

New Perspectives on Gender Diversity

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Problem

There is a promotion gap between men and women who have the same qualifications for the same job. Preliminary studies found that the promotion gap is due to a gender gap in job applications. This research aims to explore how job ads can explain gender differences in applications.

Significance

- Diversity matters within all levels of a company, especially leadership
- Need to identify biases in the hiring process
- Important to retain talent

Tools

- Primarily worked in Python with Jupyter Notebooks
- Gender Decoder
- Confidential statistics of ratio of women/men applicants per job

Process (General)

- Pick a company (multinational German conglomerate) and extract all of its job ads
- Clean the data for German words/symbols, filter for keywords
- Analyze job ads for textual connotations
 - Gender decoders
 - Grouping similar words
 - Categorization of words (e.g. job rank, area)
 - Created regressions

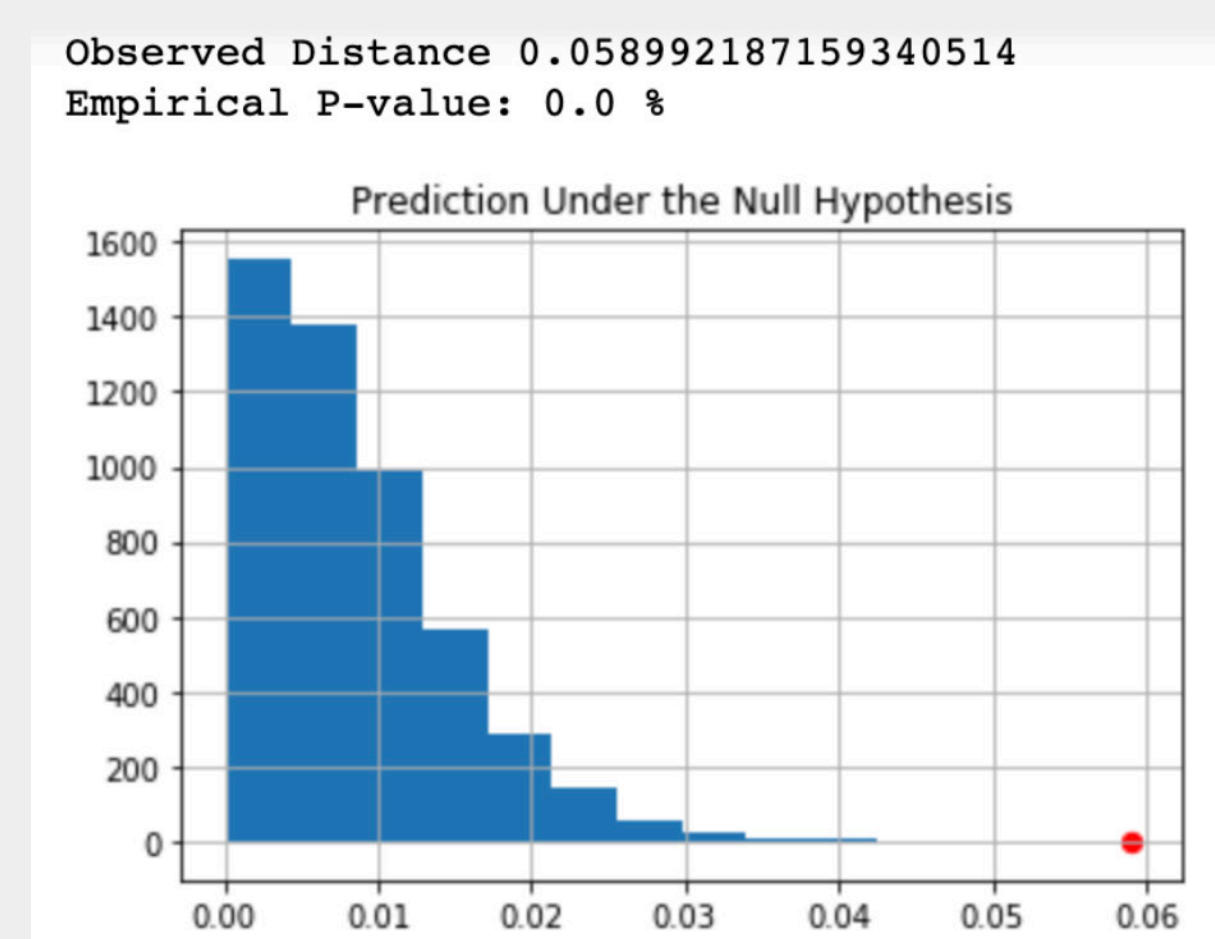
Process (A/B Testing)

Null Hypothesis:

The distribution of female share of applications to jobs with masculine coded requirements is the same as that of female share of applications to jobs with non-masculine coded requirements; the difference in the two samples is just due to chance.

Alternative Hypothesis:

The distribution of female share of applications to jobs with masculine coded requirements is different from that of female share of applications to jobs with non-masculine coded requirements.



Since the empirical p-value is very small, the result is statistically significant. The test favors the alternative hypothesis over the null. The evidence supports the hypothesis that masculine-coded job requirements are associated with low female share in job applications.

Conclusion

- Certain factors are associated with, but not causations for the gender-gap
- Perceived costs - time, social costs, job search/access to information is not an issue
- Women care about the job benefits & probability of success in their new position
- Next steps: Career counseling - "people like you have a high likelihood of applying"