Data Informed Recruiting: Predictive Analytics Improves Recruiting

Lisa Moore, University of Oklahoma

About OU

- Public
- Doctoral-granting
- Research intensive
- Approx. 20,000 undergrads, one of smallest in Big 12
- Second lowest tuition in Big 12

The Problem

- Recruit better prepared students using fewer resources

- Focus efforts only on those that will enroll

- Decisions based on gut instinct and anecdotal stories

Overview

- Used previous 2 years of admission data
- Created separate models based on residency
- Project completed in 5 weeks

- Gathering Data
- Cleansing Data
- Prepping Data
- Building Models
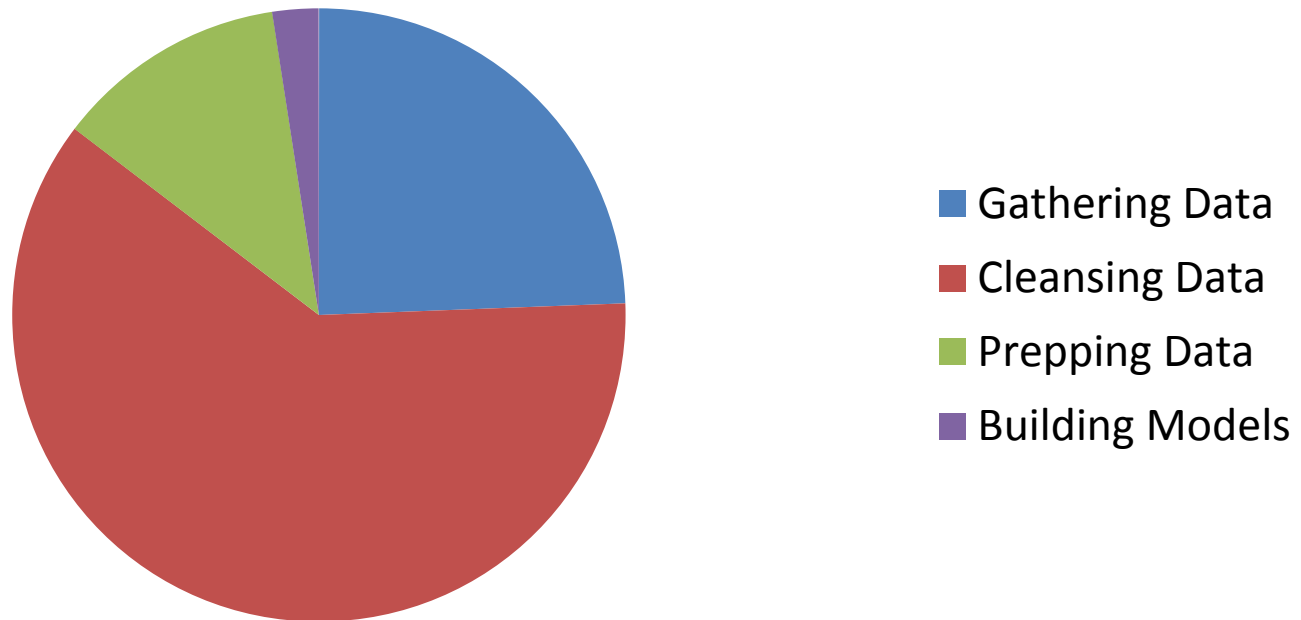
Data Exploration

- 60 variables from 7 different sources
- Most variables unreliable, missing, or incomplete
- Pared down to 20 variables from 4 different sources
- Required to include a few non-significant variables

Predictive Models

- Created 4 different models for each group
  - Decision Tree
  - Logistic Regression
  - Forward Stepwise Regression
  - Backward Stepwise Regression
- Logistic regression for non-residents
- Decision tree for residents
- 89-92% accuracy

Resident Decision Tree
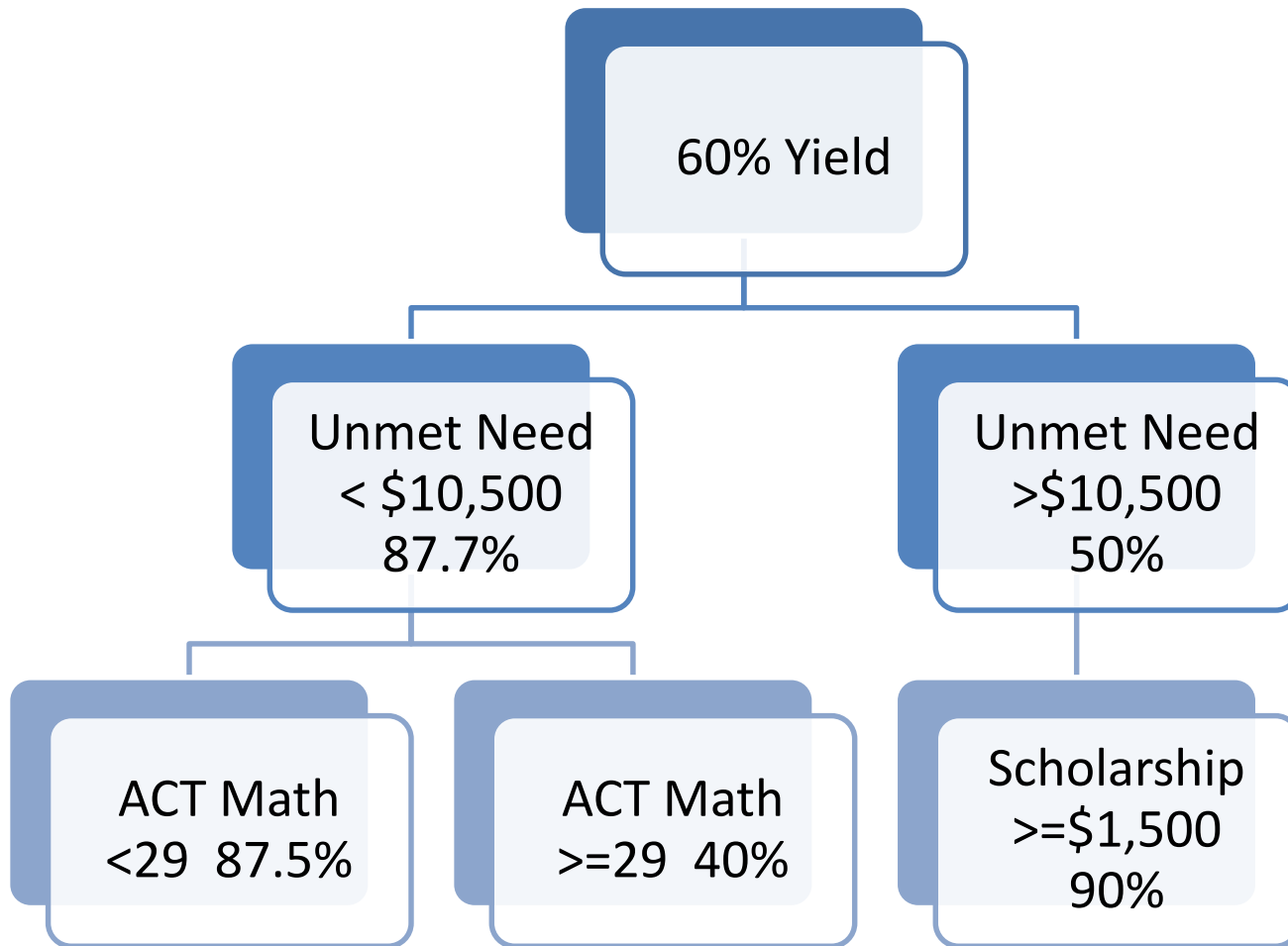
Findings

- Better prepared residents are not more likely to enroll

- Large scholarship amounts not significant

- Provided decision trees to recruiters as visual aid to determine appropriate actions

Outcomes

- Largest class ever
- Most academically prepared
- More National Merit than any public or private university
- "I did what you said, and BAM these kids enrolled. It was kind of creepy." ~ Director of Recruitment
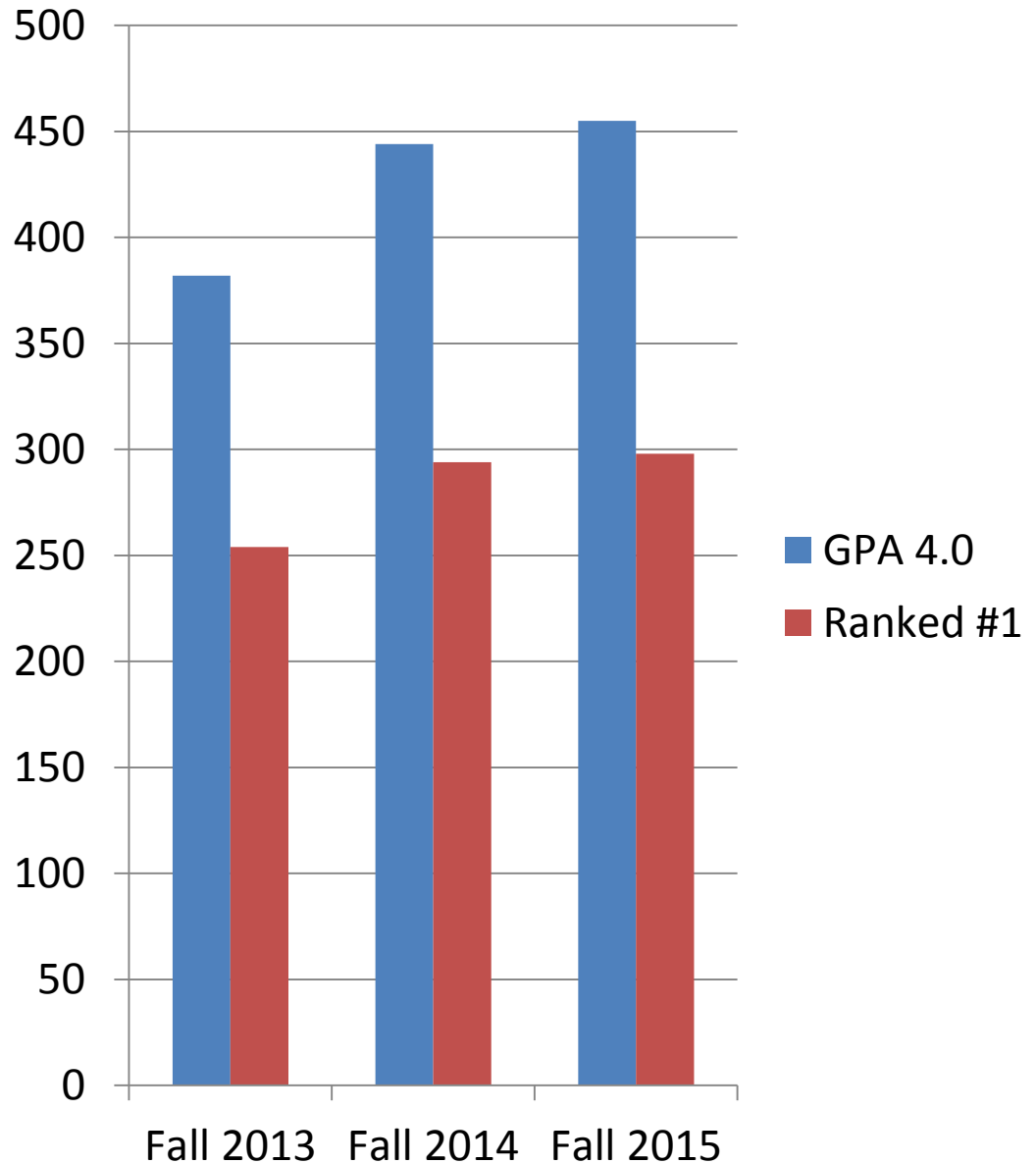
Lessons Learned

- Sharing results
- Explaining process and results to non-data admins
- Cumbersome refresh process

Update Data → Score → Export as CSV → Email → Upload to Recruit Tool

Reality

Contact Information

Lisa Moore

MCCREWS@OU.EDU

405-325-3681

SAS User Group for Institutional Researchers (SUGIR)

https://communities.sas.com/t5/SUGIR-Community/gp-p/sugir