



Data-Driven Retention Strategies

Educational Policy Institute – Retention 2007

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Agenda

- Key questions and data sources to answer them
- Case study from St. Edward's University



Question #1

- How can we identify at risk students?
 - Cohort retention rates and graduation rates by subpopulation
 - Predictive retention/graduation models
 - Early warning systems



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

Freshman to Sophomore Retention of African-American and Non-African-American by College					
College	A&S	EDUC	ENGIN	NURS	ALL
Entering Cohort					
2004 (Retain to Term 5)					
African American	72%	94%	68%	0%	73%
Non African American	76%	82%	81%	88%	78%
2005 (Retain to Term 5)					
African American	73%	71%	79%	67%	73%
Non African American	82%	84%	89%	86%	83%
2006 (Retain to Term 3)					
African American	83%	100%	83%	75%	84%
Non African American	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 1 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

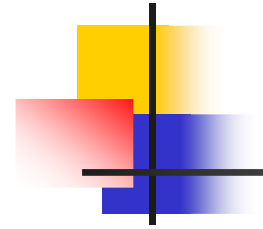
- If achieving a particular Term 1 GPA or better is very significant in retaining to Term 3, then there are two additional models that could be constructed:
 - One would examine those factors that were significant in predicting retention to Term 3 for everyone who had a $\text{GPA} > X$.
 - The other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



Early Warning Systems

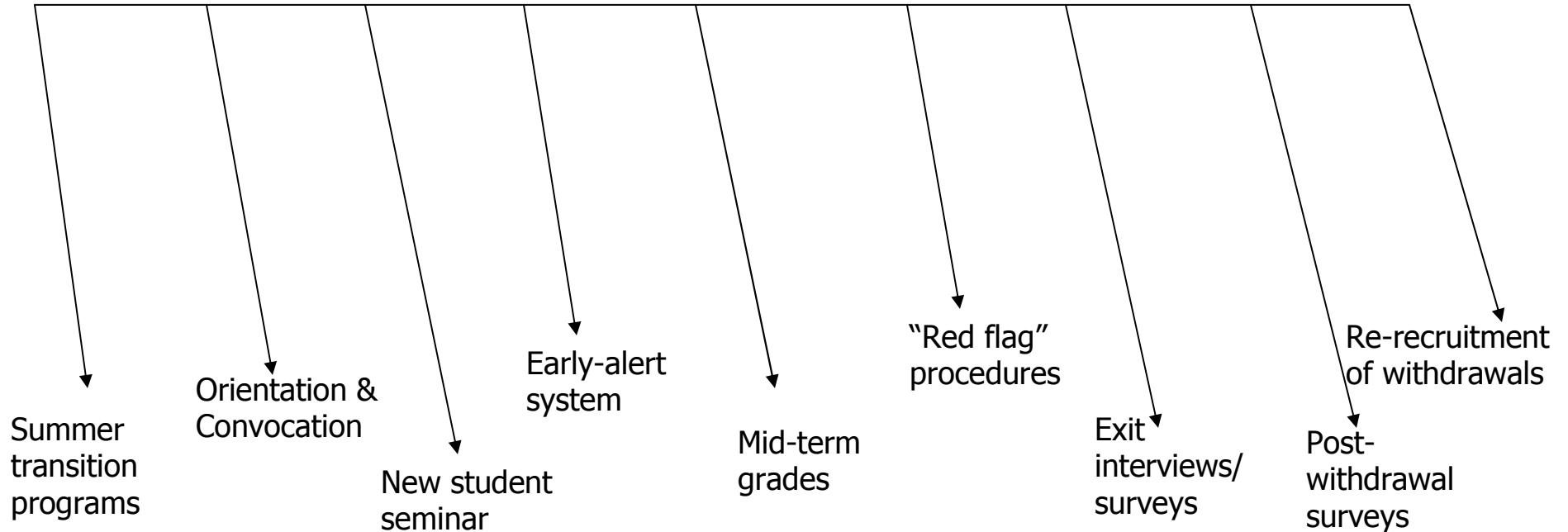
- First step is to develop the “at risk” list:
 - Past profiles of those not successful
 - Responses to surveys at orientation
 - Early attendance or progress checks
- Second step is to have “safety net” services to offer.

Early Warning Systems: Retention-Intervention Timeline



PROACTIVE

REACTIVE



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



Question #2:

- How can we determine what policies/programs are helping or hurting retention?
 - Capture participation data and then compare retention of participants and non-participants.
 - Conduct more detailed analysis of subpopulations.
 - Conduct pilot programs.



#2: Types of Participation Data to Capture

- Athletic involvement
- Student organization membership
- Honors participants
- First year seminar participants
- Work-study participants
- Etc.

#2: Cohort Retention/Graduation Rates by Subpopulation

		Term 1		Term 3	
		#	%	#	%
Start Term	1st Yr Seminar				
2004 FA	No	96	100%	85	88.5%
	Yes	398	100%	361	90.7%
	All	494	100%	446	90.3%
2005 FA	1st Yr Seminar				
	No	29	100%	26	89.7%
	Yes	529	100%	478	90.4%
	All	558	100%	504	90.3%



Question #3

- Are there any “image versus reality” gaps, fit issues, or service gaps we need to address?
 - Benchmark against national trends
 - Analyze Student Survey responses (NSSE, CSI, SSI, SOS, etc.)
 - Conduct Focus Groups
 - Conduct Alumni Surveys
 - Use National Student Clearinghouse data
- Note: feedback loops and measurable goals are critical

Benchmark Against National Trends

National Trends – 1st to 2nd Year Persistence

<i>Admissions Selectivity</i>	4-Year Private	4-Year Public	2-Year Institutions
Highly selective	93.5%	92.3%	n/a
Selective	82.7%	80.9%	25.9%
Traditional	71.9%	72.2%	26.9%
Liberal	65.8%	63.1%	20.1%
Open	67.5%	62.1%	16.6%
All institutions	75.3%	72.6%	18.4%

Source: ACT, National Collegiate Retention and Persistence to Degree Rates



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



Alumni Surveys

- Questions related to retention:
 - Were your expectations from college met?
 - What are your post-graduation plans?
 - How did this college contribute to your post-graduation success?
 - Free space for comments



#3: 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 (e.g., did high performing students transfer to more prestigious schools? less expensive schools?)



#3: Feedback Loops and Measurable Goals Are Critical

- Admissions needs to be informed of what emerges from the analysis 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.

The logo for St. Edward's University, featuring a stylized cross with a yellow square in the top-left, a red square in the bottom-left, and a blue square in the bottom-right, with a black crosshair.

St. Edward's University

- Mission
- Retention trends
- Advising structure
- Retention of Subpopulations
- Early Warning Systems
- Student Surveys
- Feedback Mechanisms

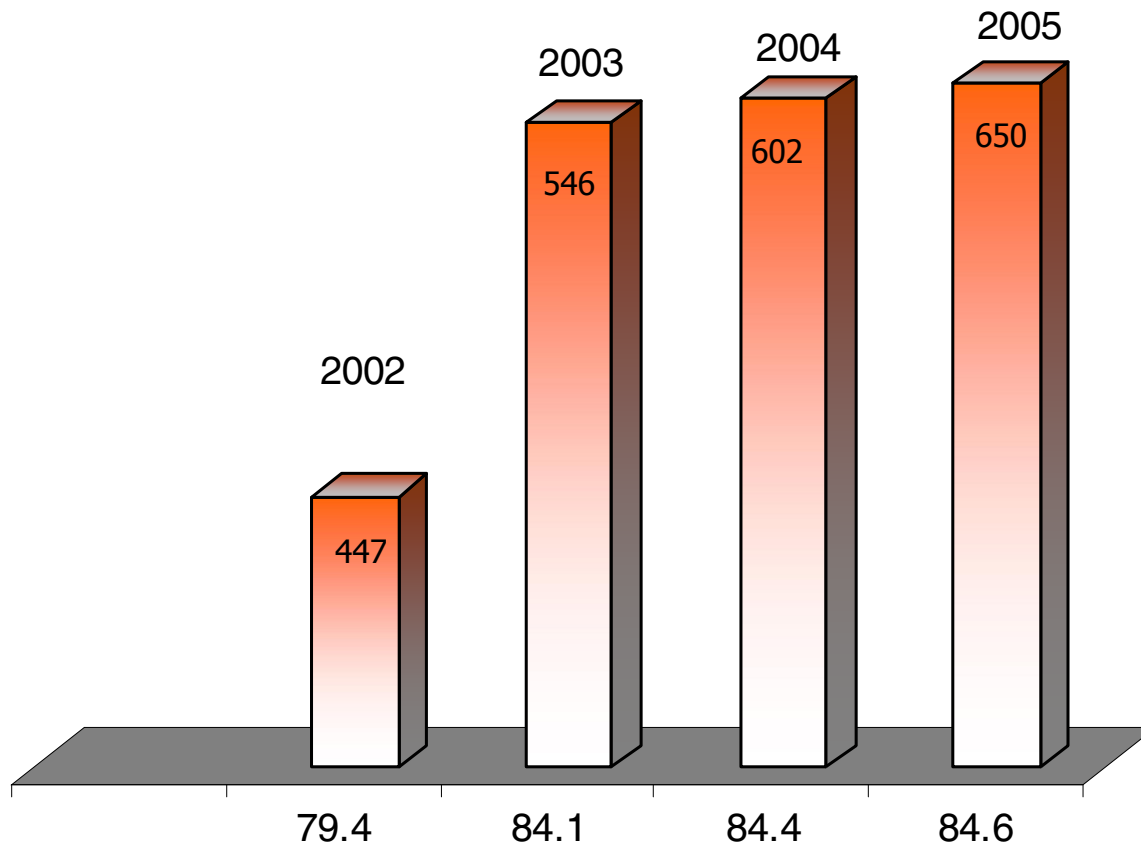
St. Edward's University Mission Statement

- St. Edward's University is an independent Catholic university open to qualified students of all ages, backgrounds and beliefs. The university provides a culturally diverse student body with an education that achieves a balance among the humanities, the sciences and the professions.
- St. Edward's seeks to make its graduates competent in a chosen discipline and to help them understand and appreciate the contributions of other disciplines.....
- The university promotes excellence in teaching and learning in an environment that encompasses the campus classroom, student life programs and the broader community.....
- Founded by Congregation of Holy Cross
- Characteristics: Take risks, international perspective, commitment to varied cultural, religious, education, and economic backgrounds.

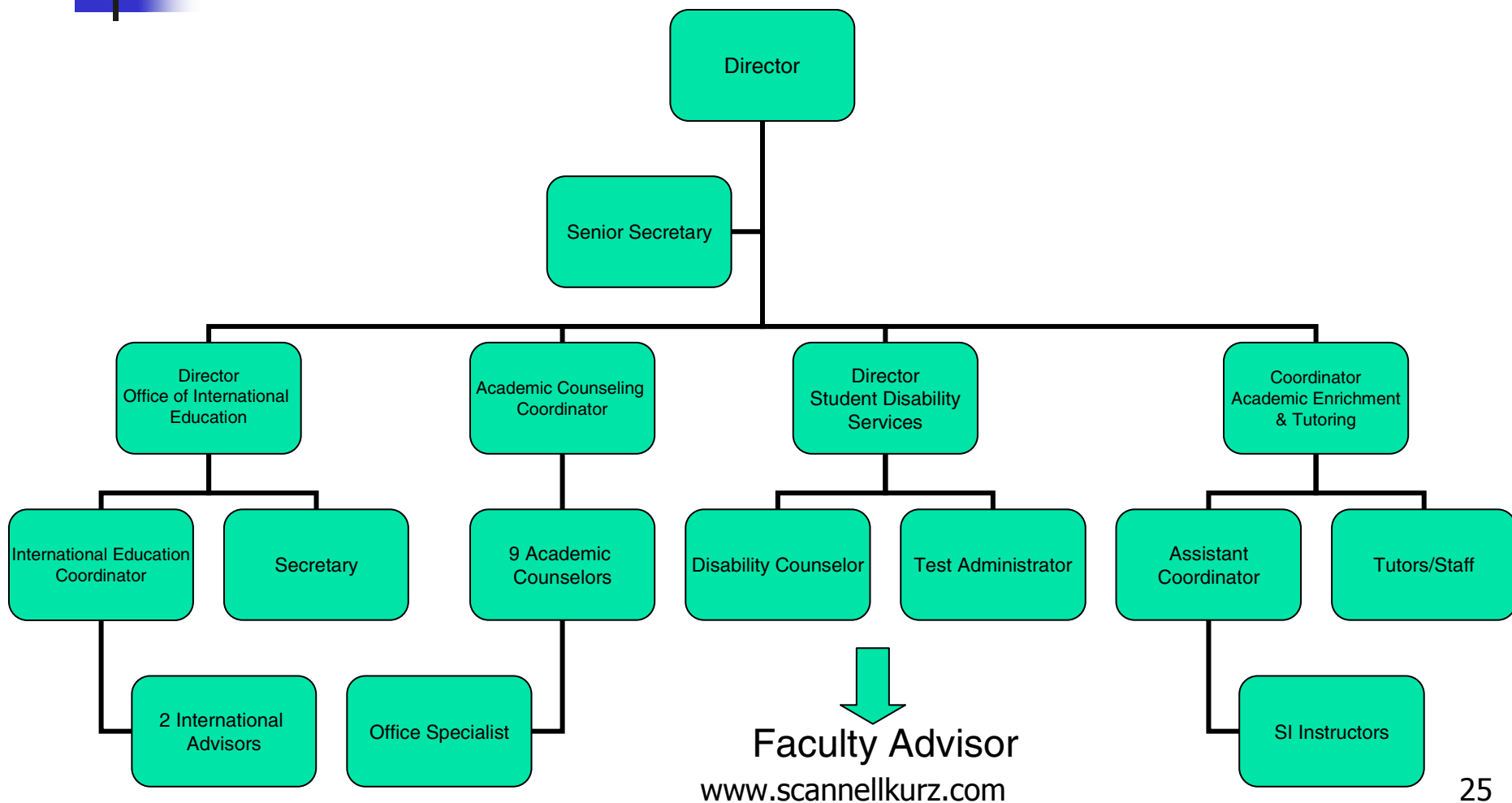




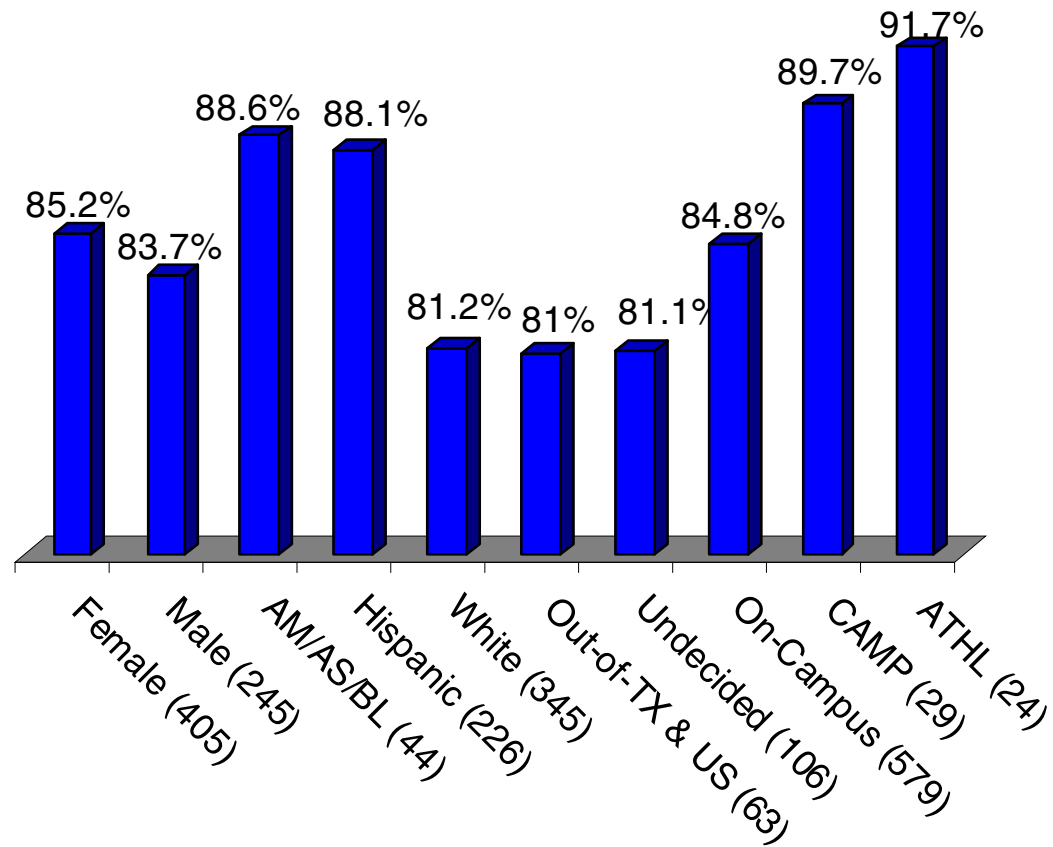
Freshmen-Sophomore Cohort Retention Rate



Academic Planning and Support Organizational Chart



First-Year Retention-Subgroups (FA05-FA06)





Retention by Subpopulation

Undecided Students (81.1%)

- Pitch First Year Seminar during Orientation and Registration.
- Academic Exploration Program (AEP).
- Students who enroll in First Year Seminar have higher retention rate than non-enrollees 93% vs. 84%.



Retention by Subpopulation

Hispanic Students (88.1%)

- Celebration of Hispanic Festivals.
- Culture of St. Edward's embraces diverse ethnic groups through clubs, events, book readings, cultural foundations classes.
- Catholic Identity.



Retention by Subpopulation

CAMP Students (89.7%)

- Required Academic Coaching/Tutoring during first year.
- Extensive support structure for incoming freshmen.
- Tuition is paid for during first year. If students stay in good academic standing tuition is paid for each successive semester.
- Longest running CAMP program in the U.S.



Retention by Subpopulation

Probation Students

- Required to enroll in 1 credit hour Effective College Learning class and meet 1 to 1 with Academic Counselor weekly during the semester.
- 70% of freshman probation students enrolled in Effective College Learning class get off probation.



Early Warning Systems

- On-line early attendance report for all freshmen, first semester transfer and probation students. Students and Academic Counselors instantly receive report when faculty member submits it. 68% of faculty complete the report.
- On-line progress reports are sent out mid-semester for all freshmen, first semester transfer and probation students. 85% of faculty complete the report.

St. Edward's Attendance Reports

- Sample of the email sent to faculty regarding student attendance reports.



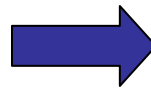
Faculty answer ONE question.

1. How many classes has the student missed to date?



St. Edward's Progress Reports

- Sample of the email sent to faculty regarding student progress reports.



Faculty answer a FEW questions regarding student's progress?



Preview
Survey SP, 2007, number 2

Please indicate student's current estimated grade	A	B	C	D	F	Just F
How sure cause for treatment misadvised?	None at all					
In the following sections rate student on a scale of 1-5, where 1 is poor and 5 is excellent.						
Please rate student's performance on written homework assignments	1	2	3	4	5	
Please rate student's performance on class discussion	1	2	3	4	5	No Application
Please rate student's performance on papers/projects	1	2	3	4	5	
Participates in class	1	2	3	4	5	No Application
Communicates well in instructor's presence	1	2	3	4	5	
Exhibits a positive attitude about learning	1	2	3	4	5	
Does student in class	1	2	3	4	5	
Directed for class	1	2	3	4	5	
Directed with assignments	1	2	3	4	5	No Application

To: blair@ed.edu
From: Janet Harrington <janet@ed.edu>
Subject: REMINDER - Spring 2006 Mid-Term Progress Reports

Dear Faculty Member,

The last day to enter information on the online progress reports is Monday, March 6th. Our records indicate that you still have reports due to be completed. Please remember that this is a student evaluation for our teachers, probation and transfer students.

Here are the instructions again if you have lost track of them:

- 1) Access your account on EDWCS.
- 2) Click on the link "Complete Progress Reports" on the left-hand side.
- 3) It will display the number of reports you have to complete. Click on the link "complete" to view individual reports to be completed.
- 4) Please complete a survey for each student listed. Click on the "Complete Survey" button next to a student's name, fill out the requested information and submit it. Repeat the same process for each student. Keep in mind that **once you have submitted a survey, you cannot edit it**, so please review your input carefully.
- 5) You do not need to complete all surveys in one sitting—you may stop and come back any time before the surveys are due. (Note that this may not be your entire class list, since these forms are only generated for first-time freshmen, transfer and probation students.)
- 6) The last three questions ask you to rank the student on various academic broad scale a scale of 1-5. For the purposes of this form, 1 is **poor/unacceptable** and 5 is **excellent**.
- 7) You may skip some questions if necessary, but we ask that you answer the first two questions regarding grade and attendance for every student.
- 8) A comment section is provided for you to add comments/feedback not addressed on the form. Please make use of this section to provide whatever specific information you would like about each student. **Please note that students view these forms, including the comments, so any constructive suggestions you can offer would be very helpful.**
- 9) You may view completed reports by clicking on the link "review."



Early Warning Systems

- Lists of faculty names who do not complete reports are sent to Provost and Deans of the various schools.
- Academic Counselors outreach to student who are in academic difficulty to help them understand choices, drop class, receive tutoring, talk to professor, attend supplemental instruction class.



Student Surveys

- College Student Inventory
- Student Satisfaction Inventory-(7-8 weeks in)
- NSSE - National Survey of Student Engagement
- Graduating Student Survey – 1 yr prior to graduation
- Alumni Survey – 1 yr out



College Student Inventory (CSI)

- Administered during Summer Orientations.
- 96.5 % of Freshmen 2006 cohort completed CSI survey.
- Academic Counselors review profile between September 1 – October 15.
- Excellent tool to meet students early.
- High risk students are identified early and referred to appropriate resources.



Student Satisfaction Inventory (SSI)

- First-time freshmen were administered SSI halfway through first semester.
- 86% of Freshmen 2006 cohort completed SSI survey.
- Review academic advising ratings related to student expectations and student satisfactions.
- Compare Academic Advising satisfaction with all four year private institutions. 5.87 vs 5.35.



Feedback Mechanisms

- Evaluation of advisors
- Meeting with admissions
- Reporting to Administrative Council

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%



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.