

Byte Busters



# A Study on the Gender Pay Gap in Egypt's Tech Market



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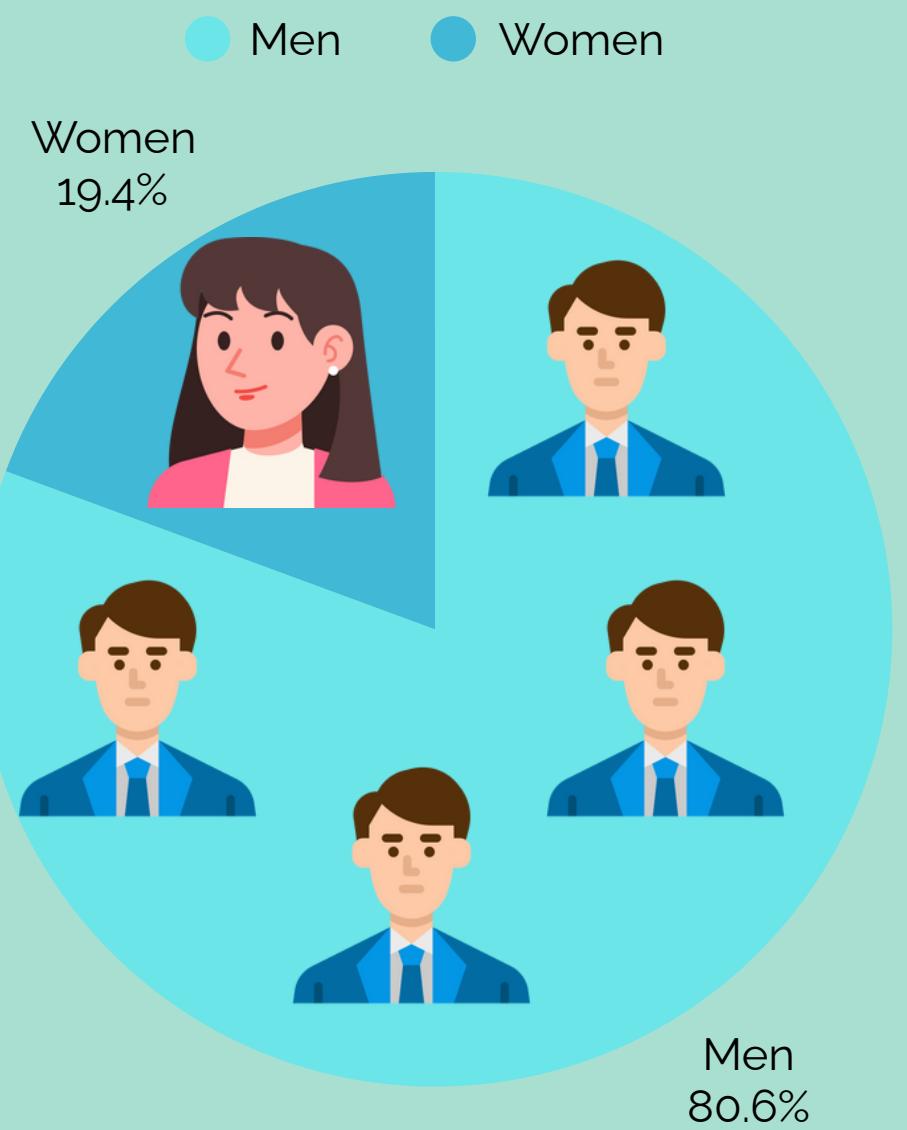




# Why This Study Matters



- The gender pay gap is globally debated, but under-researched in Egypt's tech sector
- To figure out whether women earn less because they are less experienced or because of some other factors



# What Did We Aim to Find



1. Is there a statistically significant difference in salaries between men and women? 
2. Does the gap persist after controlling for factors like experience and title? 
3. What is the Cost of Being a Woman in the Egypt tech industry in EGP? 

# Hypotheses



## Hypothesis 1 (Basic)

- **Test:** Welch's t-test
- **Null ( $H_0$ ):** There is no difference in mean salaries
- **Alternative ( $H_1$ ):** There is a significant difference in mean salaries

## Hypothesis 2 (Controlled)

- **Test:** Blinder-Oaxaca
- **Null ( $H_0$ ):** After controlling for job title, experience, level, etc., there is no significant difference.
- **Alternative ( $H_1$ ):** Even after controlling for those, a pay gap still exists.

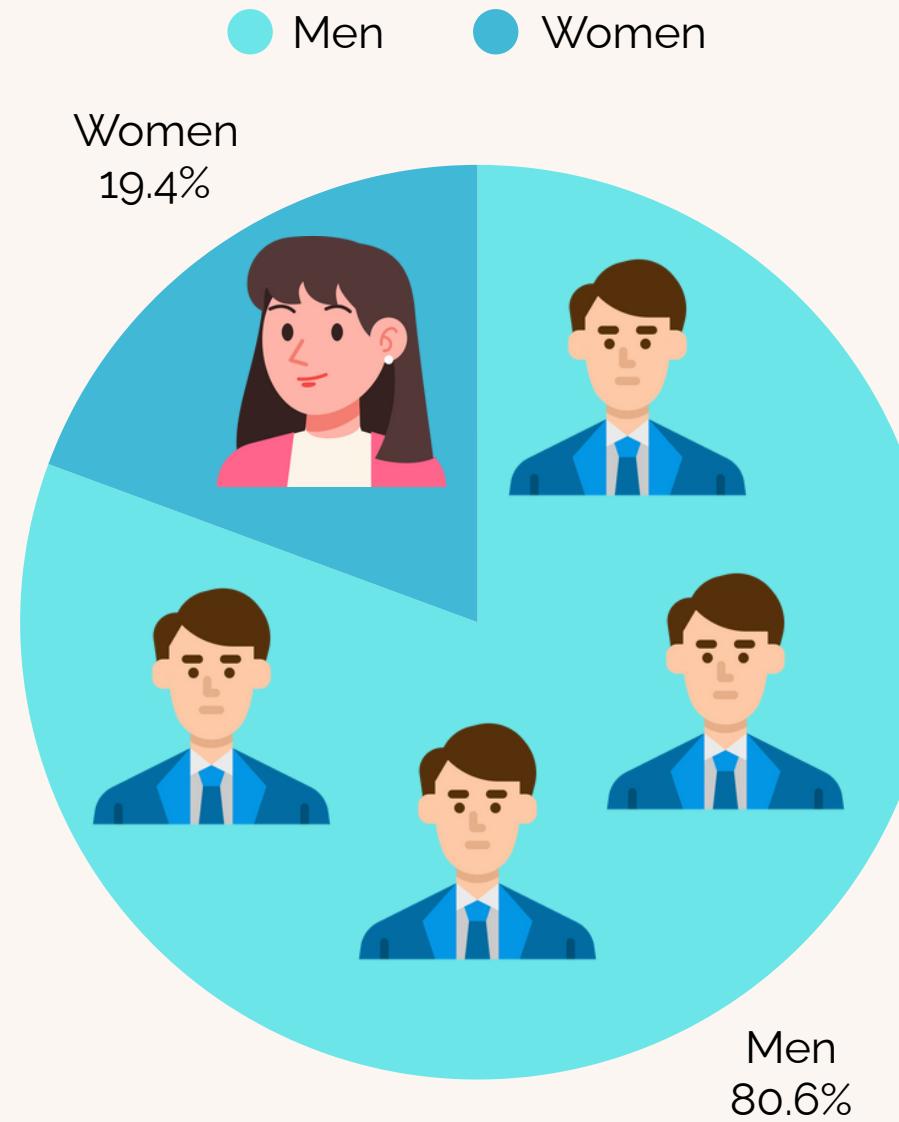
# Population and Dataset



Population: Tech professionals in Egypt

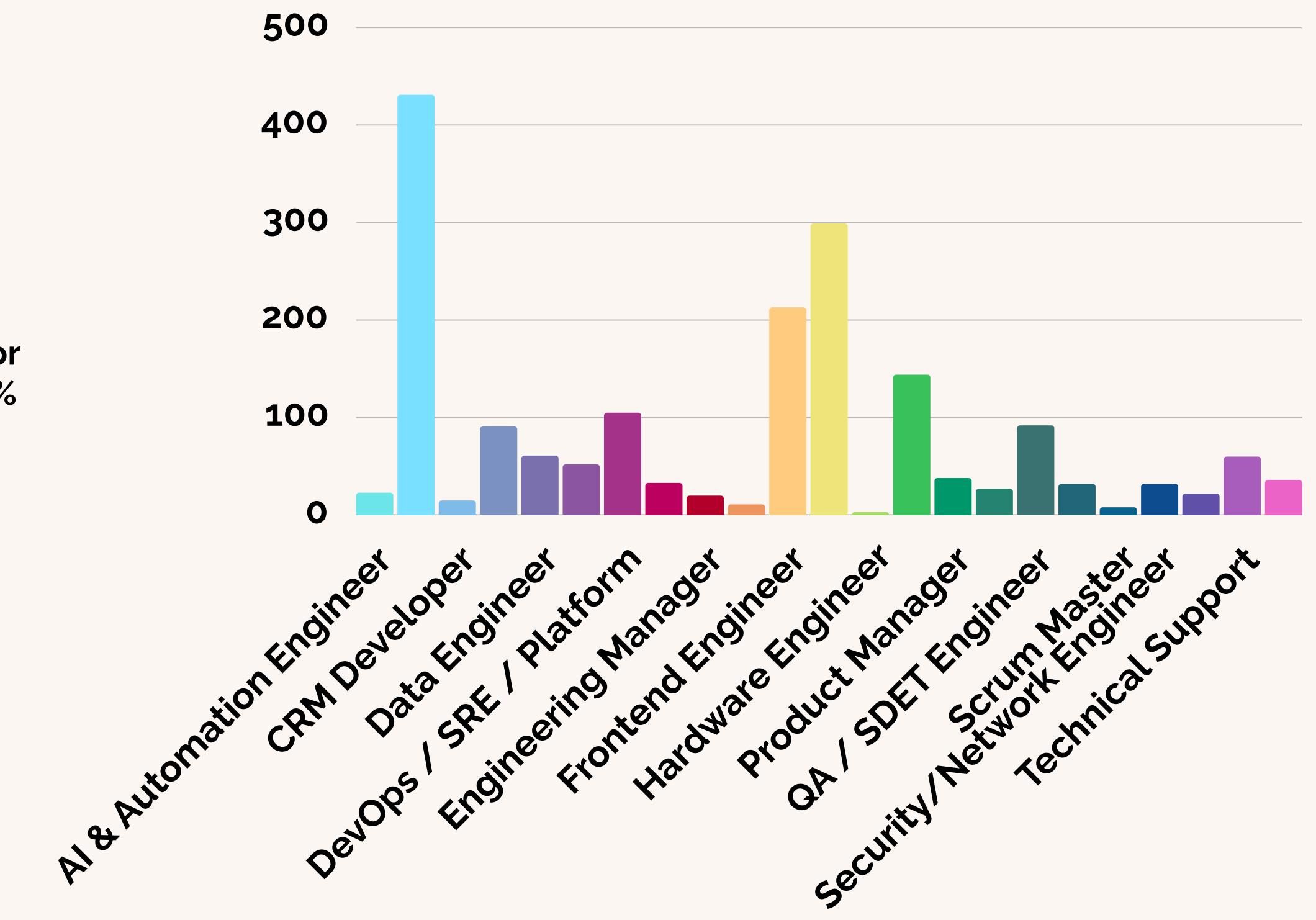
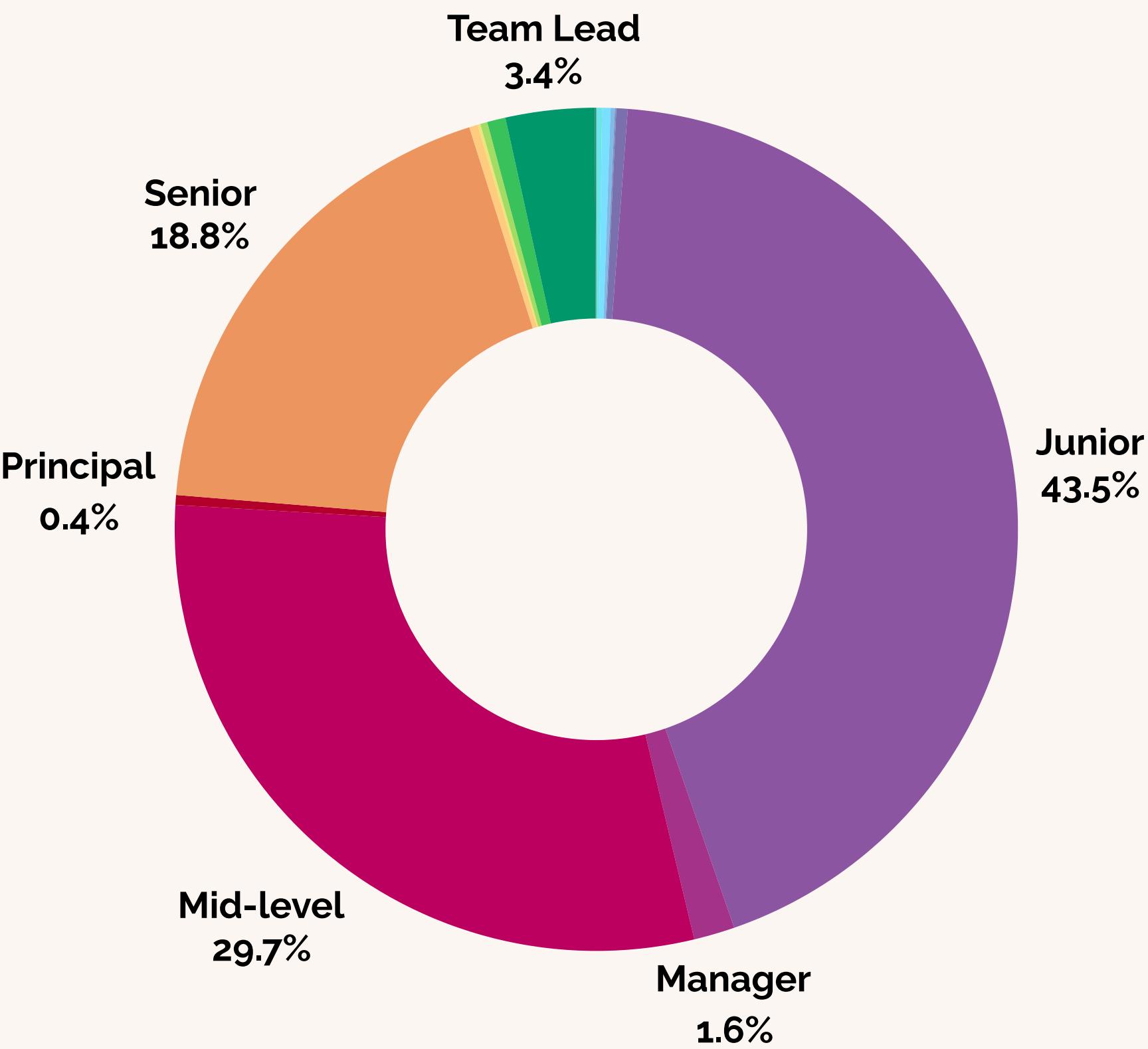


Dataset: 2,649 records from 2024 Tech Market Survey



As can be seen in this article the gender distribution is very near the global average

# Population and Dataset: continued



# How We Analyzed the Data



**Mean Salary Test → Welch's T-test for unequal variance**



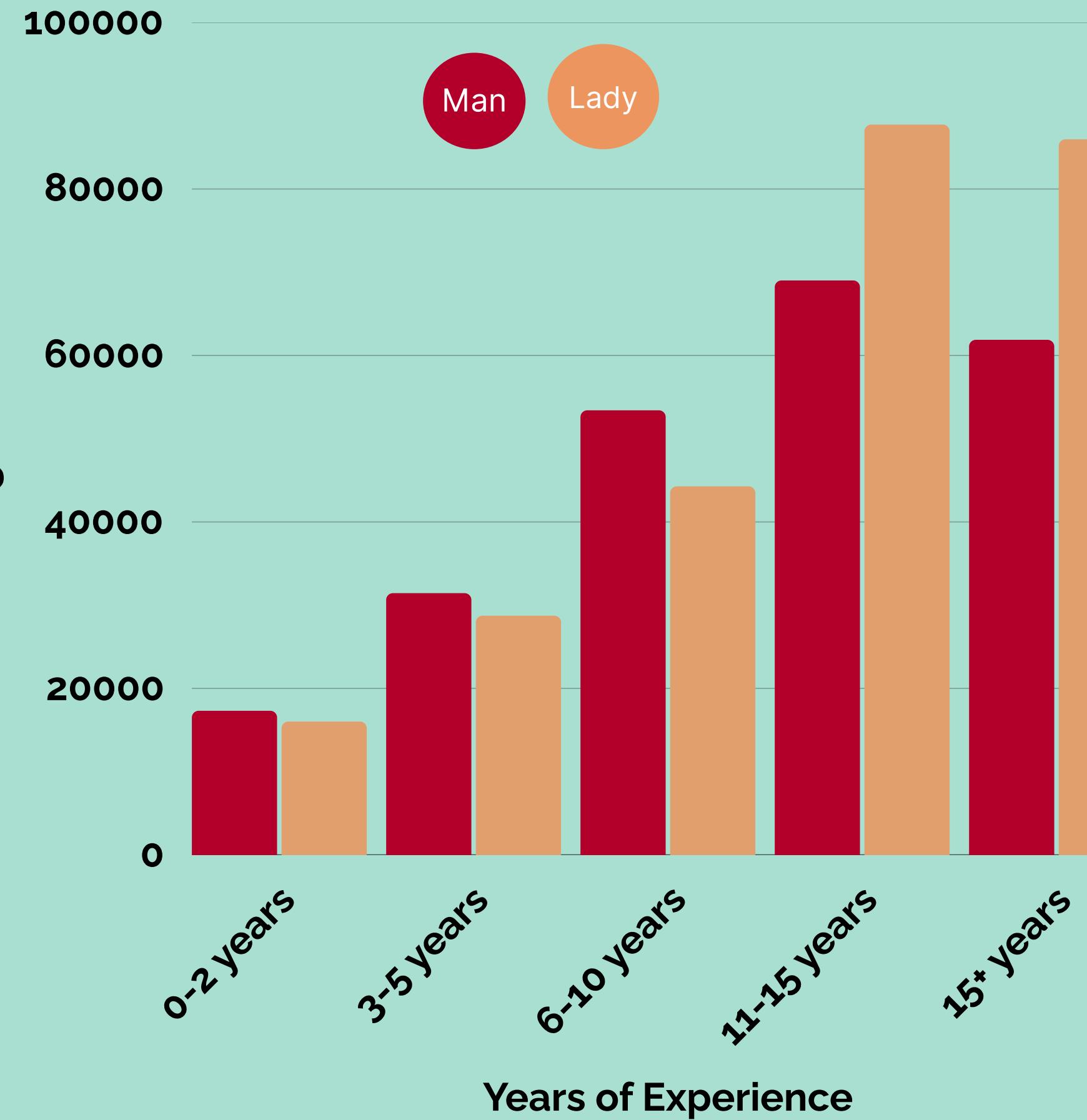
**Controlled Gap → Blinder–Oaxaca decomposition**



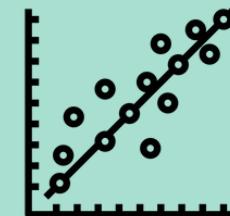
**Cost of Being a Woman → Regression model for  
expected vs. actual salaries**



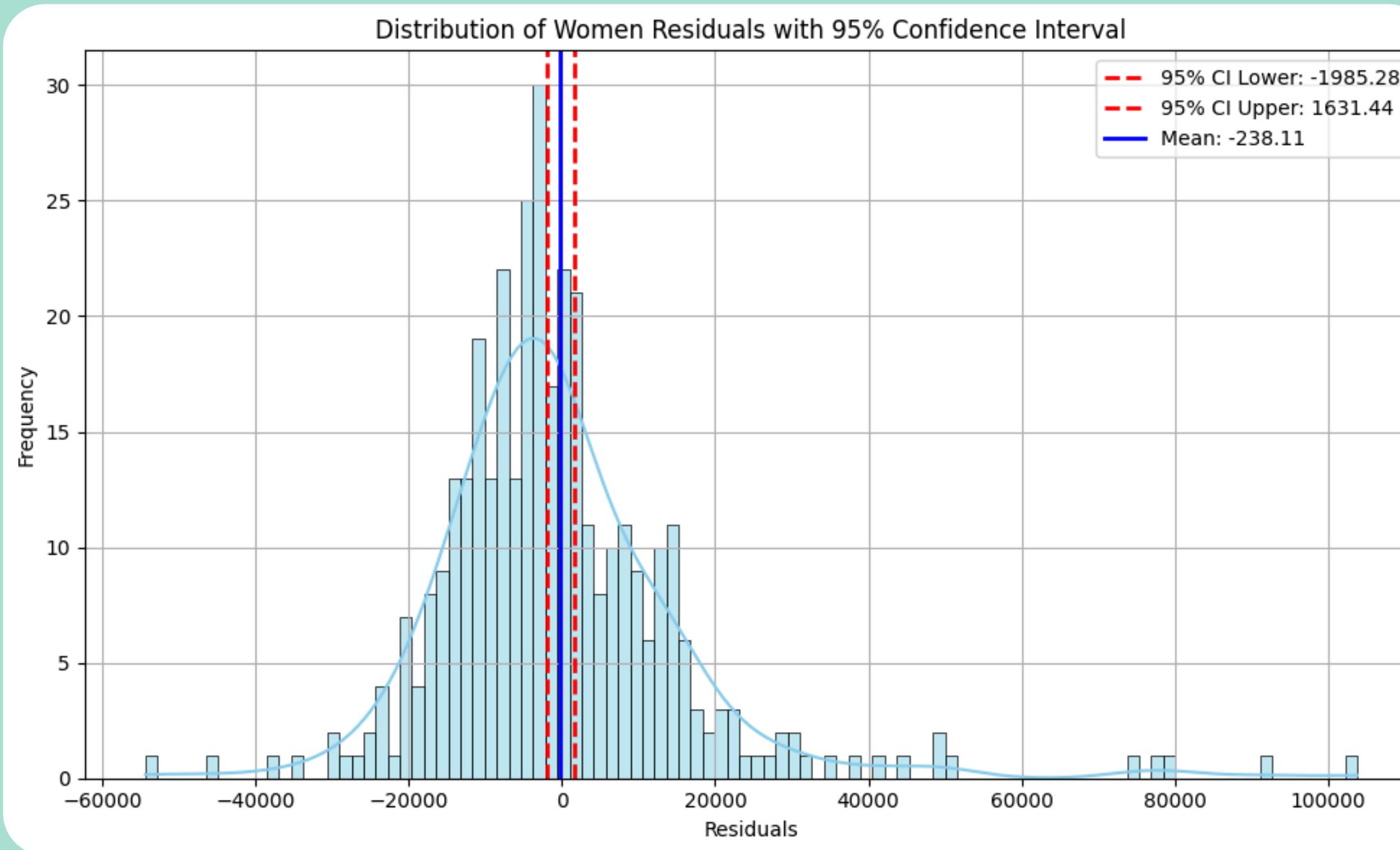
# What the Data Showed



A stratified linear regression analysis was conducted across experience brackets to find gender-based salary differences at each level before Oaxaca-Blinders



# How Much Less Do Women Earn?



**The 95% confidence interval ranges from -1950.41 to 1590.81 EGP.  
Since zero lies within this interval, it suggests that the “cost of  
being a woman” may, statistically, be zero.**

# Limitations

- Scarcity of female data which did not allow Oaxaca-Blinders to be fully conclusive 
- Data skewed toward male professionals 
- Scarcity of senior-level female records 



# Conclusion

- There is no statistically significant evidence of there being a wage gap between men and women in Egypt's tech market
- In fact Women on average earn more than men after 10+ years of experience
- After conducting a 95% confidence interval we found that there isn't enough evidence to conclude that life costs more as a woman in the tech field



# Byte Busters Out