

# THE BENEFITS OF BIG DATA: HOW BUSINESS ANALYTICS CAN INCREASE INCLUSION



According to the **World Economic Forum's 2018 Global Gender Gap Report**, there is a **32% average gender gap in the workplace globally**. While society has made progress toward achieving gender parity, there is still a long way to go.

## GENDER INCLUSION IN THE U.S.

In 2017, women's median weekly earnings were **82%** of men's median weekly earnings. The wage gap across business occupations can vary significantly.



### STATISTICS OF EMPLOYED WOMEN

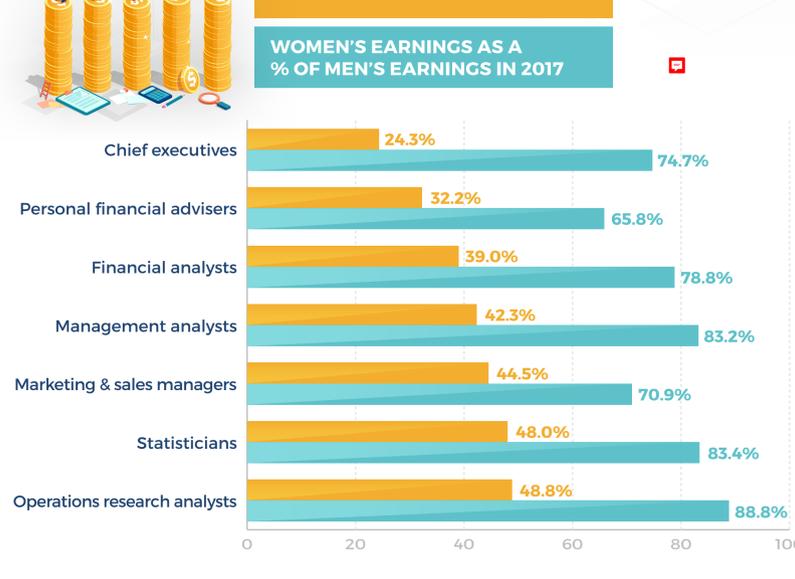
IN 2017 MEDIAN WEEKLY EARNINGS ACROSS OCCUPATIONS TRACKED BY THE U.S. BUREAU OF LABOR STATISTICS WERE

**\$770**  
FOR WOMEN

**\$941**  
FOR MEN



### IN 2017 WOMEN ACCOUNTED FOR WOMEN'S EARNINGS AS A % OF MEN'S EARNINGS IN 2017



## ADDRESSING BIAS

Though there are many reasons for the wide pay gap, bias is one that can be combated at many stages, including hiring.

### EXAMPLES OF UNCONSCIOUS BIAS

- Recruiters are more likely to view the profiles of men than those of women.
- Women are **26%** less likely to request a referral.
- Women apply for **20%** fewer jobs and believe they must meet **100%** of hiring criteria, whereas men believe they need to meet only **60%** of the criteria.

### BENEFITS OF GENDER INCLUSIVITY

Calculations by the International Monetary Fund revealed the following benefits of narrowing gender gaps:



### HOW DATA & ANALYTICS CAN BE USED TO REDUCE BIAS IN HIRING

While human resources departments can handle some steps, other steps will require tech solutions.

- Remove names and gender indicators, such as profile photos.
- Filter search results for potential candidates to reflect gender equality.
- Create standardized decision-making criteria.
- Identify areas where bias impacts decisions.
- Develop a score measuring diversity, equity and inclusion.

### CREATING A BALANCE IN PAY

- Research by University of Maryland faculty Dr. Margrét Bjarnadóttir and Cristian Dezső cautions against recalibrating "pay based on certain workforce qualifications, such as seniority or education" as this could lead to giving raises to men and changing pay indicators, rather than achieving pay equity.
- Organizations should also avoid only considering cost-efficiency when providing raises; doing so could lead to paying less qualified women more than more qualified women.
- Instead, organizations should:
  - Use standard analysis to quantify the pay gap
  - Follow HR strategies & policies for fair pay
  - Offer raises in an efficient and reasonable manner

## AUTOMATING THE PURSUIT OF GENDER INCLUSIVITY

Because many data collection, management and analysis processes are automated, data analysts should be aware of challenges posed by artificial intelligence (AI). AI technologies, unfortunately, are prone to reinforcing society's current gender biases.



### CHALLENGES IN USING DATA & ARTIFICIAL INTELLIGENCE FOR GENDER INCLUSIVITY

- AI is advancing faster than regulations, leaving many ethical gray areas.
- Automated processes must be transparent and used appropriately.
- AI technology must be screened for bias.

### HOW SOFTWARE IS USING DATA TO REDUCE GENDER BIAS

Managers can use tools that compare an employee's tenure with his or her performance to check if the employee is being consistently passed over for projects and promotions, thereby identifying unconscious bias. Pipeline, a software company, has become especially popular among finance businesses, tech companies and restaurants.



### PIPELINE

#### How it works

- The software analyzes a company's internal workforce data.
- It scores a team's gender makeup and an employee's skills.
- It analyzes performance reviews using natural language processing to screen for gender bias.
- The software provides recommendations for a performance review, promotion or salary-related change.
- The software monitors and records the results of the decision maker's action.
- Each company receives a gender equity score.

### MORE PLATFORMS USING ANALYTICS TO PROMOTE INCLUSION

- LINKEDIN RECRUITER**: Offers the option to exclude candidate photos.
- HIREVUE**: Video software uses AI to provide candidate insights following an interview.
- PYMETRICS**: Uses AI and neuroscience-based games to recommend candidates.
- TEXTIO HIRE**: Measures the effectiveness of job descriptions & makes suggestions to improve writing & attract qualified applicants.

### TIPS FOR LEVERAGING DATA ANALYTICS TO REDUCE GENDER INEQUALITY

- Data must be contextualized.** Data analysts should be prepared to experiment with tech solutions and approaches to optimize data modeling.
- Data must be actionable.** Data analysts must provide business leaders with specific, highly detailed data to empower informed decision-making.
- Solutions must be customized for each use case.** Data analysts should recognize the limitations of existing solutions and seek out appropriate ones.
- Sources of data must be varied & analyzed for bias.** Data analysts should assess data sources for implicit bias and establish countermeasures.

## CONCLUSION

Organizations are addressing inequality in the workplace using many tools and methods, including data analysis technology. In the coming years, the challenge for data analysts will be leveraging technology to eliminate bias and promote gender equality.

SOURCES:



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