



Risk Overview

Student Success Collaborative™
-Campus

Known Limitations of Model 2.0

Useful for Most Members, But Not Good Enough



Inflexible Architecture

Not Customizable, Slow to Improve

- Increasingly diverse institutions and student populations require different approaches
- Revealed need for more flexible technology

Day 1 Risk

Not Consistent or Reliable

- Pre-enrollment data provided only indirect contribution to risk
- “Day 1 Risk” not consistent or reliable for many members



Time & Credit Accumulation

Not Fully Accounted for

- Risk model accounts for skills but not progress toward degree
- e.g. Seniors about to graduate who present as “high risk”

Subpopulations

Can't Treat Different People Separately

- Certain factors should have more or less weight for specific populations
- e.g. Transfer students



2.5

Flexible Design, Better Use of Existing Data, Overall Improvement in Accuracy

Motivations

- Set the stage for future flexibility and customization
- Address some known limitations

Key Enhancements

- Pre-enrollment data used directly. More accurate impact on risk estimates.
- Improved accounting for time and credit accumulation. More trustworthy scores for all students.
- Better handling of multiple majors and major switching



Risk Model Report

- Serves as a checkpoint before the model is enabled in Production
- Option to stay with 2.0 model if appropriate

Includes:

- **Model description**
 - What data sources were used?
 - How can we customize even further?
- **Model quality (for historical students)**
 - How accurate is the model overall?
 - For students with different standing?
 - For students in different majors?
- **Model comparison**
 - Prediction quality compared to a simple rule-of-thumb model



Interpreting Risk Signals

Three Indicators of Student Risk in the Platform

*Empirical
Calculated
Based on Historic Performance*

*Behavioral
Observed
Based on Current Performance*



1 Predicted Risk Level

Biological Science

College of Arts & Sciences

Low Risk

Search For Majors And Careers

Major Options

Major Name
Sociology
College of Arts & Sciences

Risk Level
Low Risk

2 Success Markers

Overview Success Progress Reports / Notes Class Info Major Explorer

Success Markers

The student has missed guidelines for progress. Acting on them can help get the student back on track for successful completion.

Notification	Outcomes
<ul style="list-style-type: none"> AST111 Recommended grade: D- (2 courses) Completed between: 10 and all courses 	Needs attention 2 Attempts
<ul style="list-style-type: none"> BUS2156 and OS219 Recommended grade: D- (2 courses) Completed between: 10 and all courses 	Needs attention 2 Attempts
<ul style="list-style-type: none"> ECO2156 and ECON219 Recommended grade: D- (2 courses) Completed between: 10 and all courses 	Needs attention 2 Attempts

3 Observation-Based Staff Alerts

PROGRESS REPORTS			
DATE	CLASS	PROFESSOR	COMMENT
07/07/2015	ASTR111 DESCRIPTIVE ASTRONOMY I	Steven Kilpatrick	
06/30/2015	ASTR111 DESCRIPTIVE ASTRONOMY I	Steven Kilpatrick	
	ASTR111 DESCRIPTIVE		

ISSUE AN ALERT

Student:

Please select the reason you believe this student needs assistance

Is this alert associated with a specific class?

Staff Alerts 7

I want to...

[Message Student](#)

[Add a Note on this Student](#)

[Add a Reminder to this Student](#)

Predicted Risk Level

What is a Student Risk Prediction?

Student Risk Prediction

Definition: For SSC—Campus, a student risk prediction is the likelihood that a student will graduate from the institution according to the institution’s predictive model.

For each institution, a custom-built predictive model is created by EAB’s data science team using historical student records to identify which data points are important for predicting graduation. Student risk predictions are then generated by passing an individual student’s data (e.g., current Major, cumulative GPA) into the predictive model for calculation.

What Goes in Our Unique Risk Model?

Incorporated **Today**



Institutional Academic Data

Attempted Credits Trend
Completed Terms
Credits Since Last Major Change
Cumulative GPA
Current Major Frequency
Current Major(s)
D-F-W Counts
D-F-W Trend
Earned-Attempted Credit Ratio
Estimated Skills
GPA Trend
Grade Variance
Lifetime Attempted Credits
Major(s)-Skills Alignment
Number of Current Majors
Number of Former Majors
Term GPA



Pre-College Data

- Standardized SAT/ACT Exam Scores
- Transfer Credit Proportion
- Transfer Student Indicator



Demographic Data

- Gender
- Ethnicity

Success Markers and Alerts Not Included

Success markers and staff alerts are not incorporated into the risk model. Therefore, a student's risk prediction is not influenced by their presence or absence.



How the SSC—Campus Risk Model Works

Risk Model Creates Individual Risk Predictions for Each Student



We start with a student's courses and grades



Analyze historical records, searching for academically similar students



And predict their likelihood to graduate

Student Data Inputs



Academic and Course Registration Records



Student Demographic Data



Pre-College Academic Data

Predictive Model



Predictive Outputs



Risk given current major

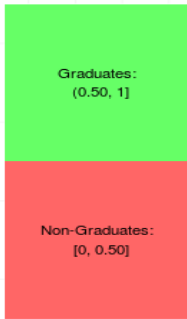


Risk given other majors

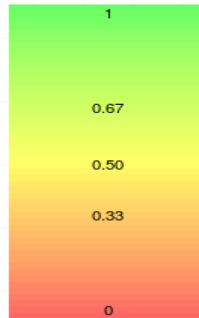
Mapping from Risk Prediction to Risk Level



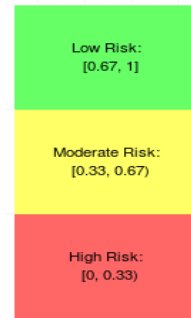
Risk Classification



Predictive Model



SSC Platform



Student's Risk Color

 Low Risk	 Moderate Risk	 High Risk	 N/A Risk
Probable graduate within major	Moderate risk to graduate within major	High risk to graduate within major	Insufficient institutional coursework to assess risk

How do I Use a Student's Risk Prediction?

Tips from Our SSC Advisors on How to Use Risk Prediction Effectively



How to Use Predicted Risk Effectively

- Use risk levels to strategize which students to monitor more heavily
- Use risk predictions to explore major options and strengthen long-term academic planning conversations
- Explain to students their risk score to create a sense of urgency for resistant students
- Consider predicted difficulty to help students select and prepare for upcoming courses
- Contextualize a student's risk score by remembering the group against which that student is being compared



...And How Not To

- Don't only meet with "red" students
- Don't ignore your intuition and experience in evaluating whether a student might be at risk
- Don't make all your "red" students switch to a "green" major
- Don't ignore a student's passion if it's in a "red" or "yellow" area
- Don't assume a student won't or can't graduate because they are "red"; "red" is a probability, not a fate

Where Risk Level Appears in the Platform



Student's Overview Page

Current Risk Level in Declared Major

Janeeva Asad

Overview | Success Progress | Reports / Notes | Class Info | Major Explorer | Calendar | Appointments

Degree Goals: 1 / 1 | Required Courses: 1 / 1 | Prerequisite Courses: 2 / 2 | Credit Markers: 4 / 4

Credits Accumulated for Spring 2015: 0 credits, 0 classes | Hour Credits Earned: 32.00 | Credit Completion %: 71%

Pre-Managerial Sciences student ID: 520527131
Indiana College of Business | CLASSEN/CHEN, Sophomore
Major History | next review date: Spring Semester 2015

Advanced Search

Risk Level as a Filter

Success Indicators | Risk, Success Markers

Risk (In Any of these) ³

Low Risk
Moderate Risk
High Risk
Unknown

Student's Major Explorer Tab

Predicted Risk Level in Alternate Majors

Major Options | College: All Colleges

Major Name | Risk Level

Public Policy | **Low Risk**
Young School Policy Studies

Sociology | **Low Risk**
College of Arts & Sciences

Economics | **Moderate Risk**
Young School Policy Studies

Related Careers:
Account Executive
Administrative Manager
Administrative Coordinator
Business Development Agent
Client Representative / Adjuster / Examiner
HR Intern

Account Executive
Administrative Coordinator
Agent - Marketing Agent
Client Representative / Adjuster / Examiner
Business Development - Management Specialist
HR Intern

Account Executive
Business Manager - Representative
Inquiry
Administrative Coordinator
Auditor
SA Intern

Success Markers

Success Markers help platform users gauge whether a student is on track in their major by comparing their behaviors and outcomes to standard milestones of degree progress and performance

Chemistry Major



Anatomy of a Success Marker

- **Required milestone course for the major** (e.g., Chemistry 101)
- **Minimum recommended grade** (e.g., B-)
- **Appropriate timing** (e.g., 0 – 30 credits)

Success Marker Statuses

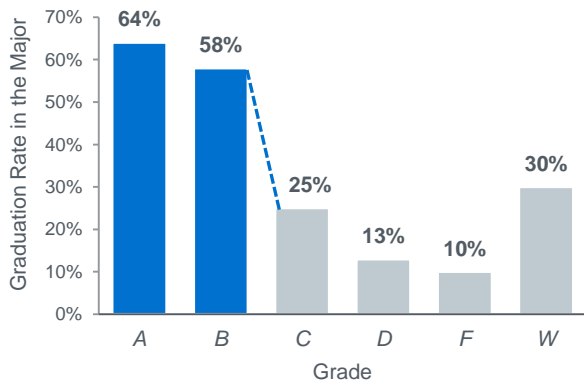
- ✓ Success markers already **completed**
- X Success markers **missed** due to grade or timing
- Success markers that are **upcoming**

Where Do They Come From?

Analysis of Historical Records Identifies Highly-Predictive Courses and Grades

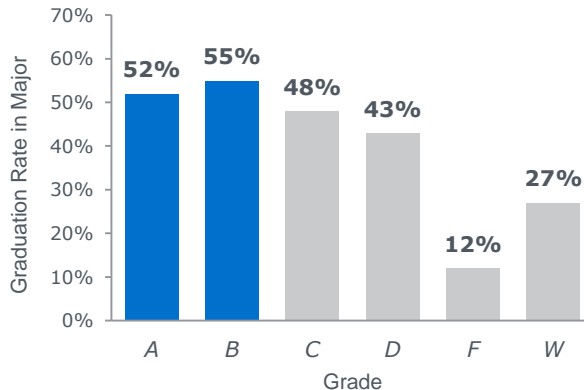
Two Required Courses for a Chemistry Major

CHEM101



 **Predictive**

BIOL305



 **Not Predictive**

Success Markers in the Platform



Summary of All Success Markers in the Success Progress Tab

Overview Success Progress Reports / Notes Class Info Major Explorer Calendar Appointments Conversations

Success Markers

The student has missed guidelines for progress. Acting on them can help get the student back on track for successful completion.

Completed Missing Upcoming

3 missed markers

Notification	Outcome
ACCT2101 Recommended grade: B- (1 course) Complete between 30 and 65 credits	Needs attention 2 Attempts
BUSA2106 and CIS2016 Recommended grade: B- (2 courses) Complete between 45 and 60 credits	Needs attention 2 Attempts
ECON2105 and ECON2106 Recommended grade: B- (2 courses) Complete between 15 and 30 credits	Needs attention 2 Attempts

Number of Missed Success Markers on a Student's Overview Page

Thady Ourada

Overview Success Progress Reports / Notes Class Info Major Explorer Calendar Appointments Conversations

Course Grade	0	Passed Courses	1	Withdrawn Courses	5	Missed Success Markers	4	Cumulative GPA	3.86
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Credits Attempted for Spring 2015
22 credits, 8 classes

Total Credits Earned
67.31

Credit Completion % at this institution
70%

English
with a concentration in Literature
College of Arts & Sciences
Medium Risk

STUDENT ID:
738490541

CLASSIFICATION:
Junior

HIGHEST RECENT ENROLLMENT:
Fall Semester 2014

Success Markers and Number of Missed Success Markers as Filters in the Advanced Search

Success Indicators Risk, Success Markers

Risk (In Any of these) [?]	# Missed Success Markers > [?]	# Missed Success Markers < [?]
All		
Success Marker (In All of these) [?]	Success Marker Status [?]	
All	All	

An Ongoing Process

Initially, Success Markers will not be available for all programs. As Success Marker development progresses, additional programs will see Success Markers become available in the platform.

Staff Alerts

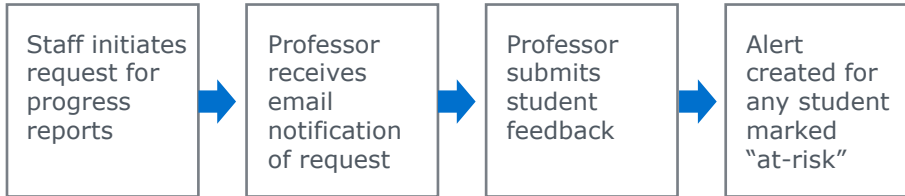
Definition: Staff alerts are risk alerts created by platform users (e.g., faculty member, advisor) when they observe a student behavior (e.g., multiple absences, emotional distress) or performance indicator (e.g., failed test) that suggests the student is struggling to succeed and may potentially be at-risk to leave your institution.

Unlike student risk predictions and success markers, which rely on end-of-term data (e.g., final course grades, term credit completion ratio), staff alerts are based on in-term data.

How Are Alerts Created?

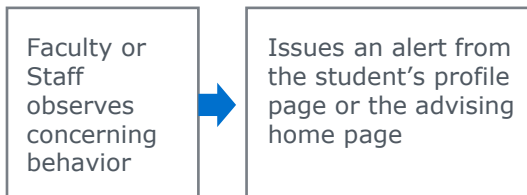
Two Mechanisms for Generating Alerts

1 Course-Specific Alerts Issued by Professors through the Progress Report Process



*Professors can also submit unsolicited progress reports at any time in the platform

2 General or Course-Specific Alerts Issued by Platform Users at Any Time



Where Alerts Appear in the Platform



Summary of Alerts on a Student's Overview Page

Staff Alerts **3**

- 1 Progress Report At-Risk
- 1 Open Case
- 1 Alert

Alert Details on a Student's Reports/Notes Tab

Alerts For Sarah Robinson

ALERT REASONS	ISSUED ON	ISSUED BY	ASSOCIATED CASE	ISSUING EVALUATION
Financial Aid	07/20/2015	Sara Kuzmik	Manage Case	Details

Progress Reports

DATE	CLASS	PROFESSOR	COMMENT	AT RISK?	ALERT REASONS
07/20/2015	CHEM3100-3190 ORGANIC CHEMISTRY LAB I	Sara Kuzmik		Yes	Financial Aid Detail
07/07/2015	BIOL2108K-2108K PRINCIPLES OF BIOLOGY II	Steven Kilpatrick		No	Detail

Practice Question

Ask Yourself

Risk prediction, success markers, and staff alerts measure student risk in different ways. Users who are less familiar with the way risk predictions and success markers are generated may struggle to interpret “contradictory” signals about a student.

If you found a student with a low risk prediction (GREEN) but also three missed success markers and two staff alerts, what could be happening?



Campaigns and Reports



What is a Campaign?

Focus

Focus in on one of your institution's areas of greatest opportunity for improvement

Resources:

- Institution Reports
- EAB Best-Practice Research

1



Contact

Send proactive outreach to students to establish contact and encourage action

Resources:

- CSV Exportation
- Campaign Toolkit

3



2

Identify

Create a list of students with target attributes to define your target population

Resources:

- Filtering & Work Lists



4

Intervene

Meet with students and provide tailored advising support to this population's shared needs

Resources:

- Student Profiles
- Risk Analysis & Major Explorer



5

Follow Up

Follow up on student progress and track campaign outcomes

Resources:

- Notes & Statuses



Examples



Common Campaigns from SSC Member Institutions

Campaign Population	Example Filters	Action
Students who have not enrolled for the fall semester	Type: Students Enrollment Status: Not Enrolled Enrollment Term: Fall 2016 Check Box: My Students Only	Encourage students to meet with their advisor and enroll in courses for the following semester
At-risk students that may need to switch majors	Risk Level: High Earned Credits: 45-70	Encourage students to evaluate their academic performance and consider a major change
Undeclared students above a certain credit threshold	Major: Undeclared, Pre-major Earned Credits: At least 30, 45, or 60 credits (depending on the institution)	Help students select the appropriate major and declare as soon as possible
Potential recruits for the honors program	Enrollment: Currently enrolled Risk Level: Low Missed Success Markers: Less than 2 GPA: Over 3.70	Discuss strong academic performance and potential enrollment in the honors program
High-performing students for recruitment to a particular major	Enrollment: Currently enrolled Risk Level: Low Major: Undeclared	Ensure high-performing students know they are capable of taking on challenging majors

User Tools and Resources

SSC Resources Available to Support Platform Learning and Usage

SSC Help Center



eLearning Modules

Training videos that guide users on how to use the major features and functionalities in the SSC—Campus platform



User Guide

Web-based reference documentation that gives detailed explanations and instructions for using the SSC—Campus platform



Topic-Specific Help Pages

Search for additional help on a specific topic through the help page links. Topics are divided by user type to help quickly identify features related to your question.