

Abstract

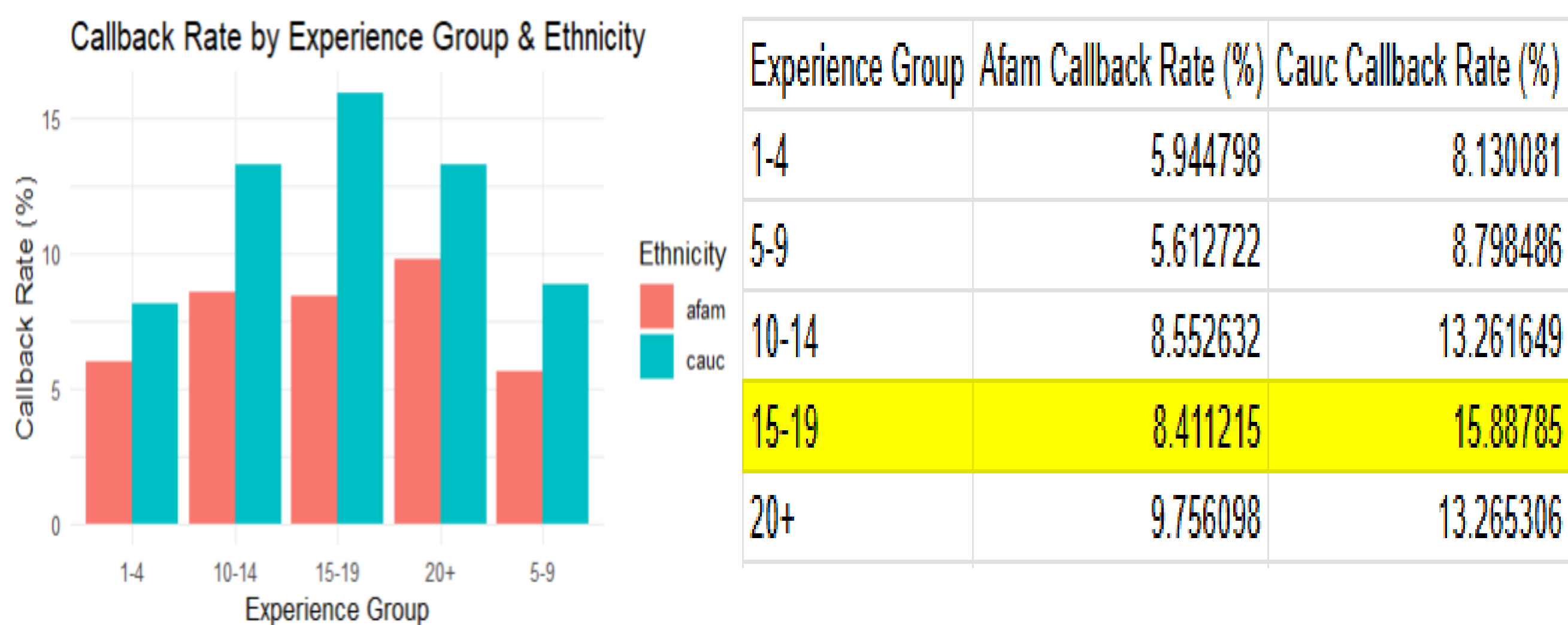
This study examines how race, experience, and industry shape callback rates in hiring using the ResumeNames dataset of 4,066 fictitious resumes. Logistic regression and decision tree models reveal that race is the strongest predictor of callbacks: white-sounding names received more responses than Black-sounding names, even with equal or stronger qualifications. Black applicants needed significantly more experience to match the success rates of white applicants. Transport and Communication was the only industry where Black applicants saw higher callback rates, likely due to its historical ties to back-facing labor roles. Exploratory analysis also suggested a racial double standard in how resume quality and employment gaps are evaluated. The findings show the need for further research into how bias, quality, and experience alignment intersect in hiring.

Name Bias

Name bias is the tendency people have to judge and prefer people with certain types of names, that is, non-caucasian or white sounding names.



Callback rates by experience and industry-specific patterns



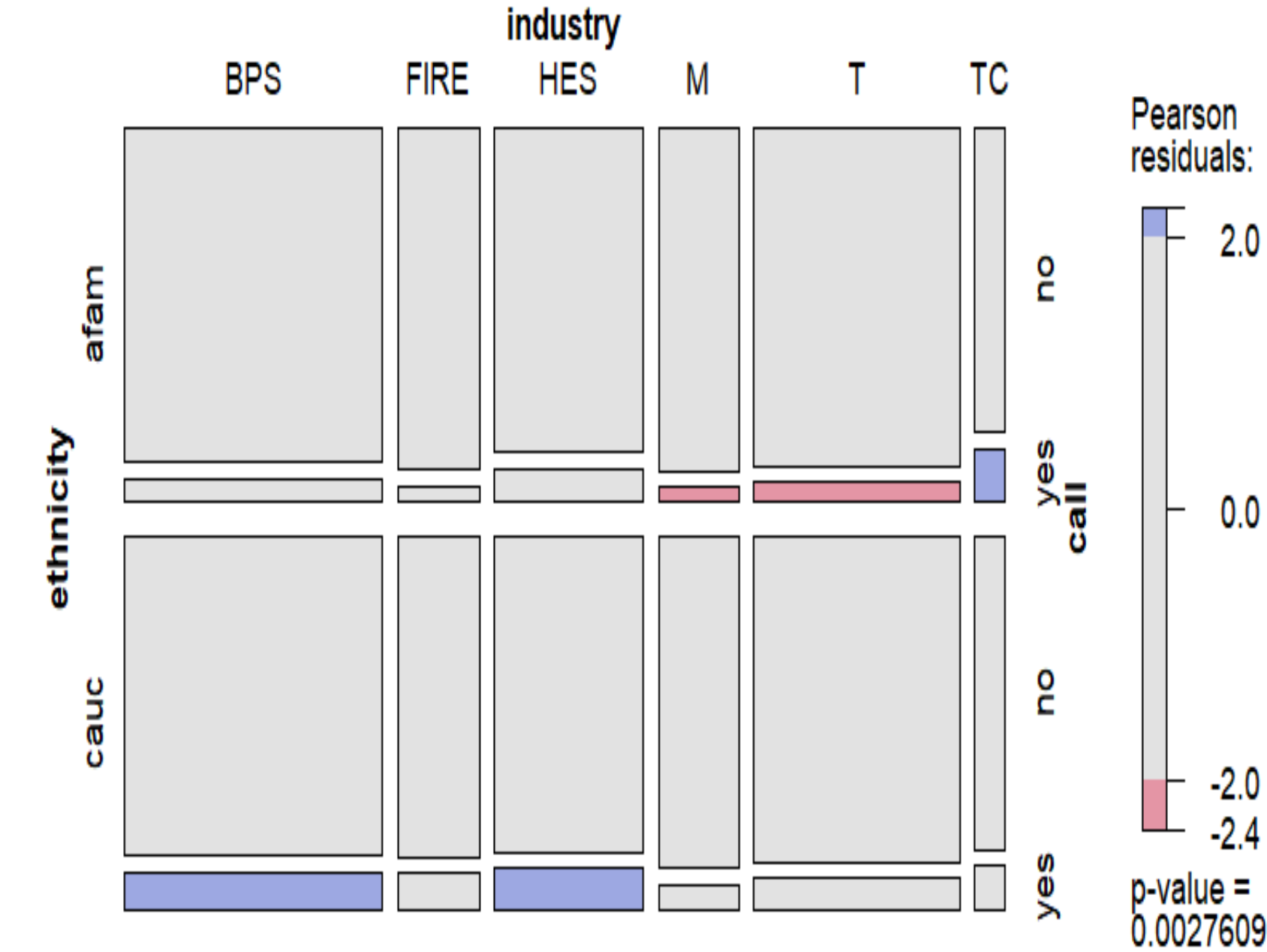
Experience Group	Afam Callback Rate (%)	Cauc Callback Rate (%)
1-4	5.944798	8.130081
5-9	5.612722	8.798486
10-14	8.552632	13.261649
15-19	8.411215	15.88785
20+	9.756098	13.265306

Callback Rates by Industry & Ethnicity



Industry	Afam Callback Rate (%)	Cauc Callback Rate (%)
TC	14.864865	12.162162
HES	9.28382	11.405836
BPS	6.288344	10.429448
T	5.182342	8.637236
FIRE	4.347826	10.144928
M	3.960396	6.930693

Ethnicity, Industry, and Callback Relationship



Results of Logistic Regression and ROC Curve

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Call:
glm(formula = callback ~ ethnicity + experience_group + industry,
     family = "binomial", data = Resumes)
```

Coefficients:

	Estimate	Std. Error	z value	Pr(> z)
(Intercept)	-2.79207	0.16533	-16.888	< 2e-16 ***
ethnicitycauc	0.46621	0.11762	3.964	7.38e-05 ***
experience_group10-14	0.42716	0.18525	2.306	0.0211 *
experience_group15-19	0.57642	0.24625	2.341	0.0192 *
experience_group20+	0.54820	0.26573	2.063	0.0391 *
experience_group5-9	0.01404	0.15198	0.092	0.9264
industryFIRE	-0.17383	0.21546	-0.807	0.4198
industryHES	0.19734	0.15710	1.256	0.2090
industryM	-0.45698	0.24195	-1.889	0.0589 .
industryT	-0.17267	0.15899	-1.086	0.2775
industryTC	0.55656	0.26217	2.123	0.0338 *

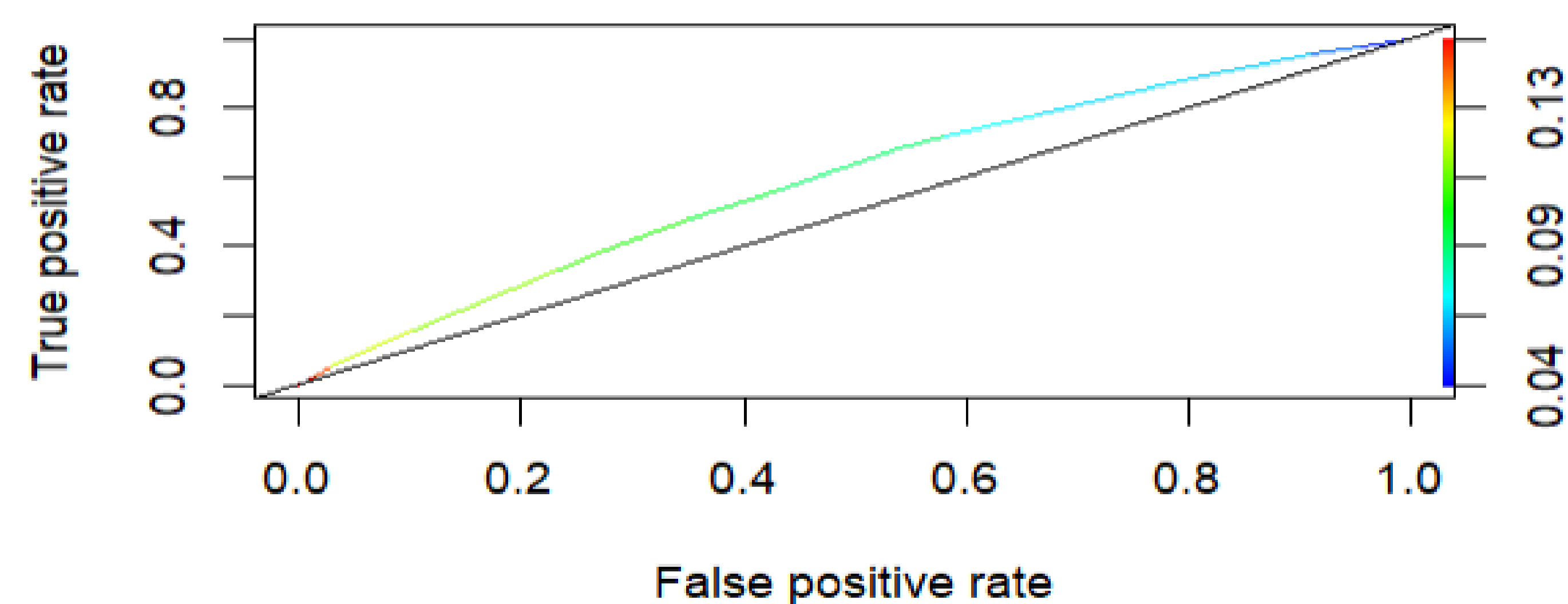
Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

(Dispersion parameter for binomial family taken to be 1)

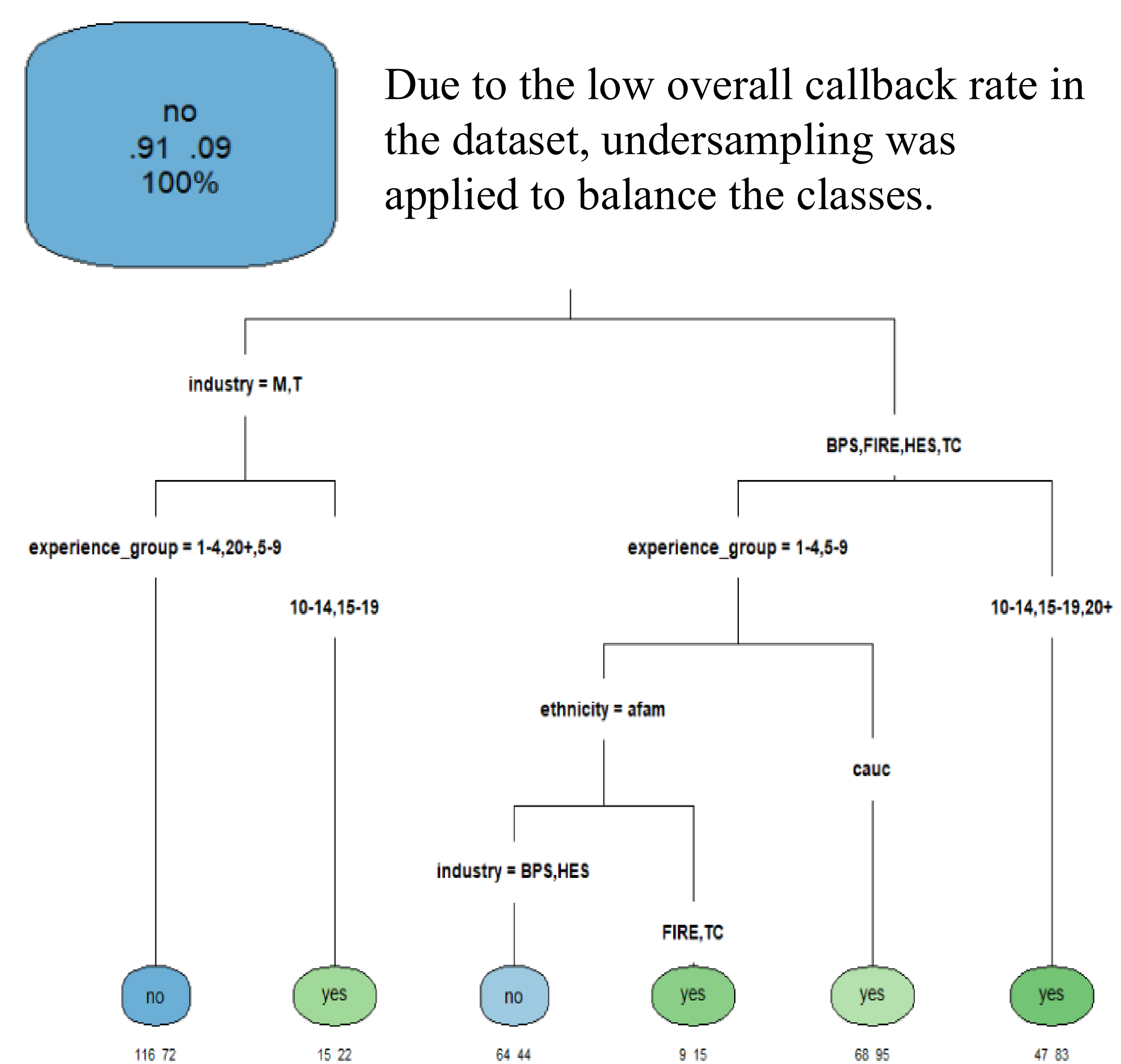
Null deviance: 2294.8 on 4065 degrees of freedom
Residual deviance: 2248.1 on 4055 degrees of freedom
AIC: 2270.1

Number of Fisher Scoring iterations: 5

ROC Curve



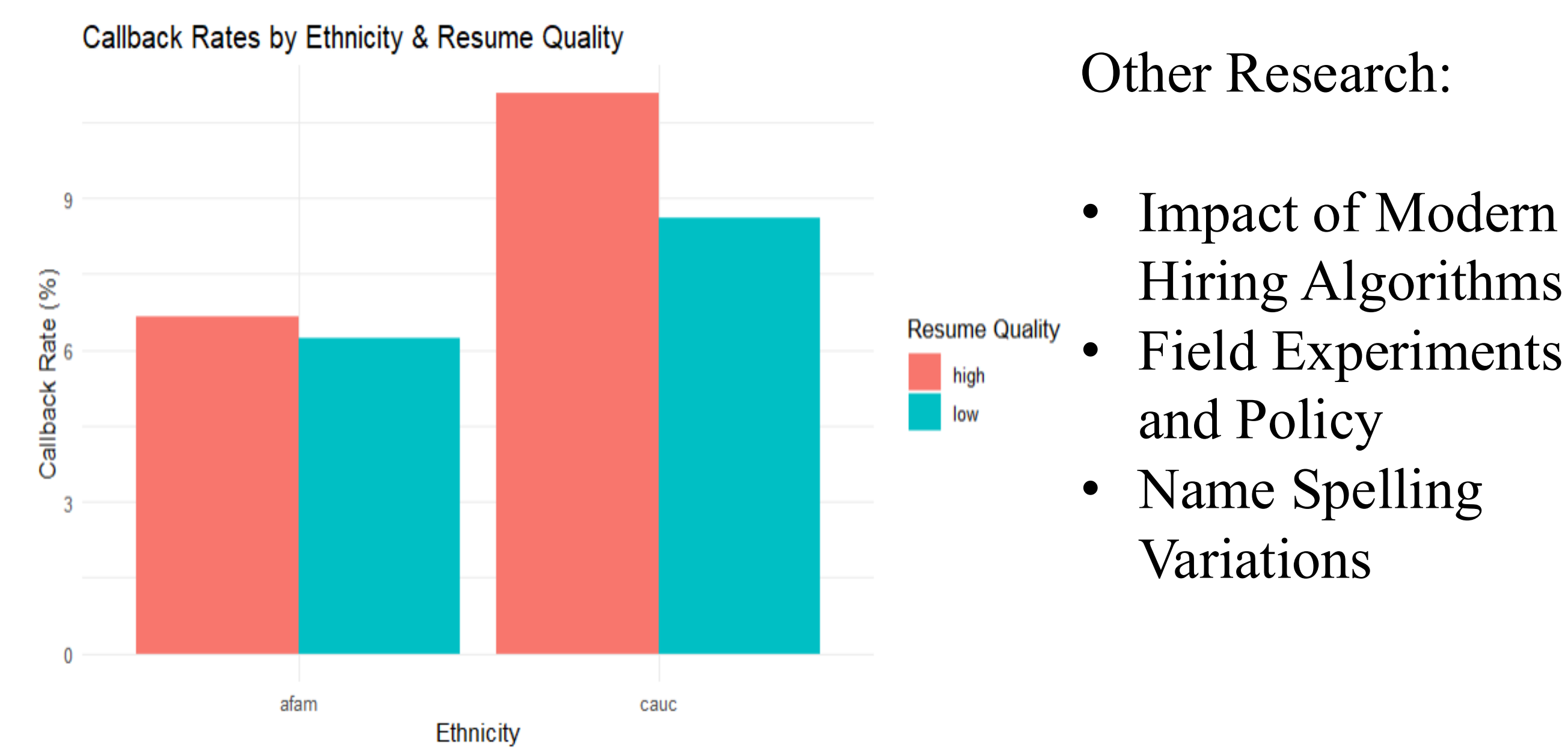
Results of Decision Trees



Conclusion

- Ethnicity was the strongest predictor.
- Experience helped, but not equally
- Industry mattered, but racial disparities existed across all sectors.
- These patterns reinforce how racial inequality in hiring is not just individual but systemic

Future Research



Other Research:

- Impact of Modern Hiring Algorithms
- Field Experiments and Policy
- Name Spelling Variations

References

- Bertrand, M., & Mullainathan, S. (2004). Are Emily and Greg more employable than Lakisha and Jamal? A field experiment on labor market discrimination. *American Economic Review*, 94(4), 991–1013. <https://doi.org/10.1257/0002828042002561>
- James, G., Witten, D., Hastie, T., & Tibshirani, R. (2021). *An introduction to statistical learning: With applications in R* (2nd ed.). Springer. <https://www.statlearning.com/>
- Kang, S. K., DeCelles, K. A., Tilesik, A., & Jun, S. (2016). Whiteness résumé: Race and self-presentation in the labor market. *Administrative Science Quarterly*, 61(3), 469–502. <https://doi.org/10.1177/0001839216639577>