College Acceptance Statistical Term Project

1. My PSAT Math score is 580.
2. Acceptance chances:

- Harvard College

 Reason: Lots of great professors are here.

- Stanford University

 Reason: Stanford the most beautiful campuses in the country and give a financial aid to the student who needs.

- University of California--Los Angeles

 Reason: The cost for the education is lower than other university while it providing a a high quality education.

- Washington University in St. Louis

 Reason: The university gives opportunity to search for the student’s interest with more than 1,500 courses.

- University of Pennsylvania

 Reason: The university provides a great advice to help the student finding a job.

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| Colleges | Acceptance Rates | Chance of being accepted (at least one) |
| Harvard College | 6% |  |
| Stanford University | 5% |  |
| University of California--Los Angeles | 17% | 44.7% |
| Washington University in St. Louis | 17% |  |
| University of Pennsylvania | 10% |  |

1. - (94/100 x 95/100 x 83/100 x 83/00 x 90/100)

1 – 55.3%

= 44.7%

1. Equivalent SAT Math score:

PSAT/NMSQT’s mean = 498

SD = 91

SAT’s mean in 2015 = 511

SD = 116

Z= (580-498)/91

Z= 82/91

Z= 0.901

0.901 = (X – 511)/116

X= 615.52

My equivalent SAT Math score = 615.52

1. Math percentile to each college:

Midpoint of accepted math distribution= 25th-75th

Mean =?

1. Harvard College

25th-75th percentile= 700 – 800

Mean= 750

Standard deviation=

 Z = (x - mean)/SD

 (x – mean)/Z = SD

 (700 - 750)/-0.67

=74.62

P(X<=K) =?

P [Z< (615.52 – 750)/74.62]

P (Z< -1.80)

=0.0359

=0.0359 x 100 = 3.59%

 Math percentile= 3.59%

1. Stanford University

25th-75th percentile= 700 – 800

Mean= 750

Standard deviation=

 Z = (x - mean)/SD

 (x – mean)/Z = SD

 (700 - 750)/-0.67

=74.62

P(X<=K) =?

P [Z< (615.52 – 750)/74.62]

P (Z< -1.80)

=0.0359

=0.0359 x 100 = 3.59%

 Math percentile= 3.59%

1. University of California--Los Angeles

25th-75th percentile= 600-750

Mean= 675

Standard deviation=

 Z = (x - mean)/SD

 (x – mean)/Z = SD

 (600 – 675)/-0.67

=111.94

P(X<=K) =?

P [Z< (615.52 – 675)/111.94]

P (Z< -0.531)

=0.2981

=0.2981 x 100 = 29.81%

 Math percentile= 29.81%

1. Washington University in St. Louis

25th-75th percentile= 710-790

Mean= 750

Standard deviation=

 Z = (x - mean)/SD

 (x – mean)/Z = SD

 (710 – 750)/-0.67

=59.70

P(X<=K) =?

P [Z< (615.52 – 750)/59.70]

P (Z< -2.252)

=0.0122

=0.0122 x 100 = 1.22%

 Math percentile= 1.22%

1. University of Pennsylvania

25th-75th percentile= 690 – 780

Mean= 735

Standard deviation=

 Z = (x - mean)/SD

 (x – mean)/Z = SD

 (690 – 735)/-0.67

=67.16

P(X<=K) =?

P [Z< (615.52 – 735)/67.16]

P (Z< -1.77)

=0.0384

=0.0384 x 100 = 3.84%

 Math percentile= 3.84%