



So Close, Yet So Far Away: Early vs. Late Dropouts

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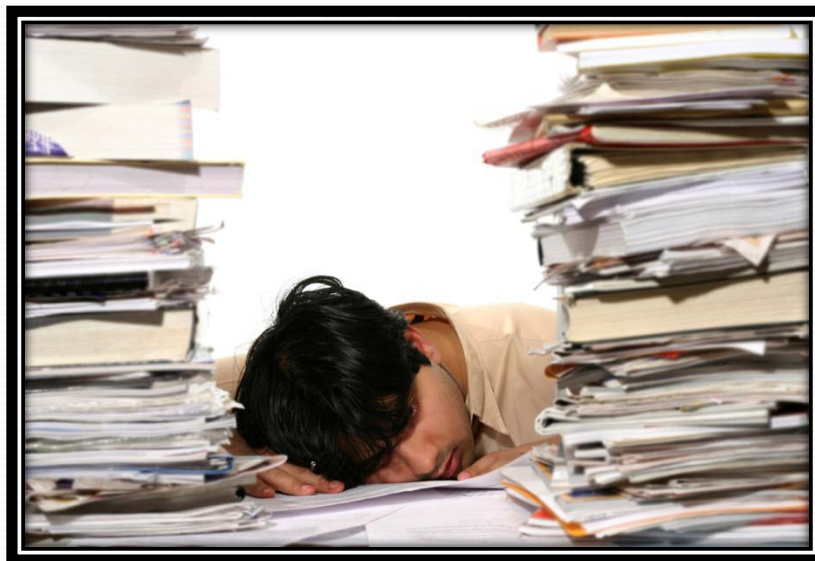
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AIR 2010 Forum – Chicago, IL – June 1, 2010



You may be interested in this session if

- You're responsible for tracking students and their retention and progression to graduation.
- You're responsible for tracking drop-out students.
- You're interested in early vs. late dropouts.



This presentation will discuss

- Motivation for the Study
- Literature Review
- Research Questions
- Data, Variables, and Methods
- Results
- Limitations
- Possible Implications
- Questions and Comments



What Should I Learn This Session?

- AKA ... learning objectives
- Early dropouts leave for different reasons than late dropouts
- Results suggest that programming/services that focus on late dropouts is justified
- The majority of students that dropped out late did not matriculate elsewhere
- Campuses can strategically target late dropouts



Motivation for the Study

- To investigate whether early and late dropouts at a single institution differ on a range of factors.
- To compare how two dropout groups differ from degree completers.
- To reveal the destinations of late dropouts after their departure from the institution.



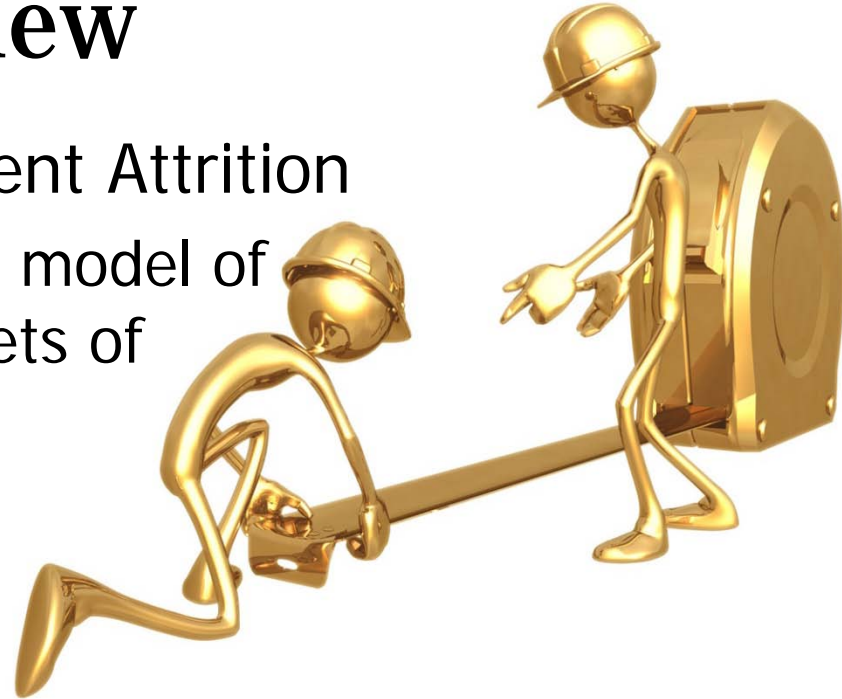
Brief Literature Review

- Tinto's Student Integration Model:
 - Students arrives at college with a variety of patterns of personal, family, and academic attributes that affect initial levels of commitment.
 - Initial commitments affect at levels of social and academic integration.
 - Results in the student's decision to persist or withdraw.



Brief Literature Review

- Bean's Model of College Student Attrition
 - The model proposes a causal model of student attrition with three sets of independent variables:
 - Background variables
 - Organizational determinants
 - Intervening variables.
 - These variables determine the level of student satisfaction with the institution, which, in turn, influence the level of institutional commitment.



Brief Literature Review

- The study will utilize the student retention theories developed by
 - Tinto (1993)
 - Bean (1980)
 - Cabrera, Nora, and Castaneda (1993)



Research Questions

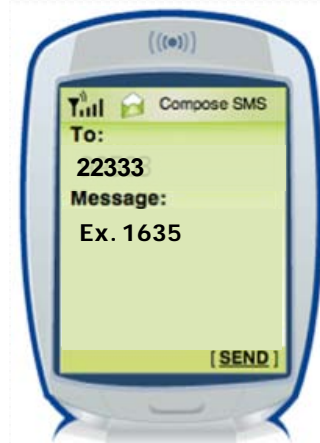
1. What factors have significant impacts on early dropout relative to late dropout?
2. What factors have significant impacts on early dropout relative to six-year graduation?
3. What factors have significant impacts on late dropout relative to six-year graduation?
4. Where do late dropouts go after leaving their initial institution?



Definitions

- Early Dropout: First-time, full-time student who is not enrolled in year three and year four, does not graduate within six years, and is not enrolled in year seven or year eight.
- Late Dropout: A student who is enrolled in year three and year four or both years, does not graduate within six years, and is not enrolled in year seven or year eight.
- Graduate: A student who obtains his or her degree within six years.



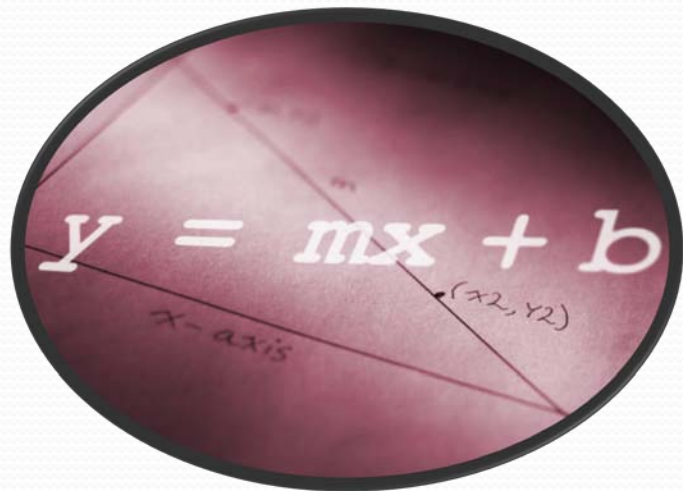


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RQ 1-3- Data, Variables, and Methods

- Data were obtained from a predominately White, medium-sized public university in a southeastern state.
- Three cohorts (1999, 2000, and 2001) were included in the study.



- Students with missing data were excluded, resulting in a sample size of 3,520.
- The outcome variable is persistence status with four categories: early dropout, late dropout, six-year graduation, and other.
- Multinomial and binary logistic regression were utilized.



RQ 1-3- Data, Variables, and Methods

Background

Characteristics:

Gender, Ethnicity,
Entering Age, and
Residency Status

Pre-College Academic

Preparation:

High School GPA, SAT
Math Score, SAT Verbal
Score

College Experience:

First-year Housing Status,
First-year Major Field, Fall
Semester, First-year
Course Load, and First-
year College GPA

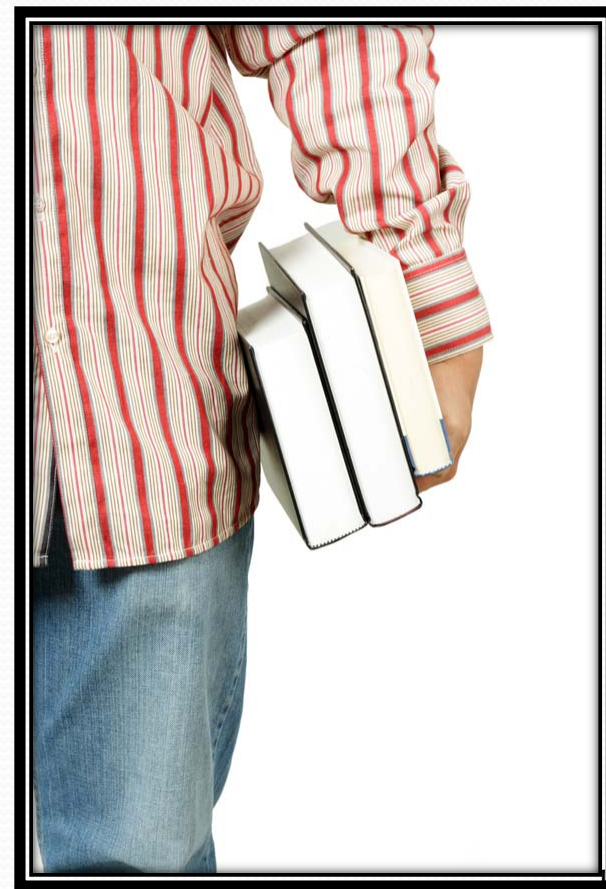
Financial Aid:

State Merit Aid



RQ 4- Data, Variables, and Methods

- Utilized a subsample (N=310) of the late dropout group.
 - Students departed from the study institution in the fifth or sixth year.
- National Student Clearinghouse
 - Data used to track dropouts' matriculation to other higher education institutions during the two years after their departure from the study institution.

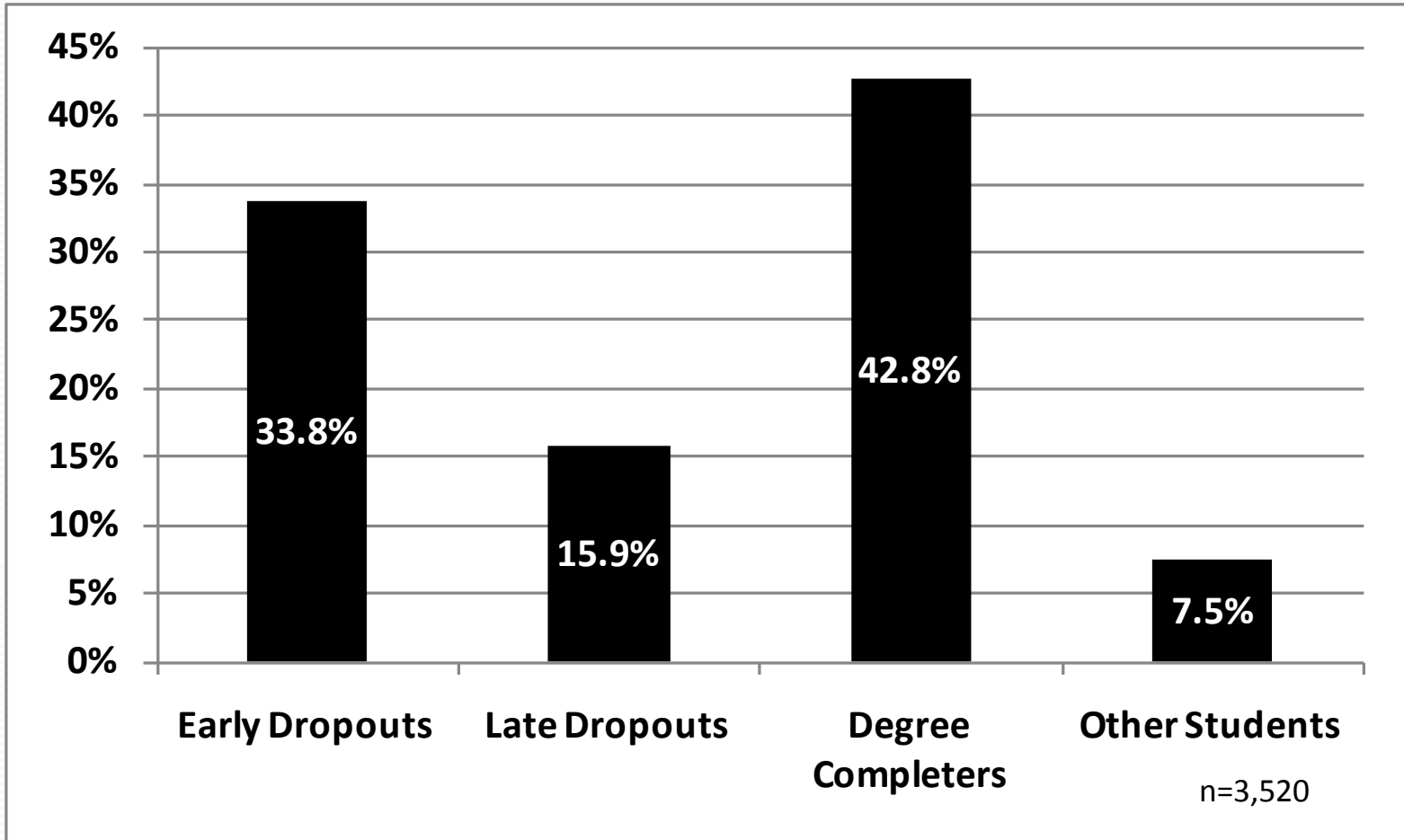




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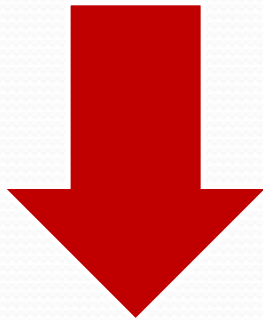
Descriptive Statistics

EXHIBIT 1: STATUS OF SAMPLE



Source: VSU SRA, April 2010.

Results—RQ1-3



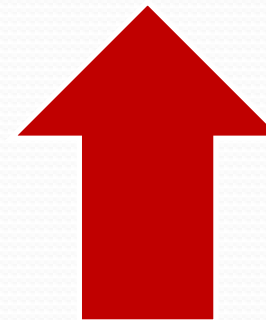
Early Dropouts

- ▶ Female Students
- ▶ Older Students
- ▶ White Students
- ▶ FY College GPA 0.00 to 2.50 Students



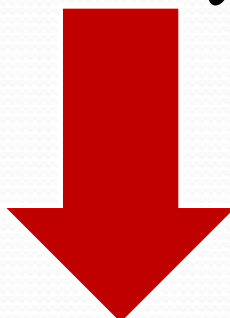
Late Dropouts

- ▶ Male Students
- ▶ Younger Students
- ▶ African American Students
- ▶ FY College GPA 2.51 to 3.50 Students



Results—RQ1-3

Living on campus was positively correlated with early dropouts.



Early Dropouts

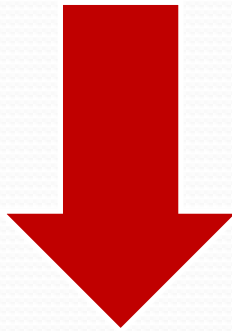
- ▶ Older Students
- ▶ White Students
- ▶ FY College GPA 0.00 to 2.50 Students
- ▶ Science Students
- ▶ Students Enrolled in Fewer Credits during 1st Term

Graduation

- ▶ Younger Students
- ▶ African American Students
- ▶ FY College GPA 3.01 to 4.00 Students
- ▶ Arts and Education Students
- ▶ Students Enrolled in More Credits during 1st Term



Results—RQ1-3



Late Dropouts

- ▶ Male Students
- ▶ FY College GPA 0.00 to 2.50 Students
- ▶ +100 on SAT Math Score
- ▶ Students Enrolled in Science or Nursing
- ▶ Students Without Merit Aid in 1st year

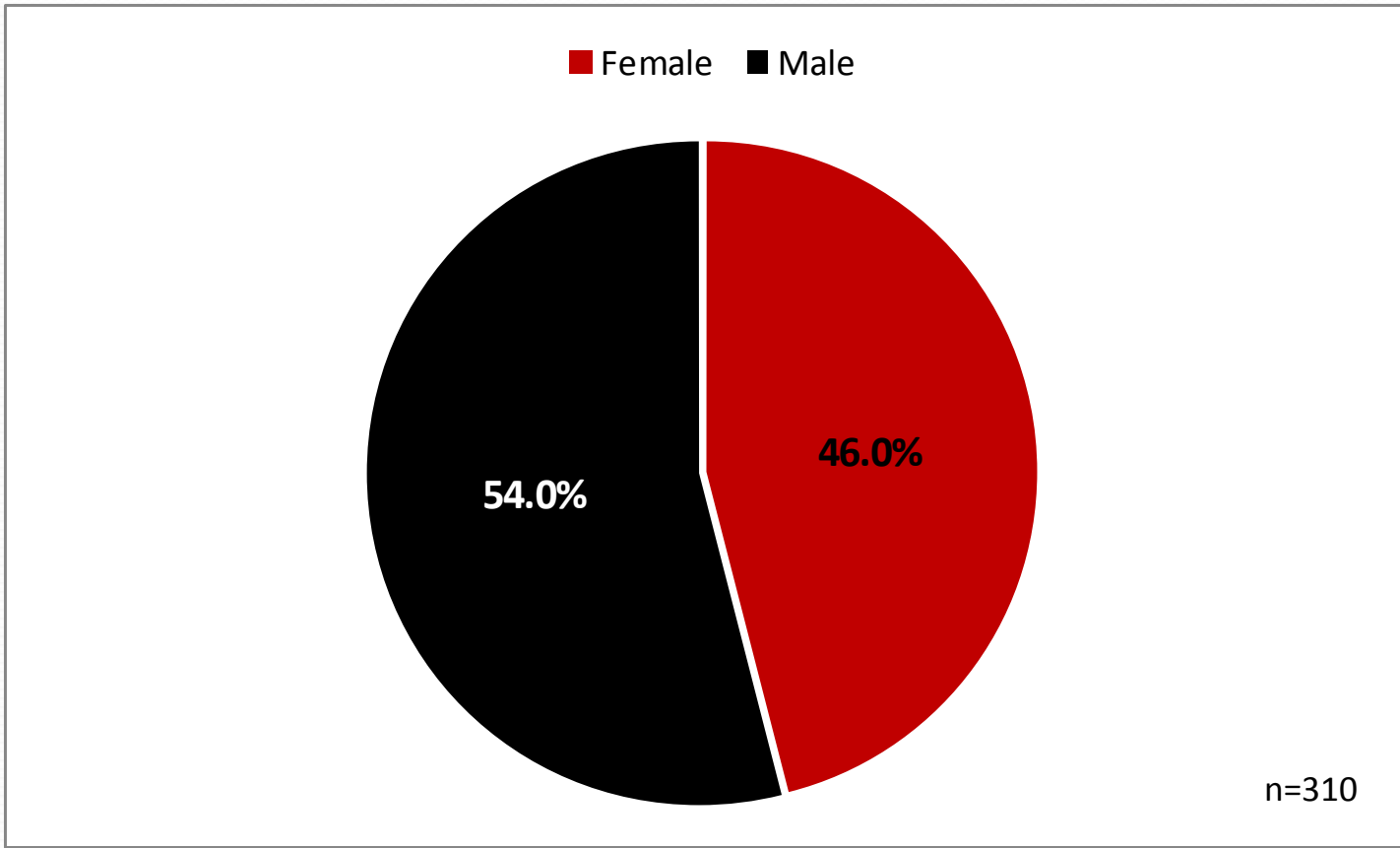
Graduation

- ▶ Female Students
- ▶ FY College GPA 3.01 to 4.00 Students
- ▶ -100 on SAT Math Score
- ▶ Students Enrolled in Arts, Business, Education, Undecided
- ▶ Students with Merit Aid in 1st year



Results—RQ4

EXHIBIT 2: LATE DROPOUTS BY GENDER

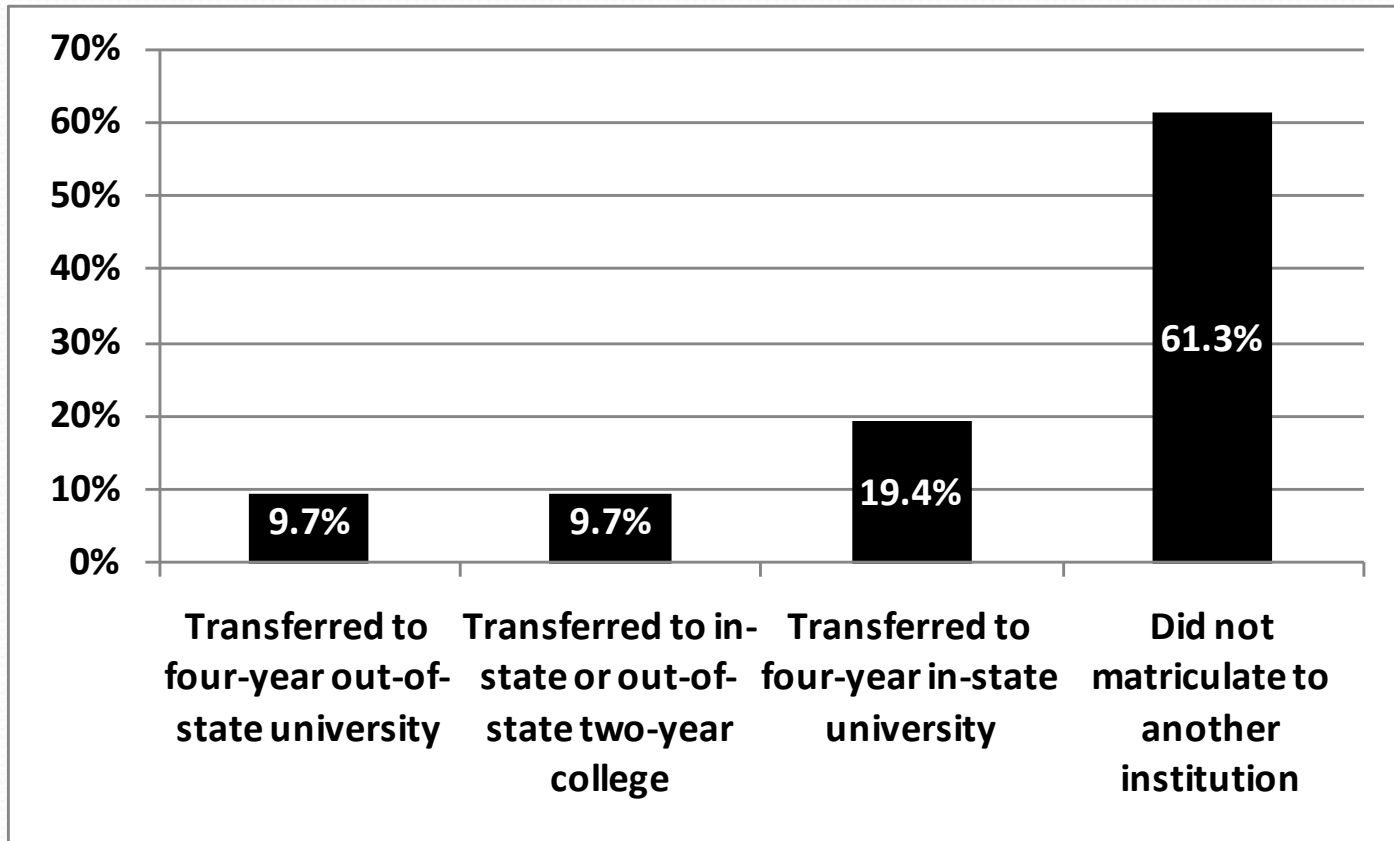


Source: VSU SRA, April 2010.



Results—RQ4

EXHIBIT 3: LATE DROPOUTS BY DESTINATION



Source: VSU SRA, April 2010.

Limitations

- This study utilizes one institution; therefore, readers should use caution when generalizing to a larger population.
- However, the emphasis of this study is on late dropouts, a group of students that receives far less attention than its early leaver counterparts.



Limitations

- The subsample of 310 for research question 4 is not a random sample of all 560 late dropouts in this study.
- This subsample includes only students who dropped out in year 5 or 6; it does not include the 250 students who departed in year 3 or 4.



Discussion and Implications

1. Not all students respond to higher education in the same way.
 - Merit aid is statistically significant for the late dropout vs. graduation group, but not for the other two groups.
 - Consistent findings with research that financial aid impacts students differently at different points in their academic careers (Hu, 2000).



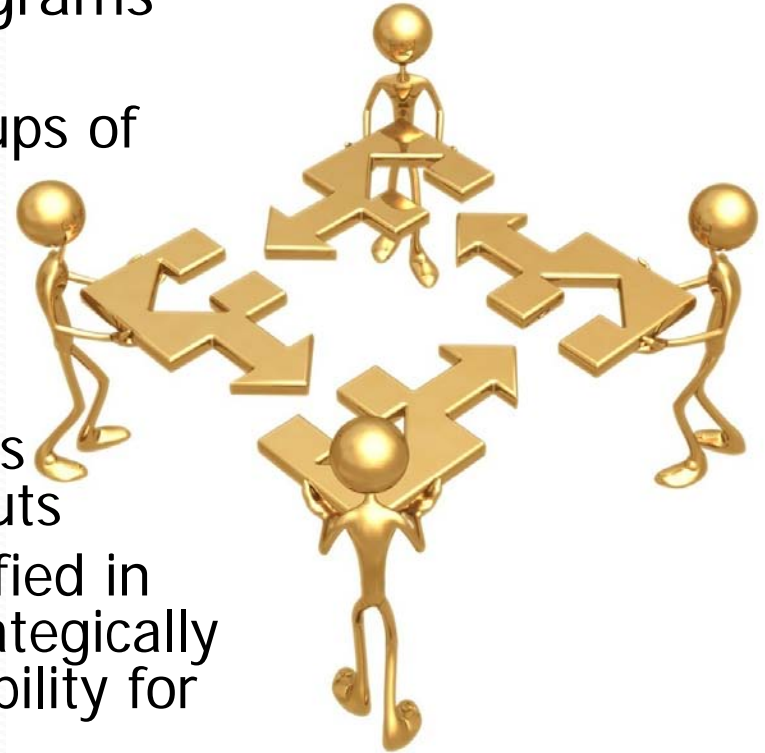
Discussion and Implications

2. Living on-campus during the first year increases the likelihood of early departure is counterintuitive to existing research (Pascarella & Terenzini, 2005).
 - With further investigation, the results are consistent with the literature that a greater length of time spent living on-campus increases the probability for graduation.
 - It is also important to note that on-campus housing is highly desirable by students as all residence halls are ten years old or less.



Discussion and Implications

3. Institutional decision makers should use caution when creating programs and services for students
 - Need to consider different groups of dropouts.
4. We can develop a "taxonomy" of late dropouts.
 - This study reveals that the characteristics of early dropouts differ from those of late dropouts
 - Using the characteristics identified in this study, students can be strategically targeted to increase the probability for graduation.



Discussion and Implications

5. Share information about the reasons students leave with the campus
 - Including differences between early and late leavers.



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Interested in more information ...

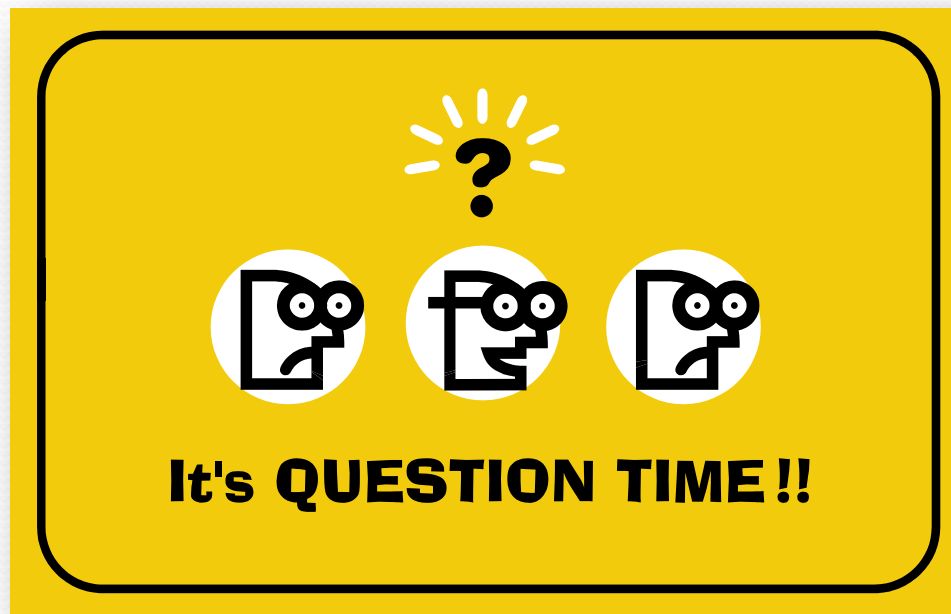
The paper is available on our website at:

<http://www.valdosta.edu/sra/presentations.shtml>



Thank You

Questions and Comments





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Association of Institutional Research
Annual Forum 2010
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Table 1: Descriptive Statistics for the Sample (N=3,520)

VARIABLE	N	PERCENTAGE	MEAN	S. D.
GENDER				
Male	1,350	38.20%		
Female @	2,170	61.80%		
ENTERING AGE				
Age (Years)	3,520		18.42	0.66
ETHNICITY				
African American	800	22.70%		
Other	130	3.80%		
White @	2,590	73.50%		
RESIDENCY STATUS				
Out of state	130	3.80%		
In state @	3,390	96.20%		
HIGH SCHOOL GPA				
3.51-4.00	610	17.40%		
3.01-3.50	1,110	31.60%		
2.51-3.00	1,210	34.20%		
0.00-2.50 @	590	16.70%		
SAT MATH				
SAT Math	3,520		485.87	66.05
SAT VERBAL				
SAT Verbal	3,520		507.86	48.28
HOUSING STATUS				
On-campus	2,220	63.00%		
Off campus @	1,300	37.00%		
FIRST-YEAR MAJOR FIELD				
Art	320	9.10%		
Humanities & Social Sciences	250	7.20%		
Business	410	11.60%		
Education	700	19.90%		
Nursing	170	4.90%		
Undecided	940	26.80%		
Science @	720	20.50%		
FIRST FALL CREDIT LOAD				
First fall credit load	3,520		13.08	2.07
FIRST-YEAR COLLEGE GPA				
3.51-4.00	470	13.30%		
3.01-3.50	860	24.50%		
2.51-3.00	870	24.70%		
0.00-2.50 @	1,320	37.50%		
MERIT AID				
Yes	2,990	84.90%		
No @	530	15.10%		
PERSISTENCE STATUS				
Early dropout	1,190	33.80%		
Late dropout	560	15.90%		
Graduation within 6 years	1,510	42.80%		
Other	260	7.50%		

Note: 1) @ indicates reference category for the set of design variables and for the outcome variable in the multinomial logistic regression model; 2) Following relevant federal protocols concerning restricted access data, all numbers in the "N" column were rounded to the nearest 10.





Table 2: Multinomial Regression Results for Three Outcome Contrasts

VARIABLE	Early vs. Late Dropout		Early Dropout vs. Graduation		Late Dropout vs. Graduation	
	Odds Ratio	Sig.	Odds Ratio	Sig.	Odds Ratio	Sig.
GENDER						
Male	0.722 **		0.911		1.262 *	
ENTERING AGE						
Age (Years)	1.185 *		1.152 *		0.972	
ETHNICITY						
African American	0.587 ***		0.709 **		1.209	
Other	0.751		0.758		1.009	
RESIDENCY STATUS						
Out of state	1.646		0.853		0.518 *	
HIGH SCHOOL GPA						
3.51-4.00	1.087		0.529 ***		0.486 **	
3.01-3.50	1.114		0.667 **		0.599 **	
2.51-3.00	0.759		0.789		1.039	
SAT MATH						
SAT Math score /100 points	0.82		1.157		1.411 ***	
SAT VERBAL						
SAT Verbal score /100 points	1.048		1.087		1.037	
FIRST-YEAR HOUSING STATUS						
On-campus	1.203		1.225 *		1.018	
FIRST-YEAR MAJOR FIELD						
Art	1.436		0.777		0.541 **	
Humanities & Social Sciences	1.151		0.635 *		0.552 **	
Business	1.347		0.755		0.561 **	
Education	1.195		0.609 ***		0.51 ***	
Nursing	0.684		0.987		1.443	
Undecided	1.134		0.811		0.715 *	
FIRST-FALL CREDIT LOAD						
First fall credit load	0.986		0.925 ***		0.939 *	
FIRST-YEAR COLLEGE GPA						
3.51-4.00	1.031		0.182 ***		0.176 ***	
3.01-3.50	0.618 **		0.209 ***		0.338 ***	
2.51-3.00	0.69 **		0.296 ***		0.428 ***	
MERIT AID						
Yes	1.389		0.863		0.621 *	

Note: *Significant at the .05 level; **Significant at the .01 level; ***Significant at the .001 level.

Citation: Ma, Y. & Cragg, K. M. (2010). *So close, Yet so far away: Underclassmen vs. upperclassmen dropouts*. AIR Annual Conference, Chicago, IL.

This entire presentation can be found at <http://www.valdosta.edu/sra/presentations.shtml>.

Abstract: While some students dropout early in their academic career, others dropout close to completion. What similarities and differences exist between these early and late dropouts? Using a sample 3,520 first-time, full-time (FTFT) students seeking a bachelor's degree at a state university, this study employs multinomial logistic regression to model factors influencing early dropout, late dropout, and 6-year graduation. Results show that age, gender, ethnicity, and first-year college GPA are significant predictors of early dropout relative to late dropout and that early dropouts and late dropouts differed from graduates in different ways. Additionally, the majority of late dropouts do not matriculate at any college after dropping out based on National Student Clearinghouse records. Campus implications will be discussed.

