

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

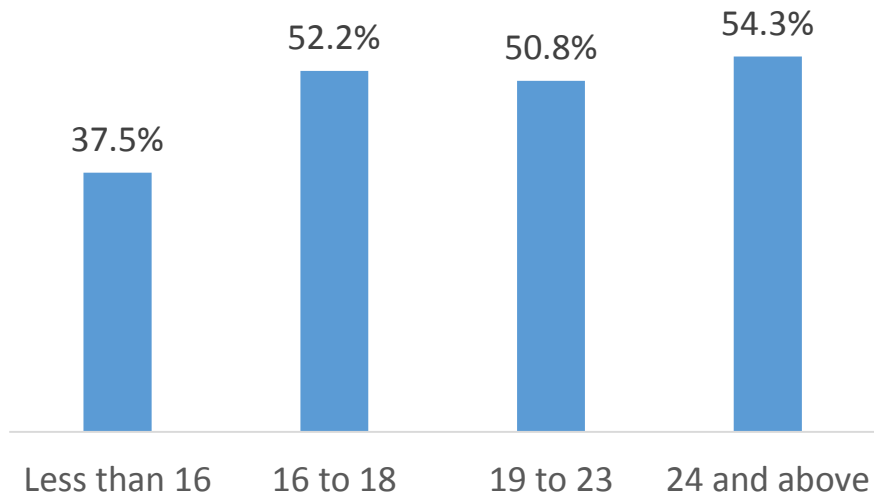
Gender
 Graduation on Time Status
 Suspension on Record
 Enrolled in Science Course Senior Year
 Honors Course Enrolled
 ACT Composite Score

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

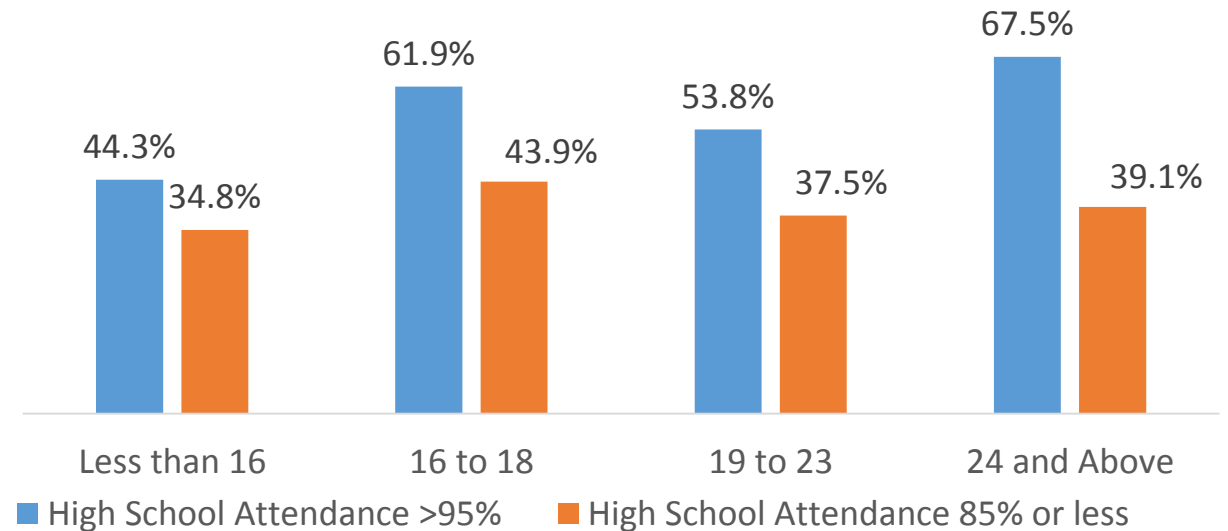
An exploratory refresher at the data; The importance of ACT scores on future college success.

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

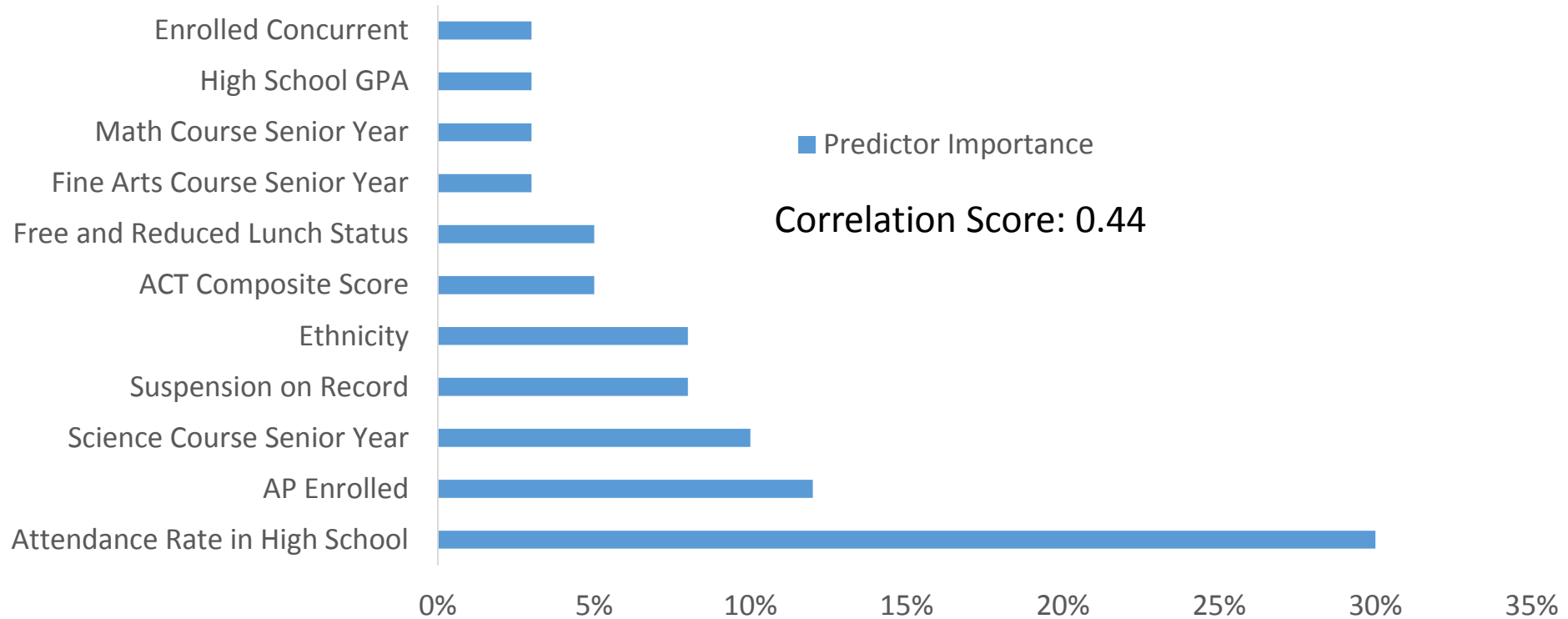
UCO – ACT Scores' Impact on First Year Retention
(One Variable)



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%

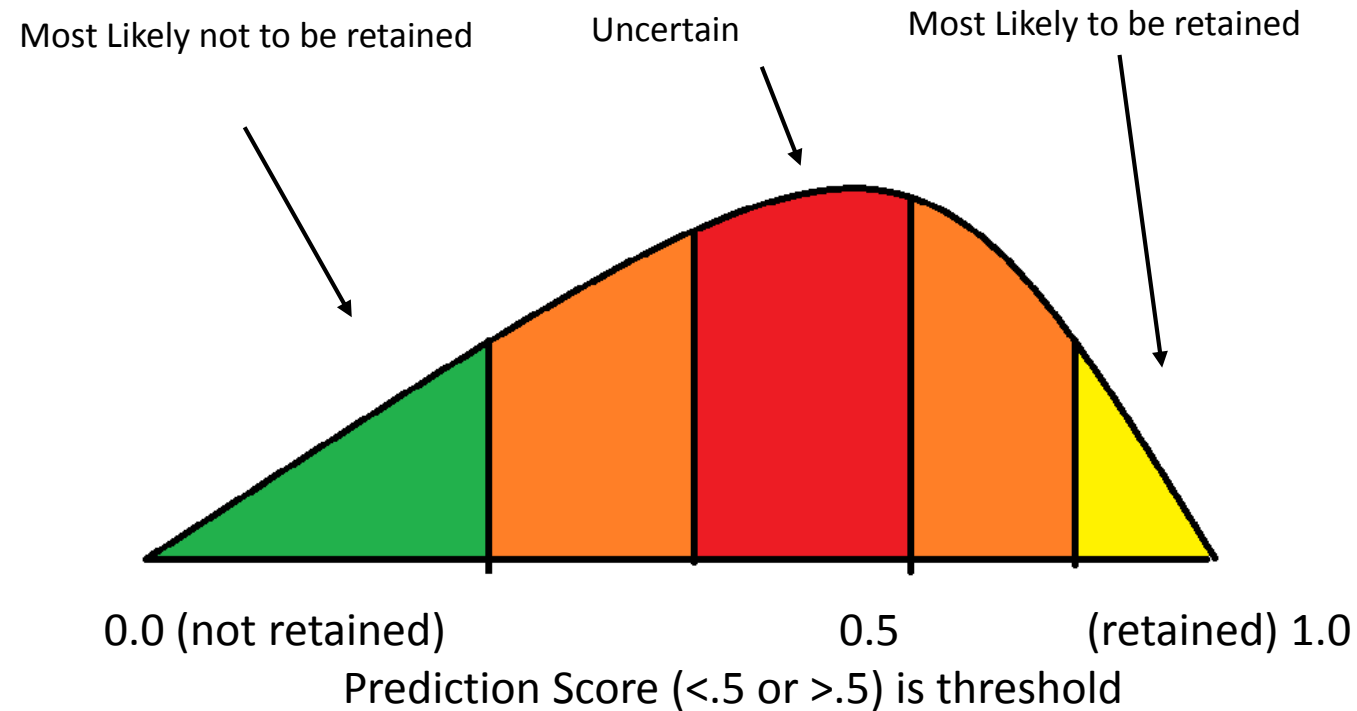
	<u>Retention</u>
No AP	38%
AP Taken	52%

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%)

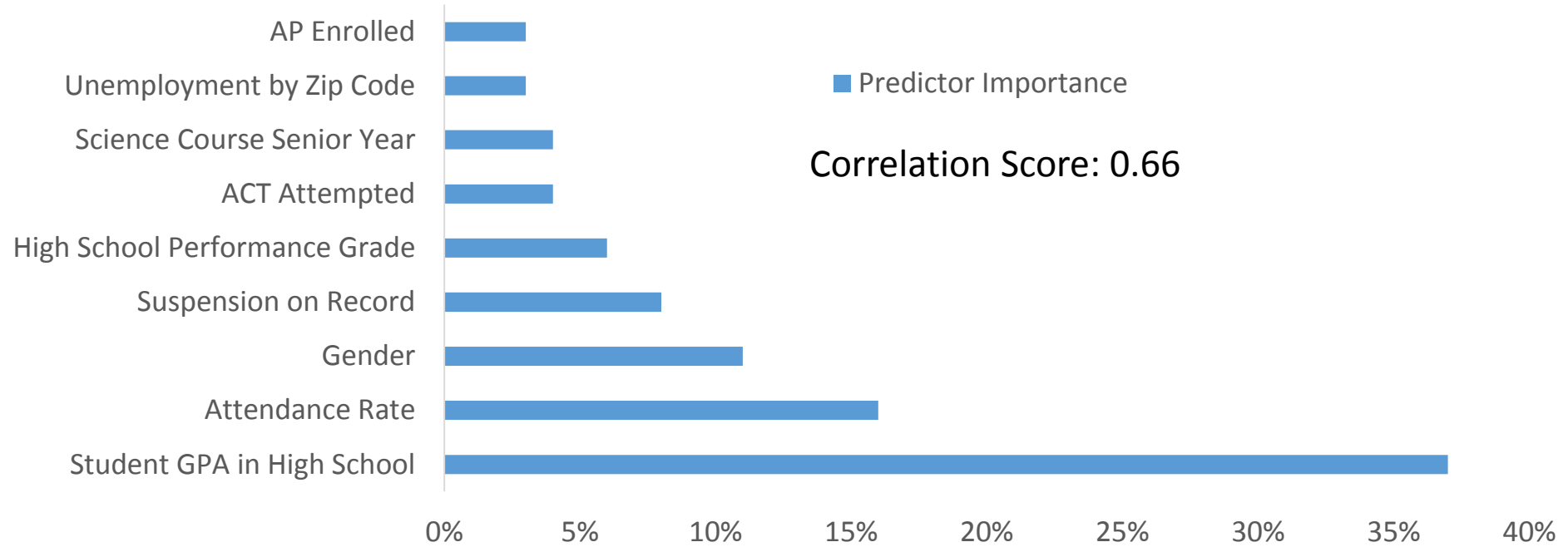
Retention Groups	Headcount	Percent
1. Most likely not to be retained	100	20.0%
Prediction Correct	89	89.0%
Prediction Incorrect	11	11.0%
2. Somewhat likely not to be retained	100	20.0%
Prediction Correct	73	73.0%
Prediction Incorrect	27	27.0%
3. Uncertain	100	20.0%
Prediction Correct	59	59.0%
Prediction 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%

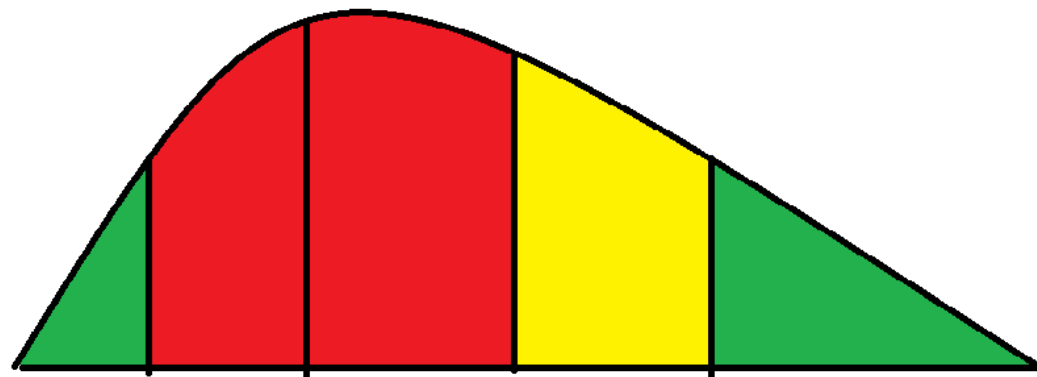
How Accurate did the Model Predict Actual GPAs for OKCPS Students at OCCC or UCO? (Class of 2012 & 2013)

Correlation Score: 0.66

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

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

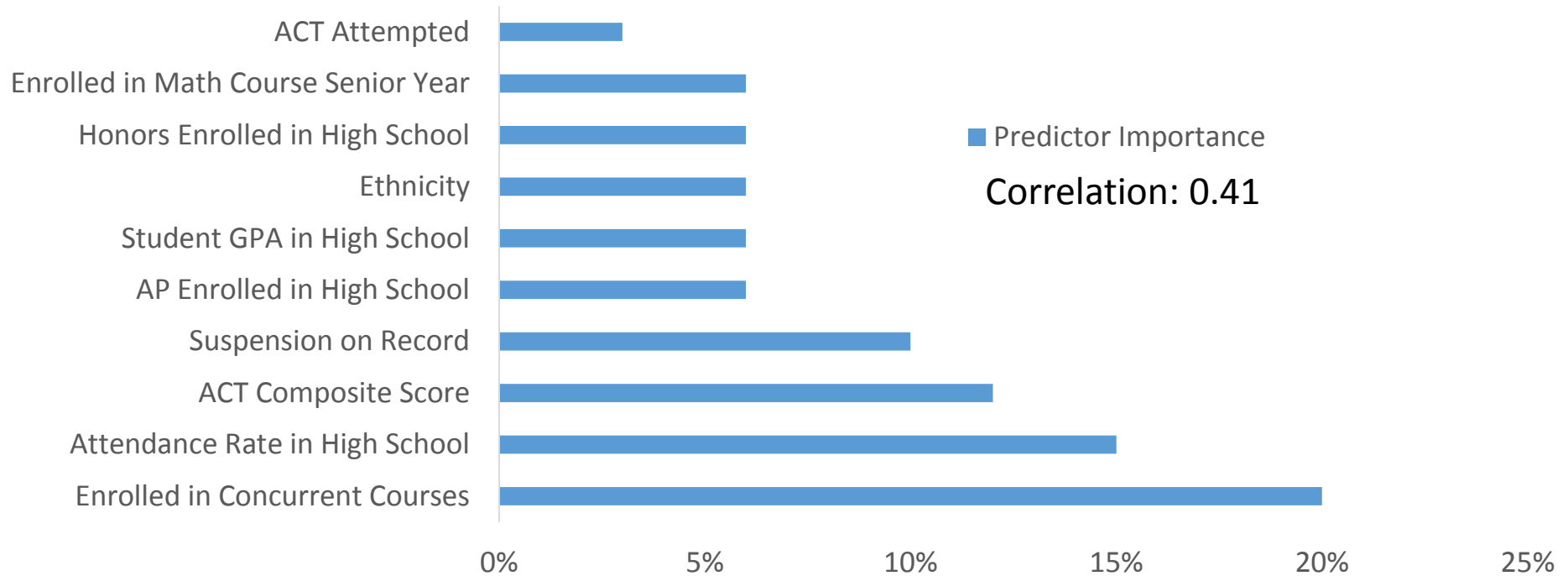


0.0 (low GPA) 0.5 (not low GPA) 1.0
 Prediction Score (<.5 or >.5) is threshold

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%

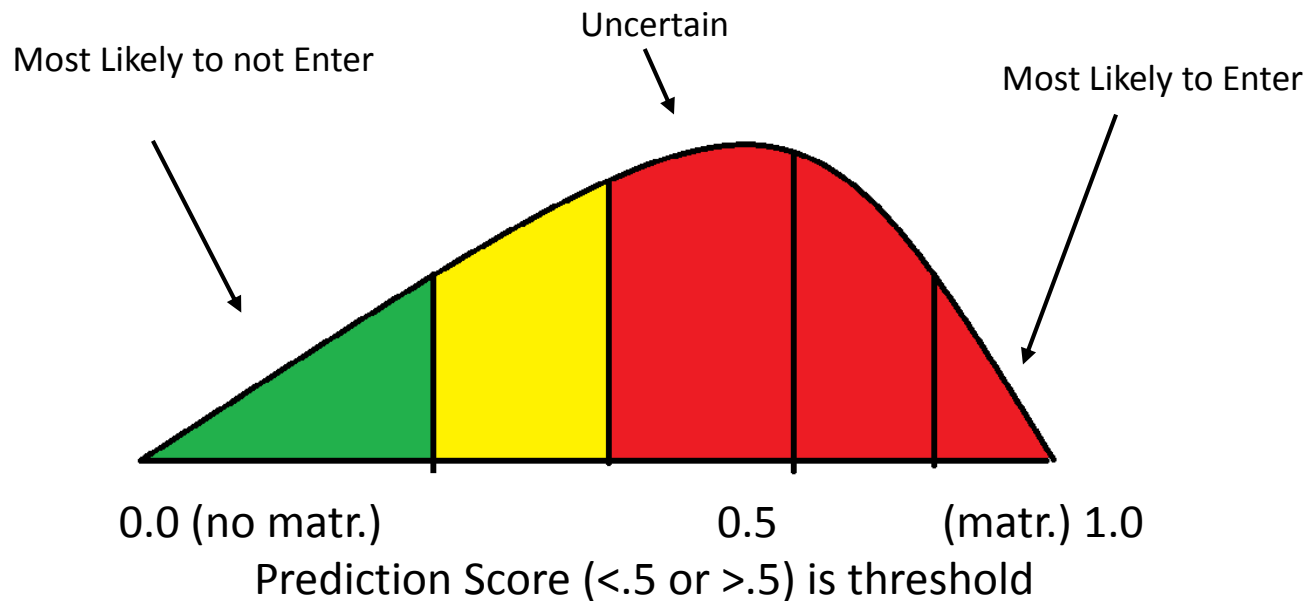
	<u>Matriculated</u>
More then 95% Attendance	44%
Less than 85% Attendance	25%

	<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%