



Should the College of Wooster Go Test Optional?

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Purpose

Many colleges and universities are choosing to go SAT/ACT optional due to concerns that requiring these tests inhibits diversity. Others argue that national data indicates that these scores are valuable predictors of success. The College of Wooster Admissions Department asked the AMRE team to use Wooster data to answer the following questions:

- ❖ Does SAT/ACT predict student success at the College of Wooster?
- ❖ What factors best predict First-year Retention?

Data

- ❖ Simplified Data (2,800 observations)
 - Admissions
 - CoW academic
 - CIRP survey
 - APEX
- ❖ Variables That Determine Success
 - First-year GPA
 - First-year Retention
 - Graduation

Skills Acquired

- ❖ Working with Big Data
- ❖ Presentation skills
- ❖ Workforce communication

Results

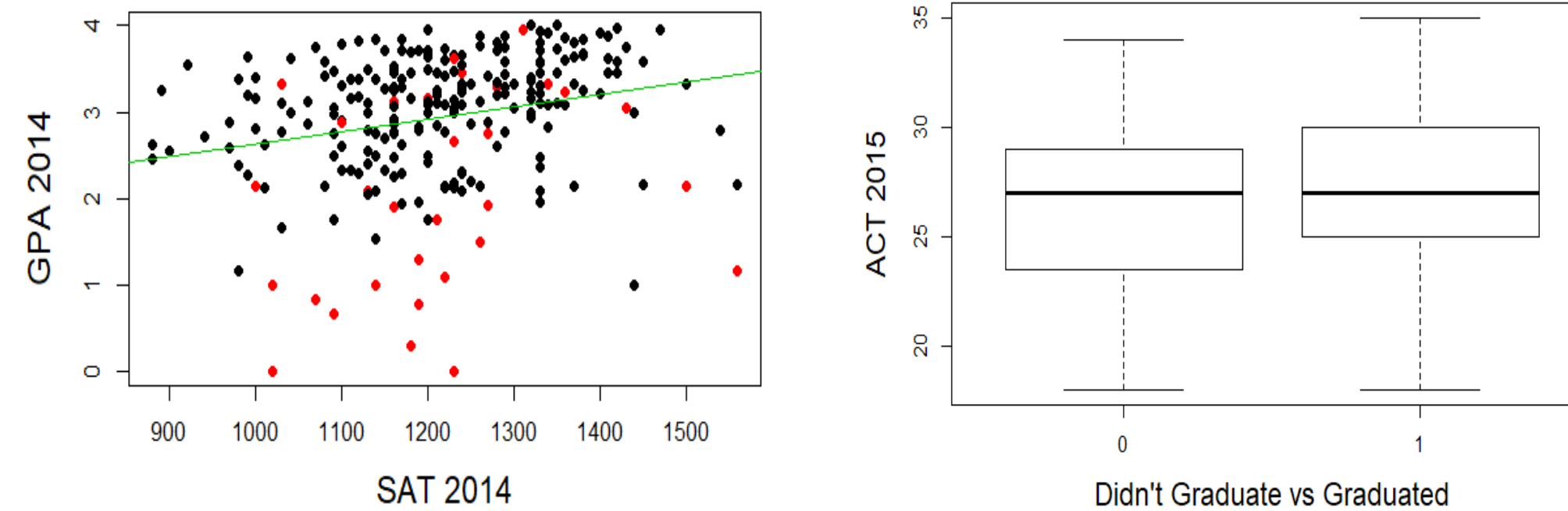


Figure 1: (From the left) Scatterplot showing the relationship of SAT with First-Year GPA: we observe general trend of First-Year GPA increasing along with the SAT scores. On the right, boxplot showing the relationship of ACT with Graduation for Federal Cohort 2014 and 2015 respectively: we observe no significant difference between ACT Scores among those who graduated and those who didn't.

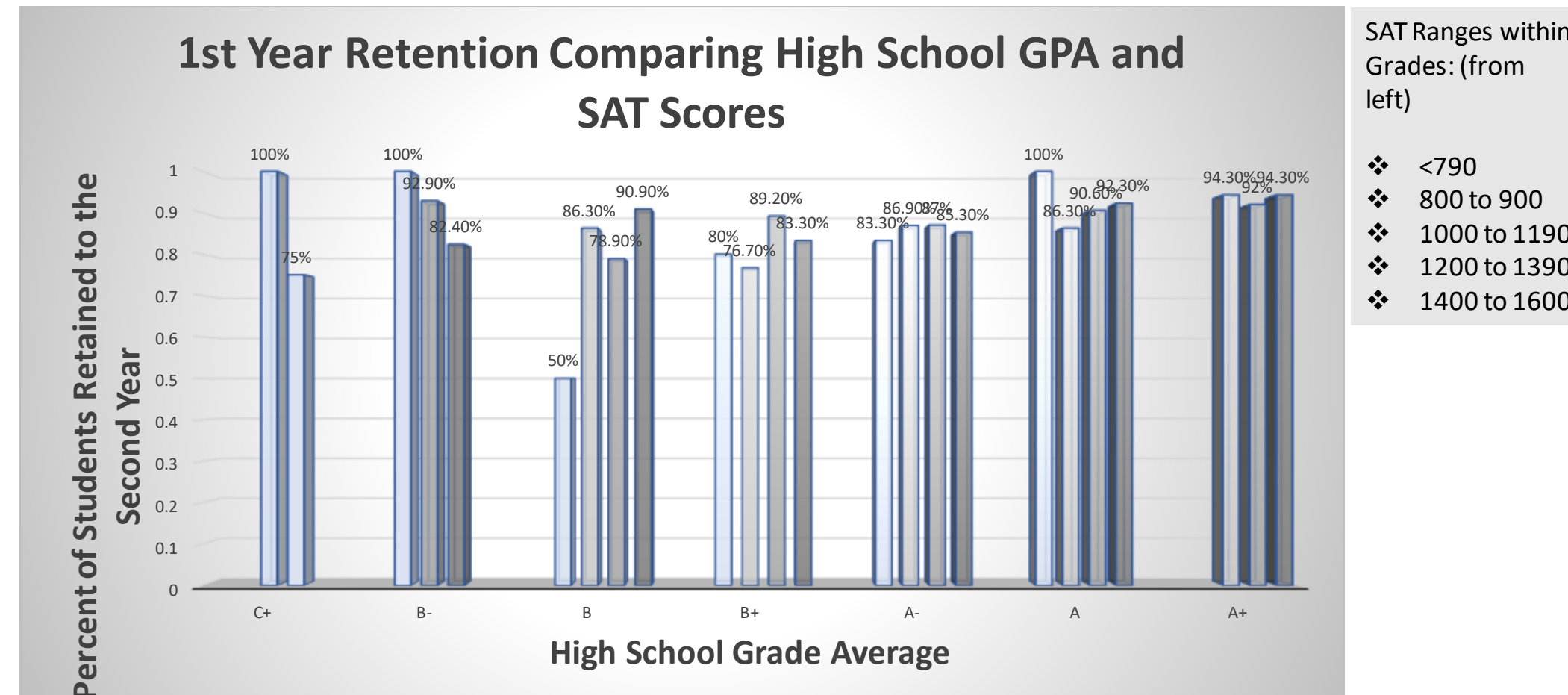


Figure 2: Bar graph showing the relationship of SAT with High School GPA against First-Year Retention: no clear trend between SAT score and Retention (broken down by High School GPA).

	No	Inconclusive	Yes
SAT/ACT with GPA	X		
SAT/ACT with Retention		X	
SAT/ACT with Graduation		X	
Retention Model		X	
Graduation Model		X	
GPA Model		X	
Test RR	X		
Graphs		X	
Simple Means	X		

Table 1: Summary of our findings. Indications to the question: should the college go test optional?

Conclusion

Findings (using random forest, logistic regression, etc.)

- ❖ Indication of SAT/ACT being valuable predicting student success
- ❖ Best factors predicting retention include Transfer, APEX Visits, High School GPA, etc.

Limitations

- ❖ Difficult to fully predict success
- ❖ Statistical Uncertainty
- ❖ Limited, missing, and duplicate data

Future Work

- ❖ Introduce financial aid, athletics, wellness, data
- ❖ Statistically approach retention
 - Dive deeper into APEX data