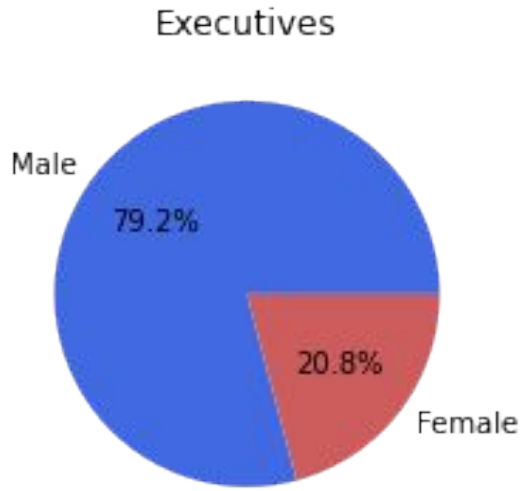
However, we were skeptical. This seemed very positive for this individual corporation however we were keen to investigate if the same level of standard of equality was being kept throughout other companies: specifically ***Silicon Valley***

Gender distribution in the Silicon Valley job hierarchy









The more senior positions have an even lower percentage of female workers, showing that more promotions are being offered to male workers.

Conclusion

Although the prospect for promotion between the genders is fairly equal and seemingly only biased towards a womens length of service within the company (as seen in our first dataset and corresponding visualisation) we cannot unfortunately take this as a sweep statement for other companies.

When analysing the silicon valley data we seen a stark difference promotion possibilities


the fruit pastilles team