

CORE

Data Team Report – College Success Analysis

May 13, 2015



The High School to College Completion Pipeline: What are the big gaps that prevent students from completion?



Who are the students that may face barriers for entering OCCC or UCO?

Who are students at risk for ending up on academic probation after one semester; who are students that have left UCO/OCCC after one year?

* OKCPS Classes of 2012 and 2013: 35.5% Enrolled at OCCC or UCO the following fall after graduation.

What data have we gathered?

| <u>OKCPS</u> | <u>OCCC and UCO</u> |
|---|--|
| <ul style="list-style-type: none"> - Last three years of high school graduates from selected OKCPS high school - Performance variables during high school (GPA, Test Scores, Math, Advanced Coursework, etc). - Behavioral variables (Attendance rates, suspension rates, Fine Arts Students, etc). - Economic variables (Free Lunch Status, Local Unemployment Rates). - Demographics (Race, Gender, ELL, Locational, etc.). | <ul style="list-style-type: none"> - Matriculation Rates - First Semester GPAs - Retention Rates |

All High School Variables Included in Models

Ethnicity
 High School Performance Grade
 Attendance Rate
 Enrolled in Fine Arts Senior Year
 AP Course Enrolled
 Number of High Schools Attended

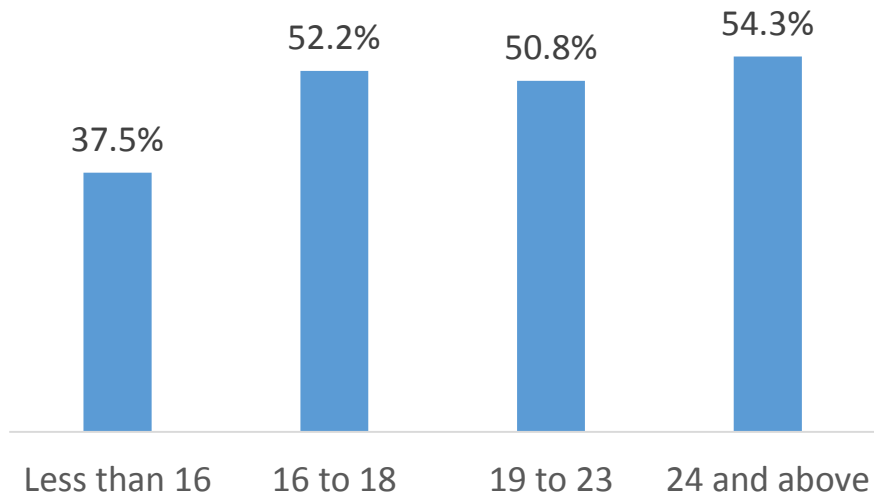
Gender
 Graduation on Time Status
 Suspension on Record
 Enrolled in Science Course Senior Year
 Honors Course Enrolled
 ACT Composite Score

Unemployment Rate by Student Zip
 High School GPA
 Enrolled in Math Course Senior Year
 Concurrent Enrolled
 Free and Reduced Lunch Status
 Attempted ACT

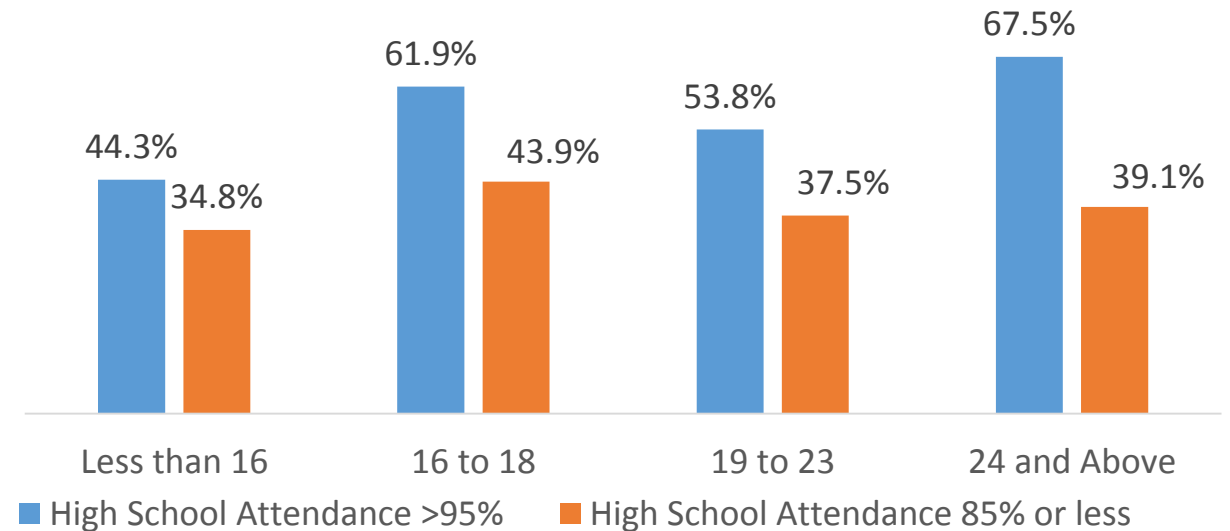
An exploratory refresher at the data; The importance of ACT scores on future college success.

Example how high school attendance patterns and ACT scores impact first year retention at the University of Central Oklahoma

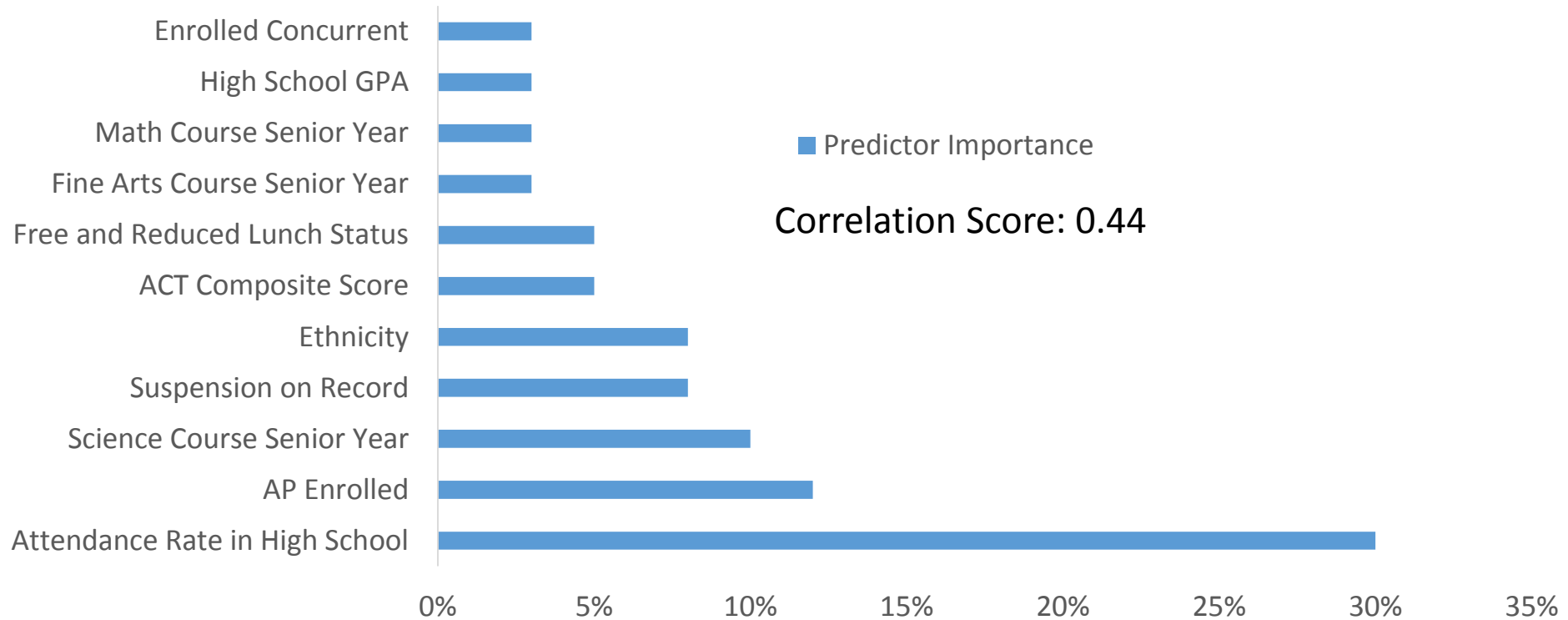
UCO – ACT Scores' Impact on First Year Retention
(One Variable)



UCO – ACT Scores' and High School Attendance Rates' Impact on First Year Retention
(Two Variables)



OKCPS Graduates' First Year Retention at UCO or OCCC Classes of 2012 and 2013



(First Year Retention - UCO: 46.7% OCCC: 39.2% All: 41.4%)

| | <u>Retention</u> |
|---------------------------|------------------|
| Attended HS more than 95% | 52% |
| Attended HS less than 85% | 23% |

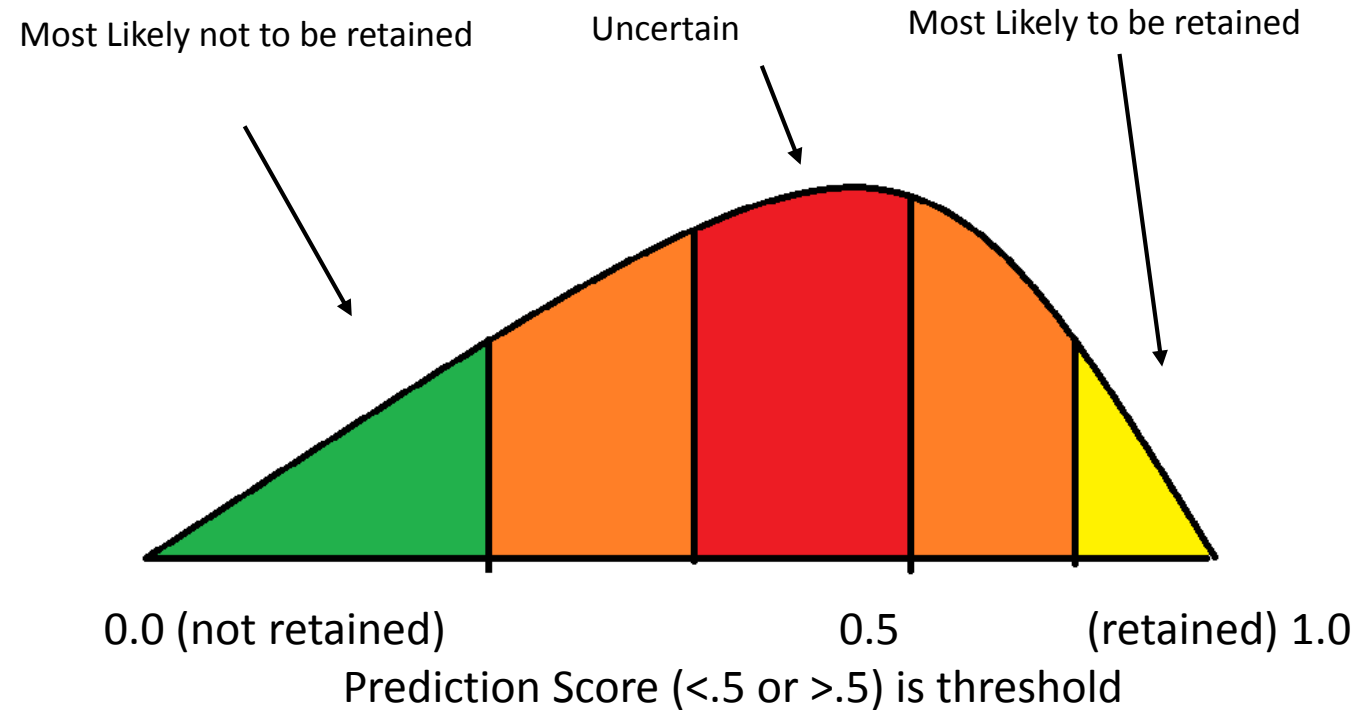
| | <u>Retention</u> |
|----------|------------------|
| No AP | 38% |
| AP Taken | 52% |

How Accurate did the Model Predict Actual First Year Retention for OKCPS Students at OCCC or UCO? (Class of 2012 & 2013)

Correlation Score: 0.44

% Not Retained: (UCO: 53% OCCC: 61% All: 59%)

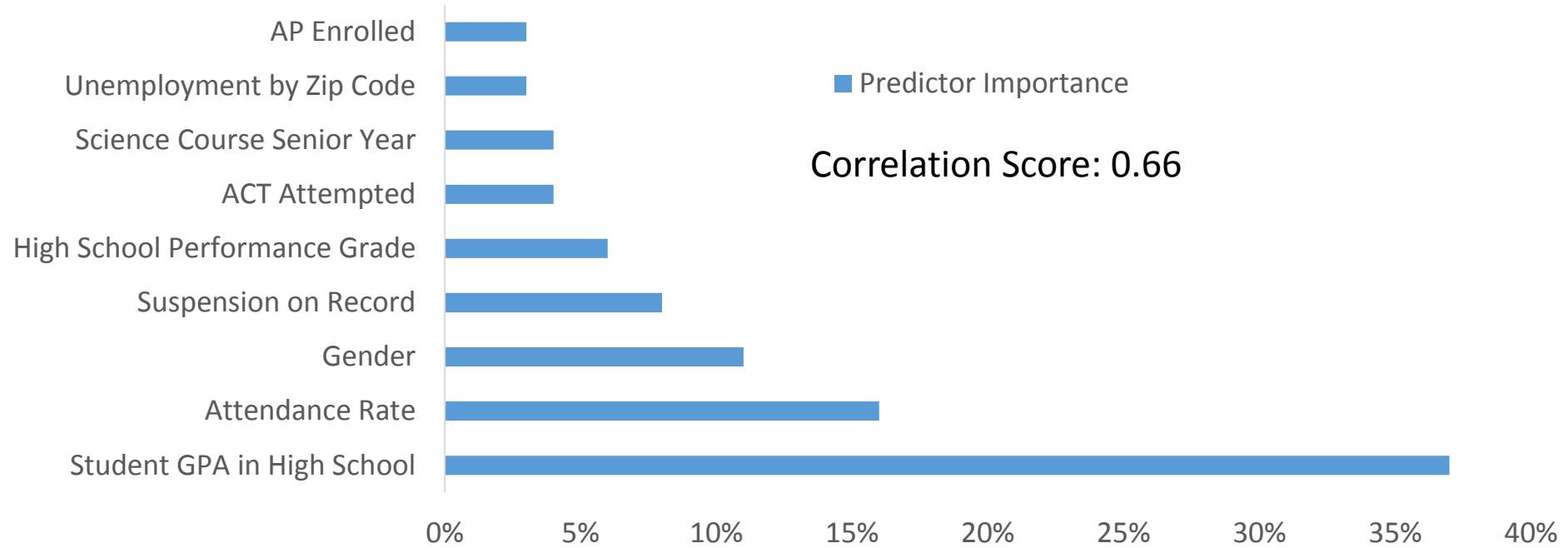
| Retention Groups | Headcount | Percent |
|--|------------|---------------|
| 1. Most likely not to be retained | 100 | 20.0% |
| Prediction Correct | 89 | 89.0% |
| Prediction Incorrect | 11 | 11.0% |
| 2. Somewhat likely not to be retained | 100 | 20.0% |
| Prediction Correct | 73 | 73.0% |
| Prediction Incorrect | 27 | 27.0% |
| 3. Uncertain | 100 | 20.0% |
| Prediction Correct | 59 | 59.0% |
| Prediction Incorrect | 41 | 41.0% |
| 4. Somewhat likely to be retained | 100 | 20.0% |
| Prediction Correct | 58 | 58.0% |
| Prediction Incorrect | 42 | 42.0% |
| 5. Most likely to be retained | 100 | 20.0% |
| Prediction Correct | 73 | 73.0% |
| Prediction Incorrect | 27 | 27.0% |
| Grand Total | 500 | 100.0% |



The Top 50 Most Likely Not to Be Retained: 92%

The Top 50 Most Likely to Be Retained: 86%

OKCPS Graduates' First Semester GPA at OCCC or UCO Classes of 2012 and 2013



| | <u>Below 2.0 GPA</u> |
|---------------------|----------------------|
| 3.0 or Higher in HS | 22% |
| 2.5 or Lower in HS | 52% |

| | <u>Below 2.0 GPA</u> |
|-------------------------|----------------------|
| 95% or Above Attendance | 22% |
| 85% or Less Attendance | 45% |

| | <u>Below 2.0 GPA</u> |
|--------|----------------------|
| Male | 39% |
| Female | 30% |

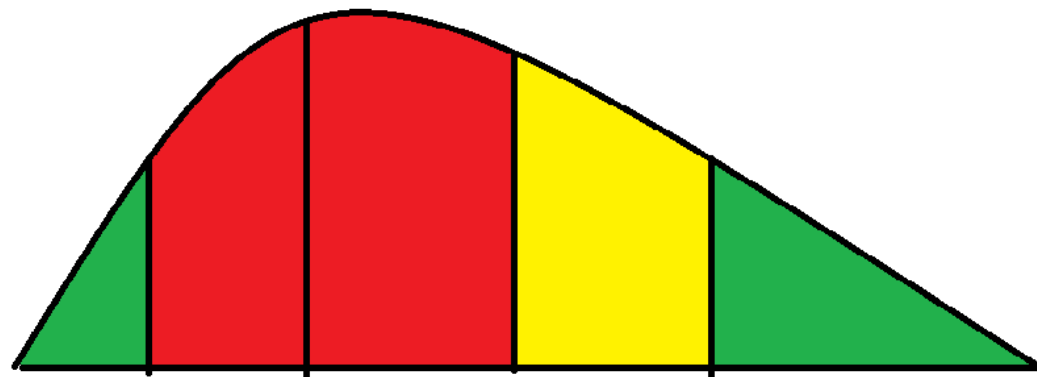
How Accurate did the Model Predict Actual GPAs for OKCPS Students at OCCC or UCO? (Class of 2012 & 2013)

Overall: 36% of students were below a 2.0 GPA after one semester.

Correlation Score: 0.66

| GPA Prediction Ranges | Headcount | Percent |
|---|------------|---------------|
| 1. Most Likely to be below 2.0 | 100 | 20.0% |
| Prediction was Correct | 78 | 78.0% |
| Prediction was Incorrect | 22 | 22.0% |
| 2. Somewhat Likely to be below 2.0 | 100 | 20.0% |
| Prediction was Correct | 52 | 52.0% |
| Prediction was Incorrect | 48 | 48.0% |
| 3. Uncertain | 100 | 20.0% |
| Prediction was Correct | 51 | 51.0% |
| Prediction was Incorrect | 49 | 49.0% |
| 4. Somewhat Likely to be Above a 2.0 | 100 | 20.0% |
| Prediction was Correct | 77 | 77.0% |
| Prediction was Incorrect | 23 | 23.0% |
| 5. Most Likely to be Above a 2.0 | 100 | 20.0% |
| Prediction was Correct | 95 | 95.0% |
| Prediction was Incorrect | 5 | 5.0% |
| Grand Total | 500 | 100.0% |

Most Likely to be below 2.0 Uncertain Most Likely to be above a 2.0

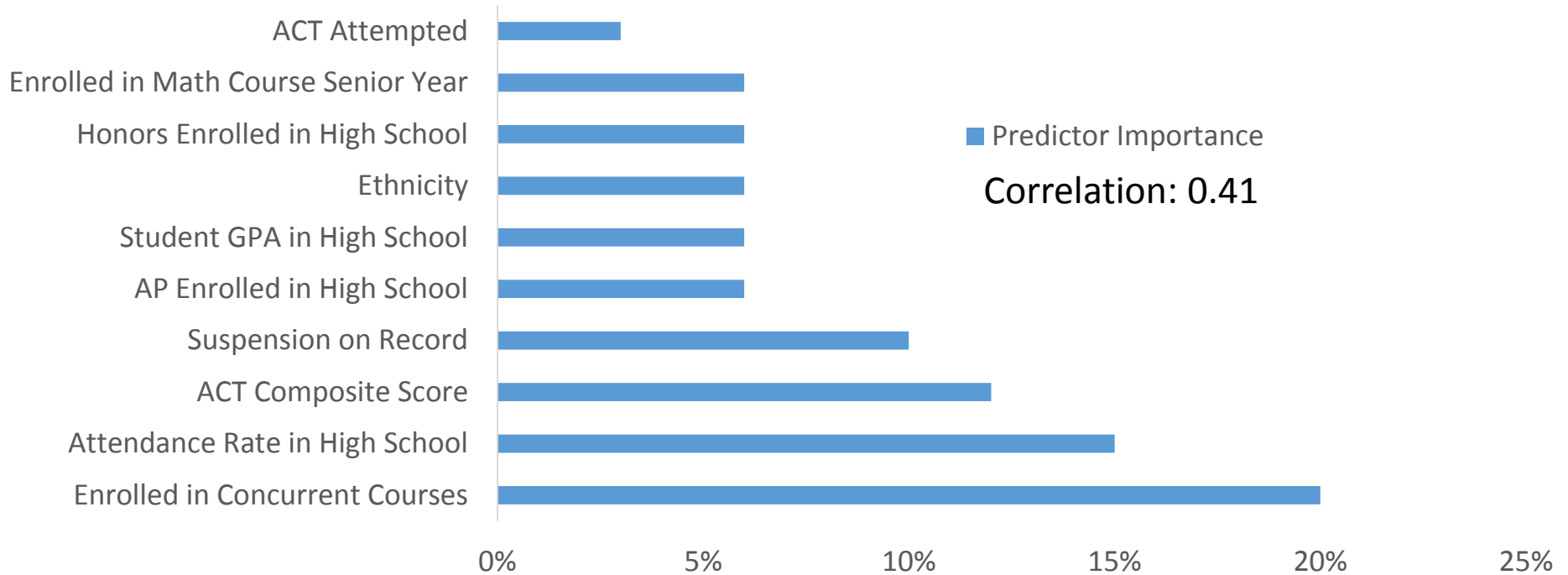


0.0 (low GPA) 0.5 (not low GPA) 1.0
 Prediction Score (<.5 or >.5) is threshold

Factors that Influence Entry to OCCC or UCO

(Matriculation Rate: 35.5% for Selected Population)

Matriculated to OCCC or UCO After Graduation - Classes of 2012 and 2013



| | <u>Matriculated</u> |
|------------------|---------------------|
| Con. Student | 67% |
| Not Con. Student | 32% |

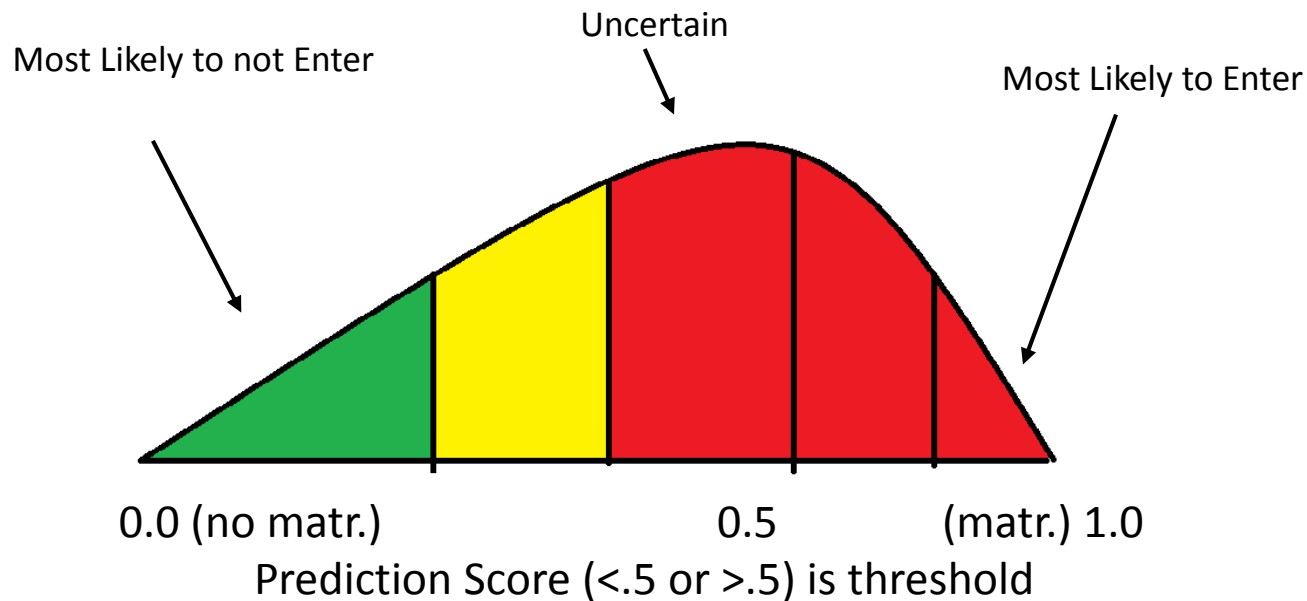
| | <u>Matriculated</u> |
|--------------------------|---------------------|
| More then 95% Attendance | 44% |
| Less than 85% Attendance | 25% |

| | <u>Matriculated</u> |
|------------------|---------------------|
| 19 and Above ACT | 53% |
| Below 19 ACT | 40% |

How Accurate did the Model Predict Matriculation for OKCPS Students at OCCC or UCO? (Class of 2012 & 2013)

Correlation: 0.41

Non-Matriculation Rate to UCO or OCCC: 65.5%



| Matriculation Groups | Headcount | Percent |
|--|------------------|----------------|
| 1. Most likely to not matriculate | 200 | 20.0% |
| Prediction Correct | 185 | 92.5% |
| Prediction Incorrect | 15 | 7.5% |
| 2. Somewhat likely to not matriculate | 200 | 20.0% |
| Prediction Correct | 162 | 81.0% |
| Prediction Incorrect | 38 | 19.0% |
| 3. Uncertain | 200 | 20.0% |
| Prediction Correct | 130 | 65.0% |
| Prediction Incorrect | 70 | 35.0% |
| 4. Somewhat likely to matriculate | 200 | 20.0% |
| Prediction Correct | 108 | 58.0% |
| Prediction Incorrect | 92 | 46.0% |
| 5. Most likely to matriculate | 200 | 20.0% |
| Prediction Correct | 132 | 66.0% |
| Prediction Incorrect | 66 | 34.0% |
| Grand Total | 1000 | 100.0% |