

# Will Saul and Paulina get that promotion?

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# Meet Saul

- Works for a multinational corporation
- He is up for promotion
- Wants to know if he will get it



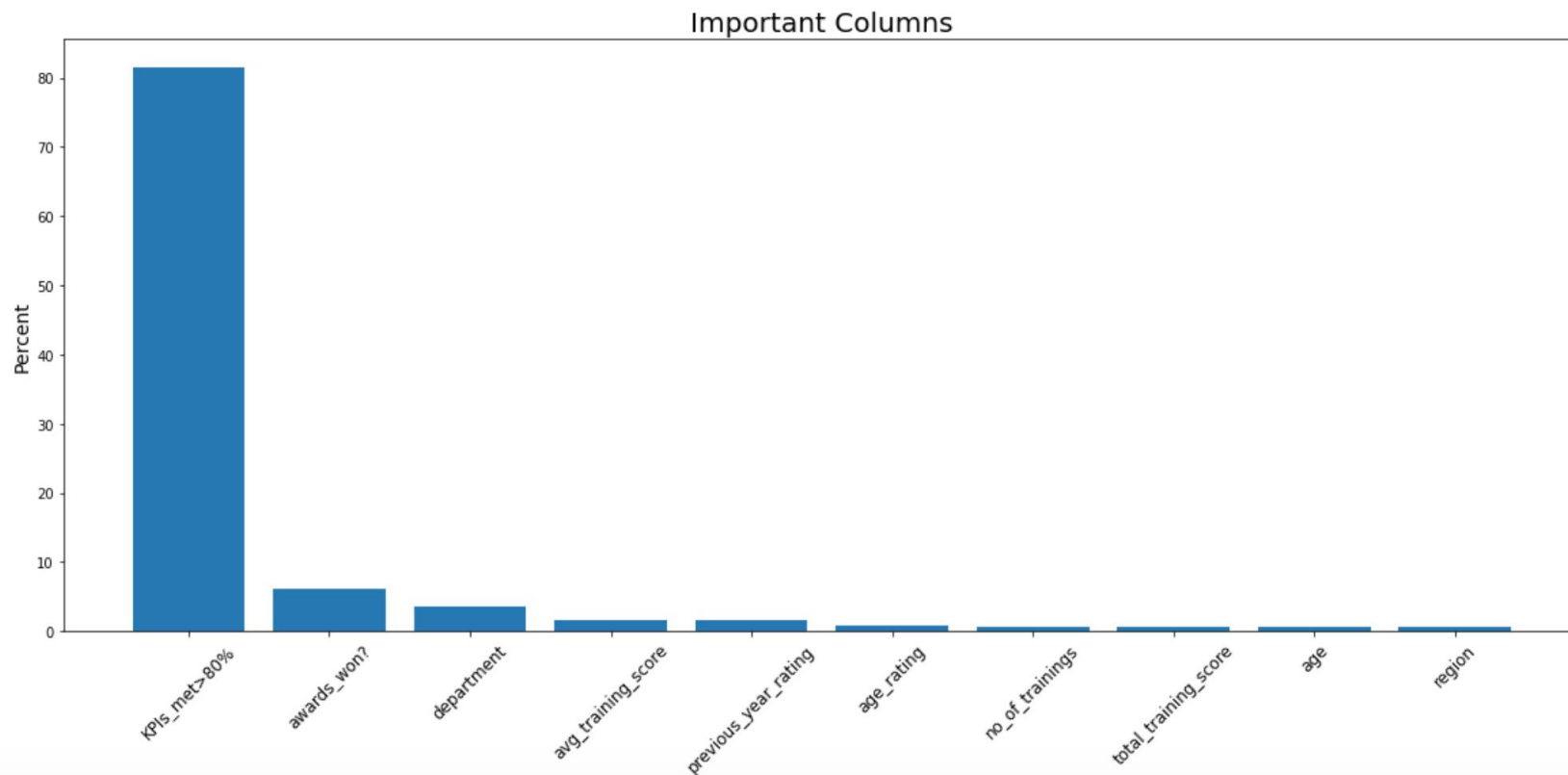
Department	Analytics
Education	Master's Degree
Recruitment Channel	Sourcing
Number of Trainings	3
Age	34
Previous Year Rating	3
Length of Service	2 years
Percent KPIs Met	90%
Awards Won	Hudspeth Award for Innovative Instruction
Average Training Score	84

# Data Description

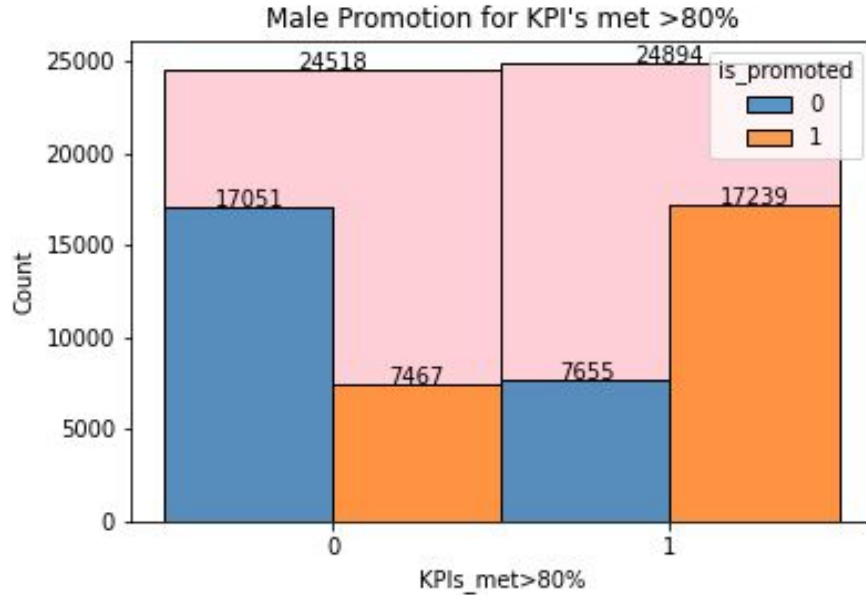
department	education	gender	recruitment_channel	no_of_trainings	age	previous_year_rating	length_of_service	KPIs_met KPIs_met>80%	awards_won?	avg_training_score	is_promoted
5	0	1	0	2	27	0.0	1	1	0	68	0
3	0	0	2	1	42	4.0	7	0	0	60	0
4	0	0	2	1	32	3.0	6	1	0	61	0
4	1	1	0	2	23	3.0	1	0	0	59	0
7	0	0	2	1	29	2.0	5	0	0	50	0
Secondary											
Sales & Marketing	Bachelor's	m	other	1	31	4.0	4	1	0	45	0

- Saul decides to build an XGBoost Model
  - Only uses male data
  - He label encodes the data
  - Saul decides to oversample his data

# Male- Important Columns

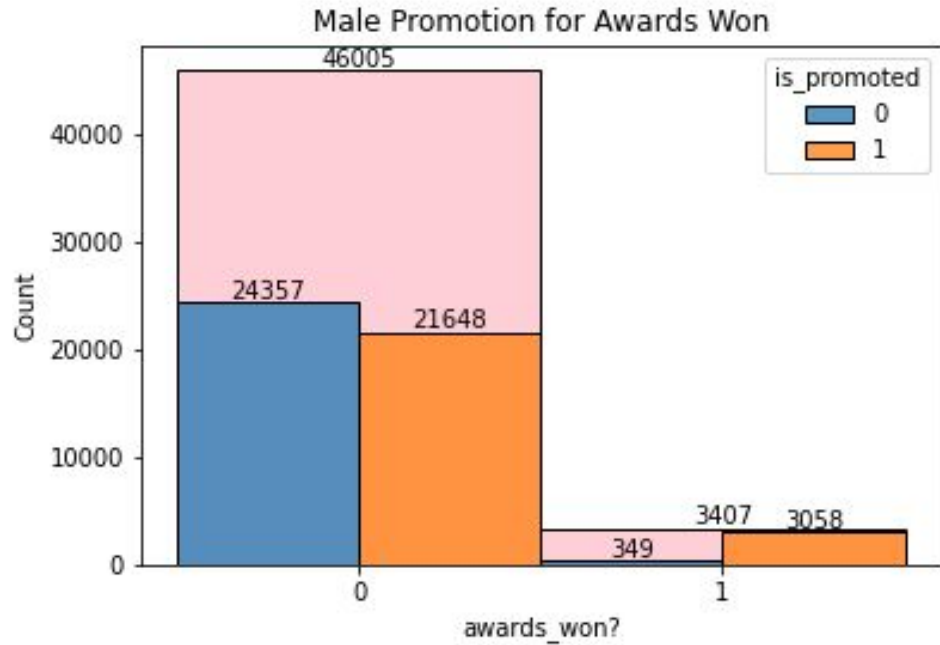


# Male - KPI's Met > 80%



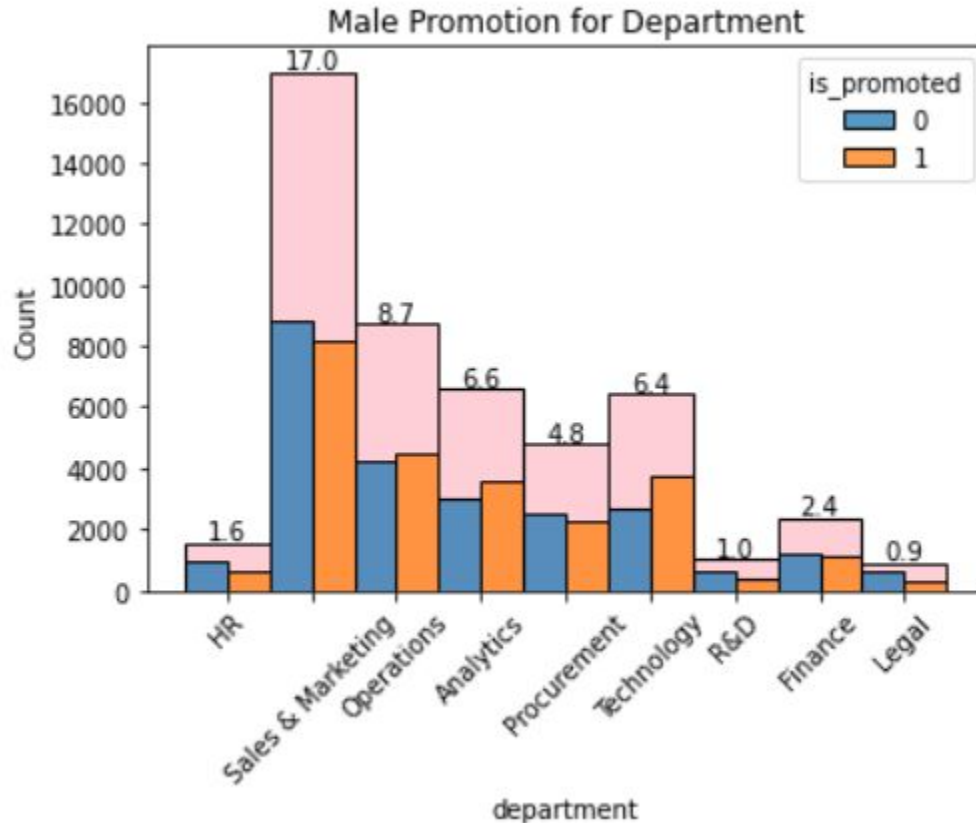
- 70% of males who did not meet their KPIs were not promoted
- 69% of males who did meet their KPIs were promoted

# Male - Awards Won



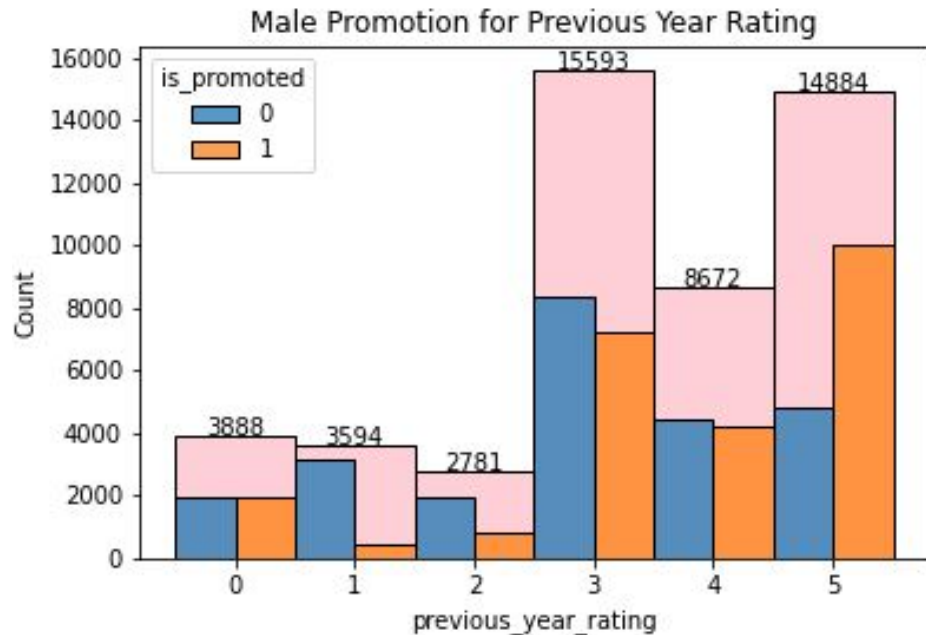
- 53% of males who did not receive an award was not promoted
- 90% of males who won an award was promoted

# Male - Department



- 56% of males in the HR department are not promoted.
- 67% of males in the Legal department are not promoted
- 58% of males in the Technology department are promoted

# Male - Previous Year Rating



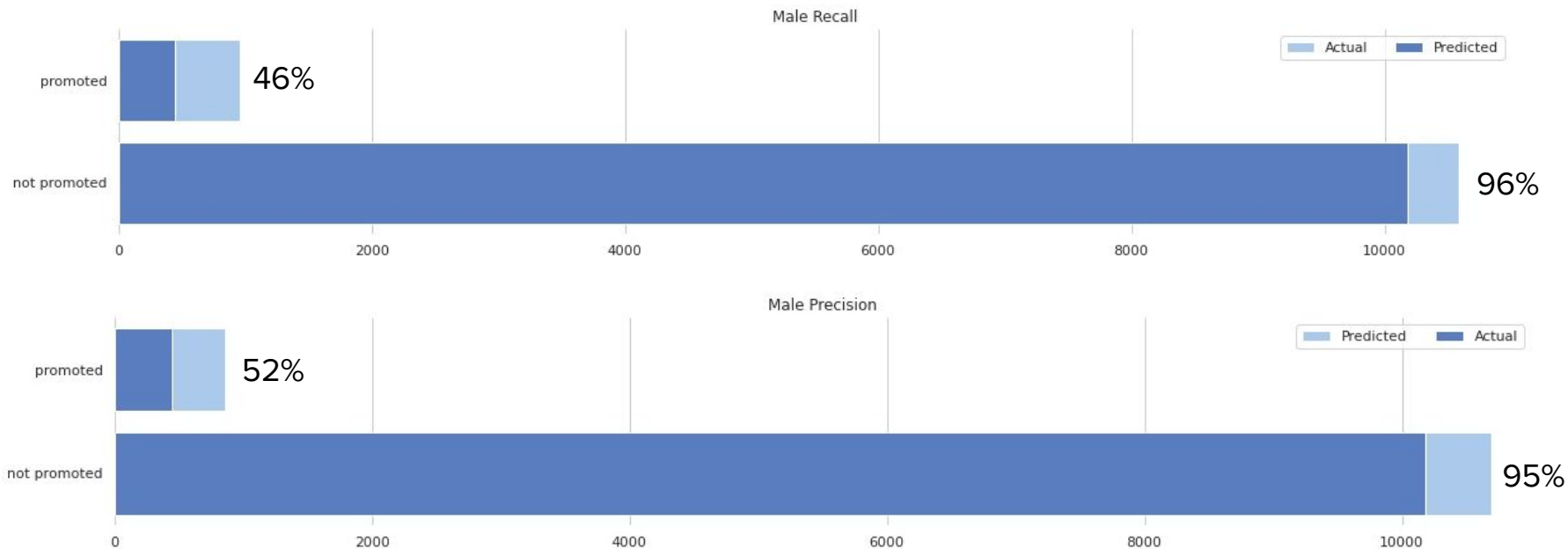
- 88% of males with rating 1 were not promoted
- 67% of males with rating 5 were promoted



# Will Saul Get Promoted?



# Male - XGBoost Accuracy

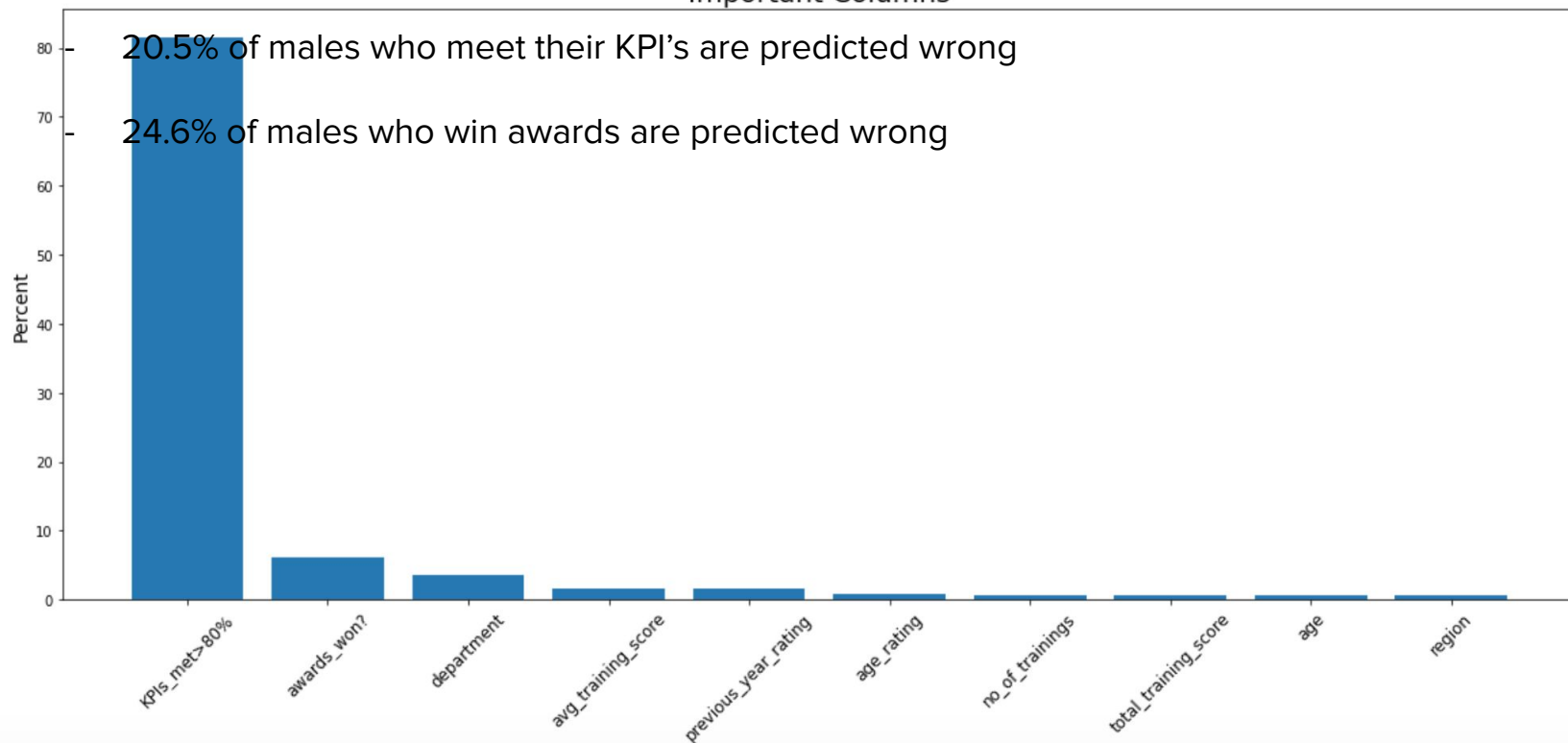


# How confident is Saul?

Column	Saul's Characteristics	Percent Model Got Wrong
Department	Analytics	5.72%
Education	Master's Degree	3.58%
Recruitment Channel	Sourcing	3.83%
Number of Trainings	3	2.11%
Age	34	3.15%
Previous Year Rating	3	3.49%
Length of Service	2 years	5.30%
Percent KPIs Met	90%	9.15%
Awards Won	Hudspeth Award for Innovative Instruction	15.44%
Average Training Score	90	0%

# How Can Saul Improve His Model?

Important Columns



# Meet Paulina



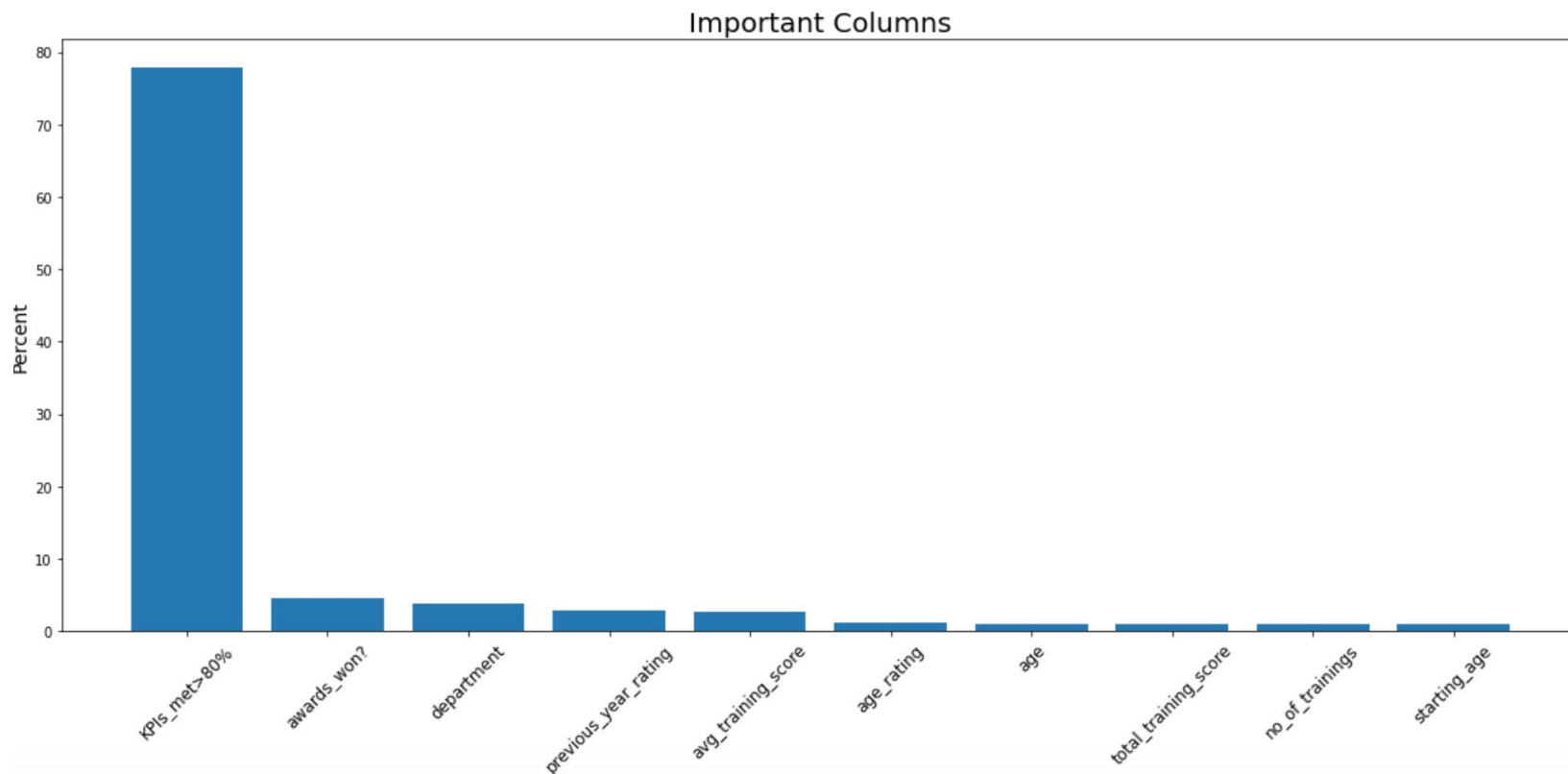
national Corporation

be promoted

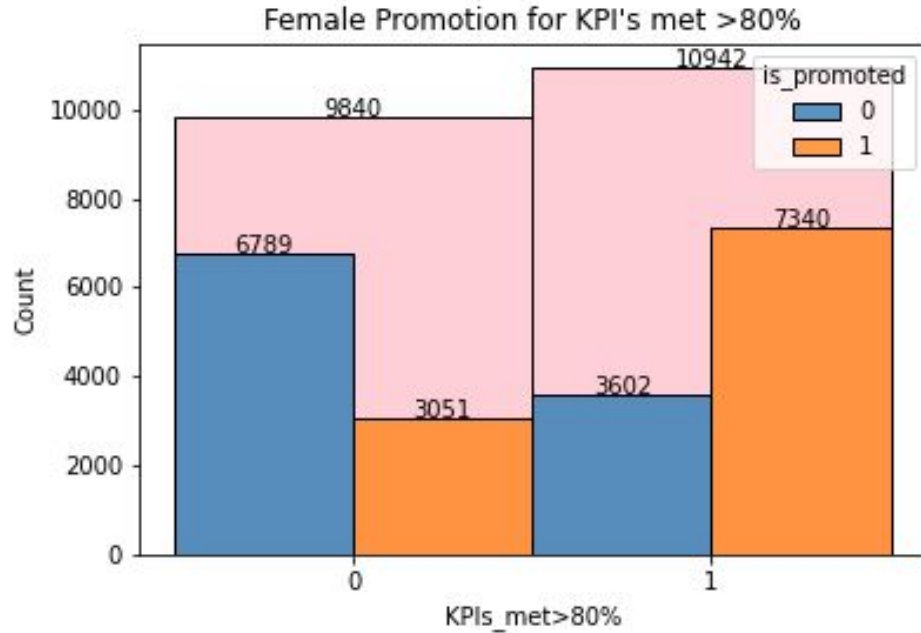
s Saul  
odel

Department	Sales and Marketing
Education	Bachelor's Degree
Recruitment Channel	Referred
Number of Trainings	2
Age	35
Previous Year Rating	3
Length of Service	5 years
Percent KPIs Met	75%
Awards Won	N/A
Average Training Score	36

# Female- Important Columns

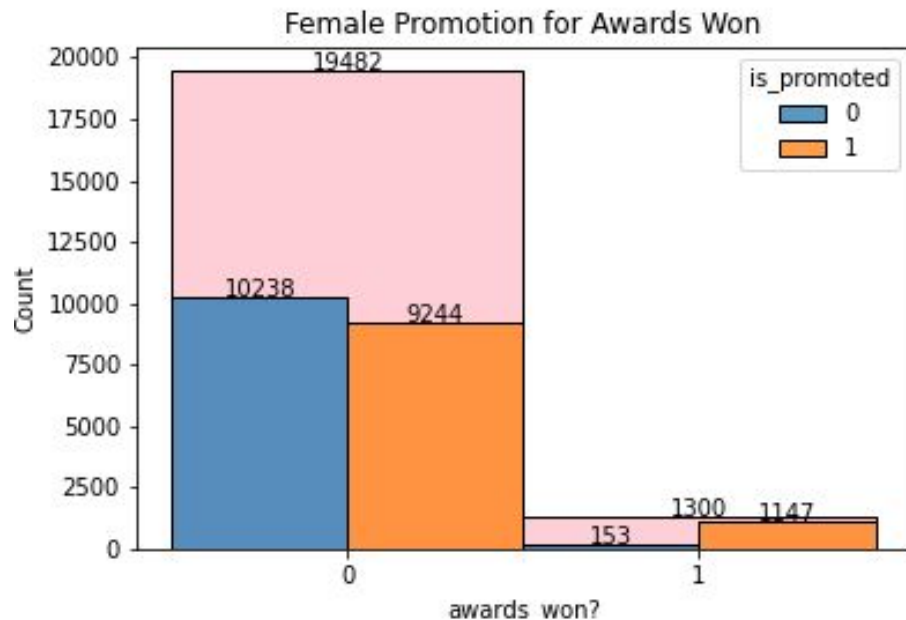


# Female - KPI's Met > 80%



- 69% of females who did not meet their KPIs were not promoted
- 67% of females who did meet their KPIs were promoted

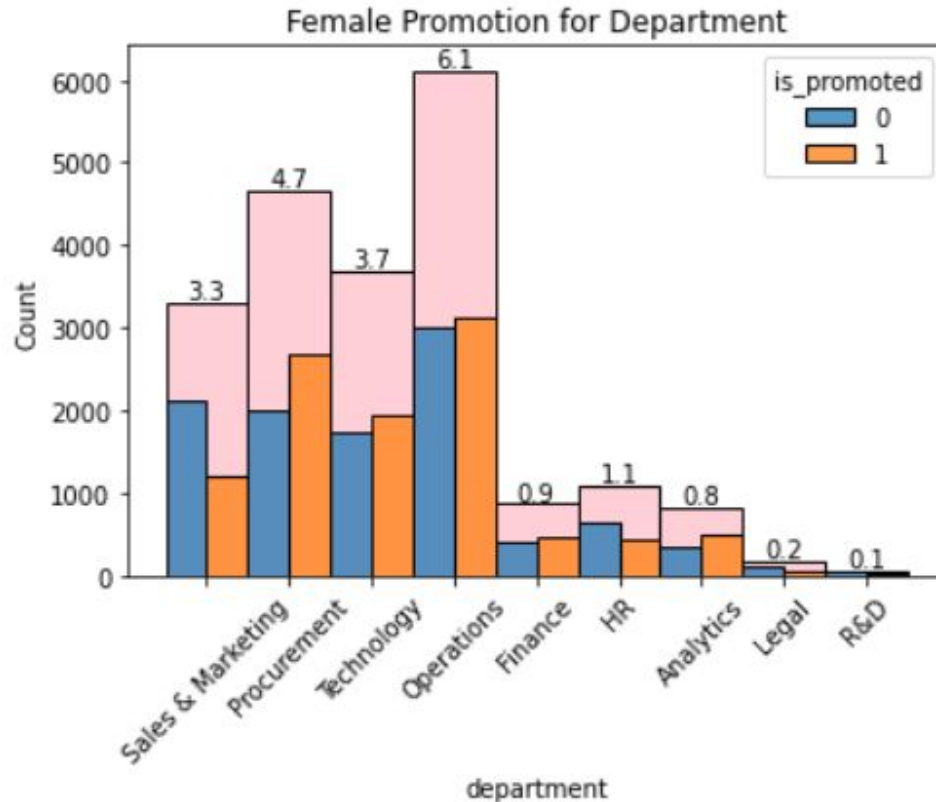
# Female - Awards Won



- 53% of females who did not win an award were not promoted
- 88% of females who did win an award were promoted

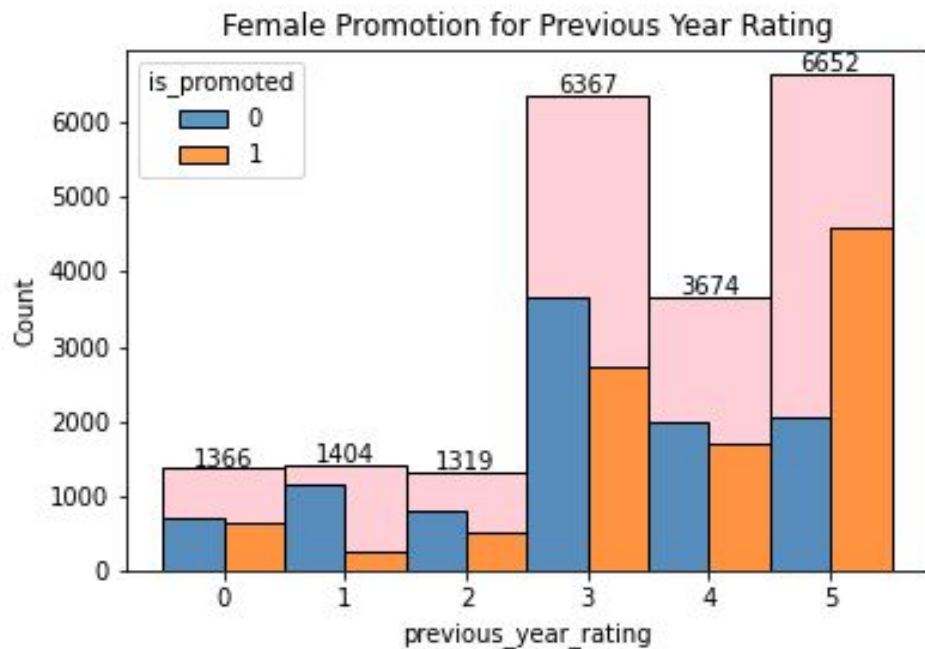


# Female - Department



- 62% of females in the Sales & Marketing department are not promoted
- 64% of females in the HR department are not promoted
- 57% of females in the Procurement department are promoted

# Female - Previous Year Rating



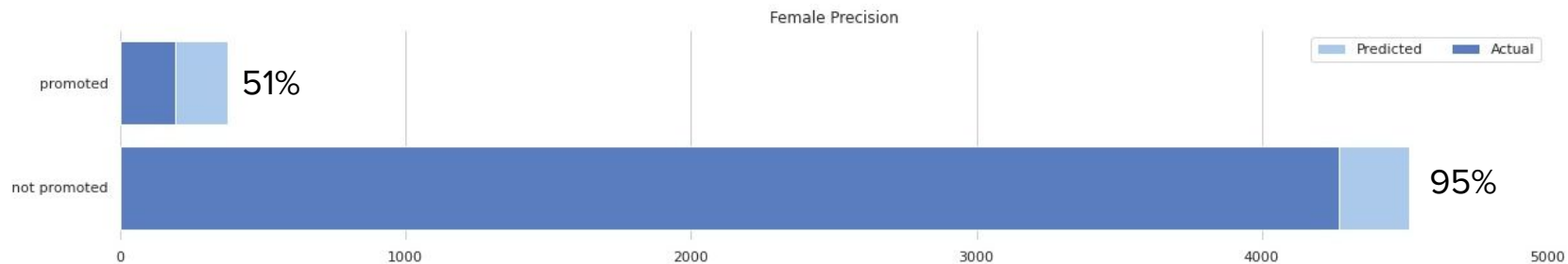
- 86% of females with rating 1 were not promoted
- 68% of females with rating 5 were promoted

Will Paulina Get Promoted?

**No!**



# Female - XGBoost Accuracy

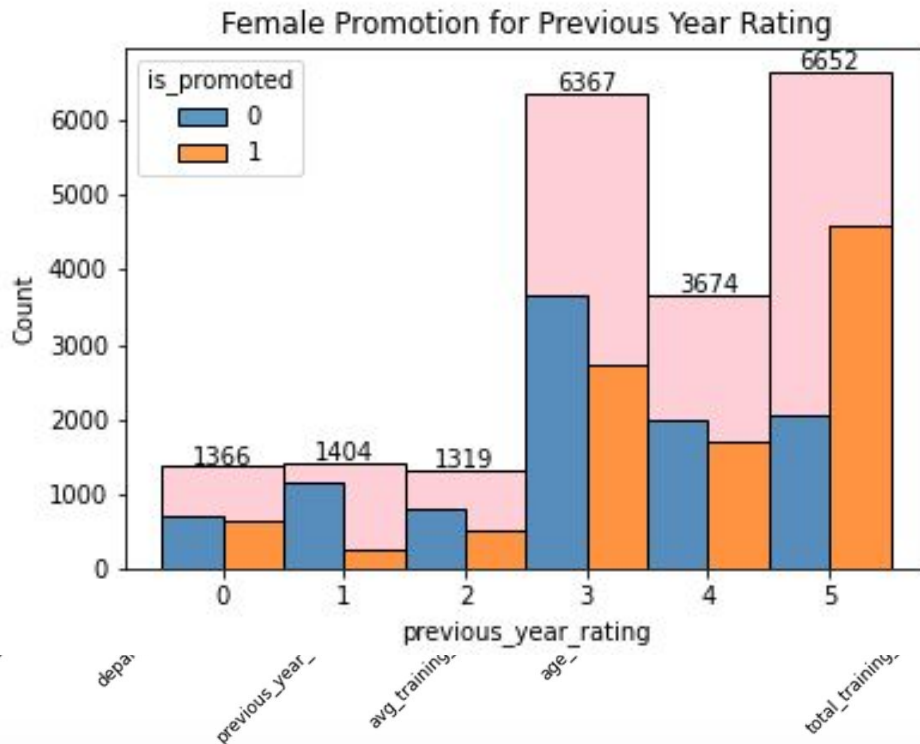
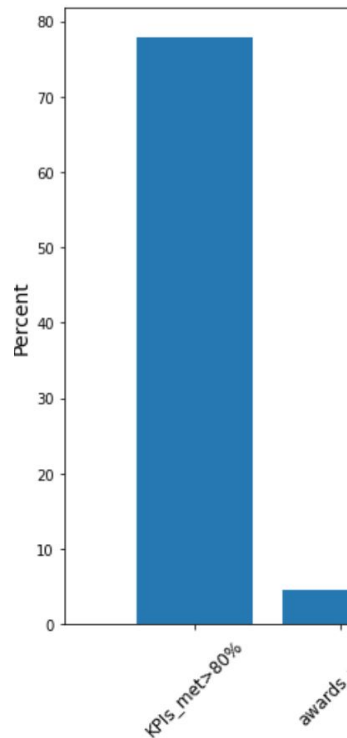


# Is Paulina Confident?

Column	Paulina's Characteristics	Percent Model Got Wrong
Department	Sales and Marketing	3.99%
Education	Bachelor's Degree	1.70%
Recruitment Channel	Referred	5.81%
Number of Trainings	6	7.14%
Age	35	5.57%
Previous Year Rating	1	0.59%
Length of Service	5 years	4.47%
Percent KPIs Met	75%	0.99%
Awards Won	N/A	4.36%
Average Training Score	45	5.16%

# How Can Paulina Improve Her Model?

Important Columns



Thank you!

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