

Academic Momentum and Traditionally Underrepresented Student Outcomes: Does 15-to-Finish Initiative Make A Difference?

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Background

- ❖ Fall 2013, the Board of Regents approved a proposal to adopt the Enrollment Intensity and Student Achievement Campaign, known as 15 to Finish



- ❖ Encouraging 18 to 24 year old undergraduate students to enroll at least 15 credits per semester OR 30 credits per year.

Background



Graduate on Time.



Save money.



Earn sooner.

**Take 15 credits a semester and finish your degree on time!
Meet with your advisor today.**

Background



Getting the Word Out

- ❖ Student Orientation
- ❖ Institutional Website
- ❖ Advising Center
- ❖ Poster
- ❖ And more

Background

- ❖ Academic Momentum
 - ❖ One influential perspective explaining degree noncompletion emphasizes the notion of academic momentum (Adelman, 1999, 2006).
 - ❖ The initial academic course load and progress, the speed with which undergraduates initially progress in college.
 - ❖ Academic momentum significantly affects the likelihood of completing a degree.
 - ❖ An effect separate from those of high school academic preparation and family socioeconomic status.

Background

- ❖ The Fall 2014 and Fall 2015 outcomes data for the NSHE institutions indicate that overall this initiative was positively related with student GPA and persistence.
- ❖ **HOWEVER, one may argue that some students may have challenges to enroll in 15 or more credits, particularly those who have been historically underrepresented in post-secondary education.**
- ❖ Literature typically employs aggregated data to examine the effects of campus initiatives on student success without disaggregating performance based on demographic variables (Bensimon, 2005; Dowd & Bensimon, 2015).

Purpose of The Study

- ❖ To examine the outcomes metrics measured by retention, semester GPA, and cumulative credits by Academic Momentum (≥ 15 ; < 15), and
 - ❖ Pell recipient status,
 - ❖ Race and ethnicity, and
 - ❖ First-generation status
- ❖ To test the effect of 15-to-Finish on student outcomes using censored model

Research Questions

❖ **Study 1**

- ❖ Compared with their peer counterparts who enrolled < 15 credits in first fall:
 - ❖ Were students enrolled in 15 or more credits retained at a higher rate?
 - ❖ Did students enrolled in 15 or more credits earn a higher GPA?
 - ❖ Did students enrolled in 15 or more credits earn higher cumulative credits?
- ❖ **BY**
 - ❖ Pell recipient status,
 - ❖ Race and ethnicity, and
 - ❖ First-generation status

Research Questions

❖ Study 2

- ❖ How does the trained credit hour enrollment choice model based on Fall 2010 to Fall 2012 cohort data predict student enrollment behavior in Fall 2013 to Fall 2015?
- ❖ How does predicted enrollment differ from actual enrollment pre- and post-treatment?
- ❖ Are there measurable differences in student performance pre- and post-treatment?

Theoretical Framework

❖ **Academic Momentum**

(Credit momentum, gateway momentum, and program momentum)

- ❖ Cliff Adelman (1999, 2006) first introduced the notion of academic momentum.
- ❖ Attewell, Heil, and Reisel (2012): **first-semester attempted credit hours.**
- ❖ Wang, Chan, Phelps, and Washbon (2015) defined it using four components: total attempted credits during the first year, delayed entry, summer enrollment, and first-term GPA.

Theoretical Framework

- ❖ Academic Momentum → Integration/Involvement/Engagement
- ❖ The amount of physical and psychological energy that a student devotes to the academic experiences.
- ❖ The amount of time and effort a student devotes to their studies and other educationally purposeful activities

- ❖ Intense enrollment brings a student more integrated into the social and academic life (Tinto, 1975).
- ❖ Intense enrollment channels students' time toward educational pursuits, depth of academic focus, and thus commitment to completion (Astin, 1984).
- ❖ The more a student is involved/engaged in the educational experience, the more he/she could gain intellectually and socially (Astin, 1984, 1999; Kuh, 2003).

Theoretical Framework

❖ **Academic Momentum and Student Outcomes**

- ❖ Higher completion rates for students who took 15 or more credits than 12 in the first term (Belfield, Jenkins, & Lahr, 2016).
- ❖ Especially, strong effects on credit momentum for students of color (Attewell & Monaghan, 2016; Belfield et al., 2016).
- ❖ Students taking heavier course-loads tended to earn higher GPAs and were more likely to remain enrolled after 1 year (Szafran, 2001).
- ❖ Data from the National Educational Longitudinal Survey (NELS:88/2000) indicate that attending part time in the first semester is related to a reduced probability of degree completion (Attewell et al., 2012).

Data Sources

❖ Data Sources

❖ **Study 1:** Enrollment census data of Fall 2014
FTFT Cohort

❖ **Study 2:** Enrollment census data of Fall 2010 to
Fall 2015

Participants

❖ Participants

- ❖ **Study 1:** 3,715 first-time, full-time undergraduate degree-seeking students starting Fall 2014, IPEDS cohort of Fall 2014 (Table 1)
- ❖ **Study 2:** 19,603 students enrolled from Fall 2010 to Fall 2015

Table 1
Characteristics of 2014 IPEDS FTFT Cohort

		Fall 2014 (3716)	
		n	%
Gender	<i>Female</i>	2082	56
	<i>Male</i>	1634	44
Pell Recipient Status	<i>Pell recipient</i>	1347	36
	<i>Non-Pell recipient</i>	2369	64
Race/Ethnicity	<i>American Indian or Alaska Native</i>	8	0.2
	<i>Asian</i>	634	17
	<i>Black or African American</i>	269	7
	<i>Hispanic</i>	1104	30
	<i>Native Hawaiian or Other Pacific Islander</i>	59	2
	<i>Nonresident Alien</i>	82	2
	<i>Two or more races</i>	410	11
	<i>Unknown</i>	23	0.6
	<i>White</i>	1127	30
First-Generation Status ^a	<i>First-Generation</i>	1986	53
	<i>Non-First-Generation</i>	1575	42
	<i>Not Indicated</i>	155	4
Residency	<i>IS</i>	3064	82
	<i>OS</i>	652	18
Credit load in first fall term	<i>12</i>	578	16
	<i>13 - 14</i>	675	18
	<i>≥ 15</i>	2463	66
Age		<i>M</i>	<i>SD</i>
		18.07	0.81

Note: a first-generation student is a student neither of whose parents received a 4-year degree.

Data Analysis

❖ Study 1

- ❖ Descriptive statistics of academic momentum in first fall term
- ❖ One-year, two-year retention, and cumulative university credits
- ❖ **By**
- ❖ academic momentum, measured by attempted credits (1: ≥ 15 , 0: < 15),
- ❖ Pell recipient status (1: ever received Pell, 0: no Pell),
- ❖ Race and ethnicity (Asian/White, Non-Asian/Non-White), and
- ❖ First-generation status (FG, Non-FG)

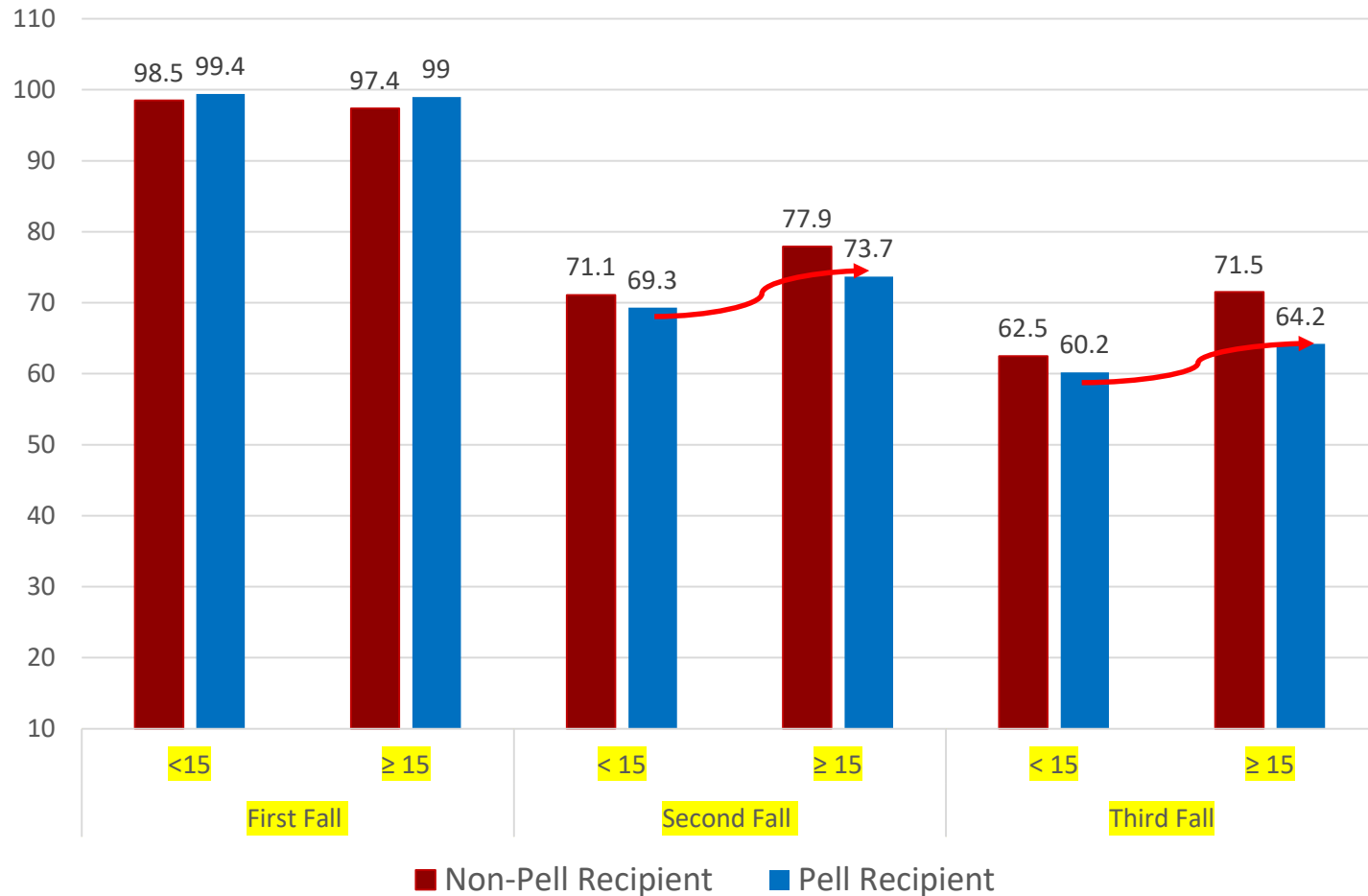
Data Analysis

❖ Study 2

- ❖ Training a credit hour enrollment model using Fall 2010 to Fall 2012 census data (pre-treatment)
- ❖ Using trained model to predict sequential enrollment behavior of Fall 2013 to Fall 2015 (post-treatment)

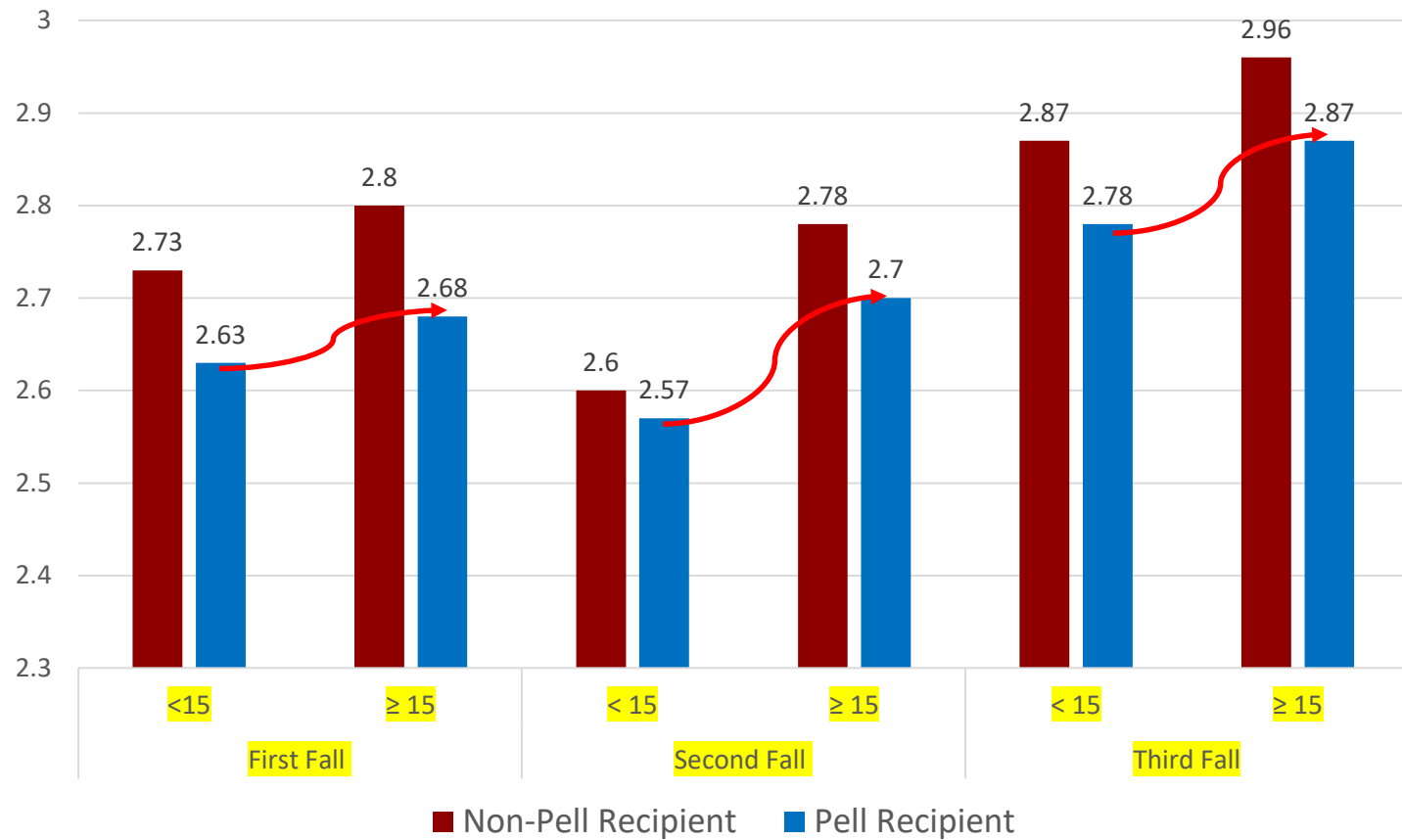
Findings (Study 1)

❖ Retention Rate by Academic Momentum and Pell Status



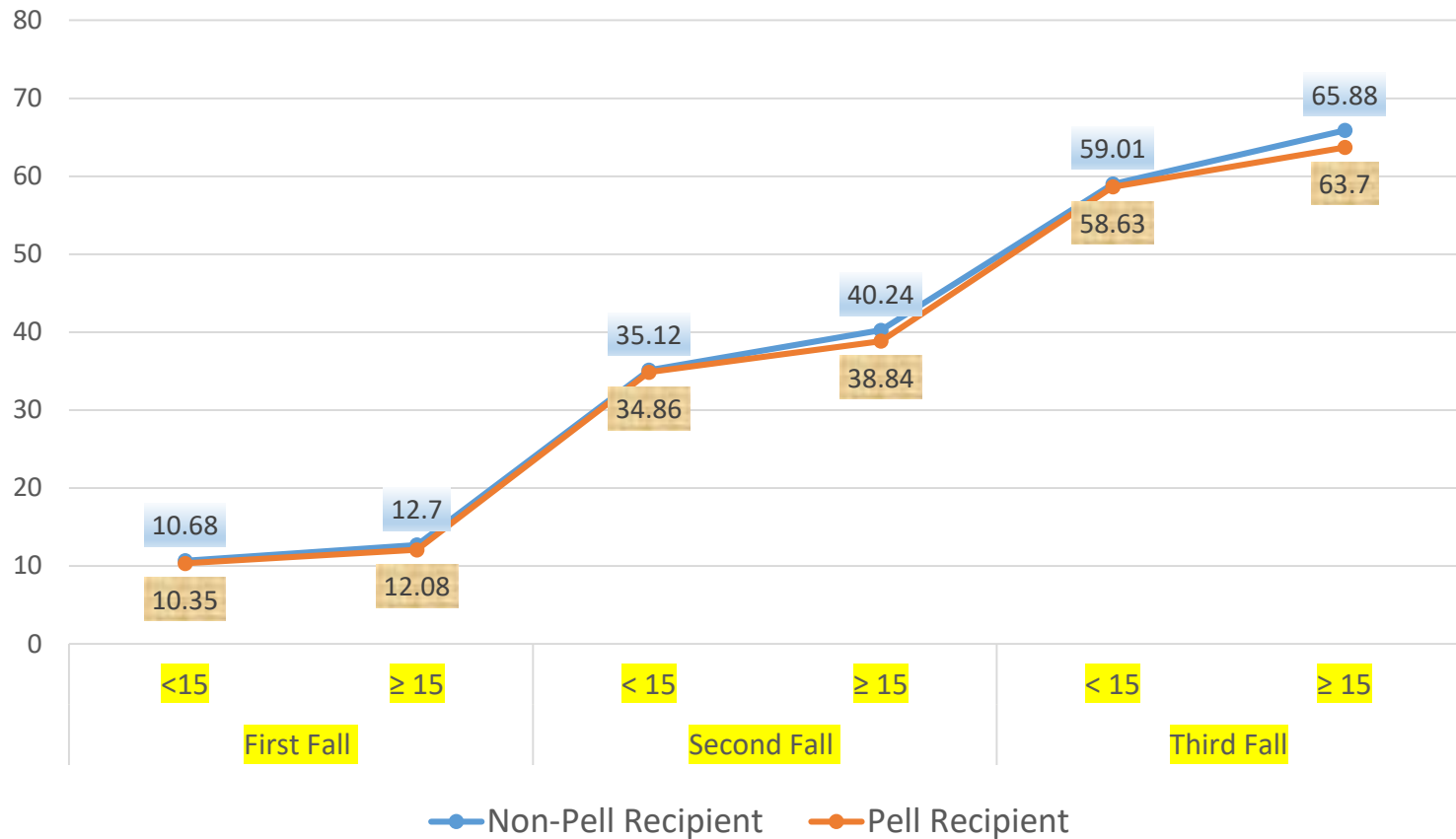
Findings

❖ Semester GPA by Academic Momentum and Pell Status



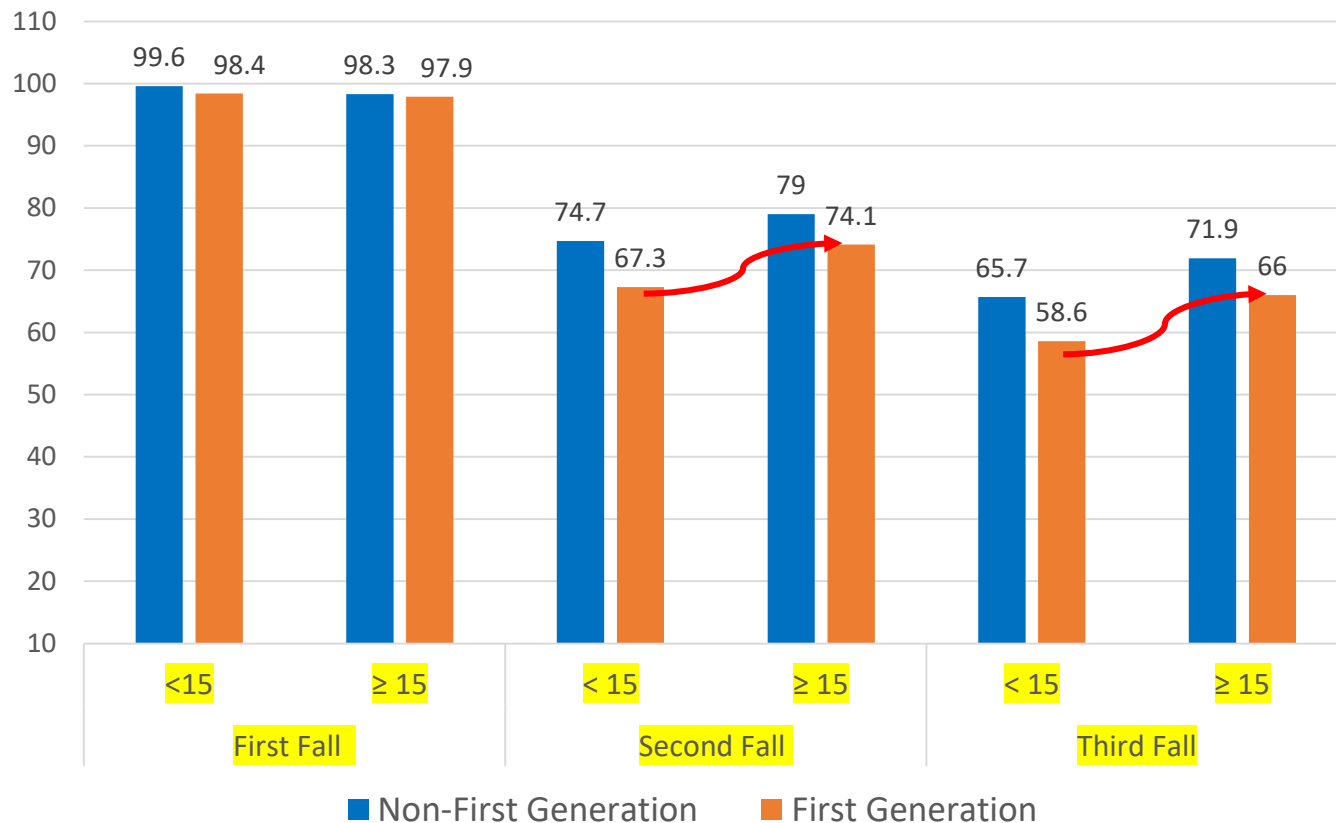
Findings

❖ Cumulative Credits by Academic Momentum and Pell Status



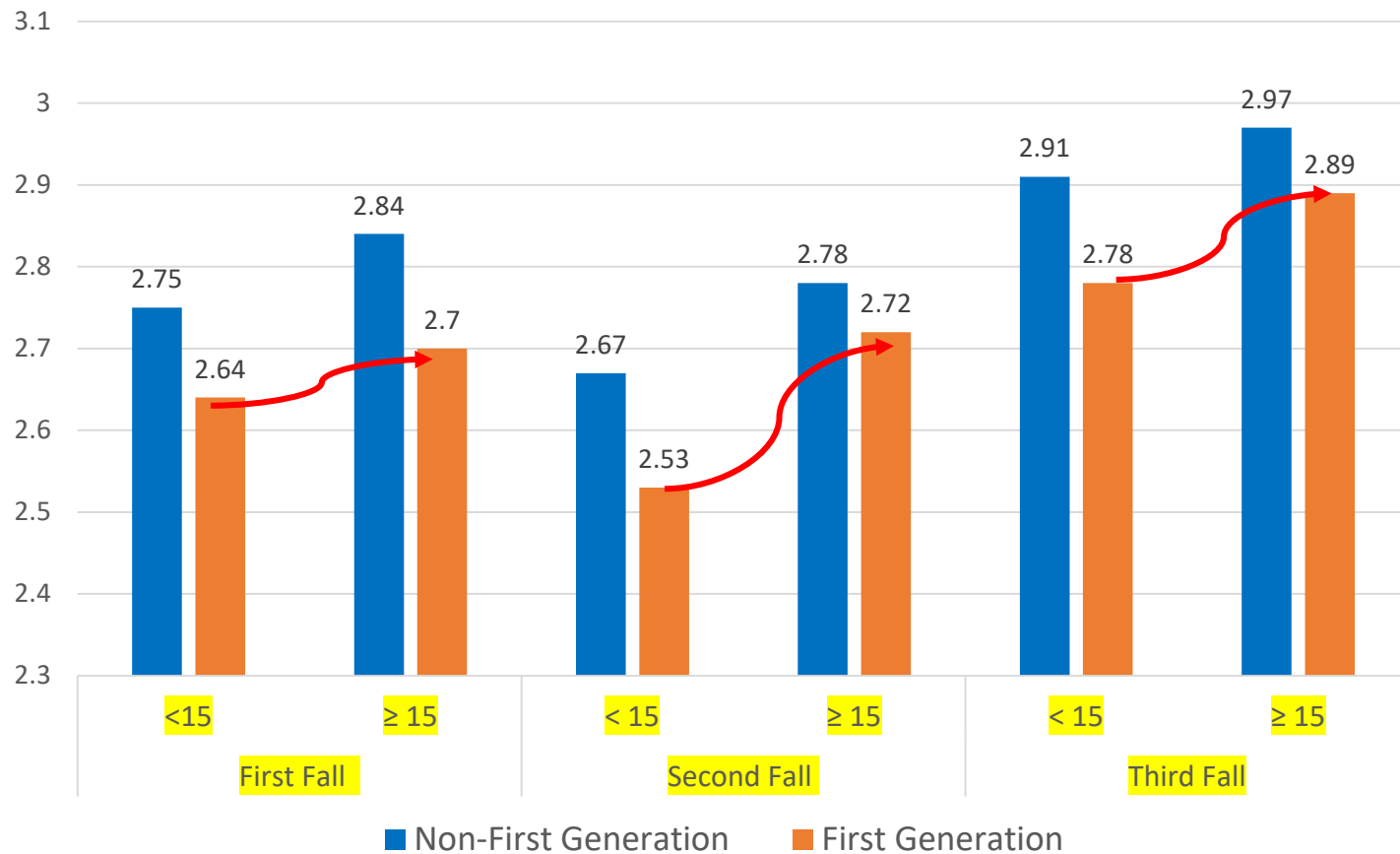
Findings

❖ Retention by Academic Momentum and FG Status



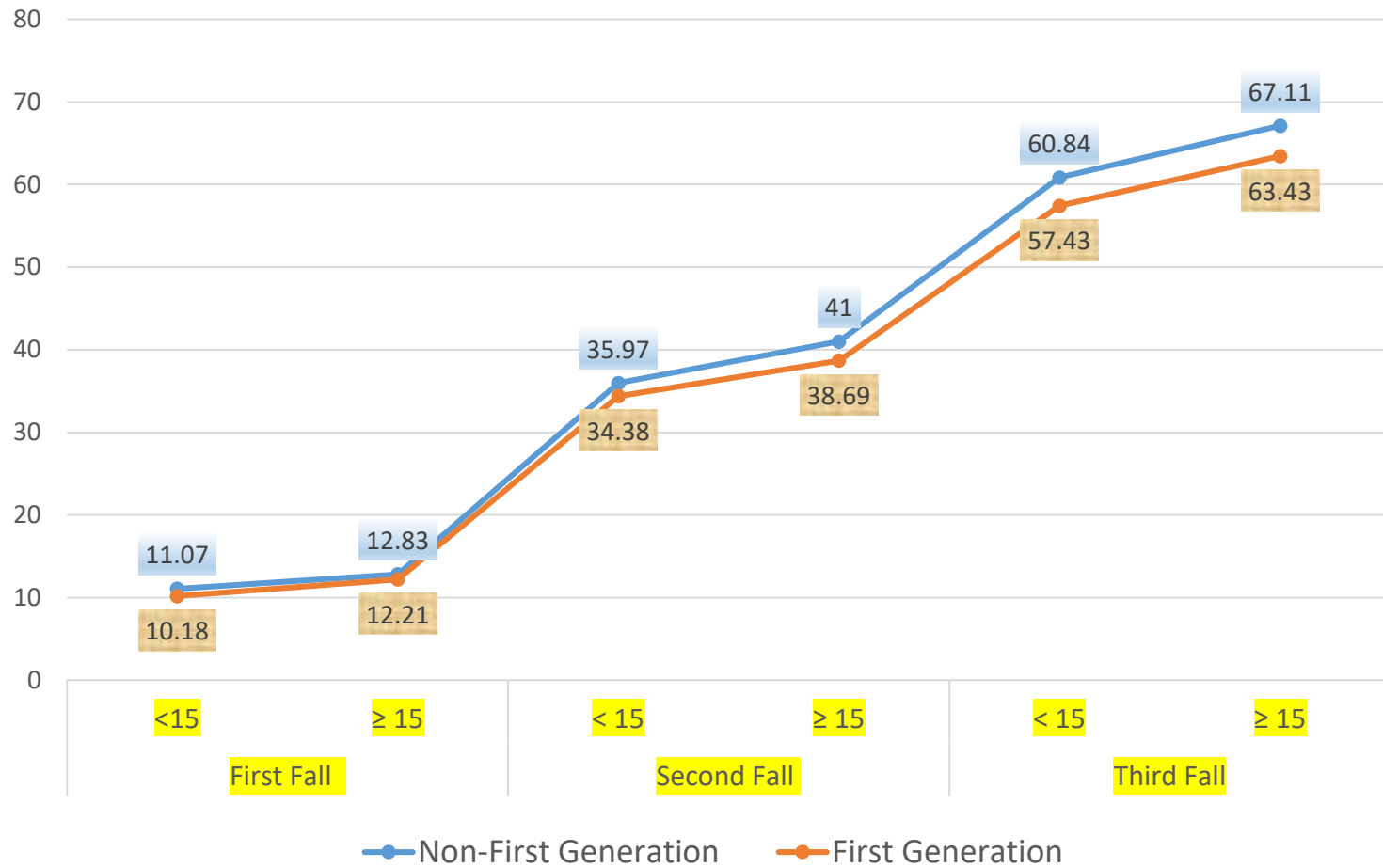
Findings

❖ Semester GPA by Academic Momentum and FG Status



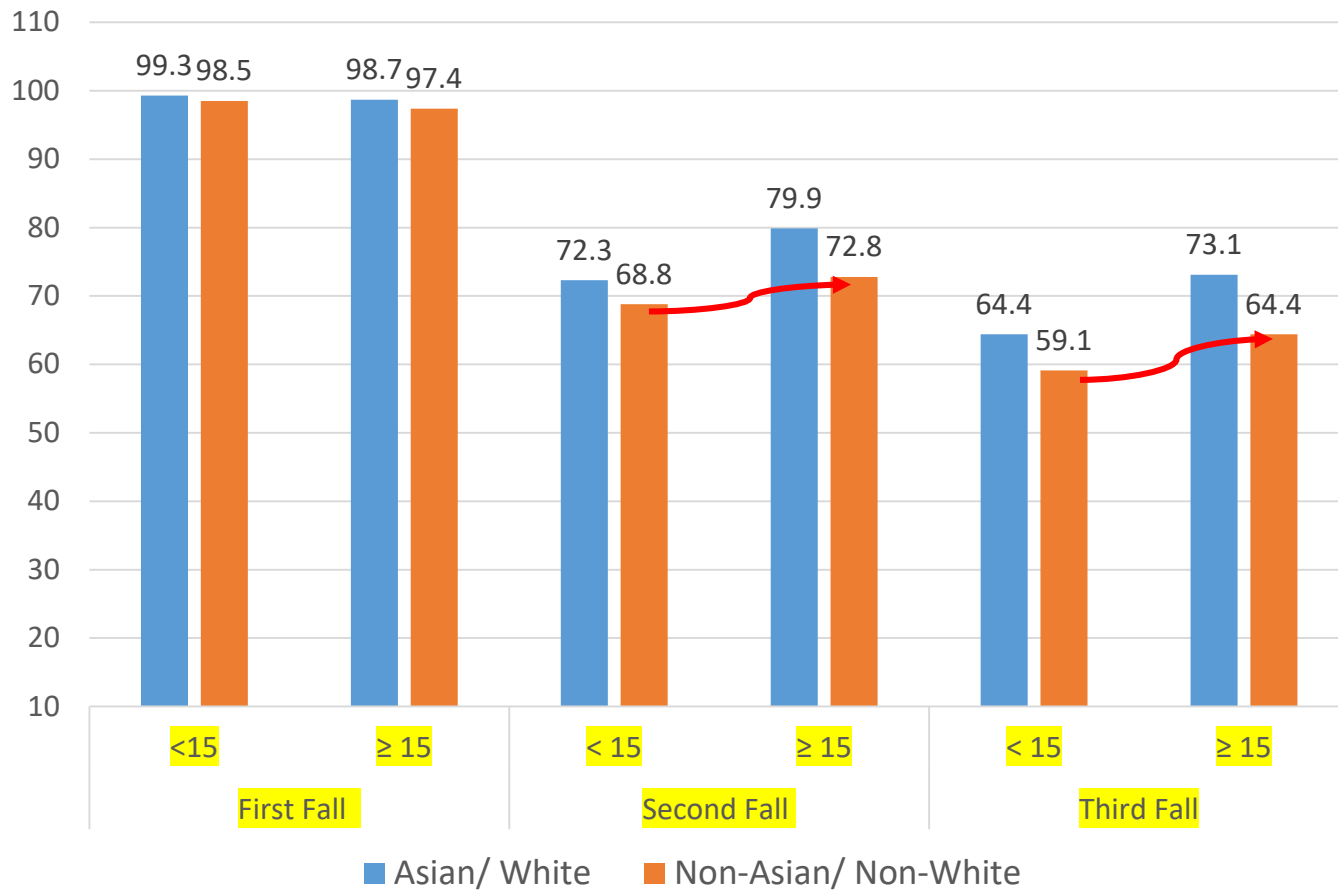
Findings

❖ Cumulative Credits by Academic Momentum and FG Status



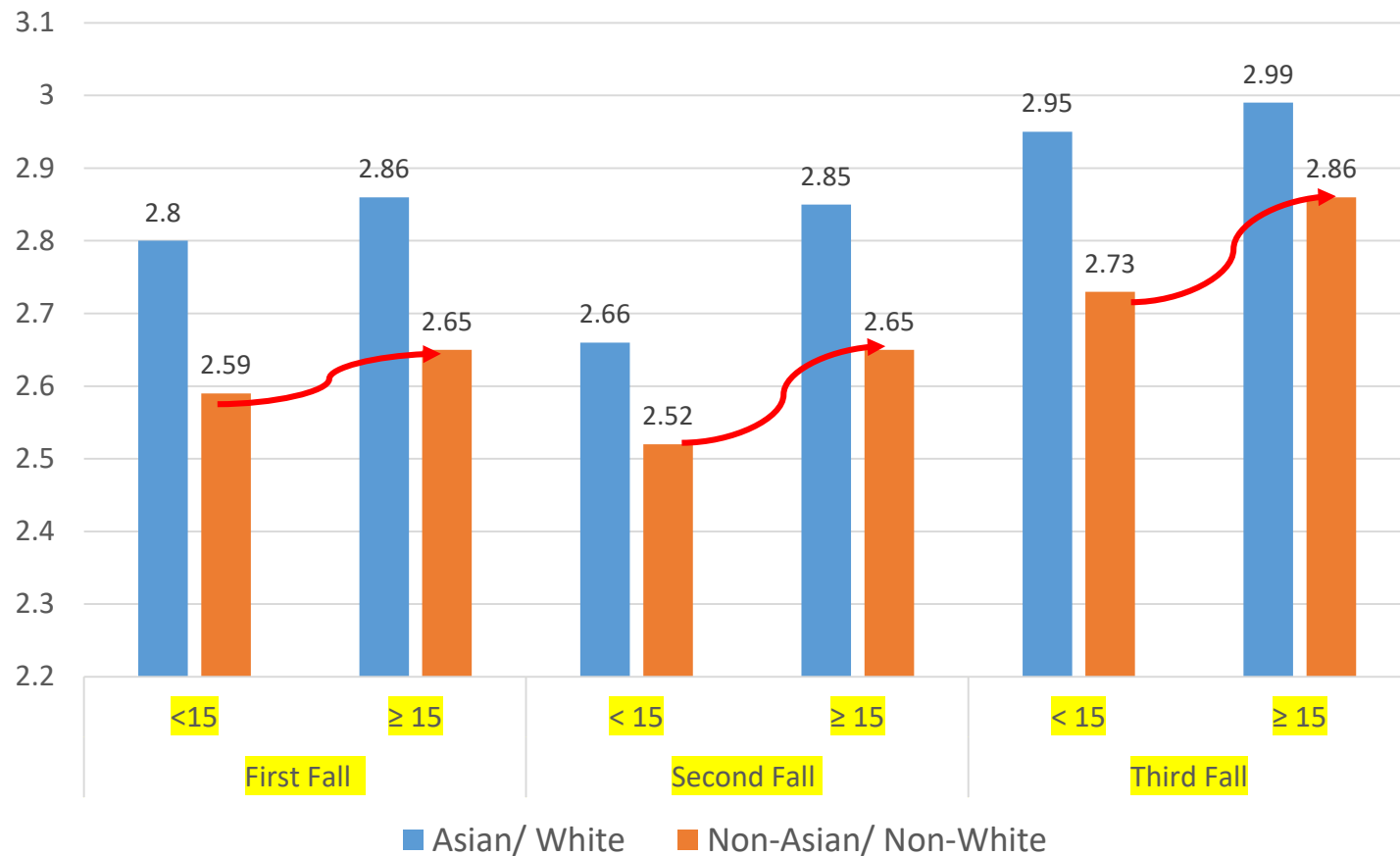
Findings

❖ Retention by Academic Momentum and Race/Ethnicity



Findings

❖ Semester GPA by Academic Momentum and Race/Ethnicity



Findings

❖ Cum Credits by Academic Momentum and Race/Ethnicity

