

# People Analytics Case Study

Given the provided dataset, how can we increase:

series 7 exam pass rates?

efficiencies in the recruiting and training process?

This case study includes:

recommendations for above questions

summary of findings

# Case Study Highlights

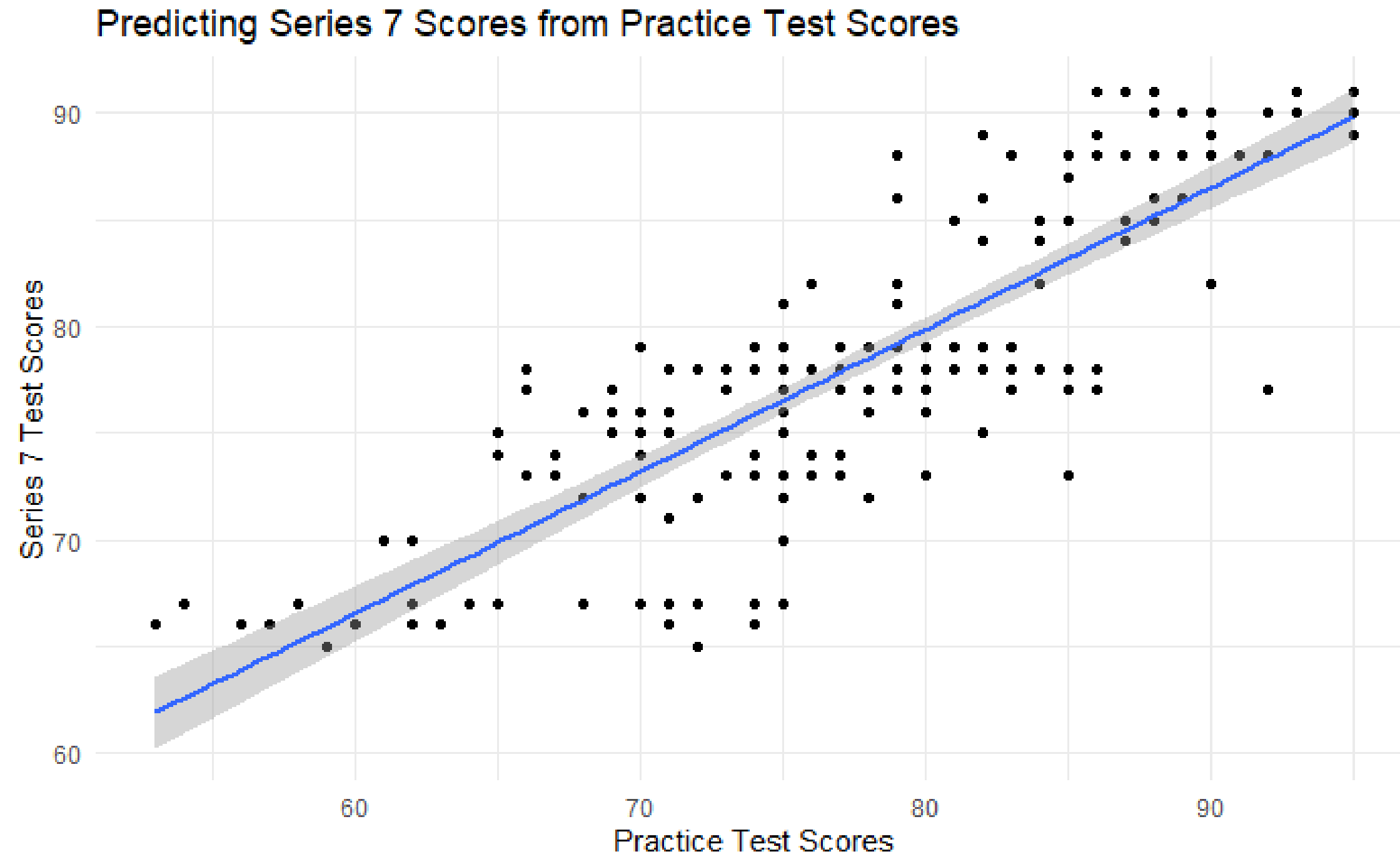
Question:

How can we increase Series 7  
exam passing rates?

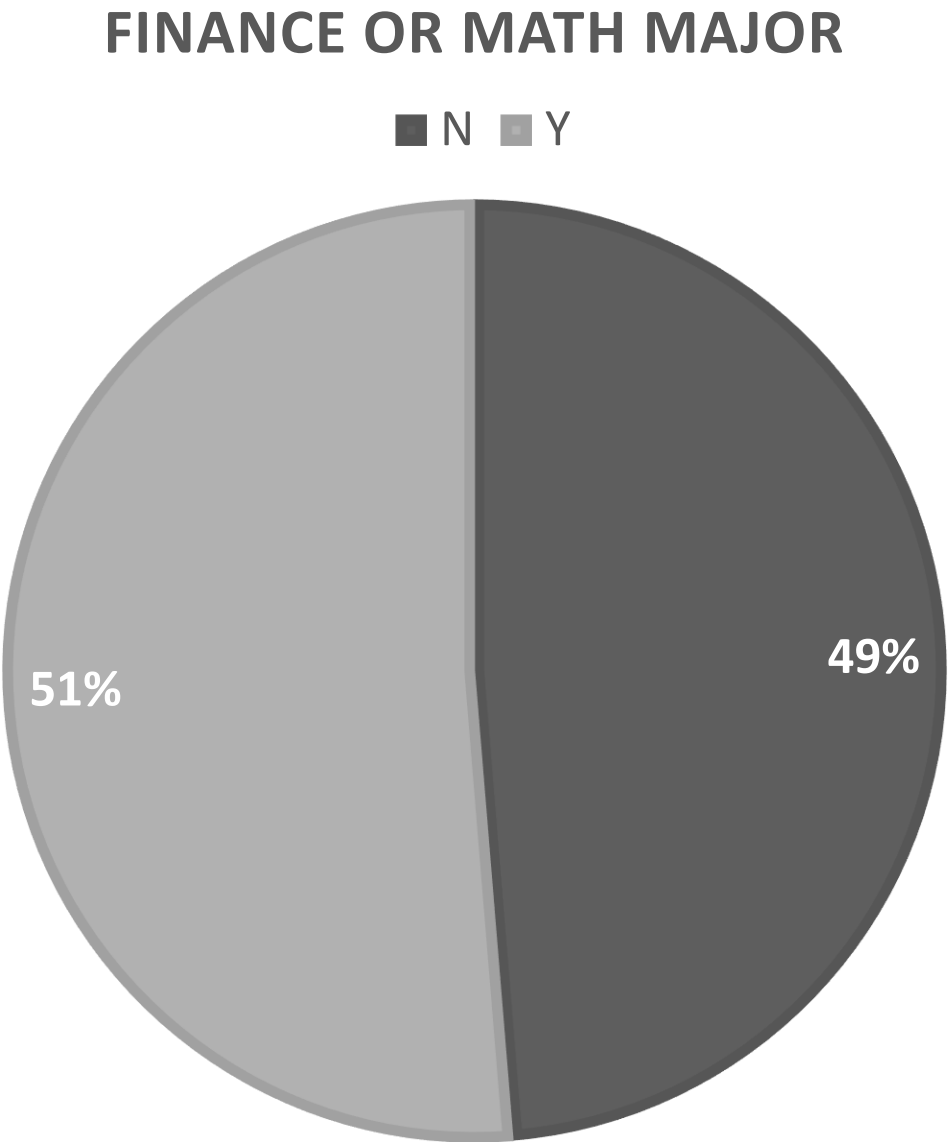
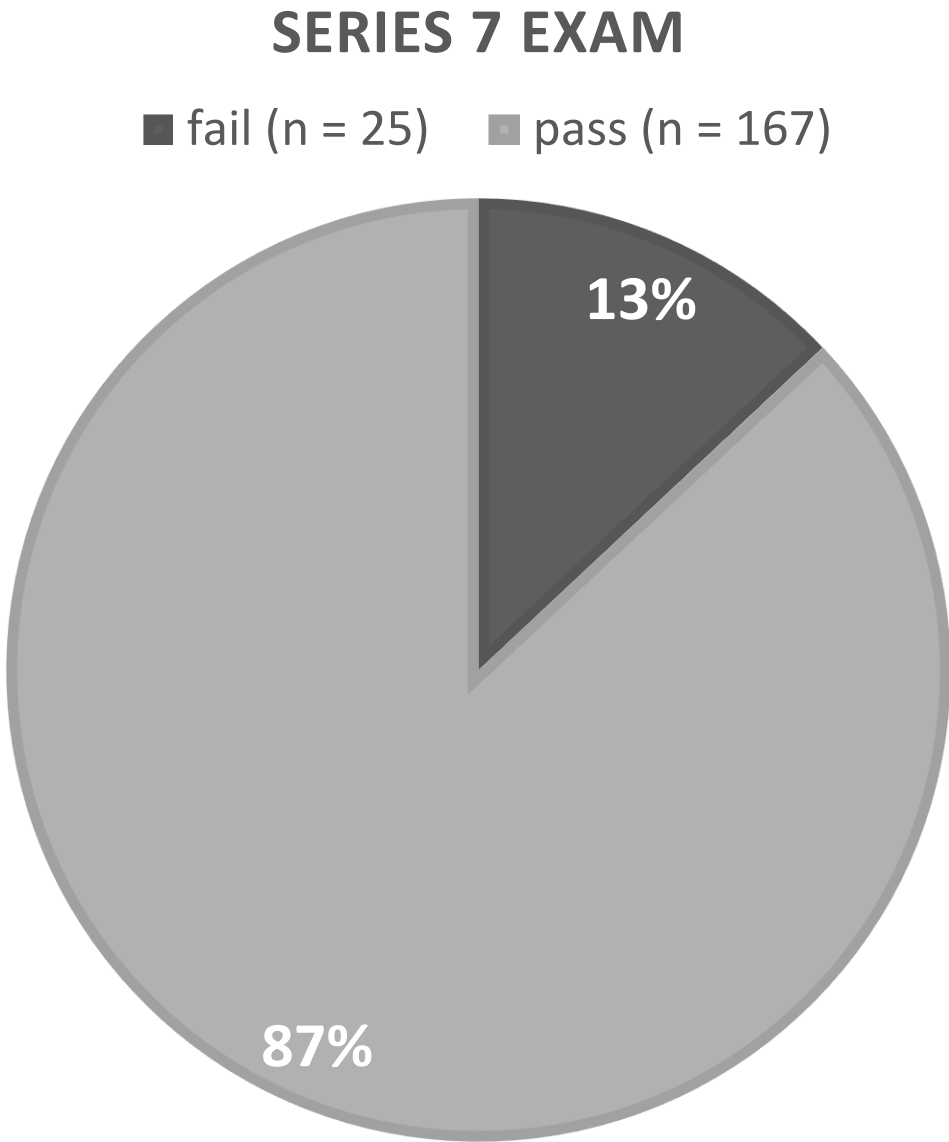
Potential answer:

Add more practice tests.

Practice test scores were the  
greatest predictor of Series 7  
exam scores.

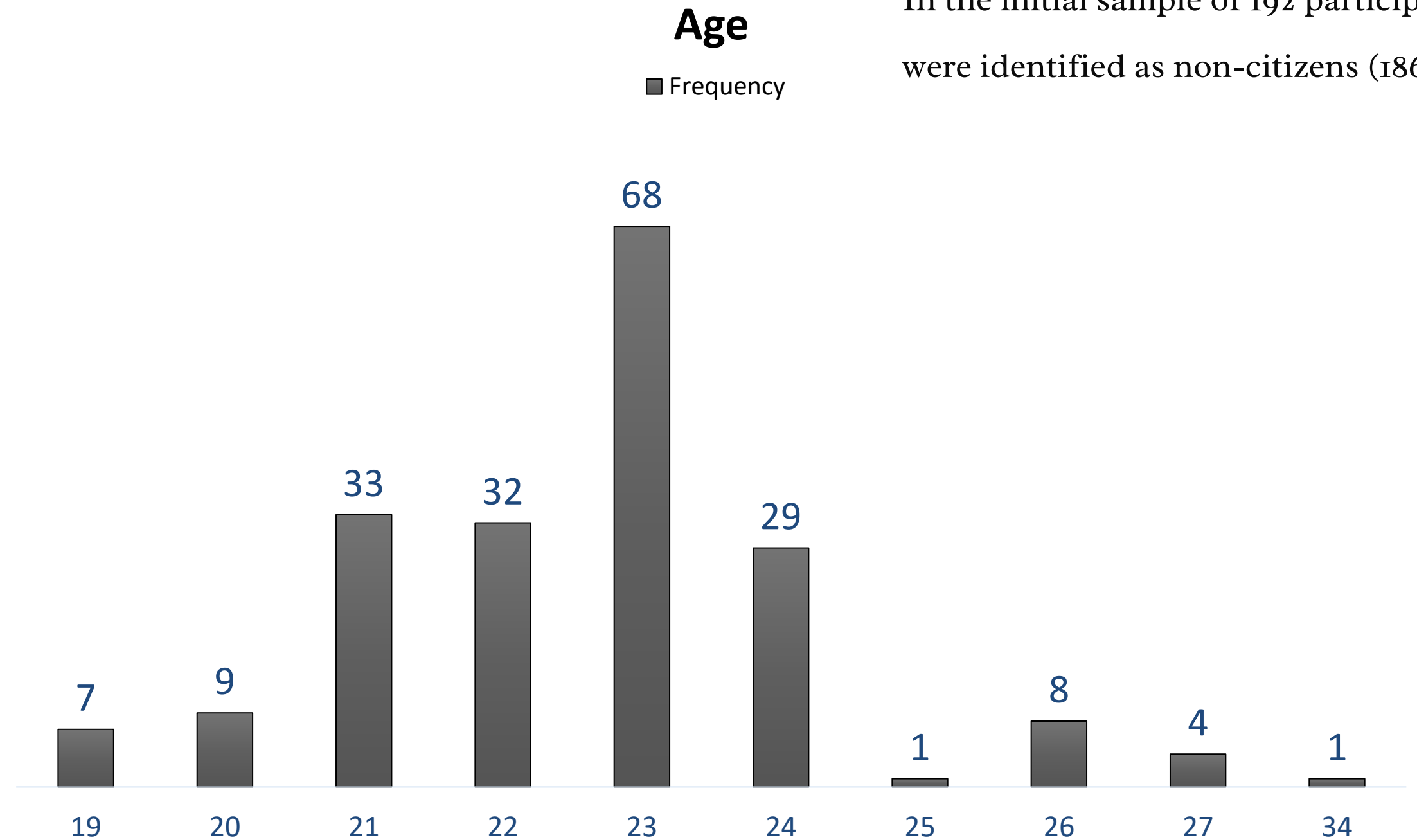
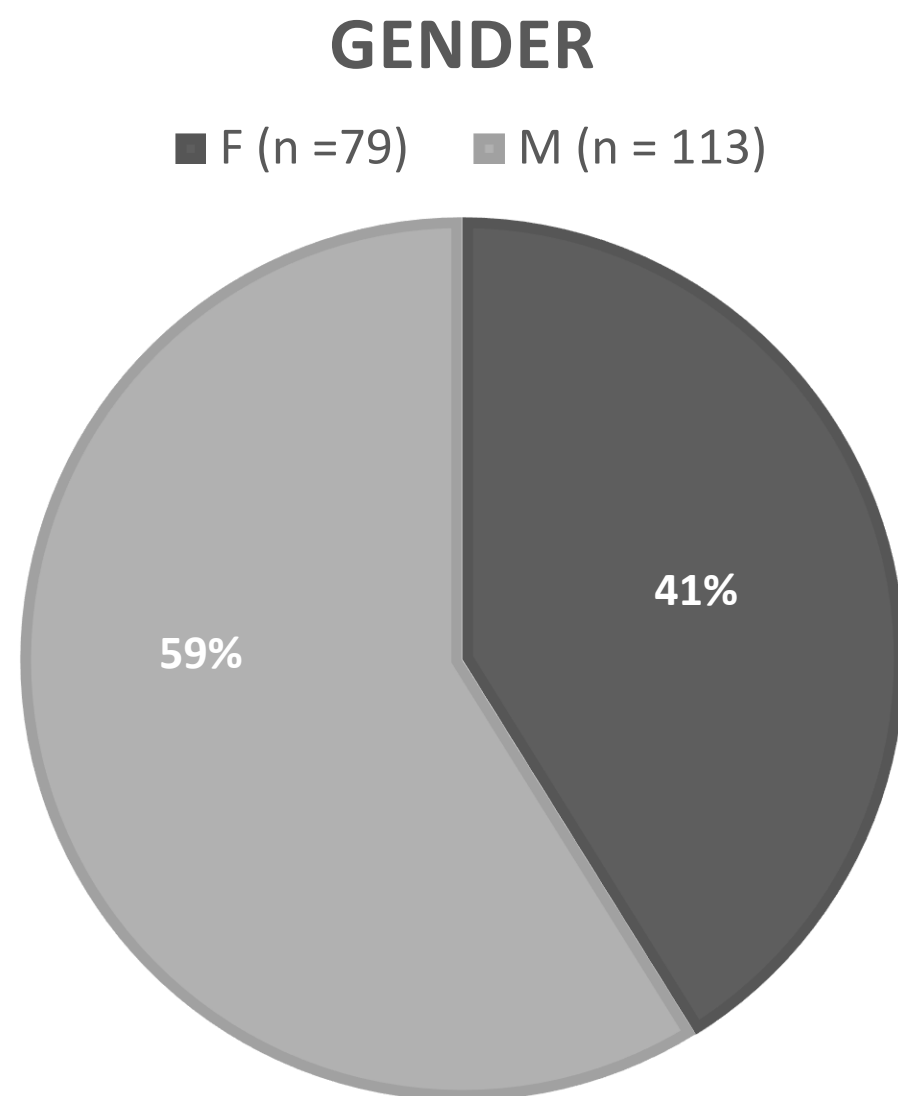


Acceptable pass rate for prior  
Series 6 and 63 Exams = 93%  
(6% improvement needed)



Whether a new hire was a Finance or Math major  
also predicted success on the Series 7 exam, but  
did not account for much more prediction above  
and beyond practice test scores

# Additional Findings



In the initial sample of 192 participants, 6 were identified as non-citizens (186 citizens)

# Demographics

Question:

How can we increase efficiency in the recruiting and training process?

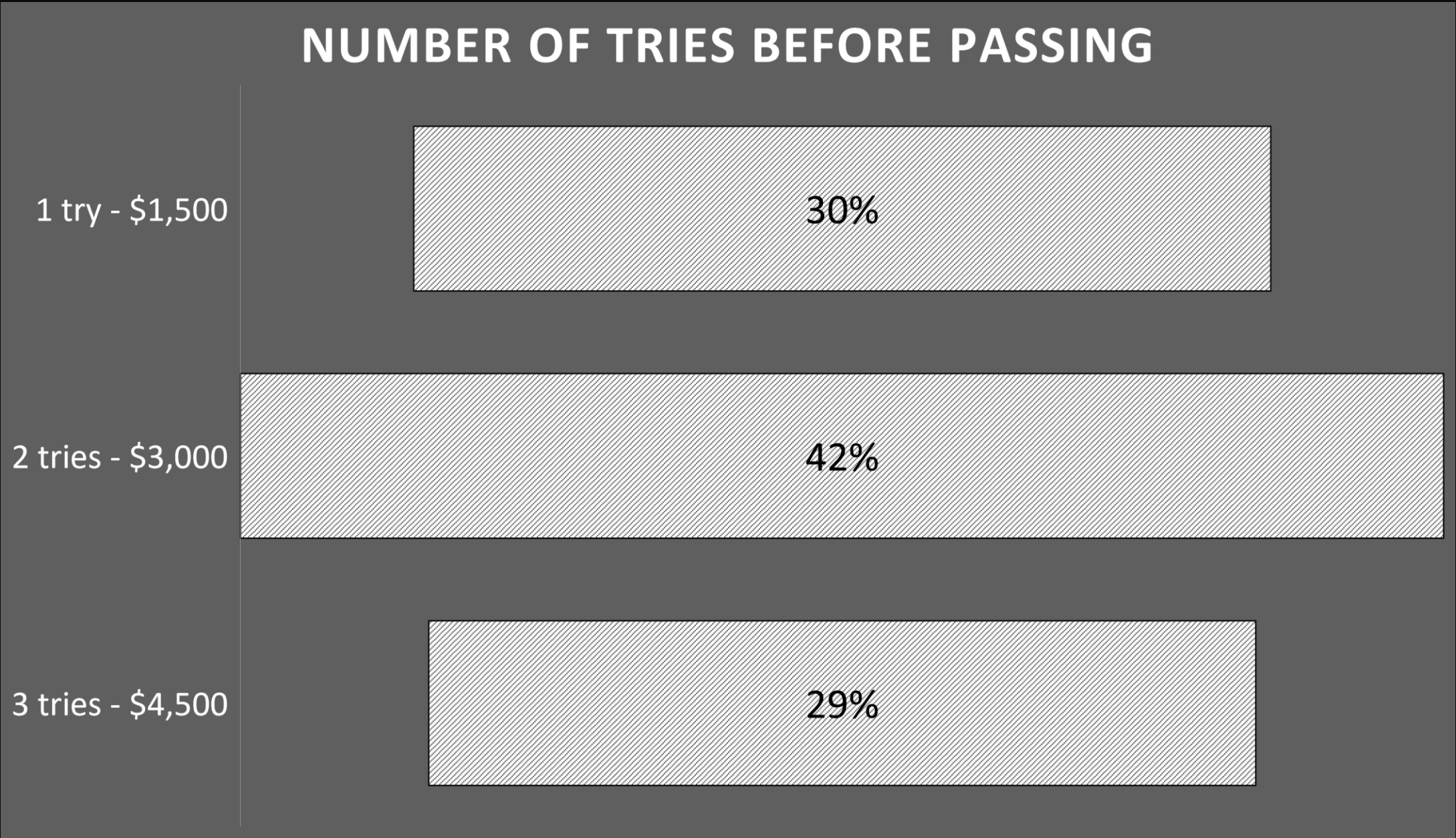
Reduction of failure rates

Since practice test scores predict Series 7 exam scores with a high level of confidence, we can reduce failure rates by implementing more practice tests

Cost projections

Current Training Costs	Efficient State (1 try)
\$2,984,375	\$1,500,000
Difference	Percent Difference
\$1,484,375	-49.7%

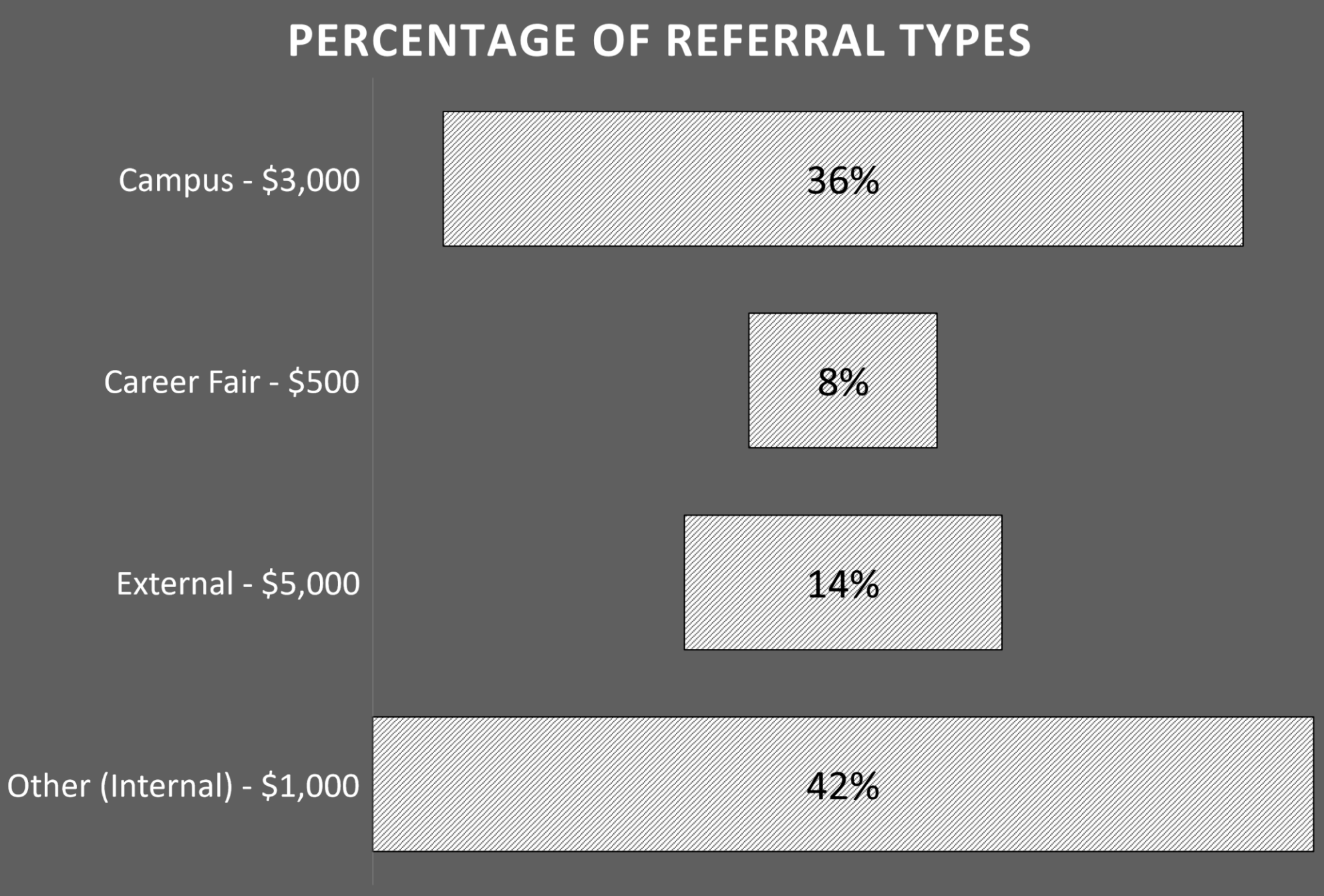
Daniel Pinedo | March 2020



# Training Cost Efficiency

Cost projections are based on total new hire number of 1,000





Referral type did not predict success on the Series 7 exam.

Therefore, we may seek efficiencies here by simply reducing cost.

We may achieve this by eliminating external referrals (highest cost) and substituting career fair referrals (lowest cost).

Current Referral Costs	Efficient State
\$2,235,602	\$1,599,476
Difference	Percent Difference
\$636,126	-28.45%

# Referral Cost Efficiency

Total new hires: 1000  
Average Salary: \$50,000  
Total Cost = Training + Referral Costs

	Current	With training efficiency only	With referral efficiency only	With both efficiencies
Total cost per new hire (Averaged)	\$5,220	\$3,736	\$4,584	\$3,099
As percentage of salary	10.44%	7.47%	9.17%	6.20%

# Cost Summary



# Thank you

Daniel Pinedo

[daniel.pinedo@cgu.edu](mailto:daniel.pinedo@cgu.edu)