

ENTERING STUDENT SURVEY

Importance, Opportunities, and Challenges

Association for Institutional Research

Annual forum

May 23, 2011

UCF OVERVIEW

- 1,415 acres on Orlando Main Campus
- 2nd largest university in U.S. with 56,337 students
- Part of Florida State University System
- 12 colleges, including a medical college
- 216 degree programs (91 bachelor's, 92 master's, 3 Specialist, 29 doctoral, 1 professional)
- 10 regional campuses and numerous other instructional sites
- Extensive distance learning offerings
- Basic Carnegie classification: Research Universities (very high research activity)

PURPOSE OF THIS DISCUSSION

- **Importance:** of administering an Entering Student Survey
- **Survey:** background and the challenges faced in administering the Entering Student Survey and some unique approaches that have worked at UCF
- **Results reporting:** need to report results in a timely manner to improve operational efficiency and effectiveness
- **Further analyses:** conduct statistical analyses to find association between various student-specific factors that contribute to student success at UCF
- **Building partnerships:** continuing the conversation with important stakeholders

FACTORS INFLUENCING ACADEMIC SUCCESS

- Student academic success is usually reported using institutional-level metrics such as graduation rates, retention rates, academic probation etc.
- Many researchers have concluded that, apart from institutional influence, various other student specific factors* are equally important in determining the student's success:
 - Prior academic history
 - Psychosocial factors
 - Demographic
 - Situation factors

*Frye, Richard. "Assessment, Accountability, and Student Learning Outcomes." *Dialogue* 2 (1999): 1-11.

RELATIONSHIP BETWEEN FACTORS AND OUTCOMES

STUDENT SPECIFIC FACTORS

Prior Academic History
Incoming GPA, Prior Institution, SAT/ACT scores etc.

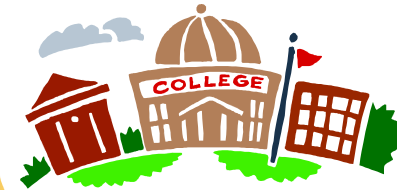
Psychosocial
Resiliency, Engagement, Self-efficacy, Self-confidence etc.

Demographic
Gender, Ethnicity, Age, etc.

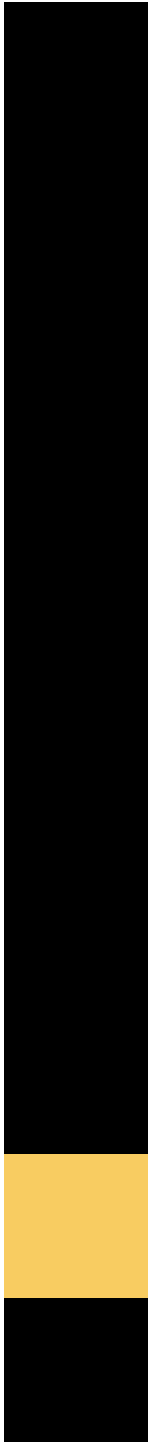
Situational
Current work-load, Financial situation, student residence etc.



INSTITUTION



OUTCOMES
Retention rates, Graduation rates, Academic Probation etc.



STUDENT SPECIFIC FACTORS

- Student Specific Factors*: attributes and abilities which are a measure of how a student's experiences have shaped their development as individuals
 - learning styles
 - perception about self-abilities and understanding of the importance of the factors essential to succeed in higher education
 - likelihood or demonstrated willingness to seek resources to face the challenges of higher education
 - potential risk factors
 - socio-economic factors

*Frye, Richard. "Assessment, Accountability, and Student Learning Outcomes." Dialogue 2 (1999): 1-11.



ENTERING STUDENT SURVEY AT UCF

- Many institutions administer Beginning College Survey of Student Engagement (BCSEE) or a “home-grown” survey to profile their entering class of FTIC or transfer students
- Entering Student Survey has been administered at UCF for the past 7 Years
- Major drawback:
 - low response rate – less than 10%
 - emphasis on long-term analyses and lack of immediate utility of the data to any university stakeholders
- We knew we had to revise our approach

SURVEY ADMINISTRATION: THINGS TO CONSIDER

- Operational Excellence and Assessment Support (OEAS) partnered with First Year Experience (FYE) and Transfer and Transition Services (TTS) to administer the Entering Student Survey during student orientation
 - All incoming students have to attend an orientation session
 - There was an existing survey administered to evaluate the orientation sessions
 - Survey is confidential but not anonymous – higher likelihood of getting correct student identifier entered during orientation
 - Ensure that survey could be completed in a reasonable time duration

SURVEY INSTRUMENT: THINGS TO CONSIDER

- The Entering Student Survey instrument was revised to include questions that were meaningful for long term research as well as immediate feedback
 - Identify constructs that would be meaningful for long term research on student success (OEAS)
 - Identify questions that are generic for a vast and diverse student population
 - Identify measures that provide quick feedback to UCF constituents (FYE, TTS)
 - Identify scales for questions that would encourage meaningful responses

2010-11 SURVEY INSTRUMENT

- All three participating offices drafted an extensive list of survey items to be included in the instrument , totaling 134 items grouped into various categories
- To avoid a survey too long to complete for students, final items were allocated among three versions
 - Some categories were common to all three versions
 - Some categories were common to only two of the three versions
 - Some categories were unique to a particular version
- JavaScript was used to randomize among the three survey versions

2010-11 SURVEY ADMINISTRATION

- Close to 30 orientation sessions take place in 2010-2011 academic year at UCF
 - ~ 6,000 FTIC students
 - ~ 8,000 transfer students
- Students complete the survey in a computer lab right before course registration during orientation
- One of three versions of the Entering Student Survey are provided to a student through a “Begin Survey” link displayed on the computer screen
- JavaScript used to monitor the time it took for a respondent to complete the survey

SURVEY RESULTS AND ANALYSES

- Two primary objectives in processing the survey data
 - Provide timely results to the partner offices in an easy to access format – feedback to improve the effectiveness and efficiency of the orientation process
 - Higher order analyses – to find association between student specific factors and outcomes

REPORTING SURVEY RESULTS

- Online data collection and the use of SAS and VB .NET allows for quick reporting – data can be processed and made available to stakeholders the day after each orientation session
 - A macro was written in Base SAS for quick data preparation – SAS Base®
 - An interactive Web Application displays survey results online – SAS/IntrNet®
 - User authentication and verification using VB .NET and JavaScript ensure internal availability only

DYNAMIC RESULTS REPORTING VIA WEB

Entering Transfer Student Survey Results

Please select an academic year, survey category and level of analysis to access the the Entering Student Survey results for transfer students.

2010 - 2011 academic year

- Choose a level of analysis -
- Choose a level of analysis -
- Univariate Results**
- Results by Gender
- Results by Ethnicity
- Results by College
- Results by Select Group



[Entering Student Survey Home](#)

[Entering Student Questions](#)

[Orientation Questions](#)

This site is being maintained by the Office of Operational Excellence and Assessment Support.

Please contact [Uday Nair](#) or [Rachel Straney](#) for any questions pertaining to this site.

Last Modified: 05/17/2010

2010-2011 Entering Transfer Student Survey

Comfort with Academic Advising

Univariate Results

Each survey question is displayed in a one-way table with counts and percents

Question 30. Please rate how COMFORTABLE you would be talking about each issue with your advisor.
 These questions appeared in the following versions of the survey: [Version B]

Select a Survey Category

- [Student Resiliency](#)
- [Student Likelihood](#)
- [Student Engagement](#)
- [Self Evaluation of Abilities](#)
- [Importance of Abilities](#)
- [Importance of Academic Advising](#)
- [Comfort with Academic Advising](#)
- [Campus Resources](#)
- [Degree Requirements](#)
- [Student Expectations](#)
- [Alcohol, Drugs and Health](#)
- [Miscellaneous Questions](#)
- [College Expenses](#)
- [Demographics and Student Characteristics](#)

Survey R

31.a. Academic Advising		Count	Percent
Positive	Very Likely	70	60.1%
	Likely	18	32.1%
	Total	88	92.3%
Neutral	Somewhat likely/Somewhat unlikely	17	7.2%
	Total	17	7.2%
Negative	Unlikely	4	0.2%
	Very Unlikely	3	0.1%
	Total	7	0.4%
Total		1,612	100.0%

Survey items are displayed by category for easy navigation of results

31.c. Financial Aid		Count	Percent
Positive	Very Likely	810	50.6%
	Likely	442	27.6%
	Total	1,252	78.2%
Neutral	Somewhat likely/Somewhat unlikely	216	13.5%
	Total	216	13.5%
Negative	Unlikely	65	4.0%
	Very Unlikely	67	4.1%
	Total	132	8.2%
Total		1,600	100.0%

31.d. Alcohol and other drug use prevention programming		Count	Percent
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2010-2011 Entering Transfer Student Survey

Student Engagement

Results by Gender

Other levels of analysis include
"By ethnicity" and "By College"

Questions 28. and 32. How often during the coming school year do you
These questions appeared in the following versions of the survey: [version

Select a Survey Category

[Student Resiliency](#)

[Student Likelihood](#)

[Student Engagement](#)

[Self Evaluation of Abilities](#)

[Importance of Abilities](#)

[Importance of Academic Advising](#)

[Comfort with Academic Advising](#)

[Campus Resources](#)

[Degree Requirements](#)

[Student Expectations](#)

[Alcohol, Drugs and Health](#)

[Miscellaneous Questions](#)

[College Expenses](#)

[Demographics and Student Characteristics](#)

[Survey Results Home](#) [New Search](#)

28.a. Prepare two or more drafts of a paper or assignment before turning it in		3. Gender						Total	
		Male		Female		Transgender			
		count	column %	count	column %	count	column %	count	column %
Positive	Very often	462	32.1%	762	44.0%	.	.	1,224	38.5%
	Often	556	38.6%	615	35.5%	2	66.6%	1,173	36.9%
	Total	1,018	70.7%	1,377	79.5%	2	66.6%	2,397	75.5%
Negative	Sometimes	378	26.2%	312	18.0%	1	33.3%	691	21.7%
	Never	43	2.9%	42	2.4%	.	.	85	2.6%
	Total	421	29.2%	354	20.4%	1	33.3%	776	24.4%
Total		1,439	100.0%	1,731	100.0%	3	100.0%	3,173	100.0%

28.c. Come to class without completing readings and assignments		3. Gender						Total	
		Male		Female		Transgender			
		count	column %	count	column %	count	column %	count	column %
Negative	Very often	131	9.1%	195	11.3%	.	.	326	10.3%
	Often	72	5.0%	58	3.3%	1	33.3%	131	4.1%
	Total	203	14.1%	253	14.6%	1	33.3%	457	14.4%
Positive	Sometimes	382	26.5%	365	21.1%	1	33.3%	748	23.6%
	Never	852	59.2%	1,107	64.1%	1	33.3%	1,960	61.9%
	Total	1,234	85.8%	1,472	85.3%	2	66.6%	2,708	85.5%
Total		1,437	100.0%	1,725	100.0%	3	100.0%	3,165	100.0%

STUDENTS “AT-RISK” FOR ACADEMIC PROBATION

- The entering student survey data collected from the 2010-2011 Transfer entering class was used to construct predictive models
- Goals of the analysis:
 - Identify factors associated with academic probation
 - Build a regression model that can be used to identify students “at-risk” for academic probation
 - Develop a process with appropriate university constituents so that primary prevention can be implemented

BUILDING A MODEL

- 2X2 contingency tables were constructed and χ^2 tests of independence were performed to identify significant factors associated with academic probation
- Data was split into Training and Validation sets to utilize the large amount of survey data
 - Achieved by stratified sampling using probation, gender and college enrollment
 - 2,500 observations in each set

FACTORS ASSOCIATED WITH ACADEMIC PROBATION

DEMOGRAPHICS	Gender
	Ethnicity
PSYCHOSOCIAL	Likelihood of seeking out campus resources for conflict resolution skills
SELF EXPECTATIONS	Make at least a “B” average
	Meet other students on campus for discussion
	Use learning centers to improve study habits
	Use campus recreational services
ACADEMIC PREPARATION	UCF college enrolled
	Prior institution (community college)

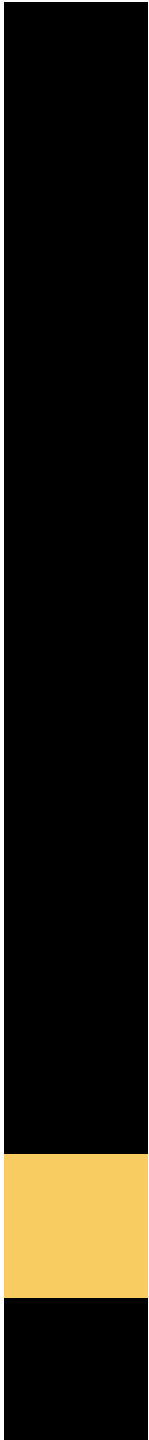
MODEL DIAGNOSTICS

Many multivariate logistic models were built but only ten were used as candidates for final model comparison

MEASURE	DESCRIPTION
Hosmer – Lemeshow	Goodness-of-fit test that will detect incorrect model specification or missing predictors <i>(ideally want a larger p-value to reject the test)</i>
Akaike Information Criterion (AIC)	Relative Goodness-of-fit measure that can be used to assess a handful of candidate models <i>(the smaller the better)</i>
C-statistic	Area under the ROC curve measuring model discrimination or the ability to distinguish students on academic probation and those who are not <i>(the closer to 1 the better)</i>

MODEL ASSESSMENT

Model	Variables	AIC	C-statistic	Hosmer-Lemeshow	
VALIDATION	1	college; ethnicity	1644.037	0.675	0.2992
	2	college; cnflctsrclvl	1505.704	0.66	0.9854
	3	college; cnflctsrclvl; ethnic_coll	1590.997	0.686	0.6384
	4	gender; cnflctsrclvl	1673.337	0.568	0.3548
	5	gender; ethnic_coll; priorinst	1677.303	0.604	0.865
	6	college; priorinst; ethnic_coll	1460.946	0.683	0.3197
	7	cba; gender; underrep; priorinst; cnflctsrclvl	1515.287	0.648	0.4652
	8	college; cnflctsrclvl; aframr; bcc	2998.909	0.675	0.3398
	9	college; bcc; ethnic_coll	1569.959	0.669	0.5863
	10	college; cnflctsrclvl; gender; bcc; mtpplfreq_coll	945.126	0.703	0.9736



MISCLASSIFICATION TABLE FOR MODEL 10

		PREDICTED	
		Not on Probation	On Probation
ACTUAL	Not on Probation	1,480 (67%)	454 (21%)
	On Probation	166 (8%)	106 (5%)

- 77% of transfer students not placed on probation were accurately predicted
- 39% of transfer students placed on probation were accurately predicted

“FINAL” MODEL SELECTED

- The final prediction model included the following variables:
 - Gender
 - UCF College in which the transfer student is enrolled
 - Whether the student transferred from one particular Florida community college (binary – yes or no)
 - Likelihood of a student to use conflict resolution services from the university
 - Expectation to meet other students at some campus location for a discussion

FUTURE WORK

- Share findings with various important stakeholders at UCF
 - Vice-President of Student Development and Enrollment Services
 - Academic advising council
 - Academic advising enhancement program – a Provost funded initiative at UCF
 - Conversations with the community college partners – Direct connect
- Refine the analysis based on input from important stakeholders
- Coordinate with various office to apply the findings from analysis – work group
- Look into other factors once enough data is collected (major)

CONTINUE

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Presentation will be posted on:

<http://oeas.ucf.edu>