



Data-Driven Retention Strategies

Presented by
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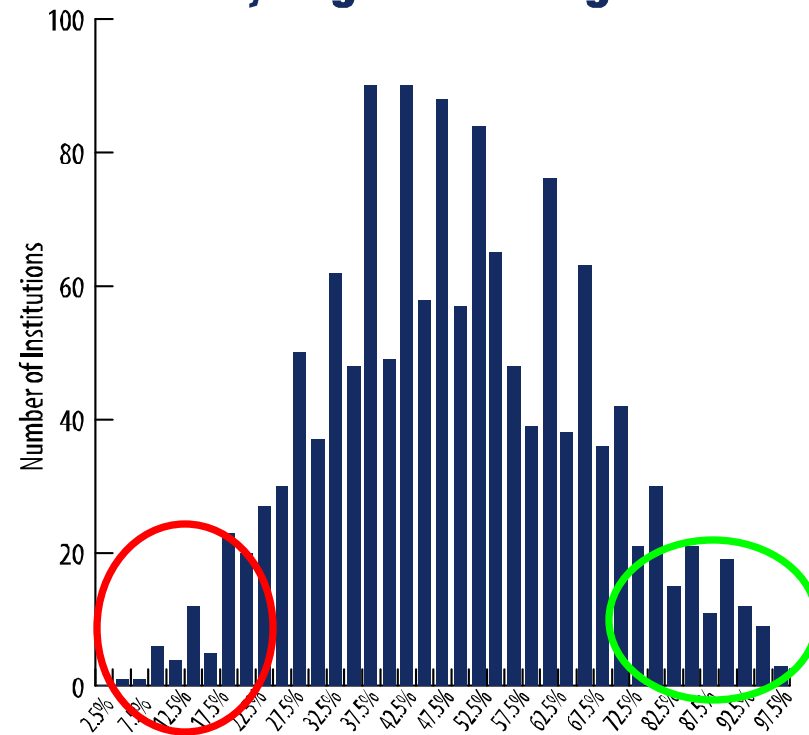
Current College Completion Rates: 4-Year Colleges

- Approximately 4 in 10 entering freshmen obtain a Bachelor's degree within 4 years;
- Within six years of entry, that proportion rises to about 6 in 10.
- If you go further, to look at graduation from ANY institution, numbers grow to about two-thirds.


Source: IPEDS

But graduation rates vary widely across the nation's postsecondary institutions

Chart 6
Six-Year Graduation Rate, Entering Class of 1996 Full-Time, First-Time, Degree Seeking Freshmen



Source: U.S. Department of Education, National Center for Education Statistics Integrated Post-Secondary Data System (IPEDS), Graduation Rate Survey, 2002.



Some of these differences are clearly attributable to differences in student preparation and/or institutional mission. But not all...

College Results Online



Welcome to College Results Online

The Education Trust is a national nonprofit that works for the high academic achievement of all students at all levels – pre-kindergarten through college

This interactive Web tool, created by The Education Trust, allows you to learn more about student graduation rates at four-year colleges and universities.

[ENTER COLLEGE RESULTS ONLINE >>](#)

College Results Online allows you to:

- » Examine overall graduation rates and see how those rates have changed over time
- » Learn about universities' records graduating diverse groups of students
- » Compare the graduation rates of similar institutions - colleges and universities that share many characteristics and serve similar student populations

Our information is drawn from the nation's most comprehensive database of institution graduation rates, the U.S. Department of Education's Graduation Rate Survey.

College Results Online demonstrates that similar schools have vastly different rates of success with similar students.



Additional Resources

Recent Education Trust reports

- » Reports and analyses of graduation rates

Other Web sites with related higher education data

- » The National Center for Public Policy and Higher Education's national report card on higher education
- » National Center for Education Statistics' College Opportunities Online
- » National Information Center for Higher Education Policymaking and Analysis

Research Institutions

Similar Students, Different Results

	Median SAT	Size	% Pell	% URM	Overall Grad Rate	URM Grad Rate
Penn State University	1,190	33,684	18.5%	7.4%	84.2%	68.8%
University of Wisconsin	1,260	27,869	13.7%	5.9%	76.7%	57%
University of Washington	1,200	24,540	23.2%	8.7%	74.3%	63.7%
Purdue University	1,145	30,579	18.4%	6.6%	66.4%	52.4%
University of Minnesota	1,165	28,910	18.4%	7.2%	60.7%	41.4%

Source: College Results Online 2005 data

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Masters Institutions – Large Similar Students, Different Results

	Median SAT	Size	% Pell	Overall Graduation Rate
University of Northern Iowa	1,045	10,167	26.5%	65%
Montclair State	1,045	10,664	27.1%	58.3%
Western Illinois	990	10,639	28.9%	55.4%
University of Wisconsin Whitewater	1,030	8,844	21%	50%
Southern Illinois Edwardsville	1,045	9,803	29.1%	44.8%

Source: College Results Online 2005
data



Some important lessons

- They look at their data and act.
- They pay attention to leading indicators (early warning systems).
- They provide and require the academic support services needed.
- They assign clear responsibility for student success.

From Kati Haycock, President of The Education Trust



The danger of the anecdote

- Some things are easier to admit than others (“I can’t afford it” versus “I’m homesick”).
- Patterns are difficult to discern and so interventions aren’t targeted
- The voices of those that drift away aren’t heard.



Advantages of a data-driven approach

- Enables patterns to become clearer
- Supports targeted interventions
- Provides clear answers to key questions
 - Who is likely to leave?
 - How can we know what is working?
 - What gaps do we need to address?
 - Where are they going when they leave?



Cohort Retention/Graduation Rates by Subpopulation

- Profile “attrits” and retained students by:
 - Financial aid group
 - Entry statistics
 - Program area
 - Gender
 - GPA at institution
 - Ethnicity
 - Etc.

Sample Retention Table

Retention of Aided and Non-Aided Students by Academic Area					
College	A&S	EDUC	ENGIN	NURS	ALL
Entering Cohort					
2004 (Retain to Term 5)					
Non-Aided	72%	94%	68%	0%	73%
Aided	76%	82%	81%	88%	78%
2005 (Retain to Term 5)					
Non-Aided	73%	71%	79%	67%	73%
Aided	82%	84%	89%	86%	83%
2006 (Retain to Term 3)					
Non-Aided	83%	100%	83%	75%	84%
Aided	88%	93%	91%	90%	89%



Goals of Predictive Modeling

- To identify factors important in the re-enrollment decision (holding other factors constant).
- To develop targeted intervention strategies.

Sample Predictive Retention Model

Variable	Coefficient (impact on probability of retention to Term 3)	Description
Total Grant	+0.5%	For every \$1000 increase in total grant a person is .5% more likely to retain to Term 3
Unmet Need	-0.5%	For every \$1000 increase in unmet need a person is .5% less likely to retain to Term 3
Term 1 GPA	+14.2%	For every 1 point increase in GPA (2.0 to 3.0) a person is over 14% more likely to retain to Term 3
Term 1 GPA < 1.75	-25.6%	Students with a Term 1 GPA < 1.75 are over 25% less likely to return to Term 3 than students with a Term 1 GPA > 1.75
In-State	+7.0%	In-state students are 7% more likely to retain to Term 3 than out-of-state students
Special Admits	-8.3%	Special admits are over 8% less likely to retain to Term 3 than regular admits
Engineers	-11.0%	Engineers are 11% less likely to retain to Term 3 than A&S students
Commuters	-5.0%	Commuter students are 5% less likely to retain to Term 3 than resident students



Possible Interventions Based on the Model

- Special tutorial program for anyone with a < 1.75 Term I GPA, including mandatory study hall.
- Special advising strategy, including a focused first-year seminar, for engineering students.
- Given that in-state students are more likely to retain, the fact that commuters are less likely to retain makes them a target group for special attention.



Possible Next Steps in Modeling

- If achieving a particular Term 1 GPA or better is very significant in retaining to Term 3, then there are two additional models that could be constructed:
 - One would examine those factors that were significant in predicting retention to Term 3 for everyone who had a $\text{GPA} > X$.
 - The other would examine those factors that were significant in predicting who would achieve a $\text{GPA} < X$.



Student Surveys

- Ideally, survey responses can be tied back to data in the student system on an individual student record level.



Focus Groups

- Helpful in understanding student satisfaction and dissatisfaction
- Provides vehicle for staff to understand student perspectives, values, and expectations
- Can be performed with various subpopulations (alumni, athletes, Honors program, engineers)
- Results in honest feedback



National Student Clearinghouse Data

- www.studentclearinghouse.org
- StudentTracker
 - Allows you to query the nationwide database of post-secondary enrollment and degree records to know where students who left are now enrolled
 - These data can be tied back to data in the student system for more insights (Did high performing students transfer to more prestigious schools? Less expensive schools?)



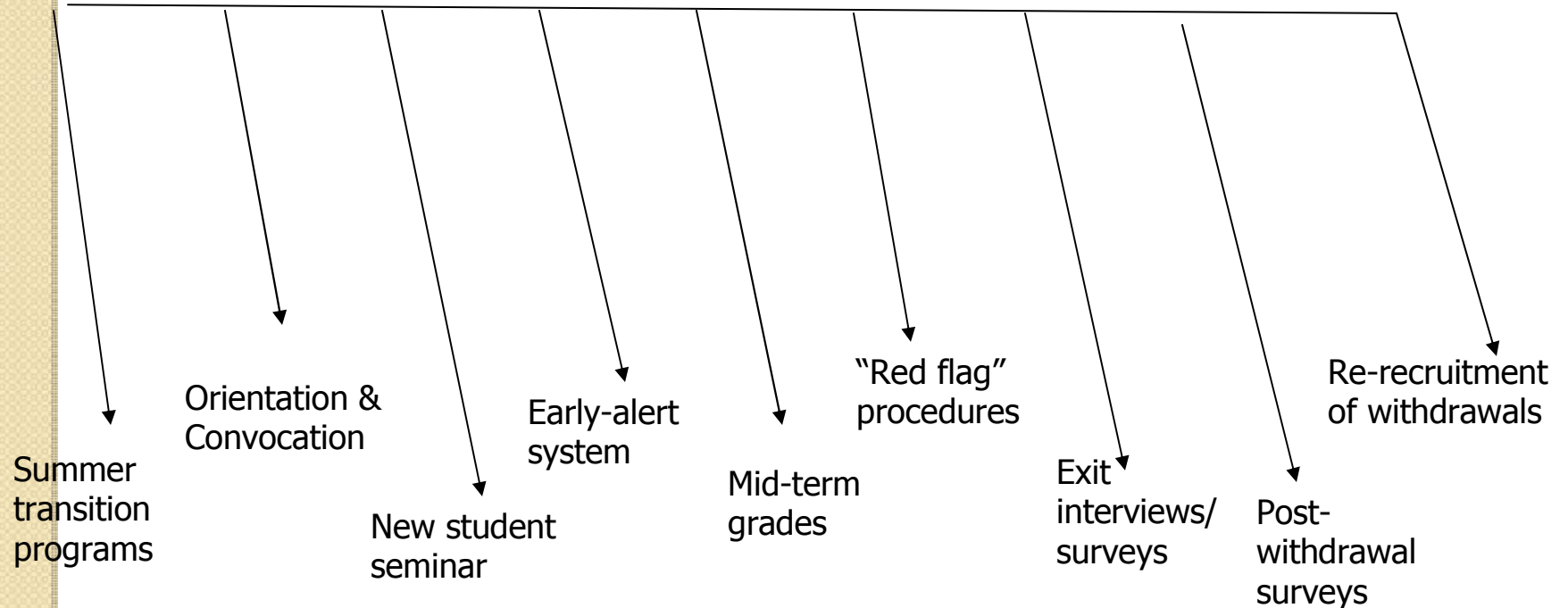
Early Warning Systems

- First step is to develop the “at risk” list:
 - Past profiles of those not successful
 - Responses to surveys at orientation
 - Early attendance or progress checks
- Second step is to have “safety net” services to offer.
 - Academic support services
 - Peer-to-peer mentoring
 - Mandatory study halls

Early Warning Systems: Retention-Intervention Timeline

PROACTIVE

REACTIVE



Source: Dr. Joseph Cuseo, Associate Professor of Psychology, Marymount College, Palos Verdes, CA



How Do We Know What Interventions Are Working?

- Capture participation data and then compare retention of participants and non-participants.
- Conduct more detailed analysis of subpopulations.
- Conduct pilot programs.



Types of Participation Data to Capture

- Use of academic support services
- Student organization membership
- Honors participants
- First year seminar participants
- Work-study employment
- Etc.



Assign Clear Responsibility

- Although retention is everyone's responsibility, someone needs to be in charge.
- Feedback loops and measurable goals are critical
 - Admissions needs to be informed in order to shape clearer message, adjust admission policies, etc.
 - Problematic policies or service issues that emerge in surveys...need to be addressed by appropriate offices.
 - Retention analysis and survey results can serve as a baseline to measure improvements, and evaluate staff.

Retention Rate By Academic Counselors

Counselor	Fall 2006	Spring 2007	Retention %	Fall 2007	Retention %
A	84	79	94%	77	91.66%
B	85	84	99%	82	96.47%
C	19	18	95%	17	89.47%
D	84	81	96%	73	86.90%
E	84	82	98%	73	86.90%
F	79	76	96%	68	86.07%
G	86	82	95%	68	79.07%
H	80	76	95%	66	82.50%
I	80	77	96%	67	83.75%
J	18	18	100%	16	88.89%
TOTAL	699	673	96.28%	607	86.84%

From St. Edward's University in Austin, TX

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Conclusion: Ingredients for Developing Successful Retention Strategies

Data and information from retention analysis, predictive modeling, surveys, etc.

+ Lessons learned from experienced practitioners

+ Intuition

+ Institutional context and values

= Well-founded and informed retention strategies and policy decisions.