



The **Student** Success Playbook

A Student-Centered Approach to Increasing College Completion

Enrollment Management Forum



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Why Don't Students Complete?

Root Cause of Attrition Remains Frustratingly Elusive



Thousands of pages of task force recommendations



Hundreds of new student success administrators



Hours spent in campus meetings and town halls



Countless presentations on improving completion



In my interviews with students, I have found that the biggest reasons for a delay in graduation are that students ***switch majors, fail out of courses, cannot get required courses, do not qualify for their intended majors; they have to work to pay for their living expenses, do not think there are any jobs for them after graduation, pursue double majors, do not receive adequate advising, have medical problems and personal issues.***

Faculty Member,
Large Public Research University



Stakes are Higher than Ever

Economic and Political Pressures to Retain and Graduate Students

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High Economic Cost of Attrition

Estimated 13% of total E&R spending at publics (9% at privates) associated with attrition; average cost of \$12,800 in “lost” credits to attrition add to cost of a degree

Enrollment Headwinds

Rate of undergraduate enrollment growth slowing dramatically across the next decade; over 20% of institutions reported enrollment shortfalls of 10% or more in 2012



State Performance-based Funding

Rapid adoption of performance-based funding formulas for state allocation; 33 states (and counting), up from just 4 in 2010

Highly Visible Federal Ratings

Proposed rating system to be released this summer; federal completion metrics positioned as way for families to compare “value” of institutions

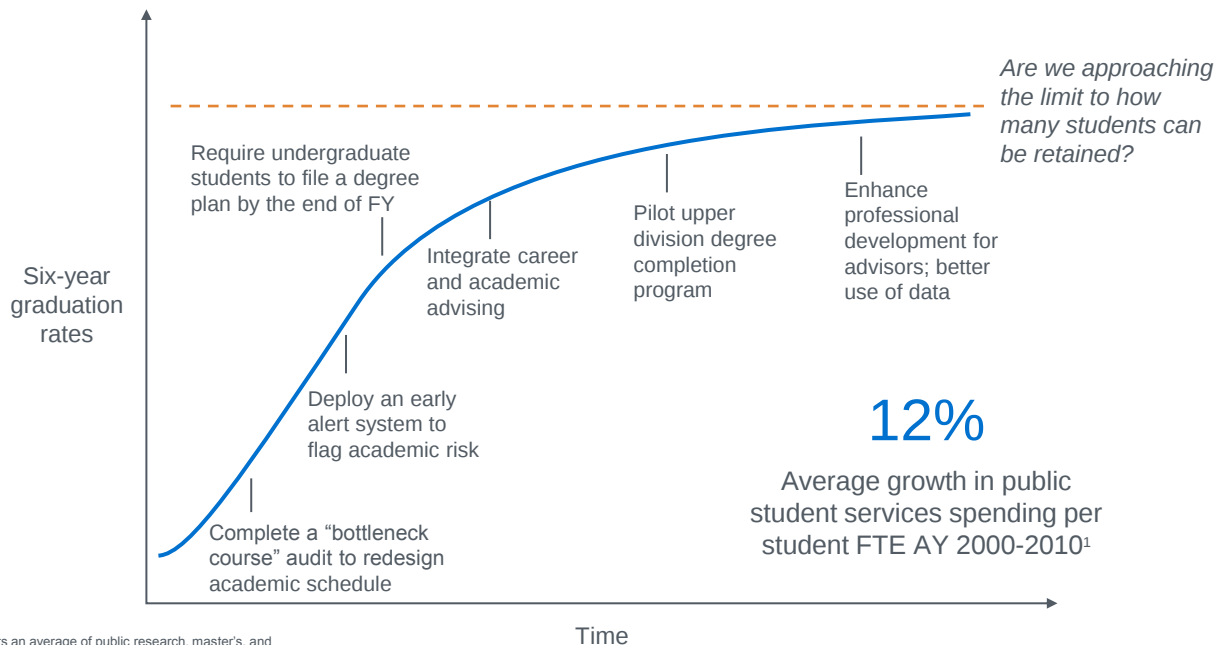


Approaching the Limit of Initial Investments

Continued Progress on Completion May Require a Different Approach

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Impact of Early Retention Initiatives



1) Represents an average of public research, master's, and baccalaureate institutions.

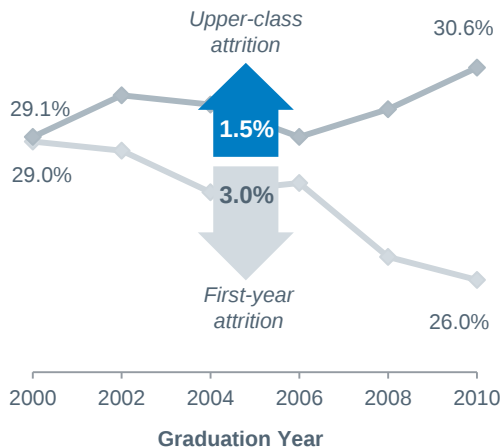


Losing Ground After Year One

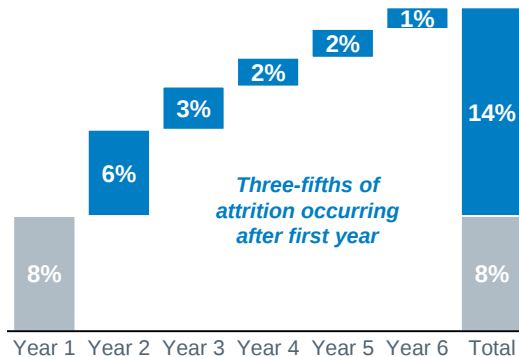
Sophomore and Upper Division Attrition Increasing

Attrition Across the Student Lifecycle

Public University Graduating Classes, 2000 to 2010



Twenty-One State Flagship Universities



Three-fifths of attrition occurring after first year

Beyond Retention to Graduation

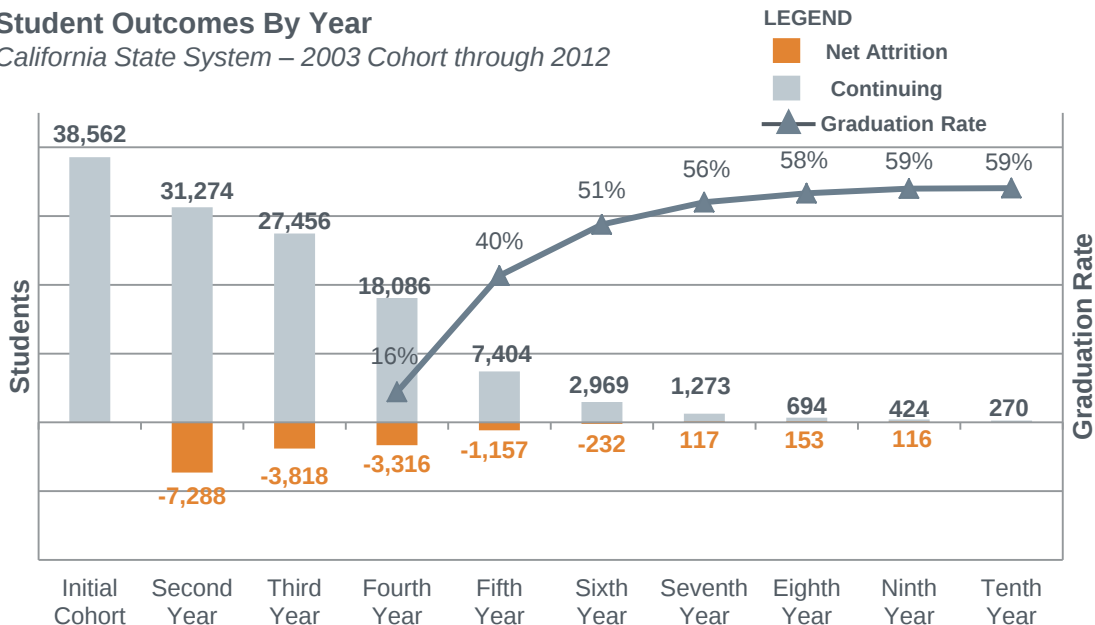
Increasing Completion While Sustaining Improvements in the First Year



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Student Outcomes By Year

California State System – 2003 Cohort through 2012



How do we continue to increase FY retention?

Why do students leave after the first year?

How do we reduce time to degree?

Source: California State University Analytic Studies, "Graduation Rates by Campus, Ethnicity, and Gender," (2014).

What We Now Know About Student Success

Investment in Data, Analytics, and Research Accelerating Progress



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Gaining Insight into Student Patterns of Behavior



What grades in prerequisites are correlated to success in the major?



When do most students who graduate declare their last major?



Which populations on campus are leaving during the sophomore year?



80%

Of CIOs and VPs of Student Success expect increased investment in analytics in the next two years

Source: ECAR Integrated Planning and Advising Services:
A Benchmarking Study (2014).

Entering a New Phase in Student Success



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Yesterday's Approach

Target resource intensive support services and staff to highest risk students

Focus efforts and programs on first year students to boost retention

Monitor academic progress to identify students at risk of probation



Today's Approach

Recognize “murky” middle students as attrition risks with opportunity for improvement

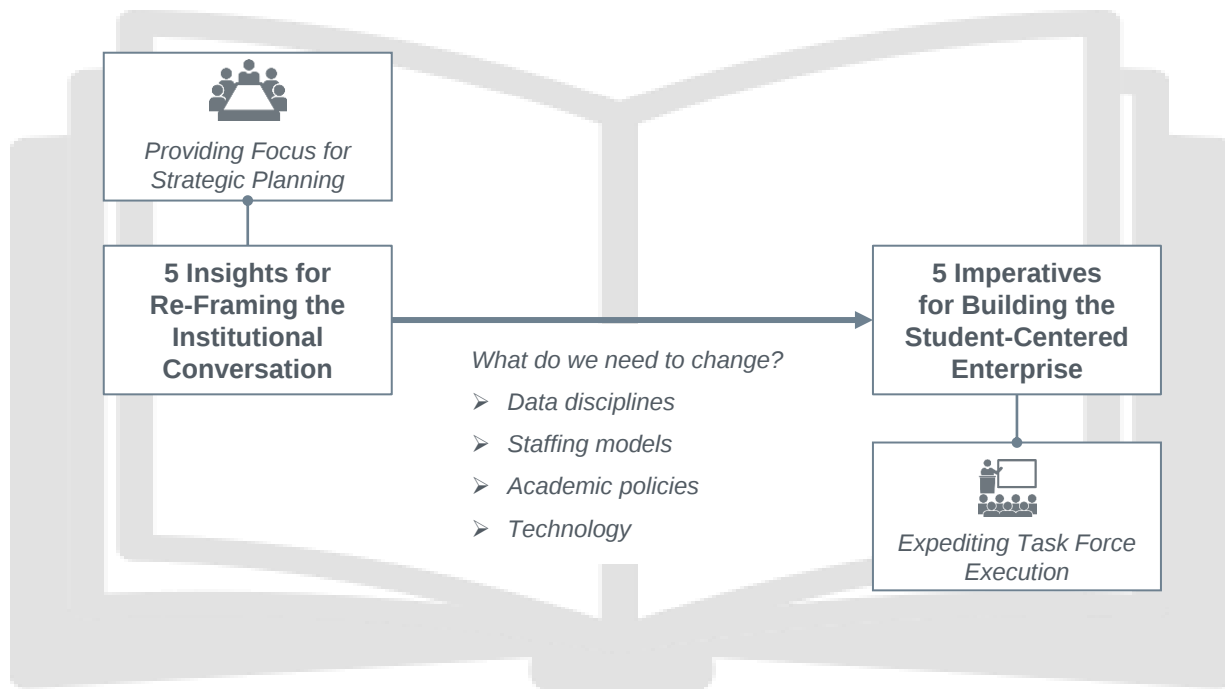
Address sophomore and upper division attrition and emphasize persistence to graduation

Apply a holistic risk model with academic and non-academic factors to identify students at risk of withdrawal

The Student Success Playbook

Ten Insights and Imperatives for the Next Phase in Increasing Completion

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Not Every Problem Caught by an Early Alert

Academic Indicators Can Miss Certain At-Risk Populations

Campus Early Warning System

Common Flags

- Poor attendance
- Lack of participation
- Missing assignments
- Low midterm grade
- Poor study habits
- Low cumulative grade

New Additions

- Lack of writing proficiency
- Lack academic readiness
- Disruptive behavior
- Complaints from peers
- Attending wrong section
- Unresponsive to attempts to contact
- Sudden change in mood
- Illness or poor hygiene
- Repeated requests for extensions

Often Overlooked



Non-academic reason for poor grade or attendance



Top academic performers thinking about transfer



Academically okay but concerned about fitting in

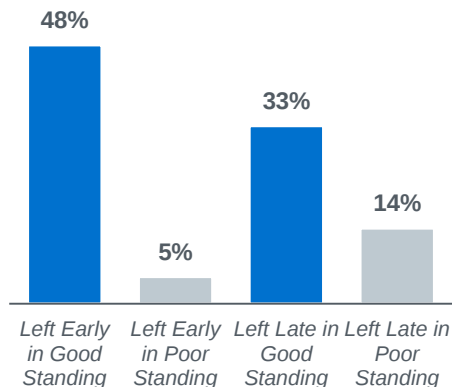


Most Students Leave in Good Standing

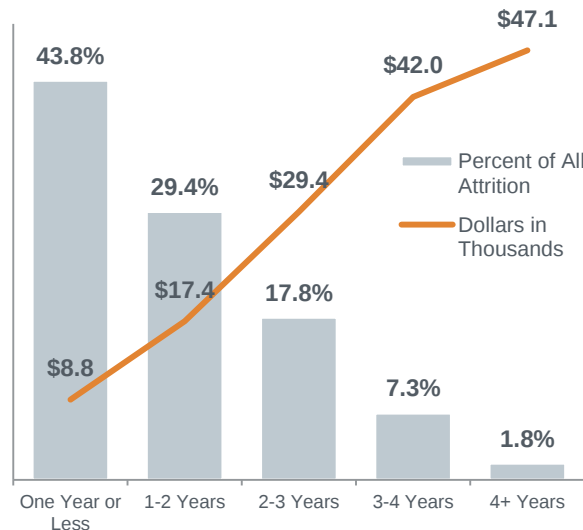
Loss of Promising Undergraduates Bespeaks More than Academic Risk

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Academic Standing and Timing of Attrition of Non-Transfers



Fewer Lost in the Upper Division But At Higher Economic, Opportunity Cost



1) Analysis excludes students who transfer.

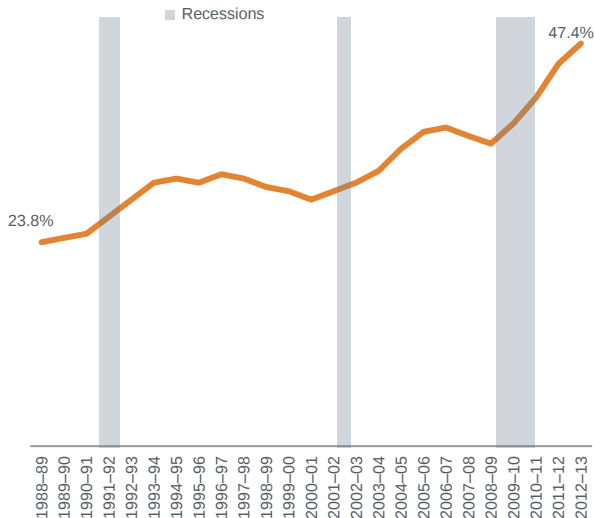
Source: Delta Cost Project, "Measuring (and Managing) the Invisible Costs of Postsecondary Attrition" (2012).

Exacerbated by Today's Financial Reality

Expected Family Contribution Burden Shouldered by Students

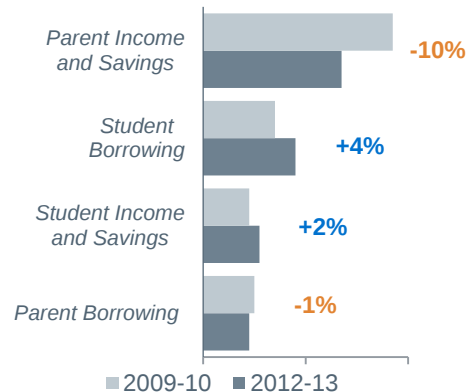
Students Funding Larger Share...

Percentage of Public Higher Ed Revenues from Net Tuition, 1988-2013



...as Parents Pay Less than They Used To

Average Percentage Share of Tuition Costs



Cost is More Than Just Tuition

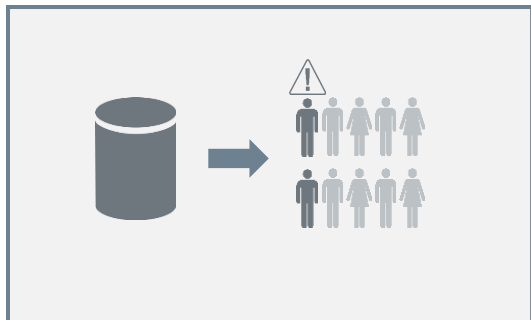
61%

The non-tuition share of total in-state cost of attendance includes textbooks, supplies, room and board.

A More Holistic Definition of Risk

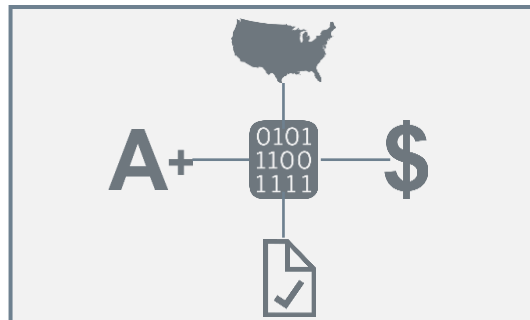
The Old Thinking

Use available admissions data to identify most academically underprepared students prior to matriculation



The New Thinking

Develop holistic model to predict likelihood of withdrawal based upon historical analysis of academic and attrition risk



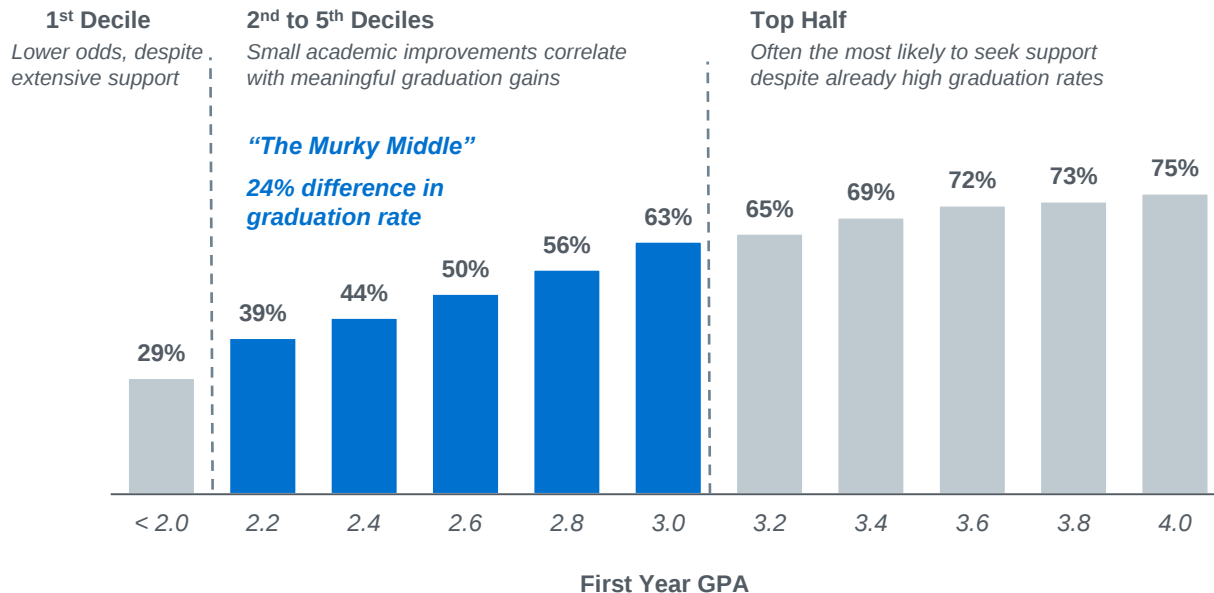


Opportunity for Intervention Between 2.0 – 3.0

Least Likely to Seek Support or Receive Proactive Intervention

Graduation Rate by First Year GPA

Sample of 66 EAB Student Success Collaborative Institutions



When a 2.7 is Not a 2.7

Same GPA Can Mask Meaningful Differences in Credit Velocity



ABC University
My Advising Portal



Student A

Cumulative GPA: 2.7

**Grade
Pattern**

A's in distribution requirements;
DFWs in major prerequisites

**Credit
Completion**

Low

**Risk
Level**

*At Elevated Risk;
Schedule Appointment*



Student B

Cumulative GPA: 2.7

Consistent record of B-
in all courses

High

*Monitor for Changes
but Likely to Graduate*

Beyond GPA

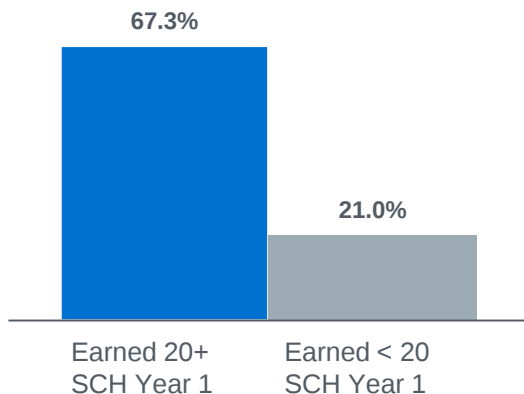


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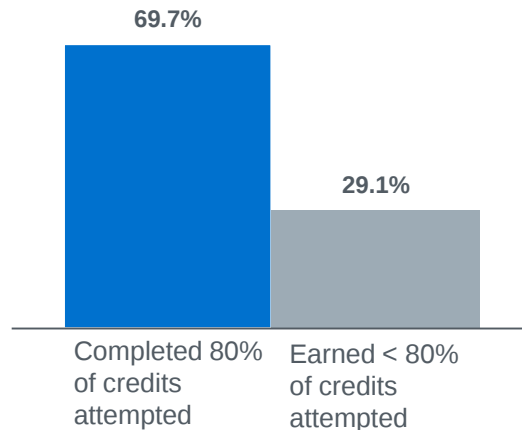
Credit Earning Behavior Compelling Measure of Progress

Credit Accumulation as Leading Indicator

*Six-Year Graduation Rates by
Credit Earning Behavior, CSU*



*Six-Year Graduation Rates by
Credit Completion Ratio, CSU*



Student Risk Changes Over Time

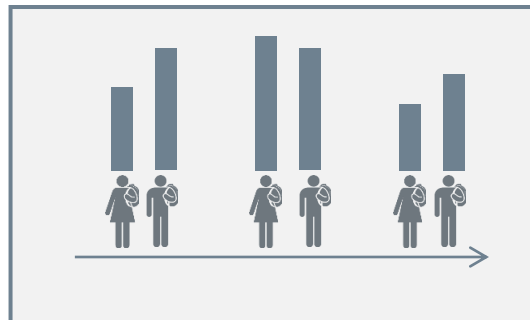
The Old Thinking

Assigned risk level remains static after initial assessment at matriculation



The New Thinking

Student risk is dynamic and changes over time based upon behaviors



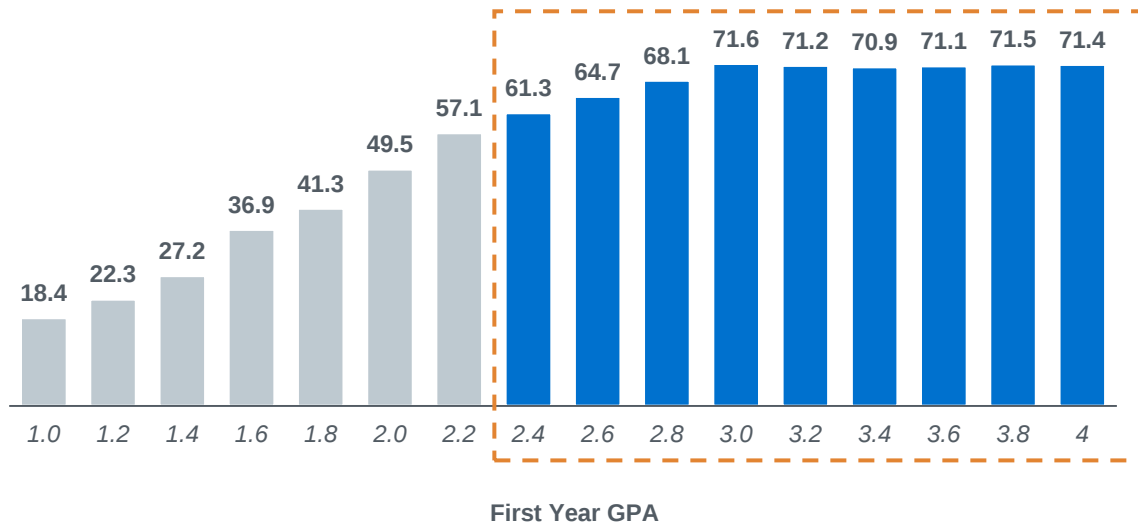
Progress Plateauing at 70 SCH

Strong Starters Departing in the 5th Term

Average Earned Credits at Attrition

Sample of 66 Student Success Collaborative Institutions

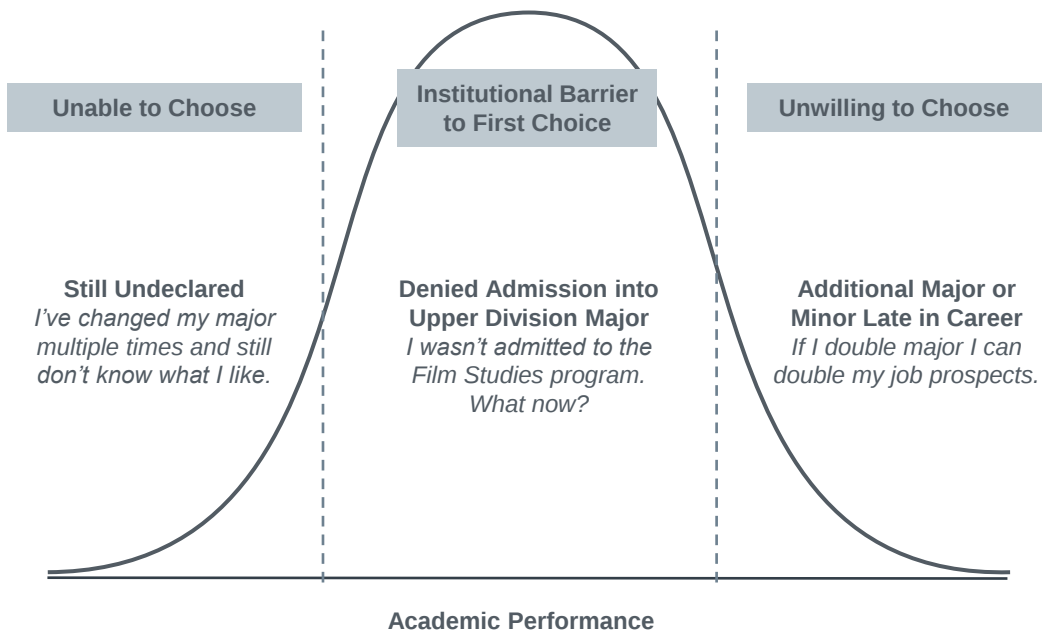
Attrition among high academic performers most common at entry point to upper division





Major Hazards Approaching the 5th Term

Risk of Attrition Linked to the Challenges of Choice



Four Types of Majors on Campus

Tracking Student Flow In and Out of Programs



Donor Majors

Students flow out of these majors more often than they flow in

Example: Computer Science

Static Majors

Students who initially declare this major rarely switch; few students flow in

Example: Nursing



Acceptor Majors

Students flow into this major but few students flow out

Example: Social Work

Pivot Majors

Equal flow of students in and out of the major

Example: English



Multiple Applications Across Campus



Accountability Metrics by Major

Retention and graduation targets; weighting importance of DFW rates, service course availability



Course Capacity Planning

Forecast demand for lower and upper division courses and sections by term and year



Coordinating Prerequisites

Maximize credit transfer and minimize time to degree implications of major switching



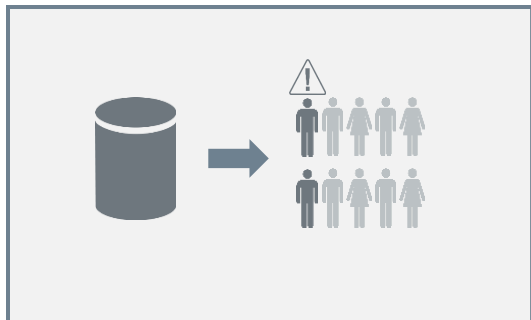
Guiding Advising Caseloads

Optimize advising assignments to student best fit major pathways

A More Holistic Definition of Risk

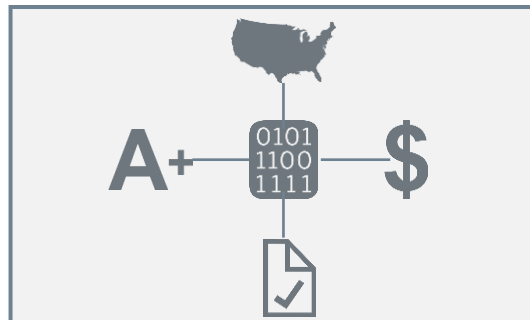
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The New Thinking

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Holistic Assessment of FY Attrition Risk

Step 1: Identify Historical Patterns of Student Attrition



Isolating the Root Causes of Attrition *Eastern Connecticut University's Multivariate Risk Model*

2008 Risk Model

Original assumption:
students withdraw due to poor academic performance

- High school GPA
- First term GPA
- SAT score
- Major

2011 Risk Model

Two regression models designed to capture academic, financial, motivational, and engagement factors; sorted into quintiles

Academic (<2.3 GPA):

- 15 variables

Withdrawal:

- 30 variables

Predictive of Academic Risk

- Male
- STEM major

Predictive of Withdrawal Risk

- Commuter status
- Non-local
- Federal loans
- FAFSA choice

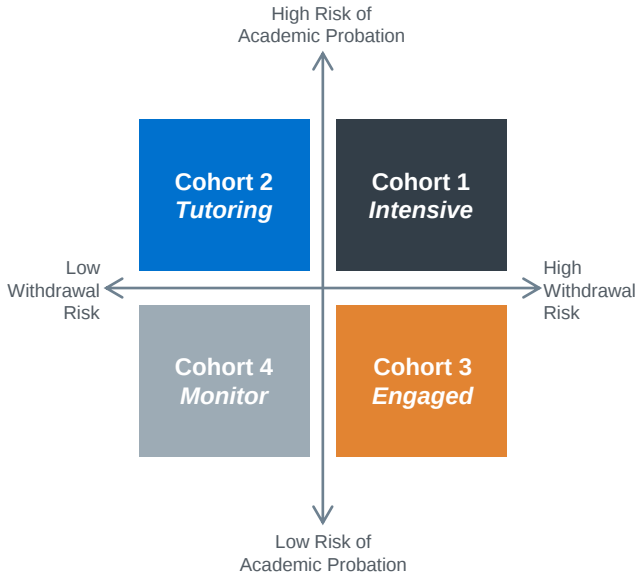
Predictive in Both Models

- High school GPA
- Athlete
- Ethnicity
- School district

Assessing Risk of Incoming Class

Step 2: Create an Initial Risk Profile Based on Pre-Enrollment Data

Targeted Advising Cohort Structure



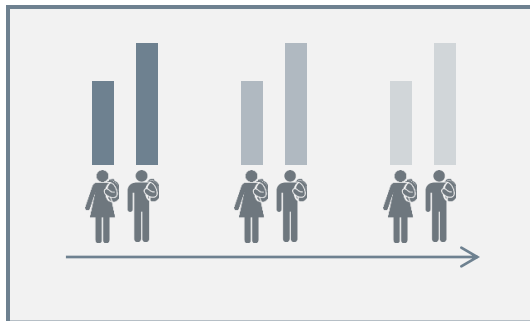
Active Ingredients

- Students assigned to cohorts based on attrition risk and forecasted academic performance. Initial placement can be adjusted based on student behavior
- Interventions are targeted to students differently based upon their assignment. Professional advising staff prioritize interaction frequency based on a student's assigned risk cohort
- Caseload model facilitates tracking of student performance to advisors

Student Risk Changes Over Time

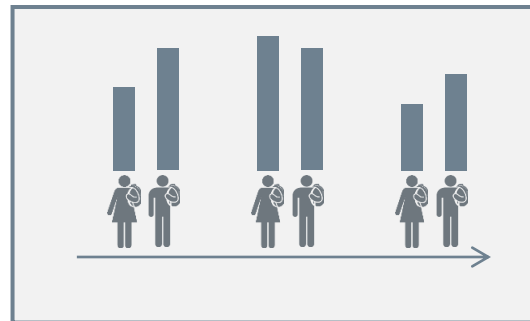
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The New Thinking

Student risk is dynamic and changes over time based upon behaviors



A Proxy for Grit

Step 3: Calibrate Risk Based on First Week “To Dos”



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Welcome to ABC University! Fall Freshmen To Do List

Week One

- ☐ Pay Registration Fees
- ☐ **Pick up ID Card**
- ☐ Purchase Books
- ☐ **Schedule Meeting with Academic Advisor**
- ☐ Verify Meal Plan
- ☐ **Attend Mandatory Library Orientation**
- ☐ Complete Online Alcohol Prevention Program
- ☐ Purchase Parking Permit

Week One Leading Indicators

To Do List Serves as Proxy for Grit, Readiness

1 Collection of ID Card

Failure to pick up ID card during the first week of class may signify a lack of connection to the institution, inattention to detail, or disengagement.

2 Scheduled Meeting with Academic Advisor

Proactive scheduling of an advising appointment is indicative of a student's commitment to their academic success and planning.

3 Attendance at Library Orientation

Failure to attend a mandatory on-campus event is an early sign that a student may not be taking his or her academic commitments seriously. Schedule these sessions through Banner to allow to simplify tracking and quickly identify “no shows”.

Other Commonly Used Proxies for Grit

Institutional Commitment

Pre-enrollment campus visit

Visiting the campus website

Payment of housing deposit

Campus Engagement

Club and activity attendance

Athletic event attendance

On campus leadership role

Health and Well-Being

Dining hall card swipes

Visits to campus gym

Participation in intramurals

Continuous Monitoring of Student Behavior



Harnessing the Power of Technology to Intervene Just-in-time



LMS, Digital Courses

Student log-ins, completion of online assignments, discussion board posts, lecture capture interactions, downloading online course materials



Swipe Card Data

Tracking check-ins at advising, tutoring and writing centers, career services, financial aid, lectures, symposia, dining hall, parking garages, gym



Mobile Micro-Surveys

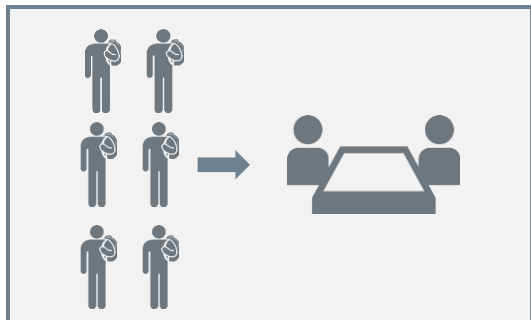
Apps and student portal micro-surveys prompt behaviors such as purchasing textbooks, registering for classes, or assessing stress

Right Student, Right Intervention, Right Time



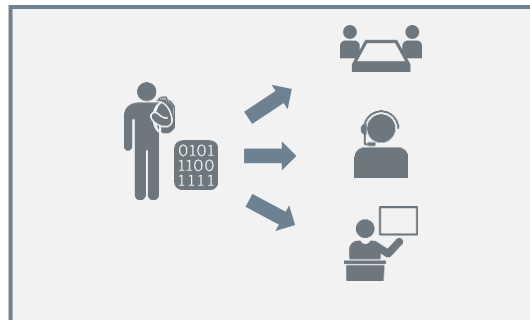
The Old Thinking

“One size fits all” approach to advising first year students



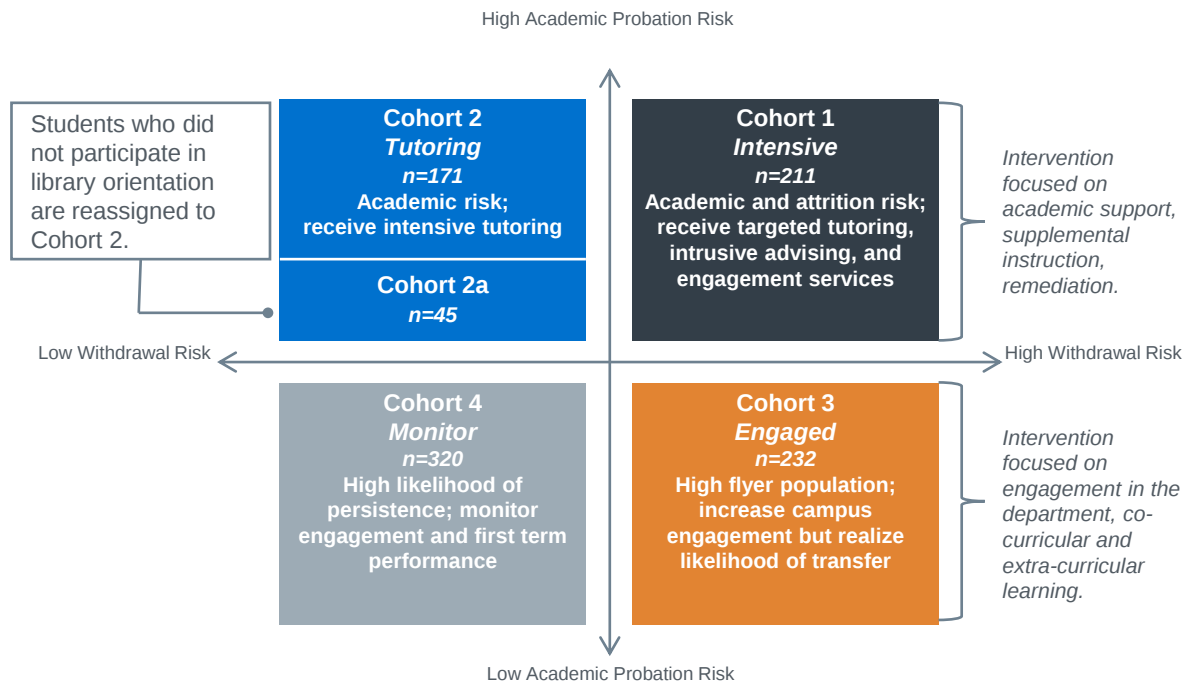
The New Thinking

Predicted risk dictates individual student intervention frequency and type



Scaling Personalized Intervention

Step 4: Provide FY Advisors Intervention Strategy For Each Cohort



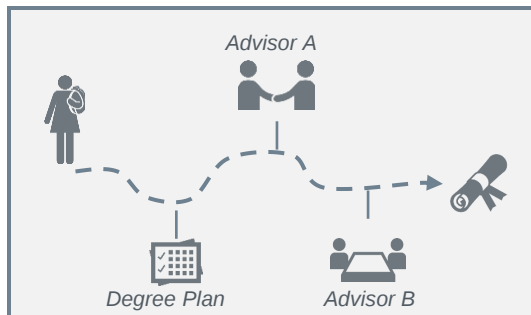
Retention Increases Across Cohorts

Cohort	% Change	2011 % Retained	2012 % Retained
Cohort 1: Intensive	.5%	67.3%	67.8%
Cohort 2: Tutoring	2.6%	74.9%	77.5%
Cohort 3: Engaged	4%	71.9%	75.9%
Cohort 4: Monitor	1.3%	83.7%	85%
Total	1.6%	75.5%	77.1%

Promoting Continuity in Academic Advising

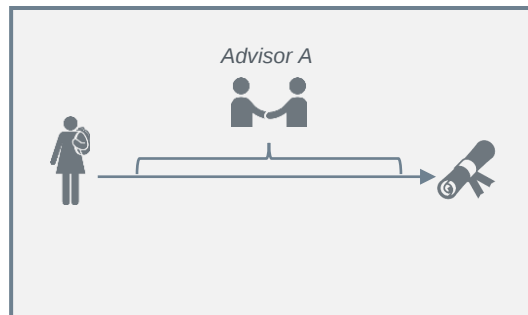
The Old Thinking

Advisors assigned based upon institutional structures and departments; often requiring reassignments for major switching



The New Thinking

Student movement through the institution dictates advisor caseloads; optimizing consistency despite major switching



Mapping Student Pathways to Degree

How do students flow in and out of majors at the institution?



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Map Historical Paths to Degree



- Analysis of first and last major for 5 years of student records reveals significant student migration across the institution

65%

Of students graduate in 1 of 10 majors

75%

Of students switch majors at least once

Categorize Majors by Student Flow Patterns



- Four types of majors identified based on student flow patterns:
 - **Donor Majors:** Students exit these programs and few enter
 - **Acceptor:** Students enter these majors from other programs
 - **Pivot:** Students equally enter and exit these majors
 - **Static:** Very few students enter or exit

Assign Advisors to Major Clusters



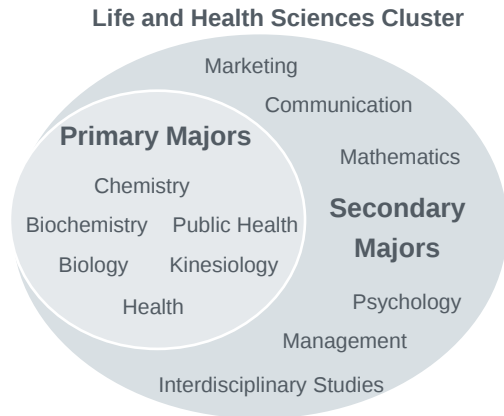
- Advisors trained in set of thematically-related majors and a sub-set of common destination majors
- Goal: 80% of students remain with the same advisor despite major switching

Next Steps

Examine requirements for majors in clusters to promote coordinated prerequisites

Personalization Despite Major Switching

UTSA Redeploys Academic Advising to Match Student Flow



82%

Percent of students
will remain with
one advisor

12

Average number of
majors an advisor
is responsible for

Active Ingredients

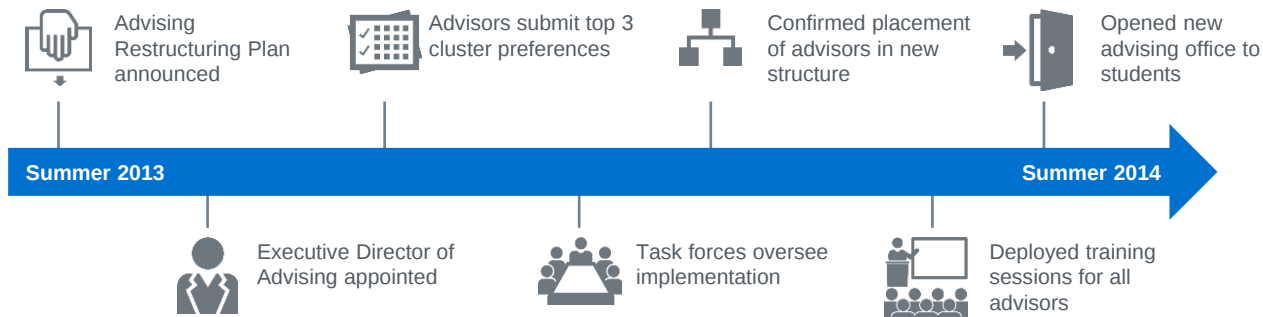
- Students assigned to an advisor based on first major declared
- Advisor cross-trained in 10-14 programs of study based on student major switching patterns
- Goal is that >80% of students can maintain relationship with 1 advisor despite switching majors
- Advisors organized in clusters reporting to a central director who reports to the provost
- Special cluster for undeclared students to assist with exploration and placement

Migrating from Departments to Clusters



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UTSA Implementation Timeline



Implementation Advice



Invite advising staff to participate on taskforces to provide input on future state operations and garner buy-in



Allow advisors to state cluster preferences, but communicate placement will ultimately be dictated by student enrollments



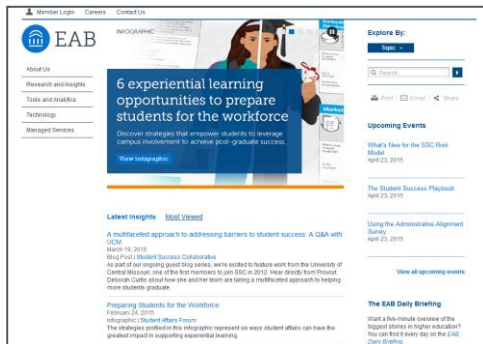
Confer management responsibilities to advising supervisor with central oversight

Sample Advising Clusters

Social Sciences		Engineering	
% of Students with one advisor: 86%		% of Students with one advisor: 73%	
Primary Majors	Secondary Majors	Primary Majors	Secondary Majors
▪ Anthropology ▪ Communication ▪ Geography ▪ Global Affairs ▪ Political Science ▪ Psychology ▪ Sociology	▪ Interdisciplinary Studies ▪ English ▪ Management ▪ Marketing ▪ Kinesiology ▪ History	▪ Biomedical Engineering ▪ Civil Engineering ▪ Computer Engineering ▪ Electrical Engineering ▪ Mechanical Engineering	▪ Management ▪ Finance ▪ Accounting ▪ Psychology ▪ Kinesiology ▪ General Business ▪ Information Systems

EAB Contact Information

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