

# Helps you to Break the Bias in analytics

Bias is problematic in analytics leading to errors or even the failure of projects.

How many of these common biases can you recognise?



Gender bias

Skewing of analytics and data science insights due to the team not having gender balance and hence insights potentially being "blind" to 50% of society.



## Application bias

Applying analytical models to populations who have zero representation in the training data (eg Don't apply models to females when the model was built on data collected exclusively on males)



## Confirmation bias

Seeking data or outputs that support preexisting beliefs or desired outcomes



## Algorithm bias

The systematic and repeatable lack of fairness from an algorithm or AI system



## Sampling bias

Where a sample is collected such that some in the sample are more likely to be sampled than others and hence is not representative of the population.



#### **Exclusion bias**

Where data believed to be irrelevant is ignored and results in an inaccurate representation of the collected data



## Survivor bias

Assuming the data you hold is a true representation of the population without considering the data you may be missing



## Reporting bias

Distortion of results by the team or person by selecting or omitting information in the report



# Group attribution bias

A preference for those who share similar characteristics or backgrounds as the analytics professional or team



#### Racial bias

When factors that disproportionately impact a race or ethnic group is used as a proxy or key variable in other data analysis or algorithms

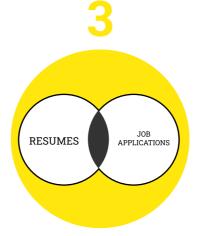
As part of International Women's Day, the IAPA team offer the following tips and hints to reduce gender bias and boost diversity in analytics teams:



Proactively build teams with gender balance



Ensure job descriptions and job ads use gender neutral language



De-identify resumes and job applications



Actively seek input from all members of the team



Treat all opinions and input as equal



As a manager or team leader, model gender inclusive behavior



Be open to considering team members who have developed their skills outside of traditional pathways



Build a culture that is respectful and supportive of all team members