

# Retention and Graduation Rates of Athletes: What About Division III?

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# Agenda

- Purpose
- Division III Athletics
- Study Population
- Descriptive Analysis
- Multivariate Analysis
- Discussion

# Purpose

- Research in Action Project
- Better understand the academic outcomes of student athletes at a Division III institution
- Provide senior administrators with performance measures
  - Athletic program
  - Team sport
- Identify influence of athletic program participation on current persistence and GPA models currently in place at the institution

# Division III Athletics\*

- Philosophy
  - Overall quality of the academic experience
  - Successful completion of all student's programs
  - Coaches play a significant role as educators
  - Cultural diversity and gender equity
- 446 members (42%)
- Median expenses per institution
  - 1.9 million (DI – 15.6, DII – 3.8)
    - 2.3 million with football (FBS – 41.4)
    - 1.2 million without football (DI – 10.3)

\*<http://catalog.proemags.com/publication/cc5da338#/cc5da338/22>

# College Sports Project\*

- Andrew W. Mellon Foundation Initiative
- 84 NCAA Division III institutions
- 83,728 students
- 2010 findings included two cohorts in their first and second year of college
- Findings
  - Student athletes tend to do as well if not better than non-athletes
  - Female athletes tend to have higher GPAs than female non-athletes
  - Male athletes tend to have lower GPAs than male non-athletes
  - Recruited athletes tend to have lower GPAs than non-recruited athletes and non-athletes

# Institution

- Private not-for-profit, Roman Catholic (Diocesan) located in St. Paul, MN
- Carnegie Classification – Doctoral
- Fall 2010 Enrollment – 10,839
- Fall 2010 (FTFY) Freshman Class – 1,519 (+11%)
- Fall-to-Fall Retention Rate – 89%
- Four-Year Graduation Rate – 59%
- Six-Year Graduation Rate – 74%

# Study Population

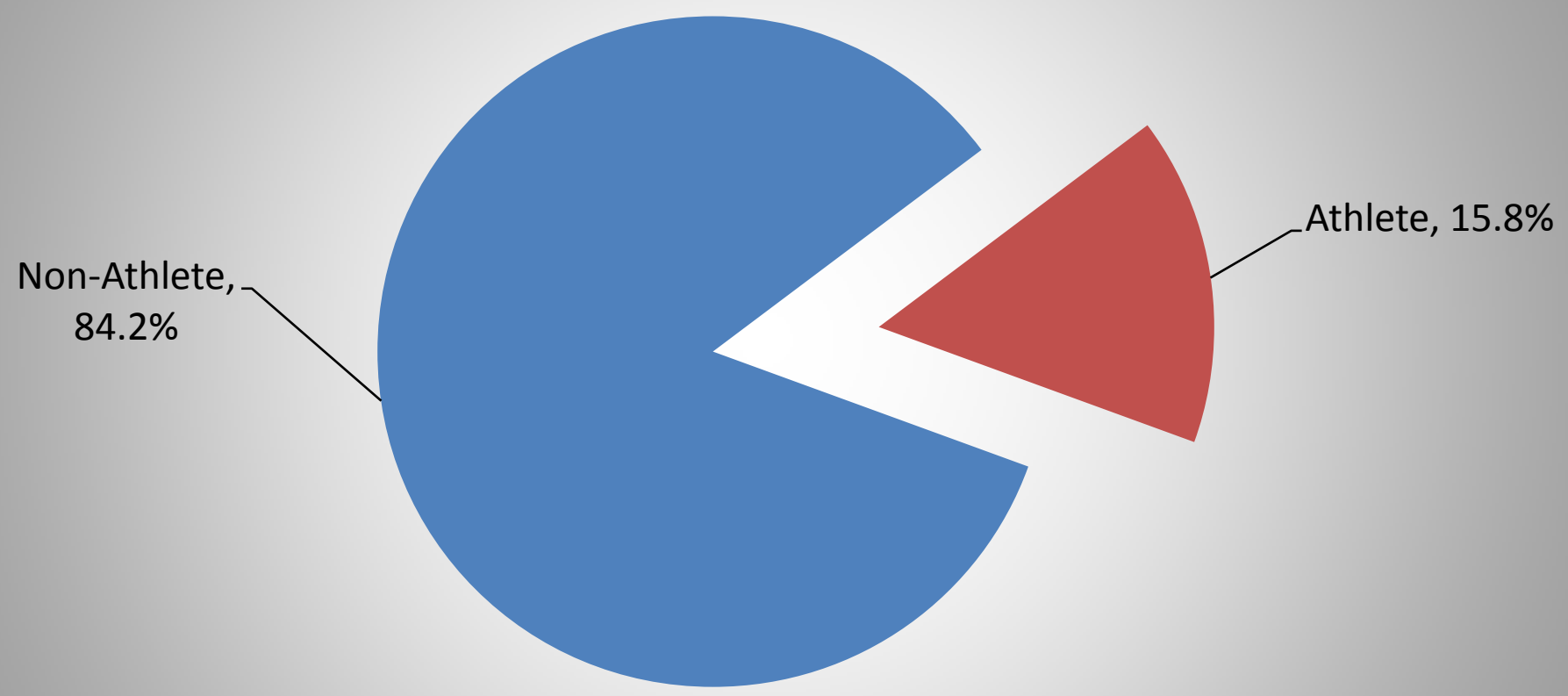
- First-Time, First Year Students (Freshman)
  - 2004-2008 (N=6,424)
    - Played sports first year(N=1,017 or 15.8%)
  - 2004-2005 (N=2,488)
    - Played sports first year(N=389 or 15.6%)

# Models

- GPA
  - First-Year
  - Fourth-Year
- Persistence
  - Fall-to-Fall Retention
  - Four-Year Graduation
- Control Variables
  - Demographics (3)
  - Engagement (4)
  - Pre-enrollment (2)
  - First Term Academics (3)



# Undergraduate Distribution by Athletic Participation (2004-2008)



N=6,424

# Demographic Factors by Athletic Participation

Demographics	Athlete	Non-Athlete	$p^*$	$\bar{x}$
Male	63.6%	46.4%	***	49.1%
Received Pell	9.4%	13.3%	***	12.7%
Underrepresented Minority	8.4%	11.9%	**	11.3%

\* $p$ -values: .01 (\*\*\*), .05 (\*\*), and .10 (\*)

# Engagement Factors by Athletic Participation

Engagement	Athlete	Non-Athlete	$p^*$	$\bar{x}$
Catholic	58.1%	54.8%	*	55.3%
Live on Campus	97.2%	91.5%	***	92.4%
Percent PT Faculty	46.6%	48.8%	**	48.4%
Enrolled in J-term	26.4%	16.0%	***	17.6%

\* $p$ -values: .01 (\*\*\*), .05 (\*\*), and .10 (\*)

# Pre-College Academic Factors by Athletic Participation

Pre-College Academics	Athlete	Non-Athlete	$p^*$	$\bar{x}$
ACT Composite	24.9	25.0		25.0
Transfer Credits	5.1	6.0	**	5.9
HS GPA	3.56	3.54		3.55
Transfer GPA	3.46	3.44		3.44

\* $p$ -values: .01 (\*\*\*), .05 (\*\*), and .10 (\*)

# First Fall Academic Factors by Athletic Participation

First Fall Academics	Athlete	Non-Athlete	$p^*$	$\bar{x}$
Completed Schedule	90.1%	87.4%	**	87.8%
Part-Time Status (<13)	10.8%	6.7%	***	7.4%
Fall GPA	3.09	3.08		3.08

\* $p$ -values: .01 (\*\*\*), .05 (\*\*), and .10 (\*)

# Persistence and Completion Factors by Athletic Participation

Persistence	Athlete	Non-Athlete	$p^*$	$\bar{x}$
Fall-to-Fall Retention	92.2%	86.6%	***	87.5%
First-Year GPA	3.13	3.12		3.12
Fourth-Year GPA	3.21	3.15	*	3.16
Four-Year Graduation	62.0%	56.6%	**	57.4%

\* $p$ -values: .01 (\*\*\*), .05 (\*\*), and .10 (\*)

	Model 1 First-Year GPA			Model 2 Four-Year GPA		
	B	Std Error	p	B	Std Error	p
<b>Demographics</b>						
Male	-.163	.015	***	-.215	.023	***
Received Pell	-.028	.023		-.026	.034	
Underrepresented Minority	-.062	.025	**	-.169	.036	***
<b>Engagement</b>						
Catholic	.043	.015	**	.021	.023	
Live on Campus	.090	.031	**	.063	.044	
Percent PT Faculty	.001	.000	**	-.001	.001	
Enrolled in J-term	.066	.020	**	.051	.029	*
<b>Pre-College Academics</b>						
ACT Composite	.052	.003	***	.045	.004	***
Transfer Credits	.005	.001	***	.007	.001	***
<b>First Fall Academics</b>						
Completed Schedule	.896	.023	***	.664	.033	***
Part-Time Status (<13)	-.211	.031	***	-.181	.043	***
Athlete First Year	.002	.021		.077	.031	**
<b>Constant</b>	.601	.077	***	1.073	.110	***

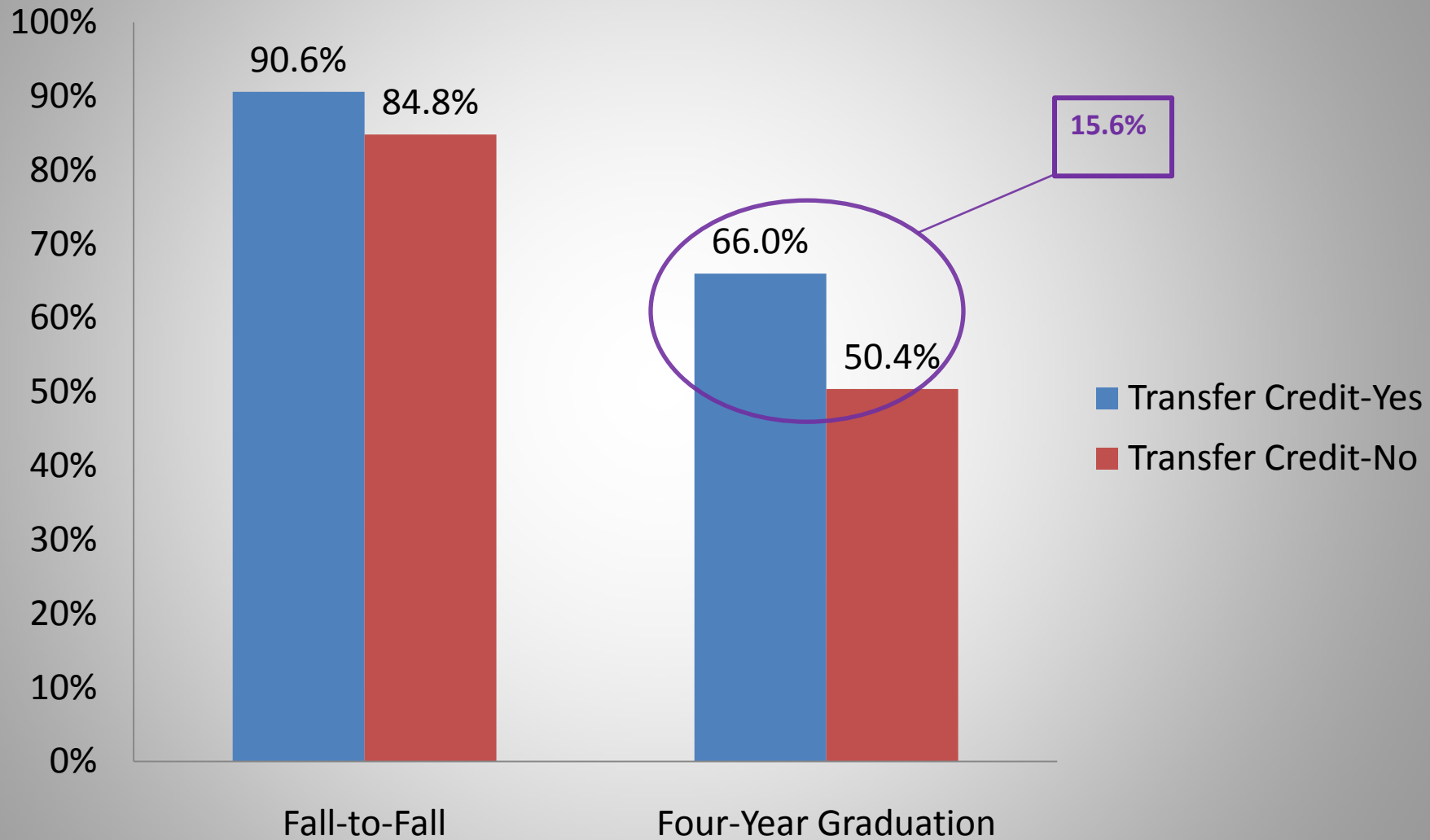
	Model 3 Fall-to-Fall Retention			Model 4 Four-Year Graduation		
	B	Std Error	<i>p</i>	B	Std Error	<i>p</i>
<b>Demographics</b>						
Male	.254	.087	**	-.401	.097	***
Received Pell	-.104	.130		-.209	.142	
Underrepresented Minority	-.351	.143	**	-.085	.151	
<b>Engagement</b>						
Catholic	.161	.086		.131	.096	
Live on Campus	.483	.145	***	.624	.185	**
Percent PT Faculty	-.004	.002		.000	.002	
Enrolled in J-term	.917	.147	***	.203	.124	
<b>Pre-College Academics</b>						
ACT Composite	-.003	.015		.007	.016	
Transfer Credits	.022	.006	***	.009	.006	
<b>Fall Academics</b>						
Completed Schedule	1.496	.099	***	1.489	.143	***
Part-Time Status (<13)	-.536	.152	***	-.719	.179	***
Athlete First Year	.496	.139	***	.211	.132	***
<b>Constant</b>	3.583	.669	***	.338	.697	



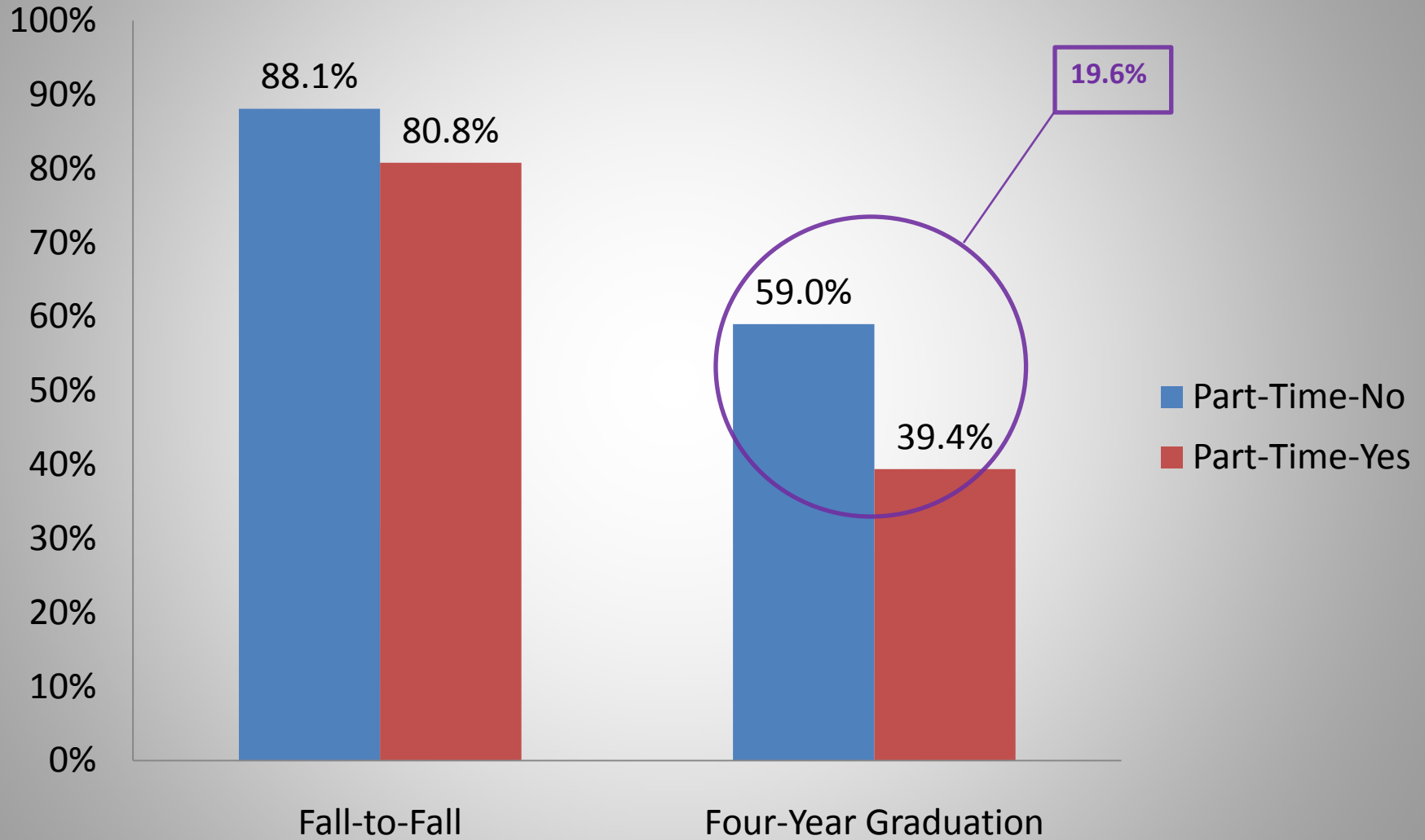
# Application

- Transfer Credit
- Part-Time Status
- Living on Campus
- Completing Schedule
- Sports First Year

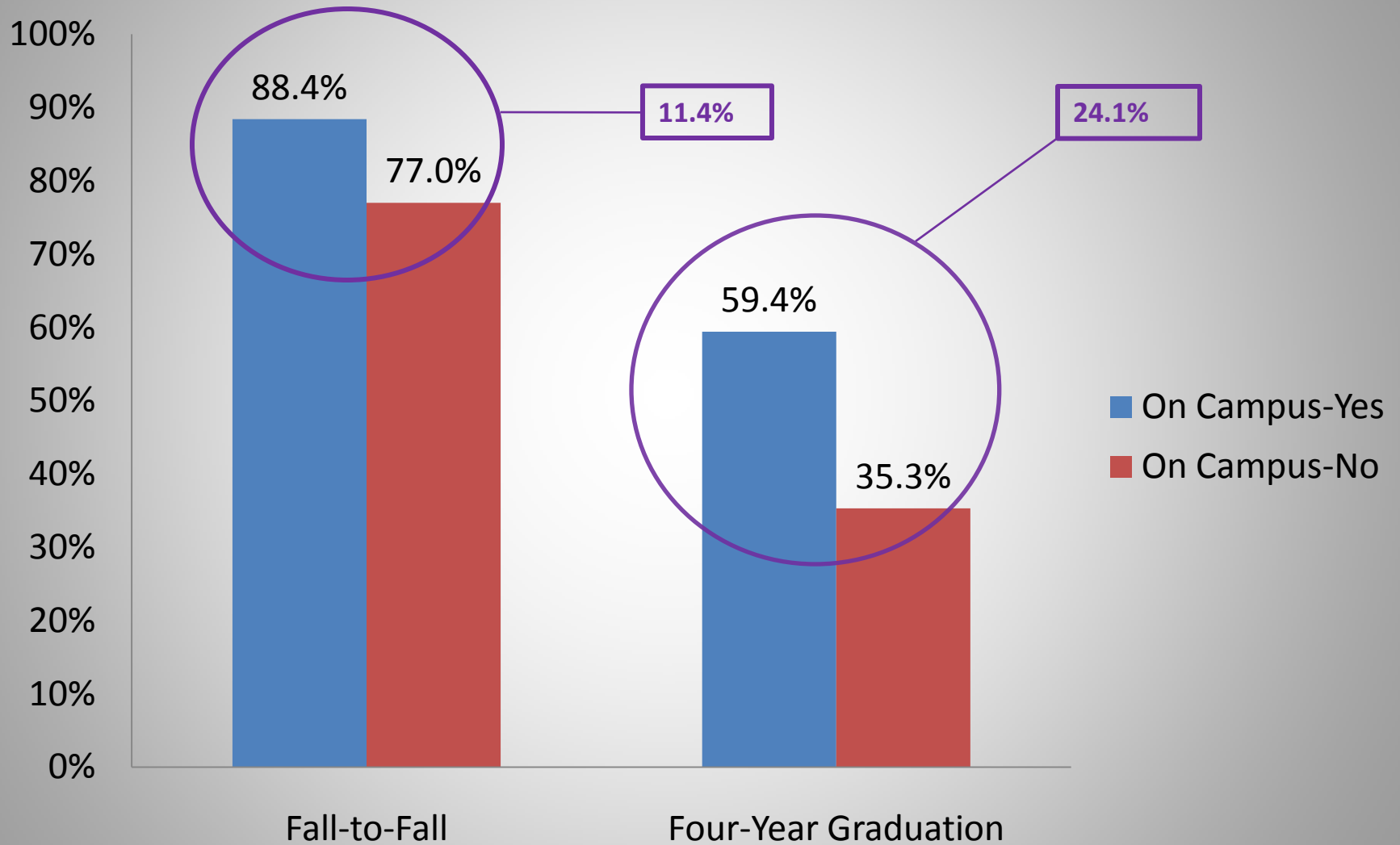
## Fall-to-Fall Retention and Four Year Graduation Rates by the Presence of Transfer Credit



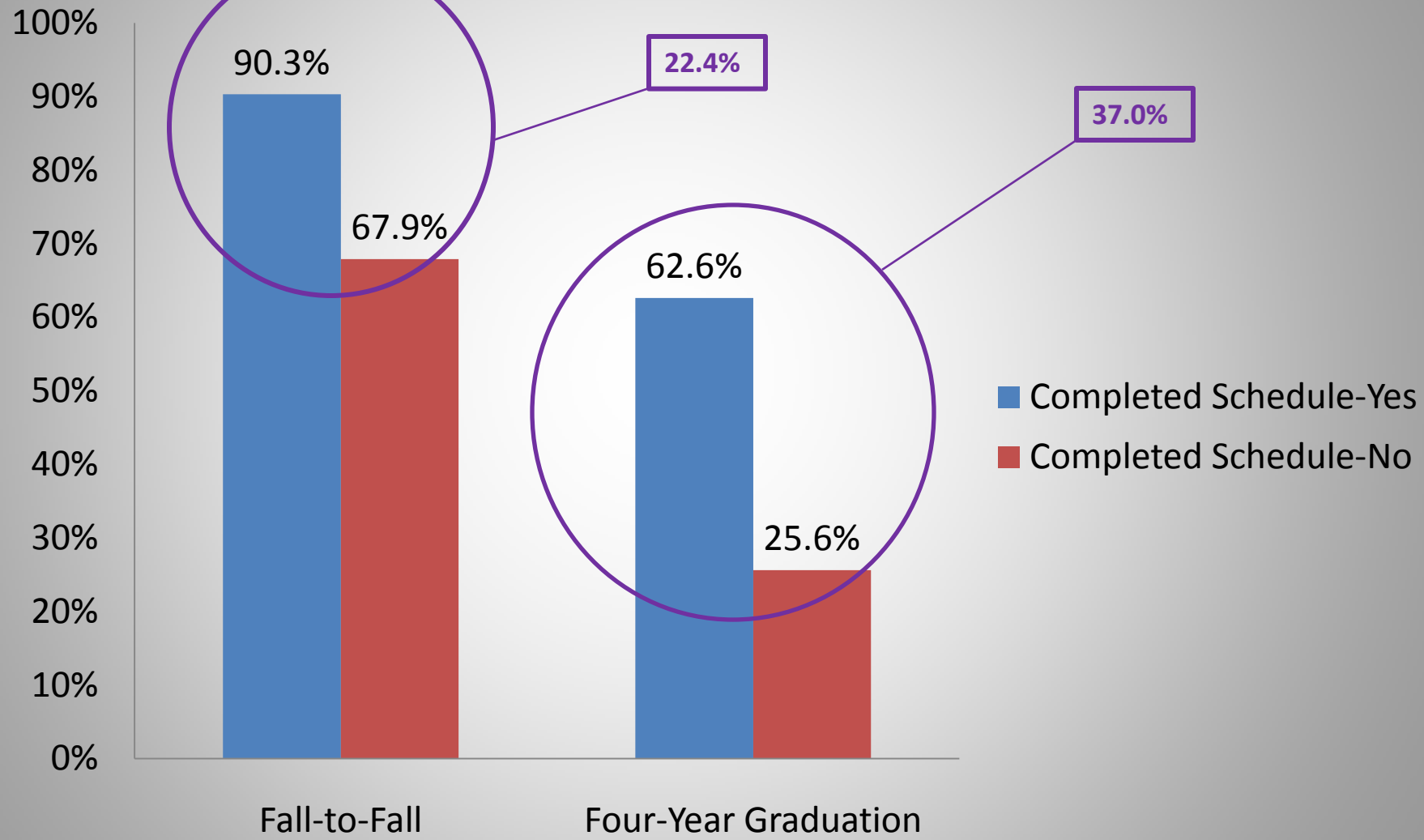
## Fall-to-Fall Retention and Four Year Graduation Rates by Part-Time Status



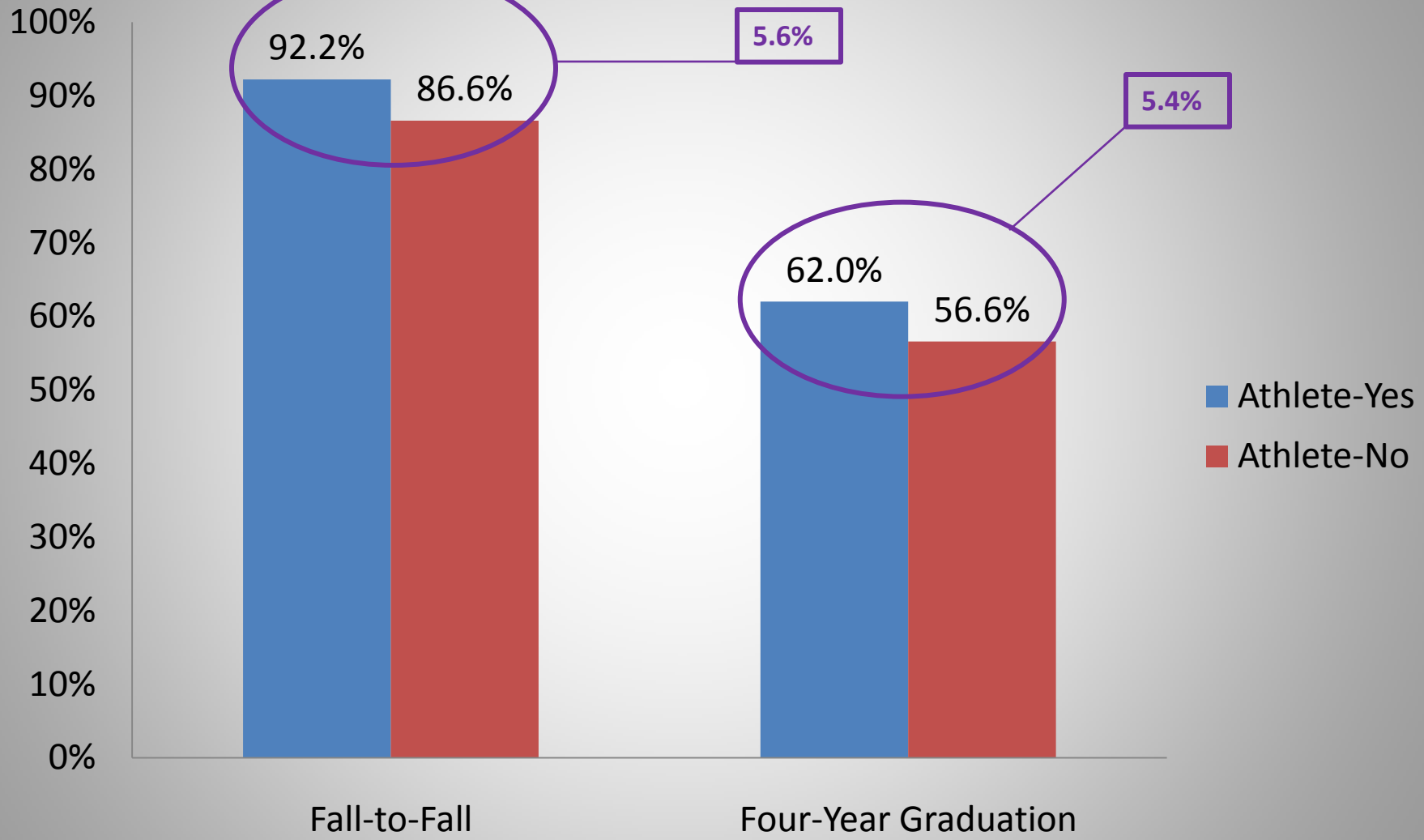
## Fall-to-Fall Retention and Four Year Graduation Rates by Living on Campus First Year



# Fall-to-Fall Retention and Four Year Graduation Rates by Completed Schedule



# Fall-to-Fall Retention and Four Year Graduation Rates by the Presence of Athlete First Year



# Implications

- Playing sports is positively related with successful academic outcomes in the following ways:
  - Student athletes earn similar first year and fourth year GPAs when compared to student non-athletes
  - Student athletes are more likely to return for their second year and graduate in four years when compared to student non-athletes
  - GPA models indicate playing a sport your first year at UST maintains a limited, positive relationship with four-year GPA
  - Persistence models indicate playing a sport during the first year at UST maintains a positive effect on fall-to-fall retention and four year graduation rates

# Discussion

