

CASE MANAGEMENT ADVISING USING TARGETED PREDICTIVE MODELING



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INTRODUCTION

THE PREDICTIVE MODEL

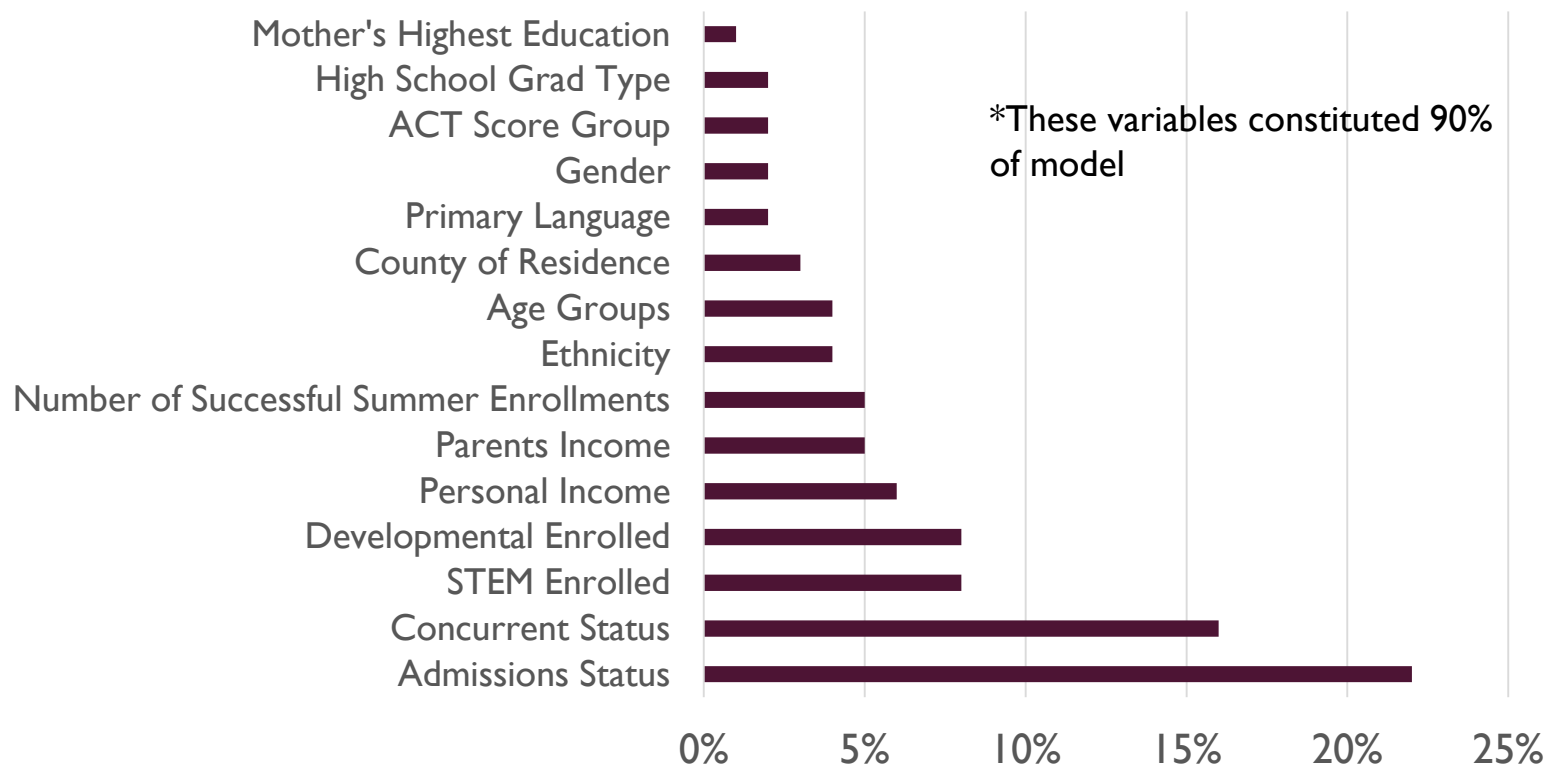
- What is a Predictive Model? – The practice of extracting information from existing data sets in order to determine patterns and predict future outcomes and trends.
- Focus of Model – To use data from three prior fall semesters of students to predict which current students will be at high risk of being below a 2.0. This is using data that only is available before the start of students' first semester at OCCC.
- Purpose of Study – Isolate most at risk group of students to target with case management advising interventions.

THE MODEL DESIGN

- Design of Study – Used 33 variables of information new to OCCC students had available prior to their first day of class.
 - Admissions Data – (Educational Goal, Admissions Status, High School Last Attended, Etc...)
 - Demographics – (Gender, Race, Age, Etc...)
 - FAFSA – (First Generation, Family Income. Personal Income)
 - Enrollment Behavior (Full or Part Time, Developmental, Online enrolled, STEM enrolled, SCL enrolled, Etc...)
- Each current student was given a GPA prediction (0 to 4) based on actual historical data of these 33 variables and the GPAs that resulted.
- Based on scores, all new and new transfer students were placed in five groups ranging ‘High Risk’ to ‘Low Risk’. Of students in the ‘High Risk’ group, 396 were randomly selected and then randomly split into two groups, a control group and an intervention group (those to receive case management outreach).

HISTORICAL VARIABLE IMPORTANCE IN MODEL

Predictor Importance - End of Term GPA



Correlation Score: .59, Using a Generalized Multiple Regression

THE RESULTS

- Only slight differences in demographics between control and intervention groups (40% vs 41% white, 62% 18 and under for both groups, 56% vs 54% male)

Groups	Headcount	Average of GPA
Control	197	2.06
Intervention	199	2.22

GPA of all New to OCCC: 2.43

Groups	Headcount	Average of GPA
Attended Meeting 1	61	2.55

Groups	Headcount	Average of GPA
Attended Meeting 2	32	2.78

Groups	Headcount	Persistence Rate
Control	197	
Persisted	119	53.2%
Intervention	199	
Persisted	148	65.8%

Persistence of all New to OCCC: 59%

Groups	Headcount	Persistence Rate
Attended Meeting 1	53/61	86.9%

Groups	Headcount	Persistence Rate
Attended Meeting 2	30/32	93.8%

MOVING FORWARD ON THE DATA FRONT

- Using new to OCCC students and returning students that started last fall (no SCL last fall, not in prior intervention).
- Focused on 'High Risk' students.
- A total of 837 students will be targeted, no control group.
- Model more powerful, 41 variables used for 2.0, including fall semester grades for those with them.
- Risk scores for GPA more predictable, also tracking retention to fall prediction score

OUTREACH AND EXPECTATIONS

- All students received an email with links about advising-related resources.

First appointment

- Ask student how semester is going.
- Suggest career exploration, if appropriate.
- Refer for support, as needed.
- Preview the enrollment planning software (SPS), discuss eligible courses for Spring 2017.
- Explain that student is expected to plan Spring 2017 schedule in SPS prior to second visit.

Second Appointment

- Review the student's planned schedule in SPS.
- Assist with any issues that arose since first meeting.
- Assist student with completing registration, if needed.

ADVISING LEARNING OUTCOMES

- 1) Reading/understanding course codes**
- 2) Career exploration and tools available**
- 3) Early Advisement/registration necessity**
- 4) Degree familiarization**
 - 1) Understand the support and general education requirements for their degree
 - 2) Understand general education requirements vs major requirements, how these interact
- 5) Planning degree using SPS**
 - 1) Take ownership of degree
 - 2) Have a success plan

**“I’ve been expecting an
advisor to contact me.”**

“I felt that she is really interested in me and my future. She is a great advisor.”

“So patient. I now understand how to schedule my own classes and register when I am ready.”

WHAT WORKED

- Pioneers were willing to try.
- Outreach occurred during critical time. Honeymoon phase of college experience has ended at this point.
- Students were willing to listen.
- Students connected to advisors.

MOVING FORWARD ON THE ADVISING FRONT

- Continue with training
- Pilot 2.0 began on February 6th
- Revisions to the learning outcomes
- Changing the advising model – appreciative advising, assigned advisors for first-year students
- Modified student orientation

HELPING ADVISE STUDENTS

- An advising session is a snapshot of where the student is at that moment.
- Information changes situations – and advising plans!
- We need faculty support.
- Come visit our office.

Which car meets your needs?

