

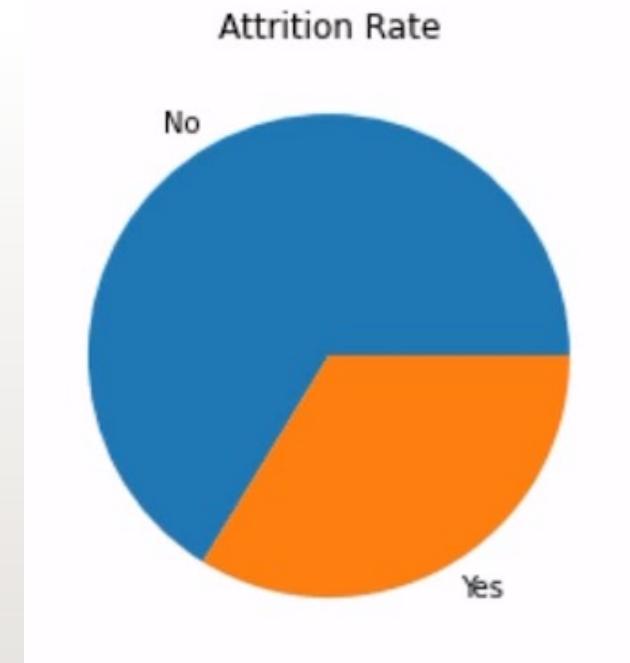
# HR ATTRITION ANALYSIS

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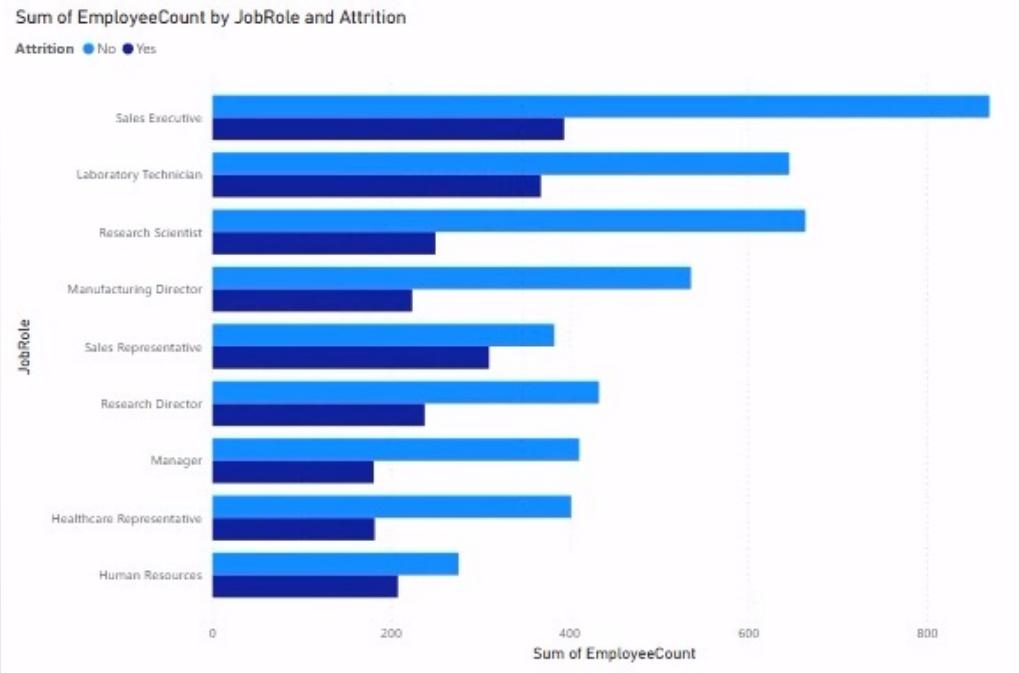
BY: JULIEAN LEWIS

## Who's Leaving, Why, and What's Next?

- Roughly 33.7% of employees have left the company.
- This is our baseline attrition rate; with this we can dig deeper to address:
  - Who is leaving?
  - Why are they Leaving?
  - What areas should leadership focus on to improve retention?



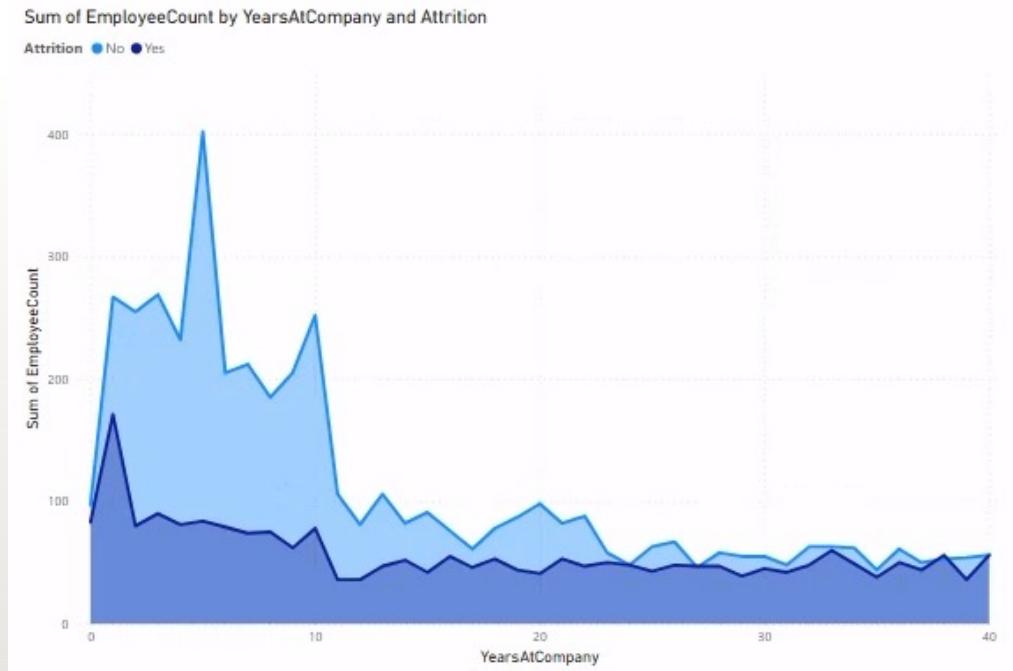
## Job Roles with the Highest Attrition

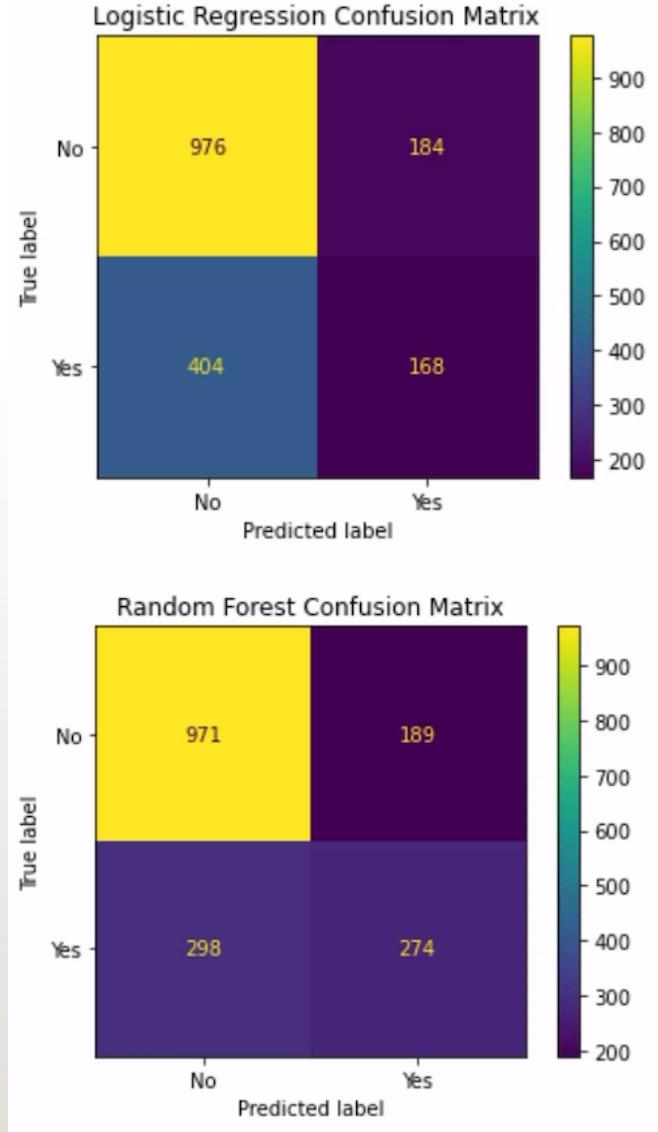


- Sales Executive
- Laboratory Technician
- Sales Representative
- Research Scientist

## Attrition by Tenure

- High attrition in first two years
- Spike in attrition at 5 and 10 years
- Attrition begins to level out after 10 years





### Logistic Regression

- Accuracy: 66.1%
- Precision: 0.48 – correctly flagged cases
- Recall: 0.29 – missed many cases of attrition
- Correctly predicted attrition 168 times
- Simple and fast, but less effective

### Random Forests

- Accuracy: 71.9%
- Precision: 0.59 – better at correctly predicting those to likely leave
- Recall: 0.48 – caught more than logistic regression
- Correctly predicted attrition 274 times
- Stronger model for flagging employees at risk of leaving

## Opportunities for Action



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- Target retention efforts towards high-risk roles and departments
- Use predictive models to flag at risk employees before they leave
- Promote stronger work life balance and job satisfaction
- Offer more training and support programs for employees and new hires to reduce attrition in first years