

**Advancing and Testing a Conceptual Model that  
Measures Student Success at  
For-profit Colleges and Universities**

**Jihee Hwang**

**The Pennsylvania State University**

# Acknowledgement

---

---

This material is based upon work supported by the Association for Institutional Research, the National Center for Education Statistics, the National Science Foundation, and the National Postsecondary Education Cooperative under Association for Institutional Research Grant Number DG-63. Any opinions, findings, and conclusions or recommendations expressed in this material are those of the author and do not necessarily reflect the views of the Association for Institutional Research, the National Center for Education Statistics, the National Science Foundation, or the National Postsecondary Education Cooperative.

# Problem Statement

---

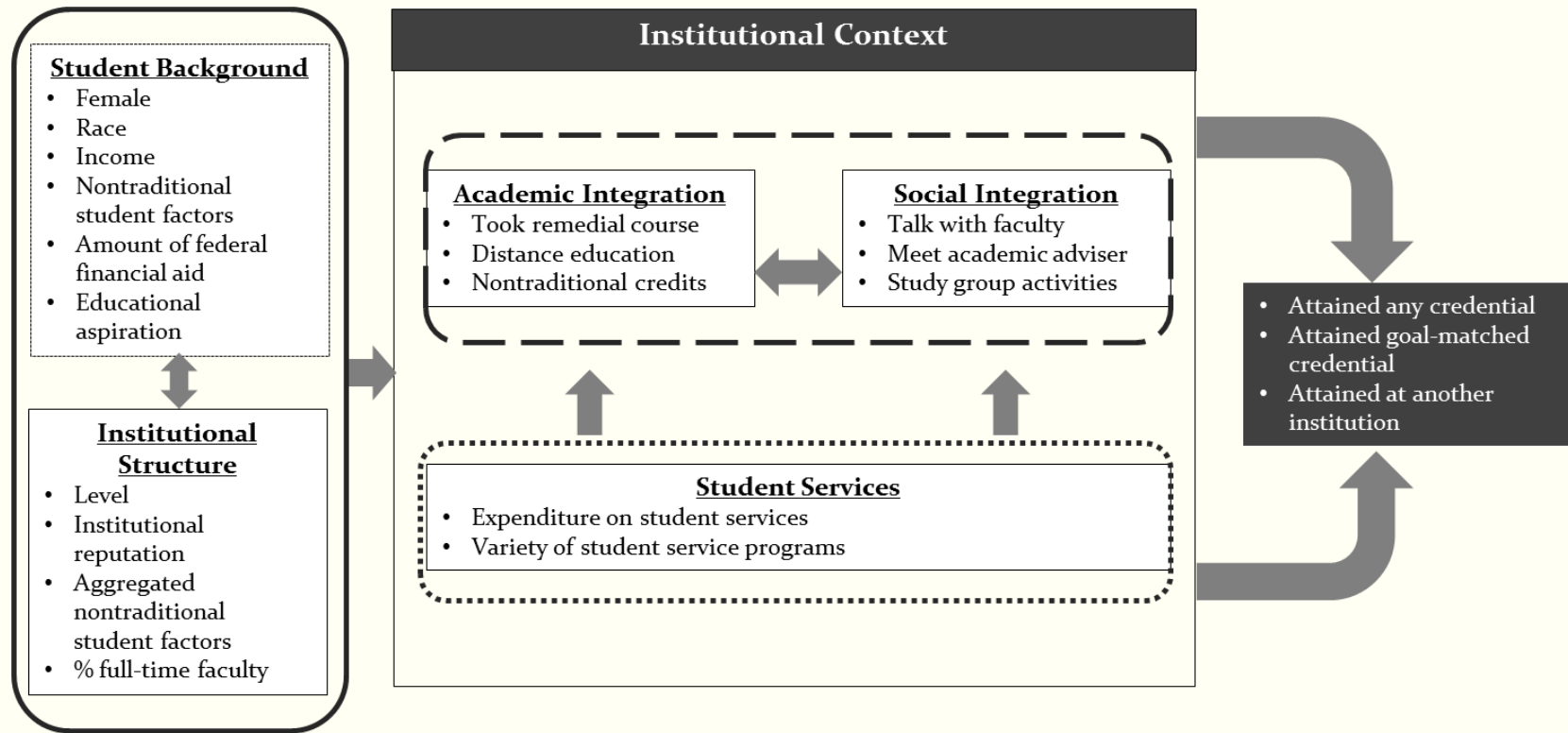
- Dramatic growth of enrollment in FPCUs and federal financial support for FPCU students;
- FPCUs have potential to increase college access and enhance level of educational attainment for disadvantaged students;
- FPCUs have been accused of misleading students (e.g., deceptive use of taxpayers money, low completion rate, high student loan default rate);
- Federal policy seeks stronger regulation on FPCUs' accountability.
- Insufficient research evidence on the level of FPCU student success.

## Gaps in Literature

---

- There have been lack of interest in credential attainment/completion as an indicator of FPCU student success.
- No (or Rare) attempts have been made using theory-driven models to explain FPCU student outcomes.
- Studies rarely account for FPCUs' student diversity in such things as credential types sought or program of study enrollment.
- Comparisons that are available tend to be made with community college students.
- No considerations of institution-level aspects that influence student success.

# Conceptual Framework



- Adapted from Pascarella's General Model for Assessing Change
- Adapted from Tinto's model of Institutional Departure
- Adapted from Bean and Metzner's Nontraditional Student Attrition Model

# Research Questions

---

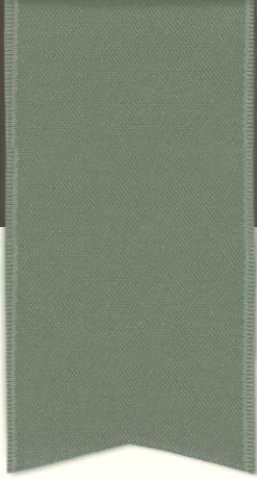
1. How does using alternative measures to define credential completion in FPCUs influence who is counted as a completer?
  - a. Measure 1: Who completes when credential completion is defined as whether one attained any type of credential at the institution of initial entry?
  - b. Measure 2: Who completes when credential completion is defined as whether one attained a credential that matched their initial credential goal at the institution of initial entry?
  - c. Measure 3: Who completes when credential completion is defined as whether one attained a credential after leaving the FPCU of initial entry?

## Research Questions (Cont.)

---

---

2. Using the conceptual framework as a guide, what institutional structures, student services, student background characteristics, and student experiences influence completion of any credential type by FPCU students?
  - a. How do the factors (stated above) differ among certificate- versus degree-seeking students at FPCUs?
  - b. How do the factors (stated above) differ among students enrolled in vocational/technical programs versus academic programs at FPCUs?
  - c. How do the factors (stated above) differ between for-profit and not-for-profit college attendees?



# METHOD

Data Source, Sample, Variables, and Analytic Strategy



# Data source, Sample, and Analytic Design

---

- Data: Beginning Postsecondary Students 2004 (BPS04) & IPEDS 2004
- Sample: First time college students who attended FPCUs in 2004
- Analytic Design
  - RQ1: Descriptive analyses
  - RQ2: Multilevel logistic regression analysis (MLR)

# Multilevel Logistic Regression (MLR)

---

- Dependent variable: Any type of credential attainment at the FPCU of initial entry ('completion measure 1')
- Independent variables:

## Institution level

- **Structure:** level, reputation, % of full-time faculty, aggregated level of nontraditional student
- **Student service:** Institutional expenditure on student service, diversity of student service

## Student level

- **Background:** gender, race, income, financial aid (\$), nontraditional student index, educational aspiration
- **Academic integration:** remedial class, distance education, nontraditional credits
- **Social integration:** talk with faculty, meet academic adviser, study group participation

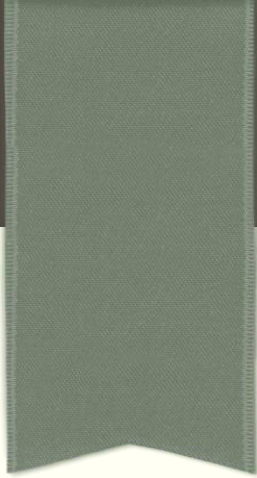
# Sub-samples for MLR Analyses

RQs	Sample Description	Operation of Conceptual Model
RQ2.	Students in 4- and 2-year FPCUs	(Full model)
	Students in 4- , 2- , and less than 2-year FPCUs	(Partial model)
RQ2-a.	Students in 4- , 2- , and less than 2-year FPCUs separated by credential types	(Partial model)
RQ2-b.	Students in 4- , 2- , and less than 2-year FPCUs separated by programs of study	(Partial model)
RQ2-c.	Students in 4- and 2-year FPCUs	(Full model)
	Community college students	
	Broad access four-year not-for-profit college students	(Partial model)
	Students in 4- , 2- , and less than 2-year FPCUs	
Community college students		
	Broad access four-year not-for-profit college students	

# Limitations

---

- Representativeness
  - For-profit college students
  - For-profit college universe
- Variable operationalization
- Sample size



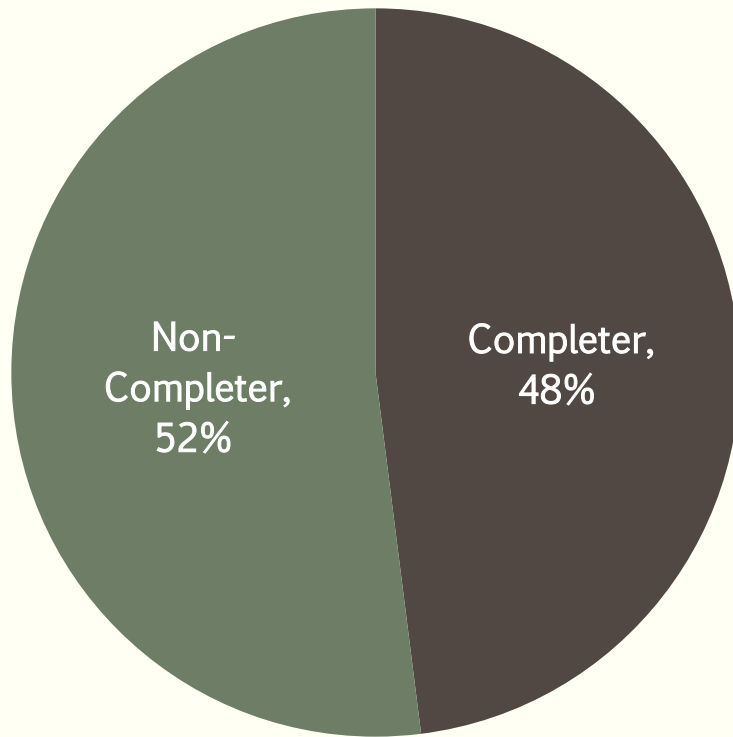
# KEY FINDINGS

# RQ1. Descriptive Results of Completion Measure 1 and 2

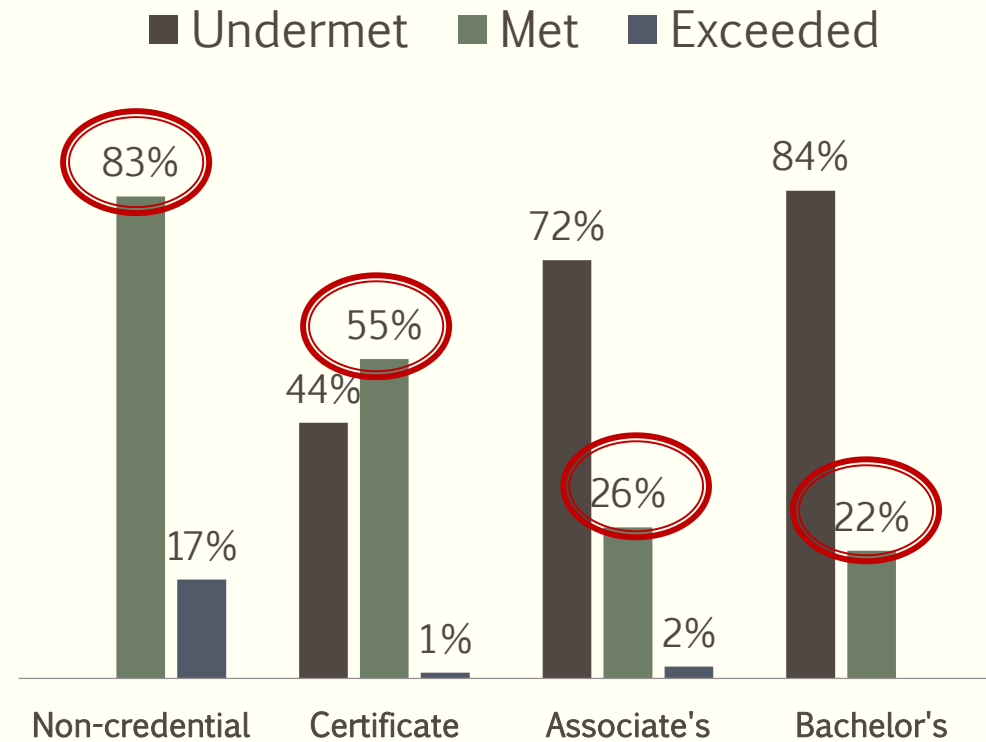
---

---

## Measure 1



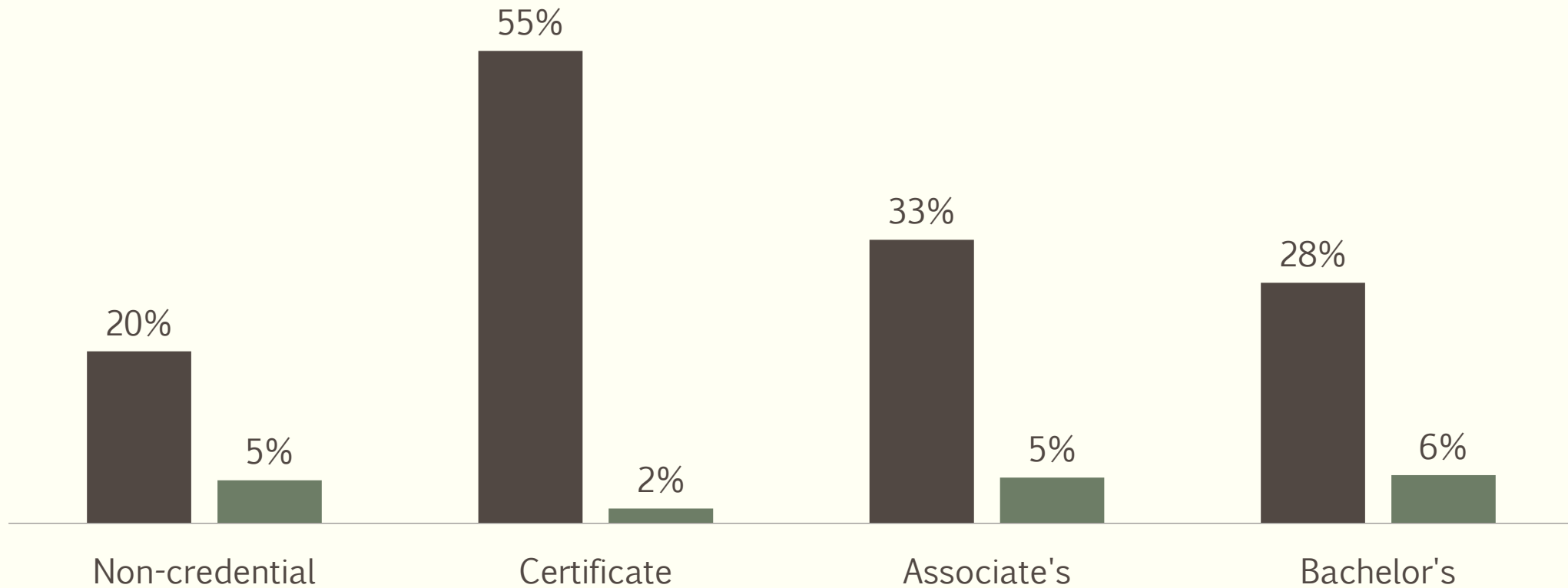
## Measure 2



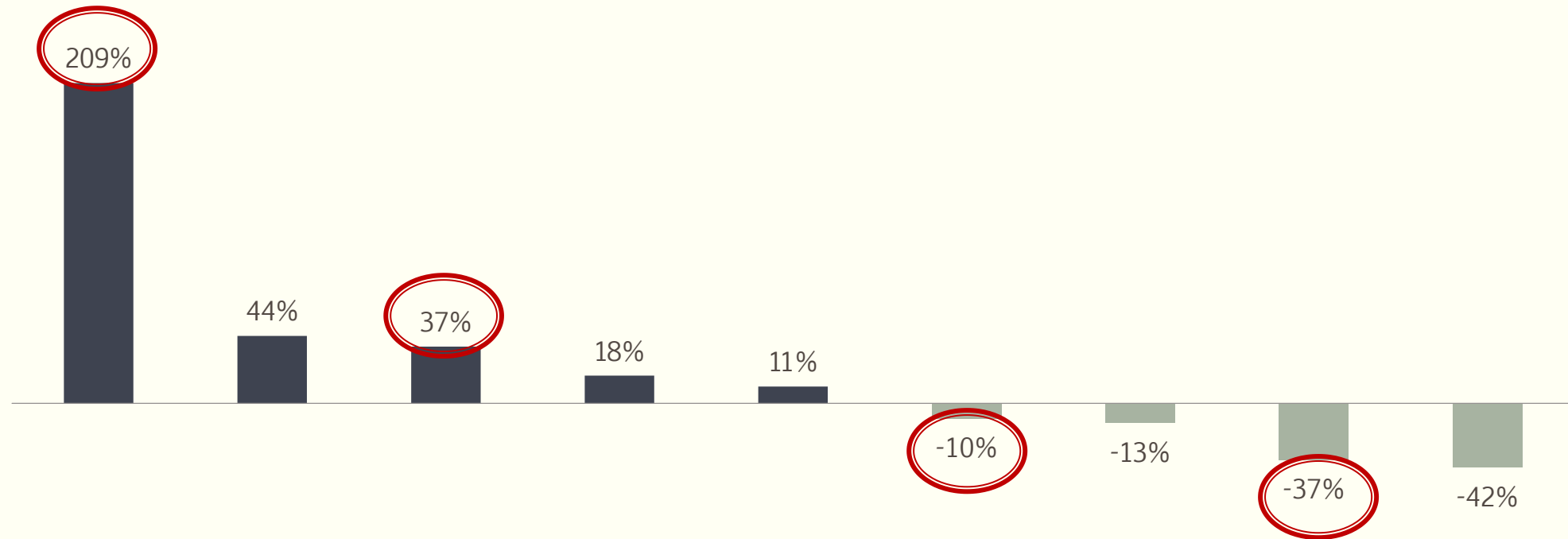
# RQ1. Descriptive Results of Completion Measure 3

---

- % attained any credential at first FPCU
- % attained no credential at first FPCU but attained credential at another institution



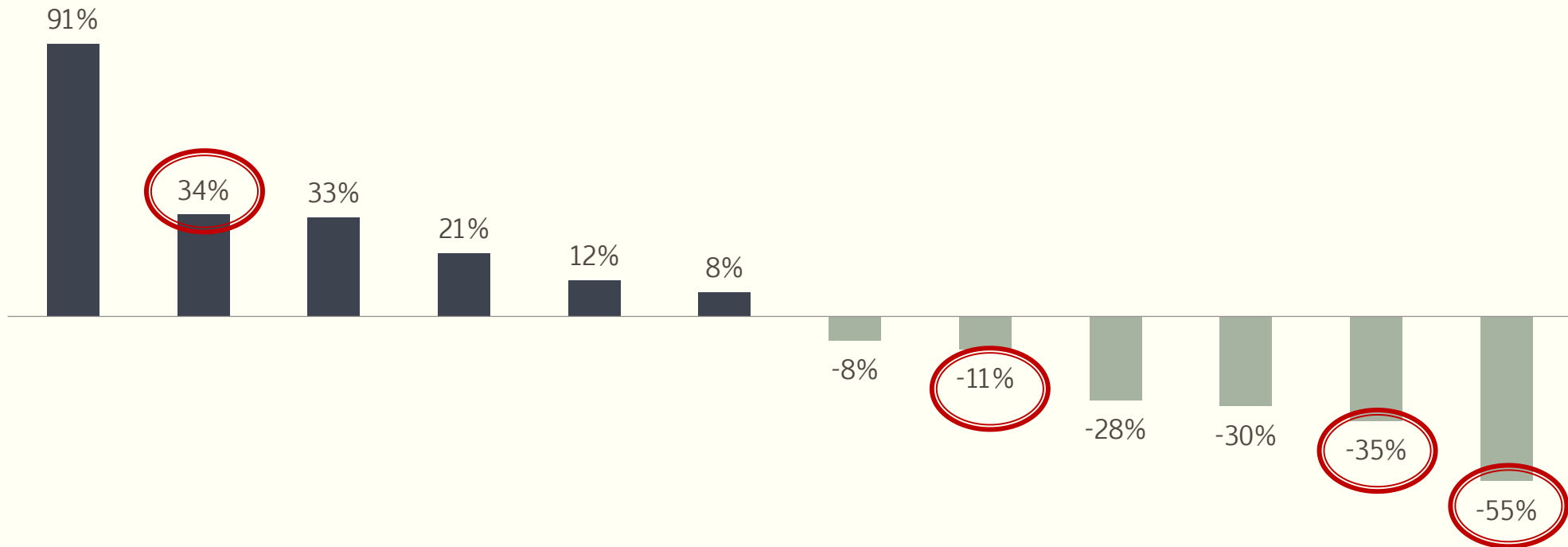
# RQ2. Odds Ratios Predicting Completion: Full Model (p. 115)



	Reputation	Nontraditional credit	Met academic adviser	Income quartile	Financial aid (\$)	Educational aspiration	Nontraditional student index	Race: Black	Remedial course taking
OR	209%	44%	37%	18%	11%	-10%	-13%	-37%	-42%



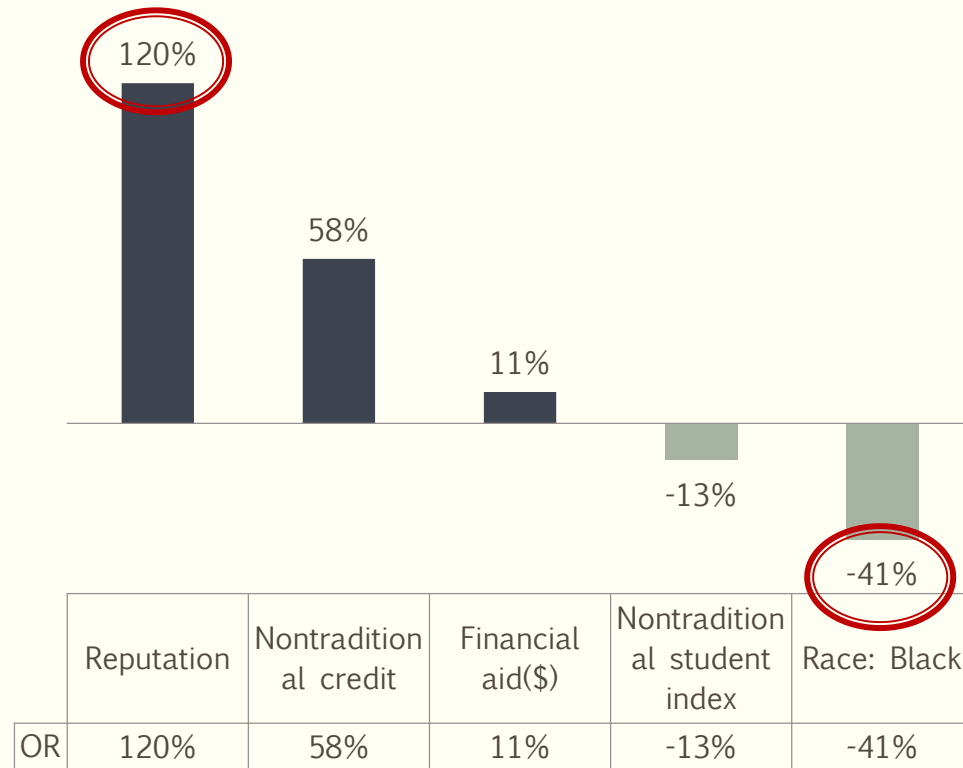
# RQ2. Odds Ratios Predicting Completion: Partial Model (p. 118)



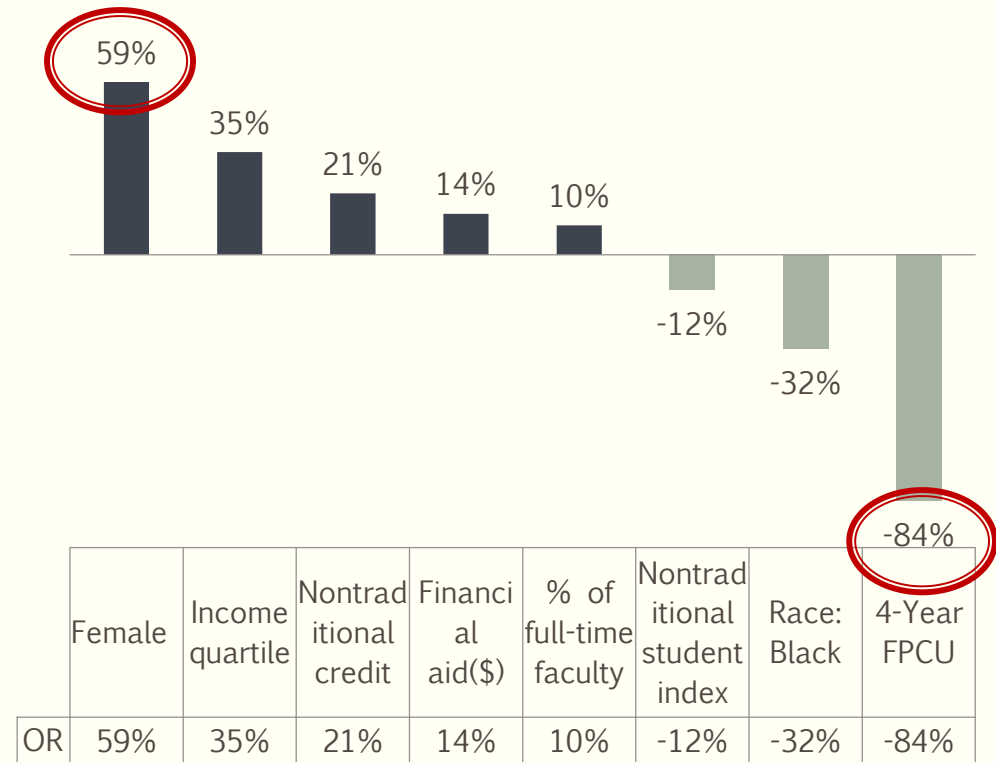
	Reputation	Female	Nontraditional credit	Income quartile	Financial aid (\$)	% full-time faculty	Educational aspiration	Nontraditional student index	Remedial course taking	Race: Black	Two-Year FPCU	Four-Year FPCU
OR	91%	34%	33%	21%	12%	8%	-8%	-11%	-28%	-30%	-35%	-55%

# RQ2-a. Odds Ratios Predicting Completion by Credential Types (p. 121)

## Degree-Seekers

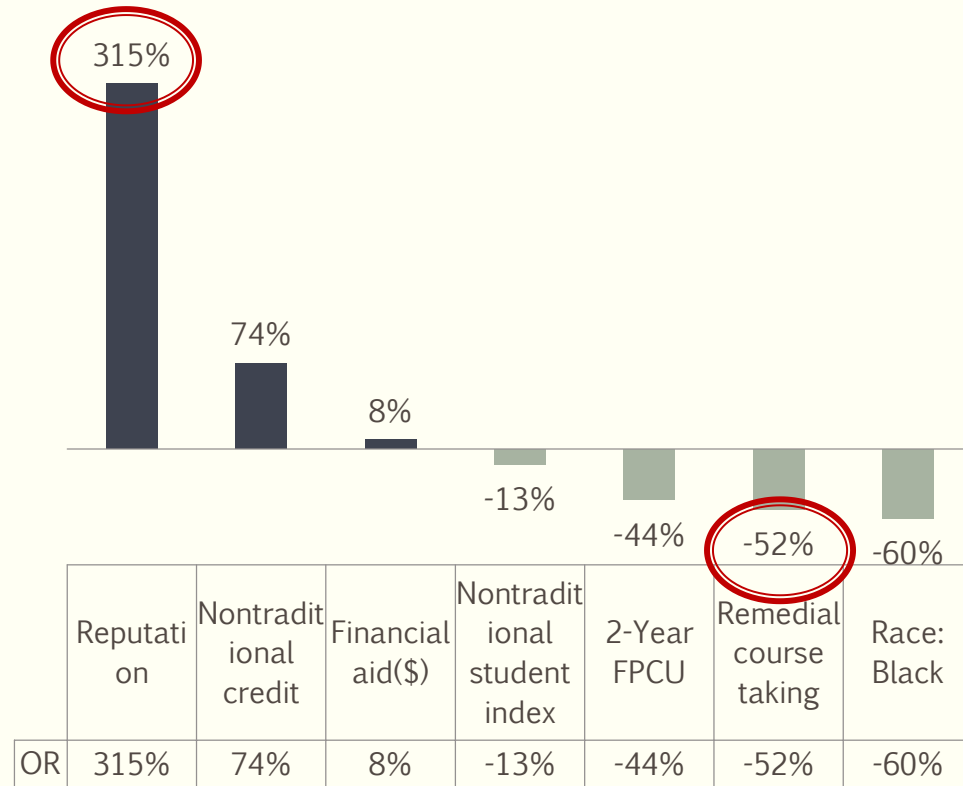


## Certificate-Seekers

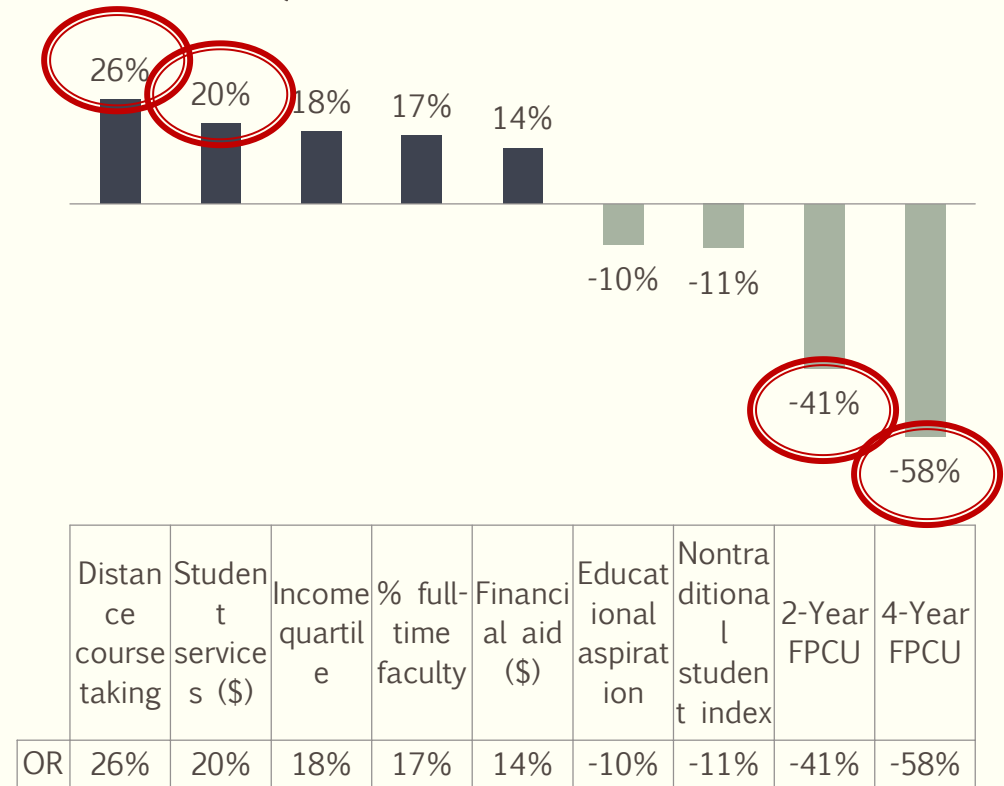


# RQ2-b. Odds Ratios Predicting Completion by Programs of Study (p. 124)

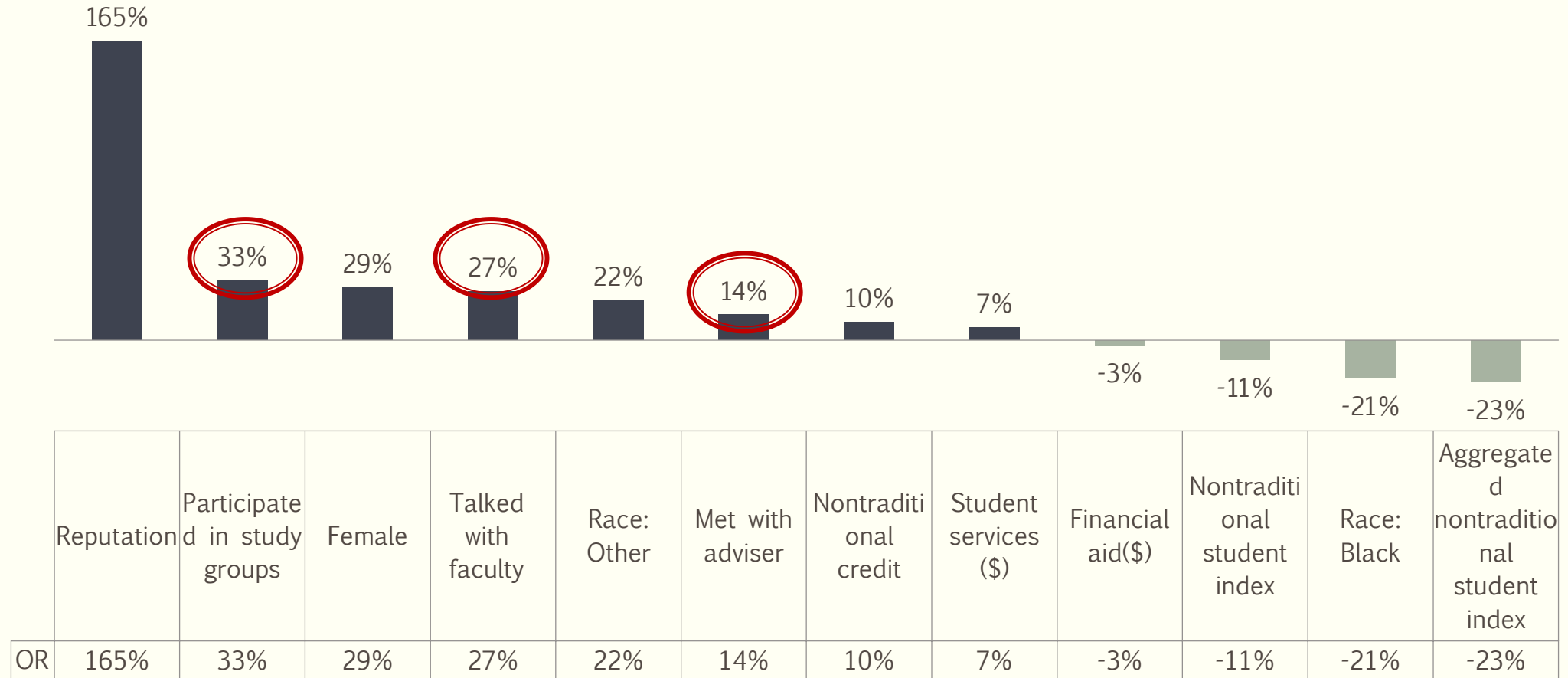
## Academic



## Vocational/Technical



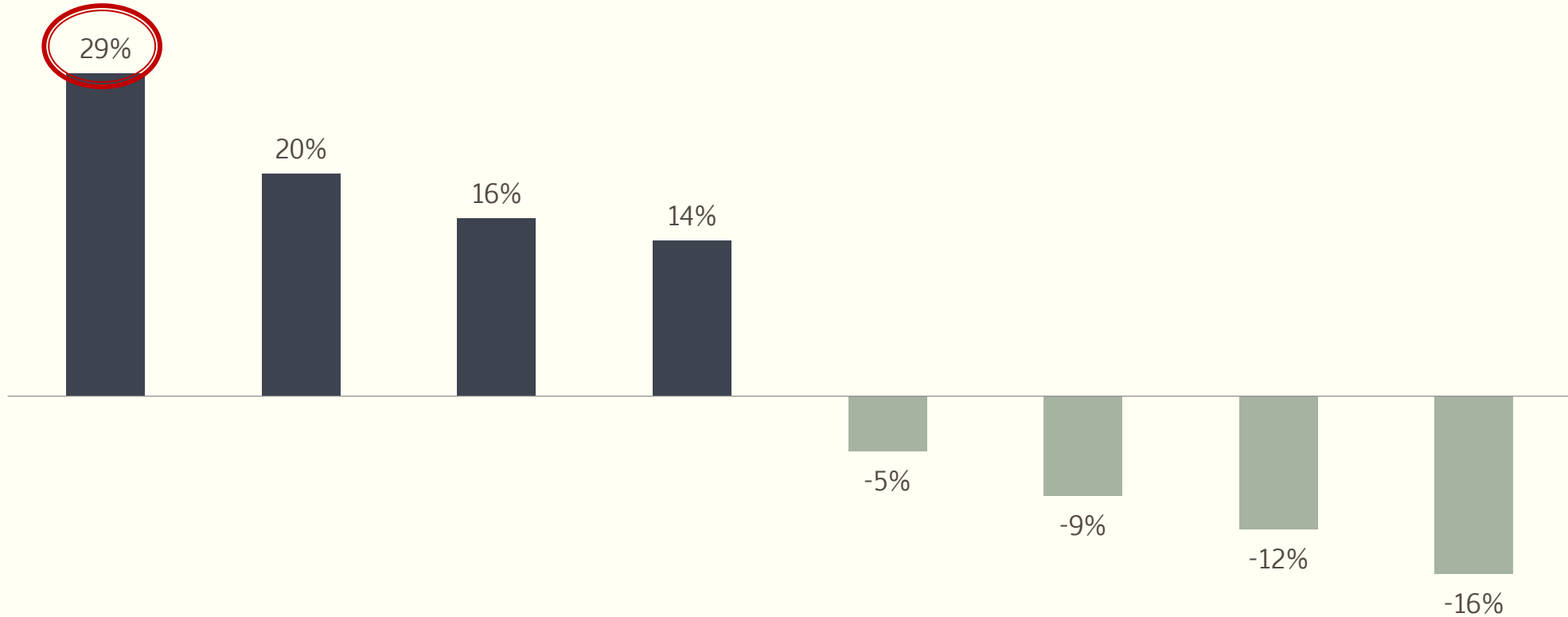
# RQ2-c. Odds Ratios Predicting Completion of Broad Access Four-Year Non-Profit Students (p. 130)



OR	Reputation	Participate in study groups	Female	Talked with faculty	Race: Other	Met with adviser	Nontraditional credit	Student services (\$)	Financial aid(\$)	Nontraditional student index	Race: Black	Aggregated nontraditional student index
	165%	33%	29%	27%	22%	14%	10%	7%	-3%	-11%	-21%	-23%

# RQ2-c. Odds Ratios Predicting Completion of Community College Students (p. 130)

---



	Participated in study groups	Nontraditional credit	Variety student services	Income quartile	Financial aid (\$)	Student services (\$)	Institution size	Educational aspiration
OR	29%	20%	16%	14%	-5%	-9%	-12%	-16%

# Contributions of Current Work and Suggestions for Future Work

---

## ■ Research

- Completion measures that reflect changing student characteristics:
  - How can research capture diversified pathways from college access to success?
- Higher education theory modifications:
  - How can 'integration' be redefined to capture diversifying students and changing higher education institutions?

## ■ Policy

- Importance of completion to better explain labor market transition
- Evidence of institutional characteristics that help student completion

## ■ Practice

- Importance of advising with more attention to highly disadvantaged students
- Efforts of building institutional data sets recommended
  - Better way to provide information on student services at FPCUs.