

# Investigating Turnover and Compensation

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# Introduction

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- Identify top reasons for Turnover
- Showcase Model for Turnover/Attrition prediction
- Identify predictors for Income
- Showcase Model for Income Prediction

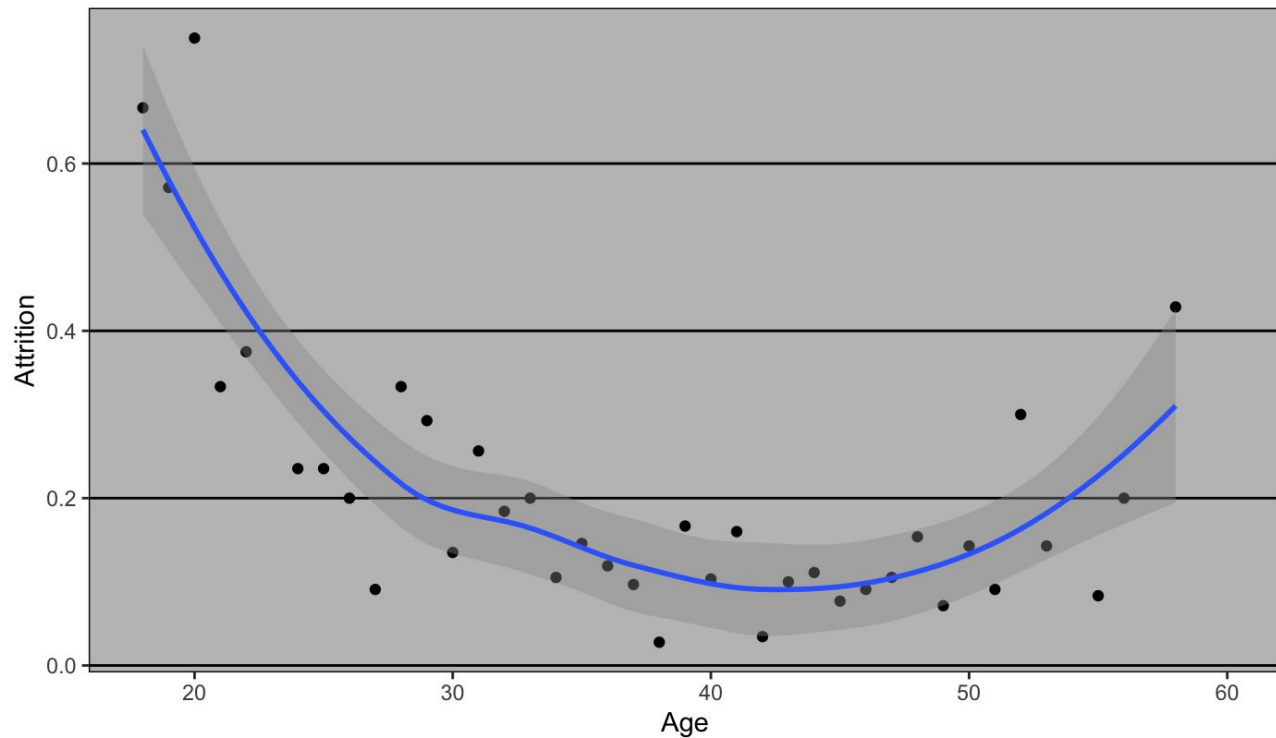
# Top Factors for Attrition

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1. JobSatisfaction
2. OverTime
3. Age
4. Job Role

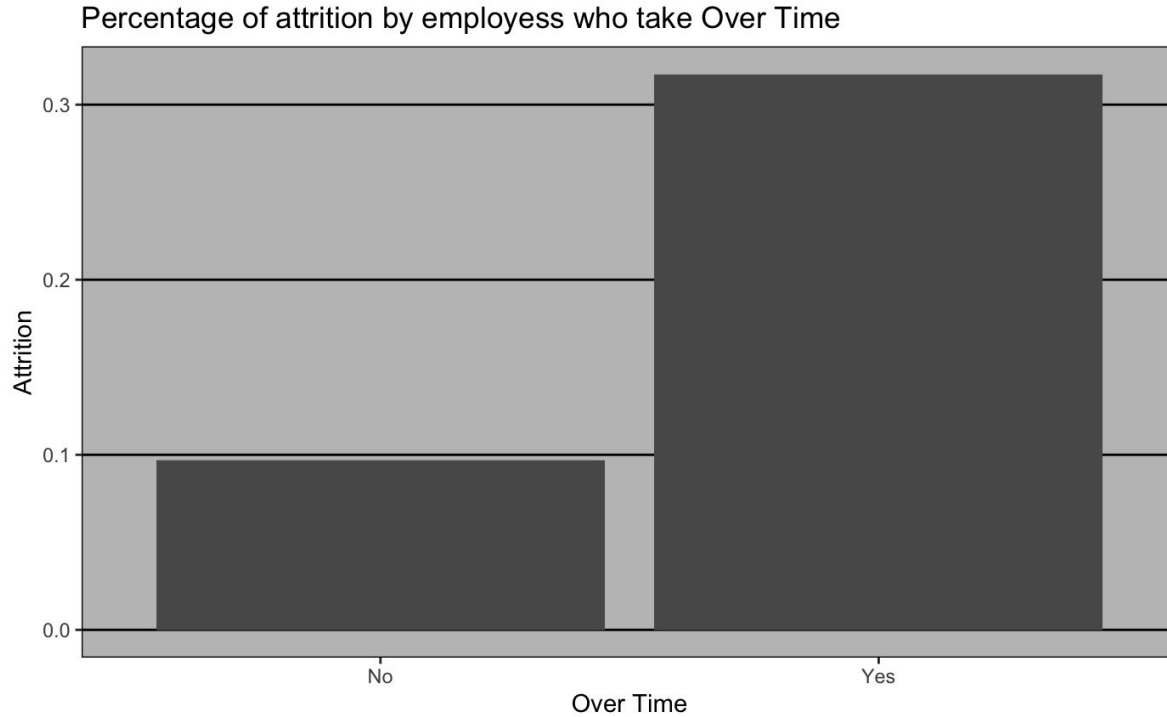
# Age

Attrition vs. Age



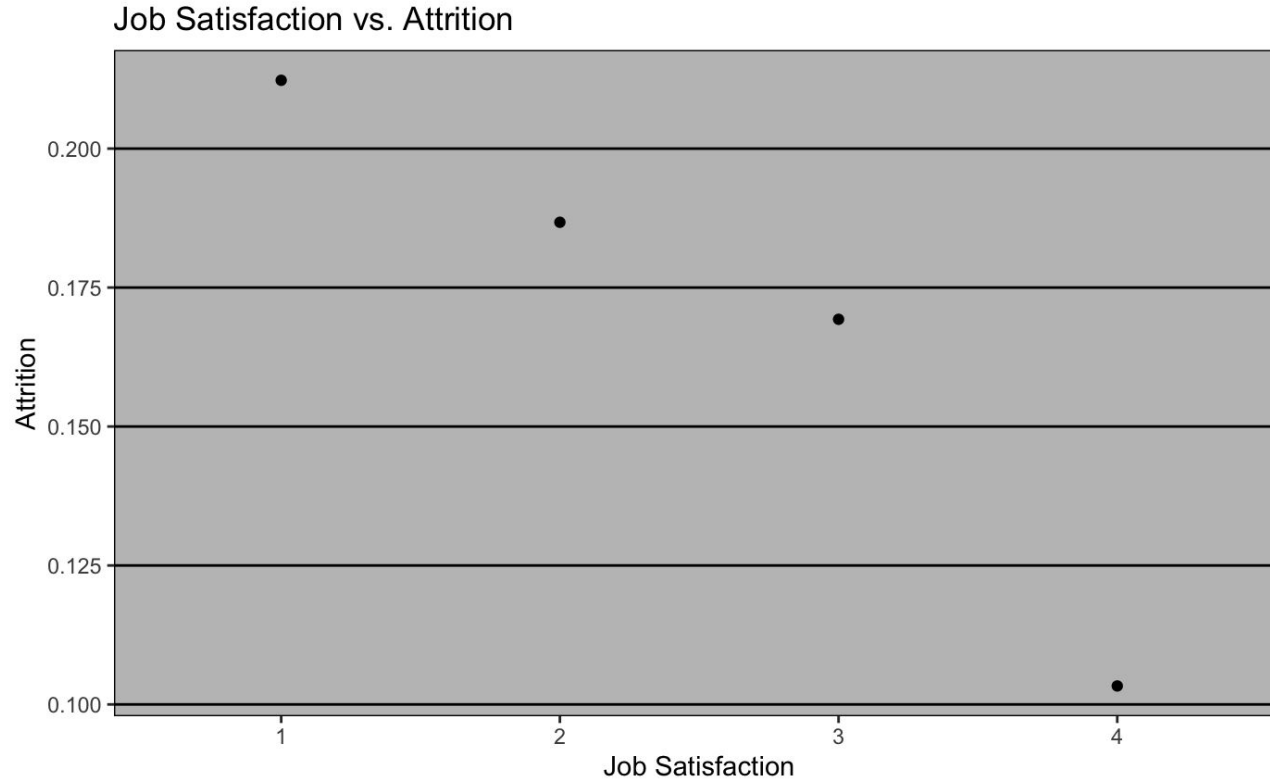
# Overtime

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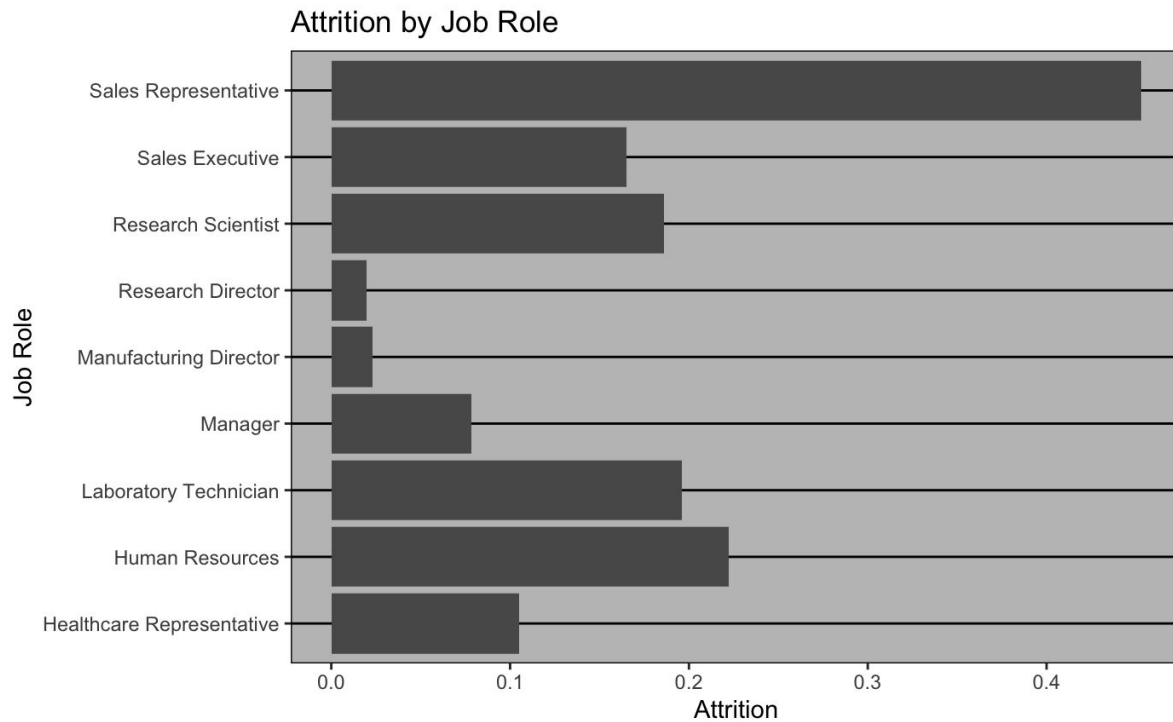
# Job Satisfaction

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# Job Role

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# Predicting Attrition

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Model: Naive Bayes

Variables: Age, JobRole, JobSatisfaction,  
OverTime

Accuracy: 0.849387

Specificity: 0.8587652

Sensitivity: 0.6427007



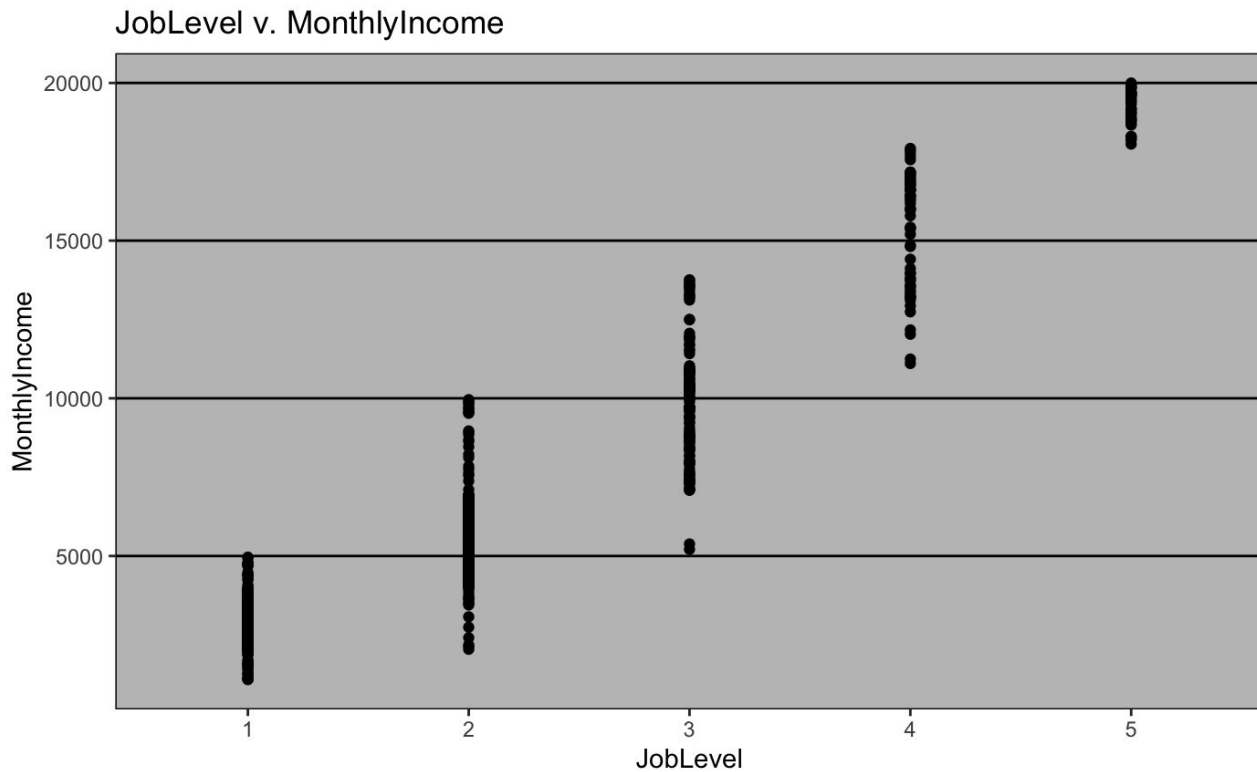
# Top Predictors for Salary

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1. Job Level
2. Total Working Years/Years At Company
3. Age

[illegible]

# Job Level



# Predicting Salary

Model: Linear Model

RMSE: 1203.884

```
lm(formula = MonthlyIncome ~ JobLevel + Age + TotalWorkingYears,  
    data = training_data)
```

Residuals:

Min	1Q	Median	3Q	Max
-4947.4	-652.9	-136.8	615.3	4542.1

Coefficients:

	Estimate	Std. Error	t value	Pr(> t )
(Intercept)	2417.795	197.719	12.228	<2e-16 ***
JobLevel2	2653.840	107.720	24.636	<2e-16 ***
JobLevel3	6825.867	152.965	44.624	<2e-16 ***
JobLevel4	11869.515	255.118	46.525	<2e-16 ***
JobLevel5	15811.576	290.482	54.432	<2e-16 ***
Age	4.548	6.316	0.720	0.4716
TotalWorkingYears	29.545	10.871	2.718	0.0067 **

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Residual standard error: 1256 on 863 degrees of freedom

Multiple R-squared: 0.9259, Adjusted R-squared: 0.9254

F-statistic: 1797 on 6 and 863 DF, p-value: < 2.2e-16

# Conclusion

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## Top Factors for Attrition:

- JobSatisfaction
- OverTime
- Age
- Job Role

## Top Factors for Salary:

- Job Level
- Total Working Years/Years At Company
- Age

Predict Attrition with ~85 accuracy

Predict Salary with RMSE 1203.884

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