

College Acceptance Statistical Project



Description

You will work individually to choose which universities or colleges you want to apply and submit a report (maximum of 5 pages) by June 17, 2016. The report must include reasons why you choose each university and detailed calculations. Given that you are studying statistics and probability distributions, you will make good picks that also match your personal needs and you must not copy other students' work. The project will be worth 20% of your Q4 final exam grade.

You can use the information from <http://www.princetonreview.com/college-search/?rankings=best-380-colleges>

1. Report your current PSAT math scores.
2. **Acceptance chances.**
Please choose at least 5 colleges from the best 380 colleges (must include 1 or more Top-50 colleges with best return on investment, <http://www.princetonreview.com/college-search/?rankings=top-50---colleges-that-pay-you-back>). List the colleges, each of their acceptance rates and state your reasons for selecting it. Then calculate your chances of being accepted to at least one of the colleges using the university's acceptance rates.
3. **Find your equivalent SAT math scores.**
It was found that for the PSAT/NMSQT test, the mean is 498 and the SD is 91 for math. Assume that the distributions of both PSAT and SAT scores are normal. The mean on the SAT math in 2015 was 511 with the SD of 116. Find your equivalent SAT math score using the z-score and show your calculation.
4. Based on the distribution of SAT math scores of accepted students find which math percentile you will be in for each of the colleges or universities that you selected. You can find the mean of the accepted math distribution as the midpoint between the 25th and 75th percentile. Assume a normal distribution of scores. Show how you calculate the result.

Note: Colleges that pay you back methodology, <http://www.princetonreview.com/college-rankings/colleges-that-pay-you-back/methodology>