Council of Graduate Schools

Advocacy, Research, and Innovation

Technical Workshop
Ph.D. Completion Project
CGS Summer Workshop
July 15, 2008

Cindy Nakatsu, Purdue University

Terry Plater, Cornell University

Pamela Schirmeister, Yale University

Robert Sowell, Council of Graduate Schools

Ph.D. Completion Project

- **Guiding Principles:**
  - Students admitted to Ph.D. programs should be given every opportunity to complete their degrees.
  - Understanding and improving student degree completion and attrition rates is key to increasing the effectiveness of doctoral programs.
  - Graduate deans are in the best position to lead conversations about the best practices that will improve student completion rates.

Ph.D. Completion Project

- Funding provided by Pfizer Inc and the Ford Foundation
  - Phase I (2004-2007)
  - Phase II (2007-2010)
- 29 Research Partner institutions received grants
- 25 Project Partner institutions are currently participating in various project aspects (unfunded)

Ph.D. Completion Project

- Goal - to improve Ph.D. student completion
  - Selected set of institutions
    - Implement new interventions
    - Provide baseline completion and attrition data
- Focus - underrepresented minorities and women

Categories of New Interventions

- Selection/Matching
- Mentoring and Advising
- Financial Support and Structure
- Program Environments
- Research Experiences
- Curricular and Administrative Processes and Procedures

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Ph.D. Completion Project

Baseline Demographic Completion Data

Preview of CGS Monograph Scheduled for Publication in September 2008

CGS Ph.D. Completion Project

Baseline Demographic Completion Data

(1992-93 through 2003-04)

Gender	Citizenship	Ethnicity
24 institutions ~40,000 students	23 institutions ~39,000 students	23 institutions ~26,000 students

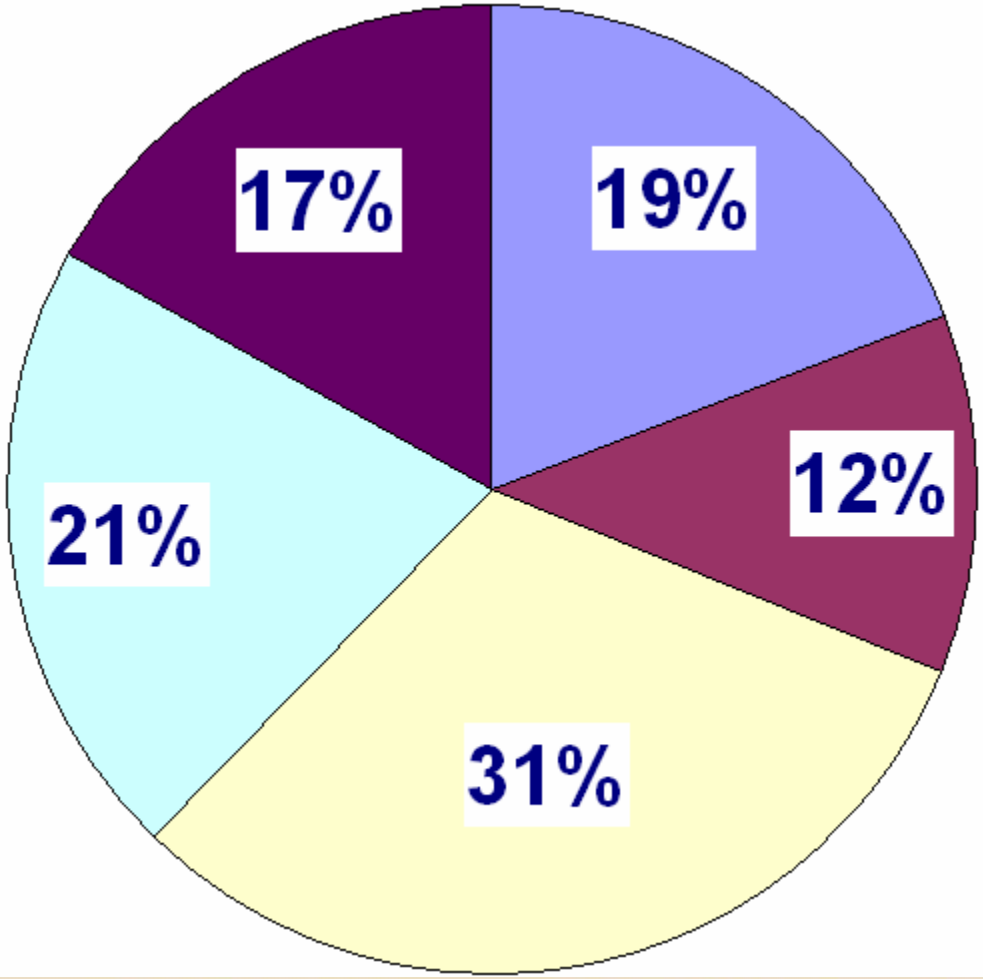
Ten-Year Completion Analysis: Demographic Data For Students Entering Ph.D. Programs in 1992-93 through 1994-95 (A-Cohorts)

- Completion: Overall, SEM/SSH, broad field and institution type
  - Gender
  - Citizenship
  - Race/Ethnicity
- Significant Differences (t-test)

Profile of Data (A-Cohorts) for Ten-Year Completion Analysis

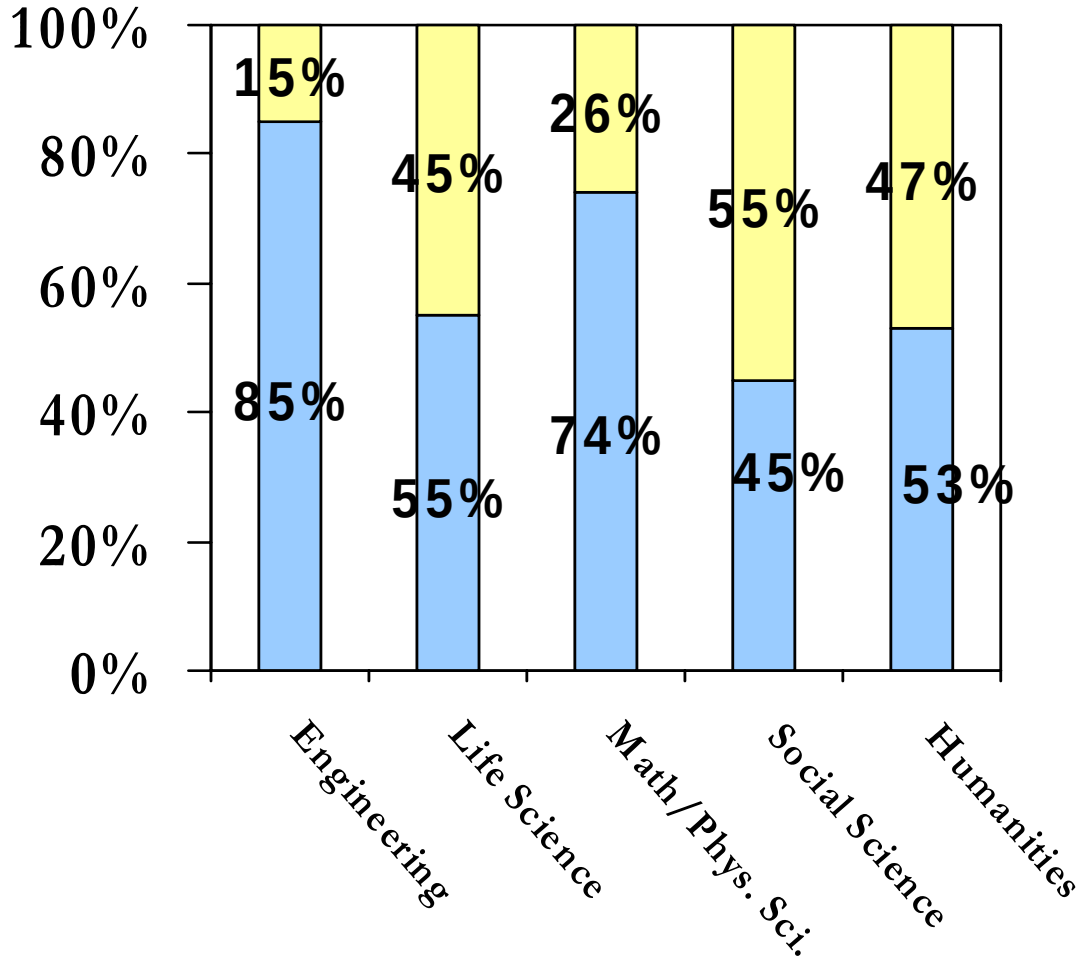
Gender Data	***9,683***
Citizenship Data	***9,359***

Approximate distribution across fields

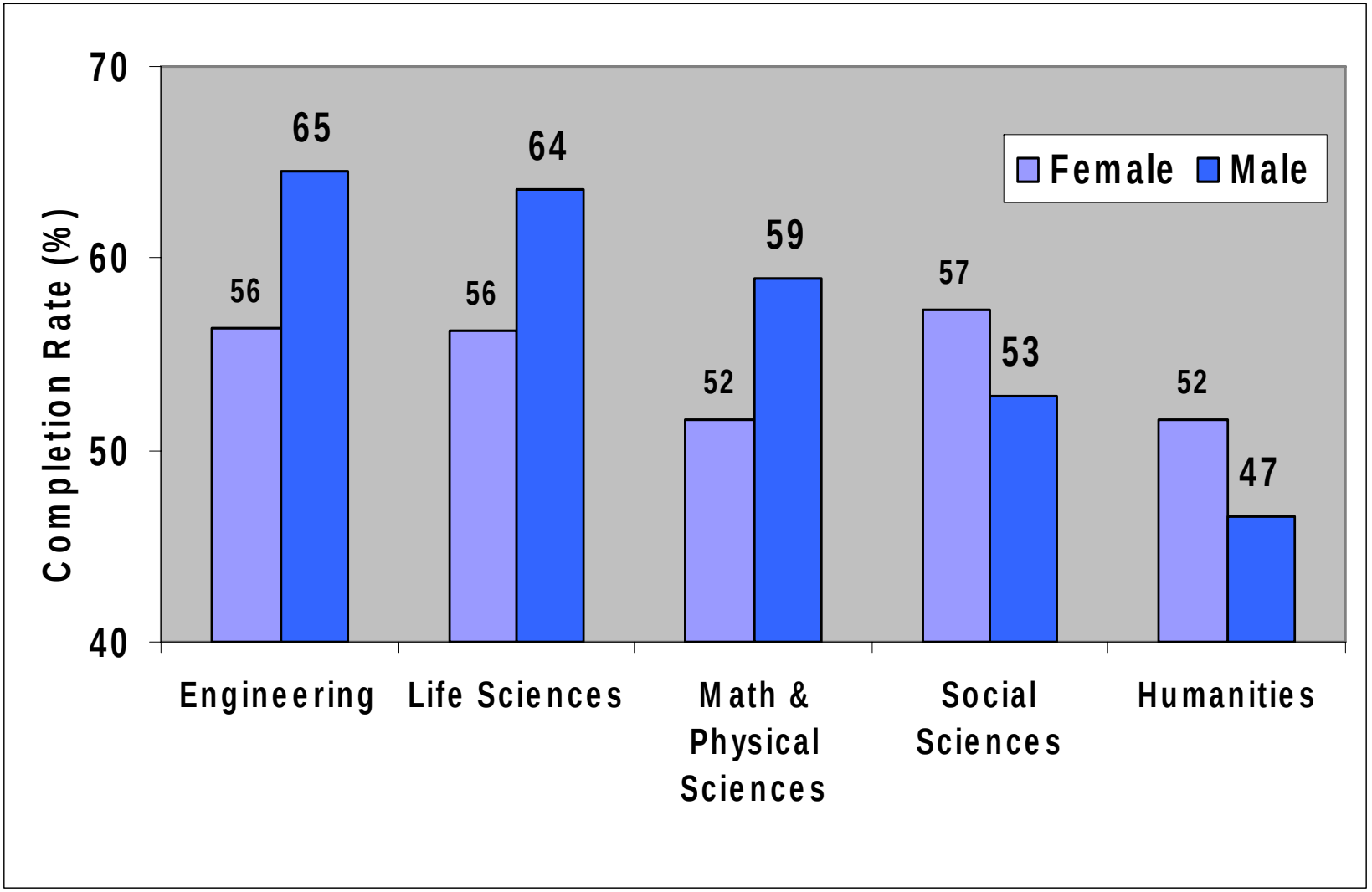


Gender Data

	Male	Female
Engineering	1,606	277
Life Science	602	489
Math/Phys. Science	2,251	792
Social Science	914	1,101
Humanities	869	782
Total	6,242	3,441



Ten-Year Completion Rates: Broad Field and Gender

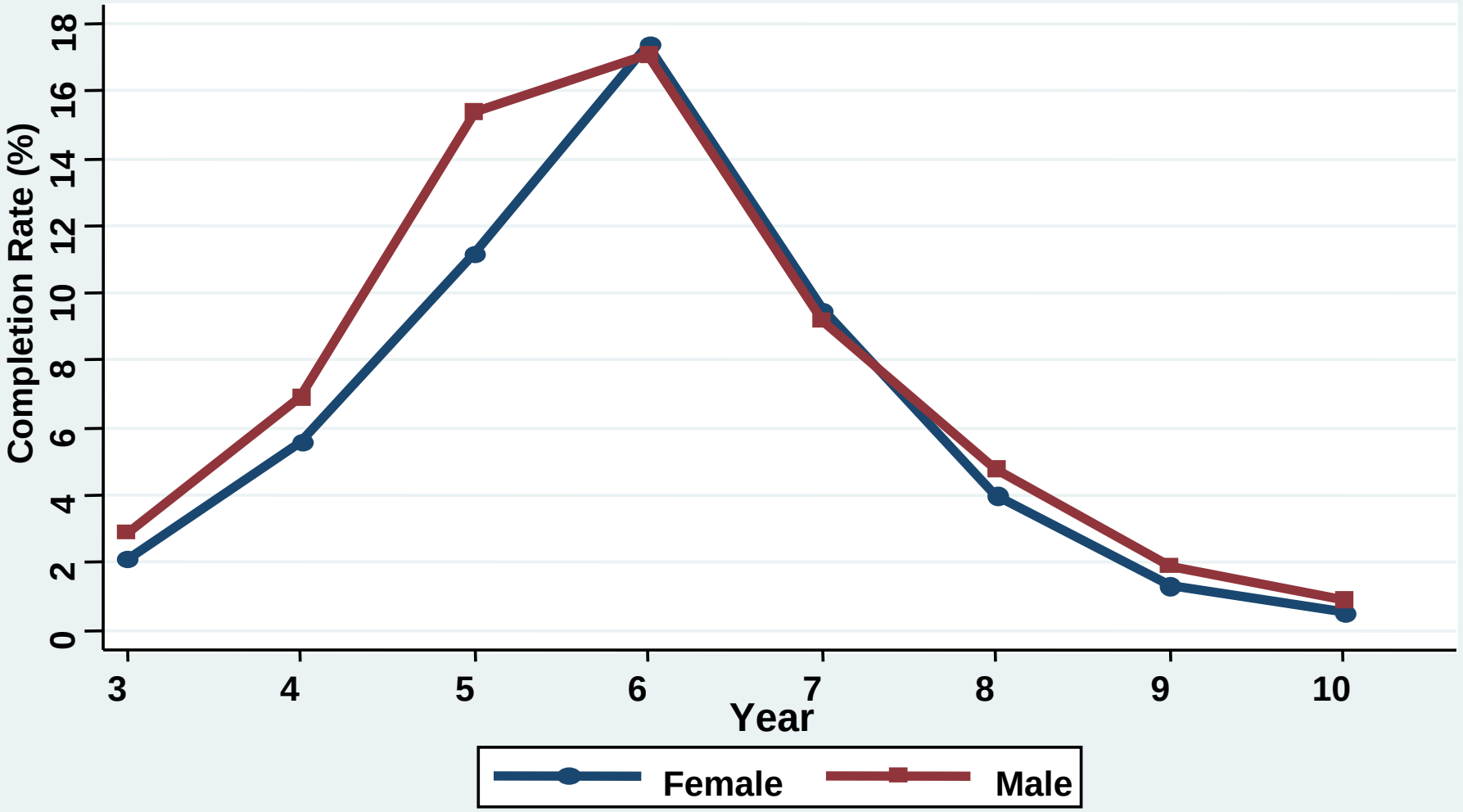


Gender Completion Rates

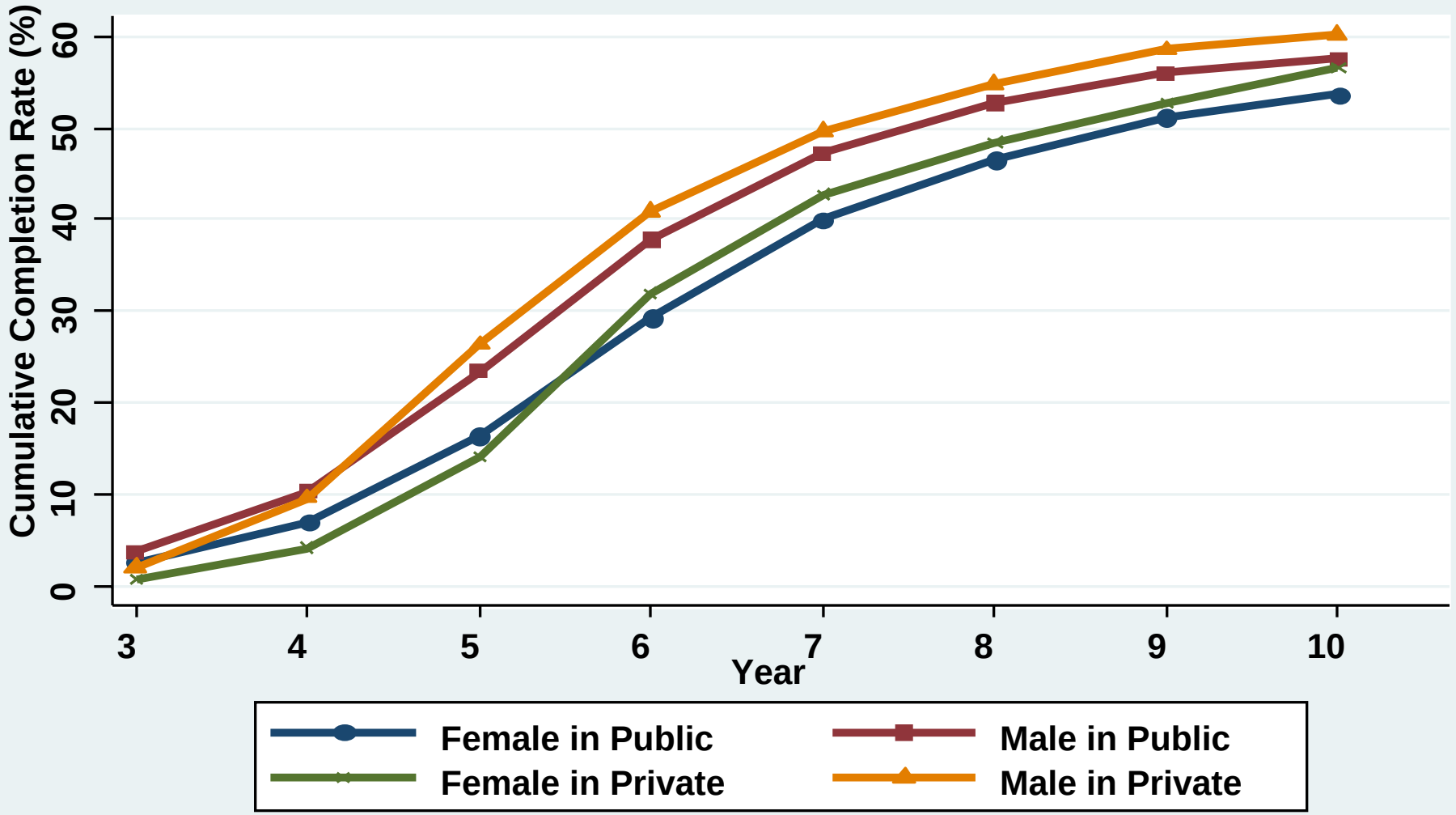
Statistically Significant Differences (p=.10)

- Men complete at higher rates than women in
  - Engineering
  - Life Sciences
  - Mathematics & Physical Sciences

Annual Ph.D. Completion Rates by Gender in Mathematics & Physical Sciences



Cumulative Ph.D. Completion Rates by Gender and Institution Type



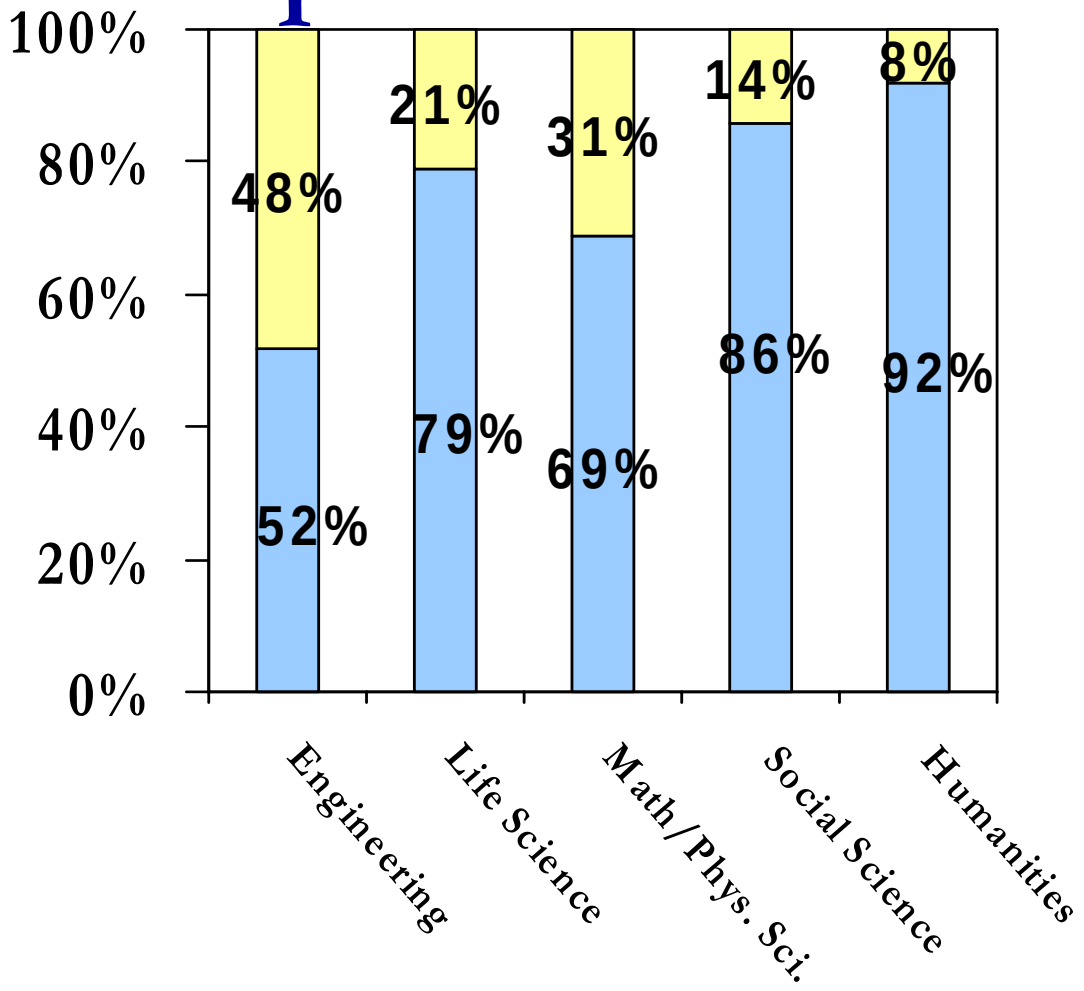
Gender Completion Rates

Statistically Significant Differences (p=.10)

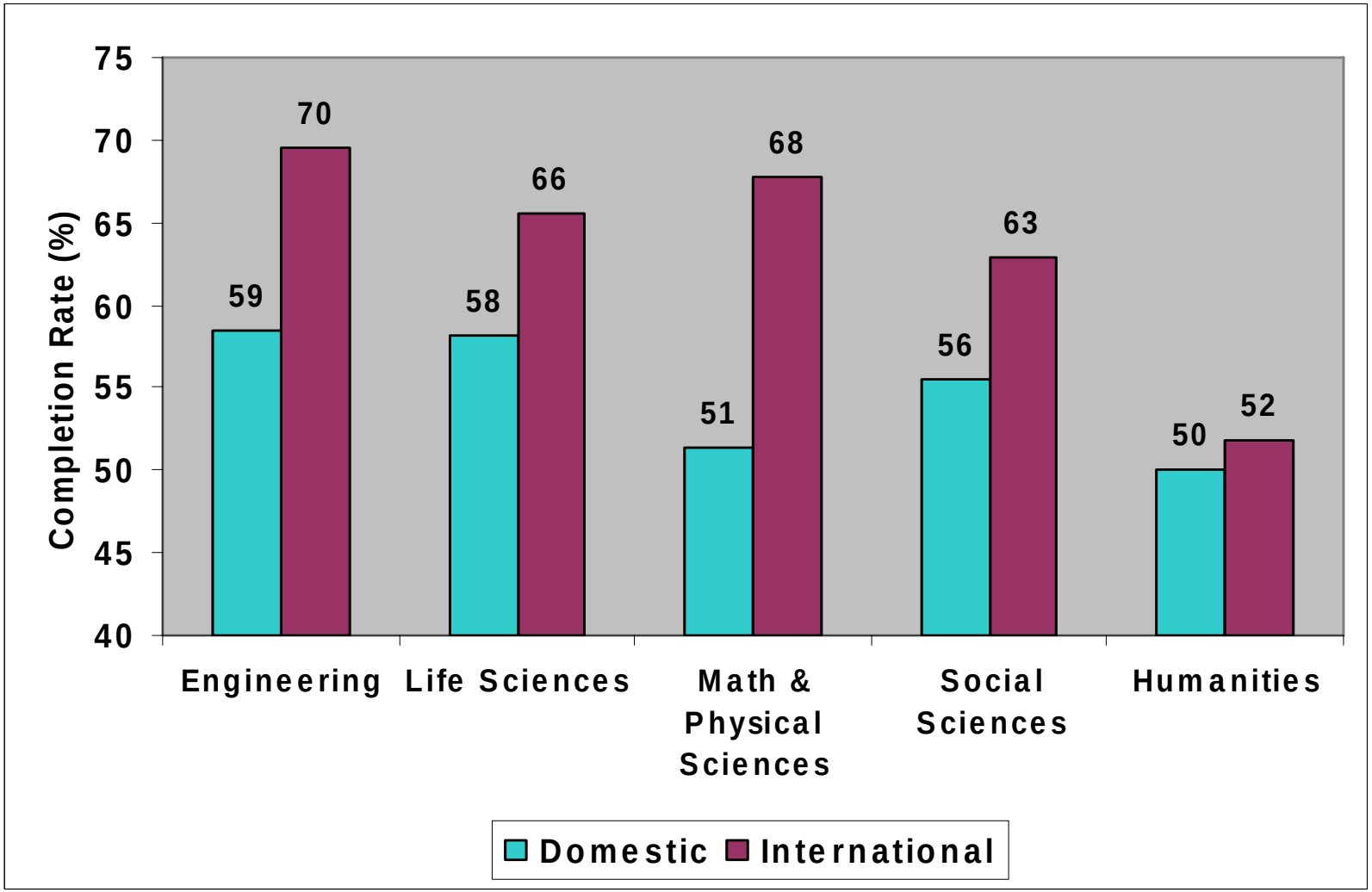
- Men complete at higher rates than women at public universities

Citizenship Data

	Domestic	Intl.
Engineering	970	888
Life Science	811	212
Math/Phys. Science	2,100	941
Social Science	1,655	278
Humanities	1,390	114
Total	6,926	2,433



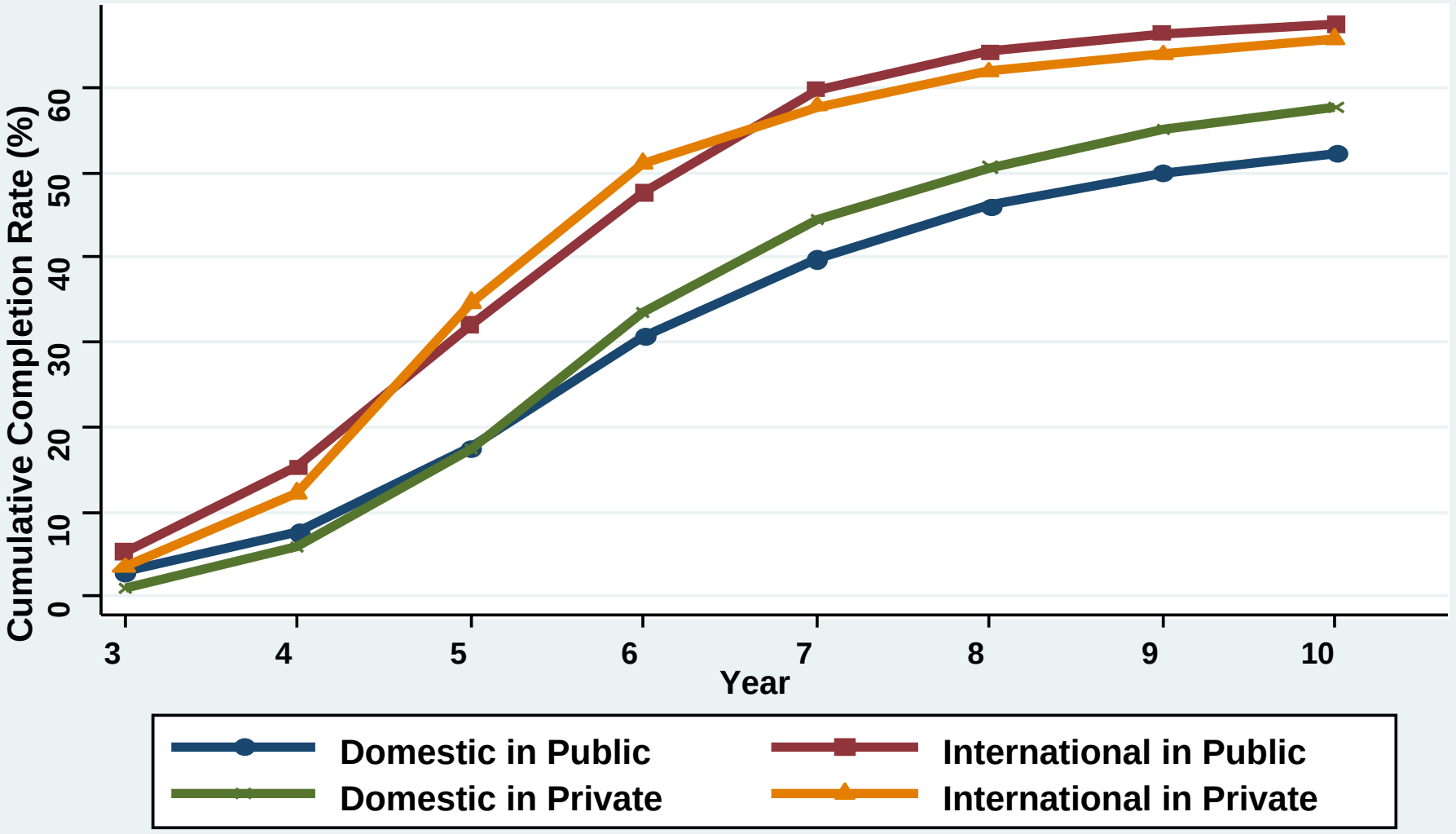
Ten-Year Completion Rates: Broad Field and Citizenship



Citizenship Completion Rates
Statistically Significant Differences (p=.10)

- International students complete at higher rates than domestic students in
  - Engineering
  - Life Sciences
  - Mathematics & Physical Sciences
  - Social Sciences

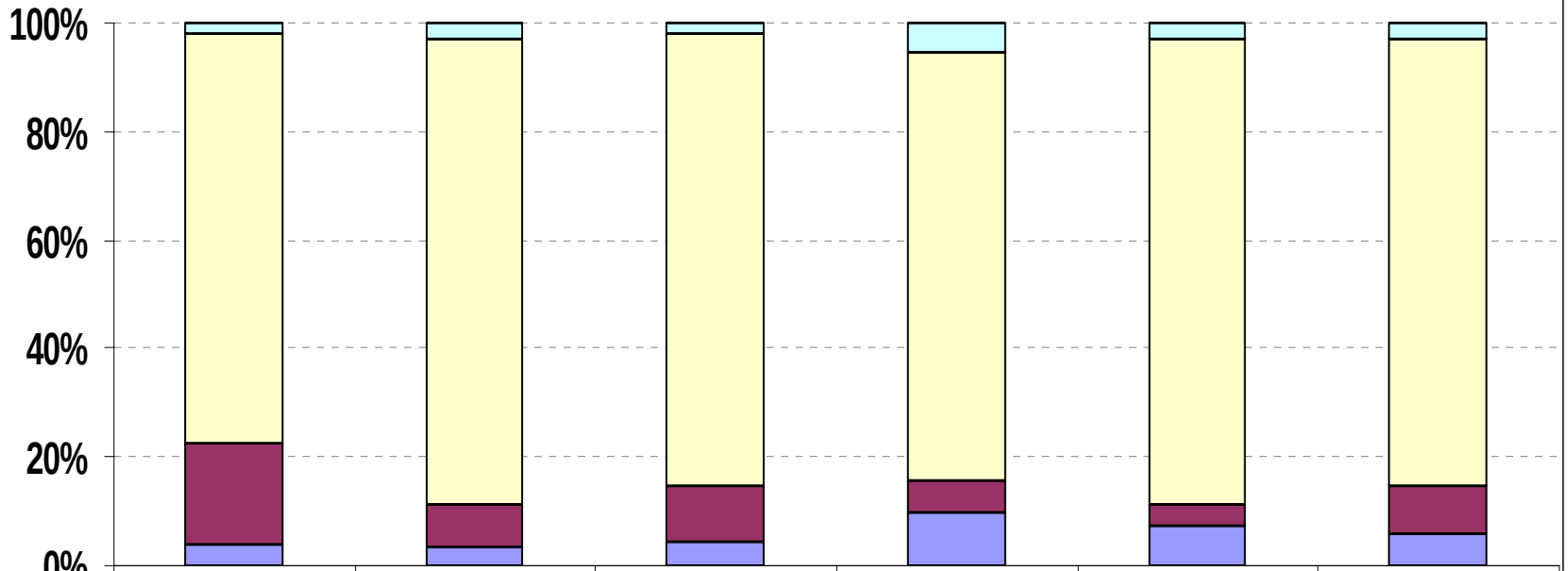
Cumulative Ph.D. Completion Rates by Institution Type and Citizenship



Citizenship Completion Rates
Statistically Significant Differences (p=.10)

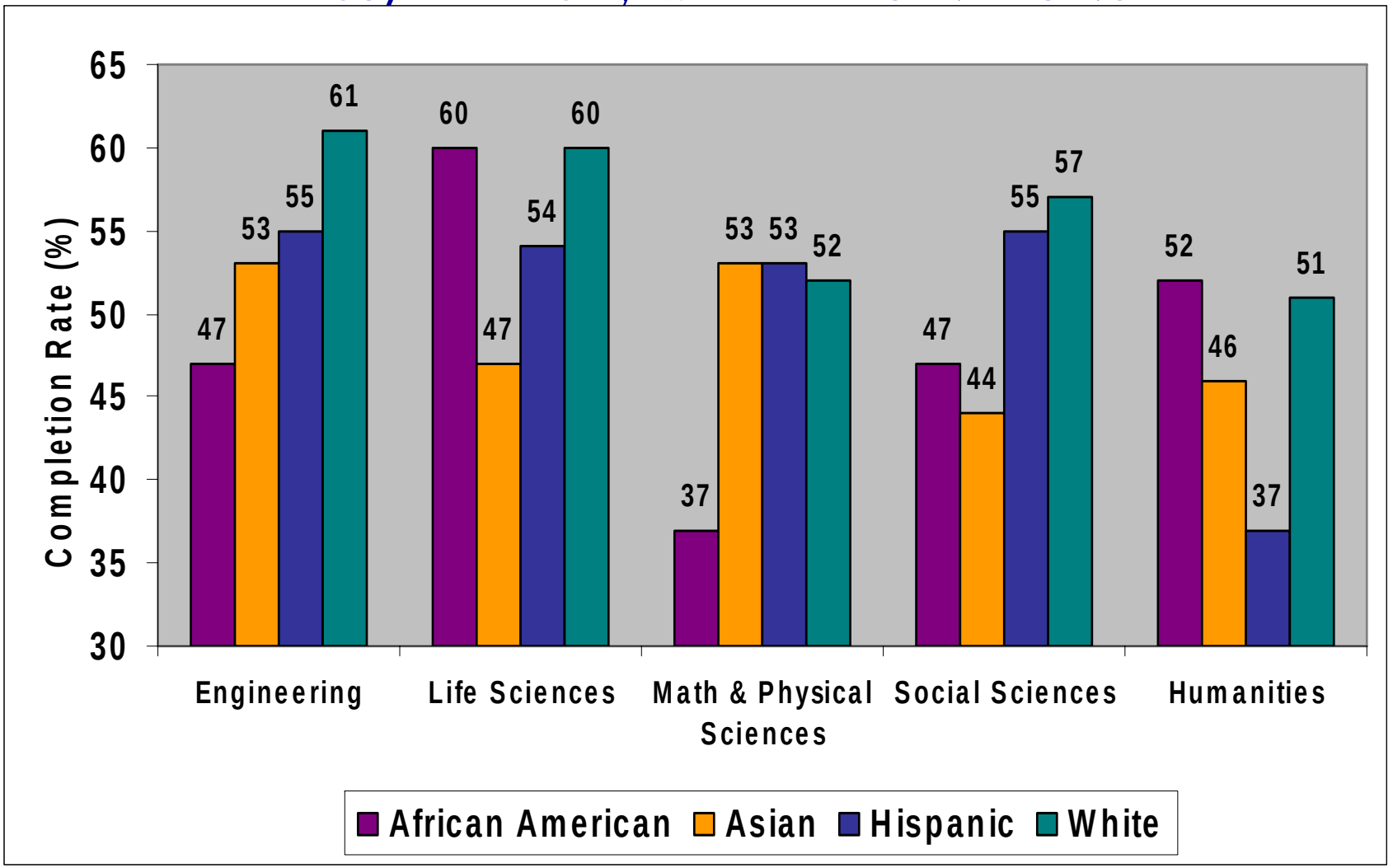
- International students complete at higher rates than domestic students at
  - Public universities
  - Private universities
- Domestic students at private institutions complete at higher rates than domestic students at public institutions

Race/Ethnicity Data



	Engineering	Life Science	Math & Physical Science	Social Science	Humanities	Total
Hispanic American	20	24	38	85	41	208
White	700	671	1,629	1,272	1,156	5,428
Asian American	171	62	207	95	52	587
African American	38	25	85	157	98	403

Ten-Year Completion Rates
Race/Ethnicity within Broad Fields

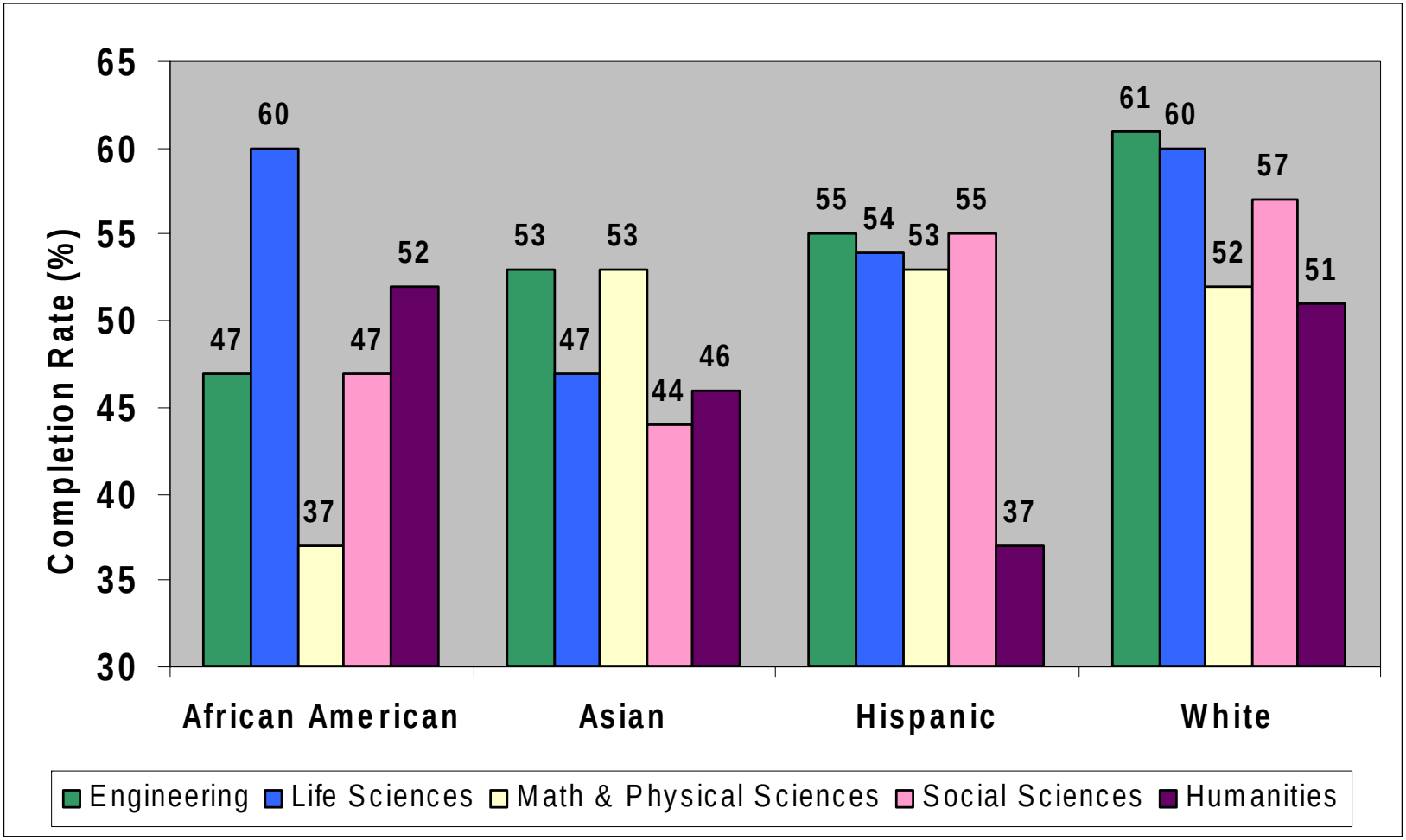


Race/Ethnicity Completion Rates

Statistically Significant Differences (p=.10)

- Asian American students complete at a higher rate than African Americans in Mathematics & Physical Sciences
- Hispanic/Latino students complete at a higher rate than African Americans in Mathematics &Physical Sciences
- White students complete at higher rates than Asian Americans in Engineering, Life Sciences and Social Sciences
- White students complete at higher rates than African Americans in Engineering, Mathematics & Physical Sciences, and Social Sciences

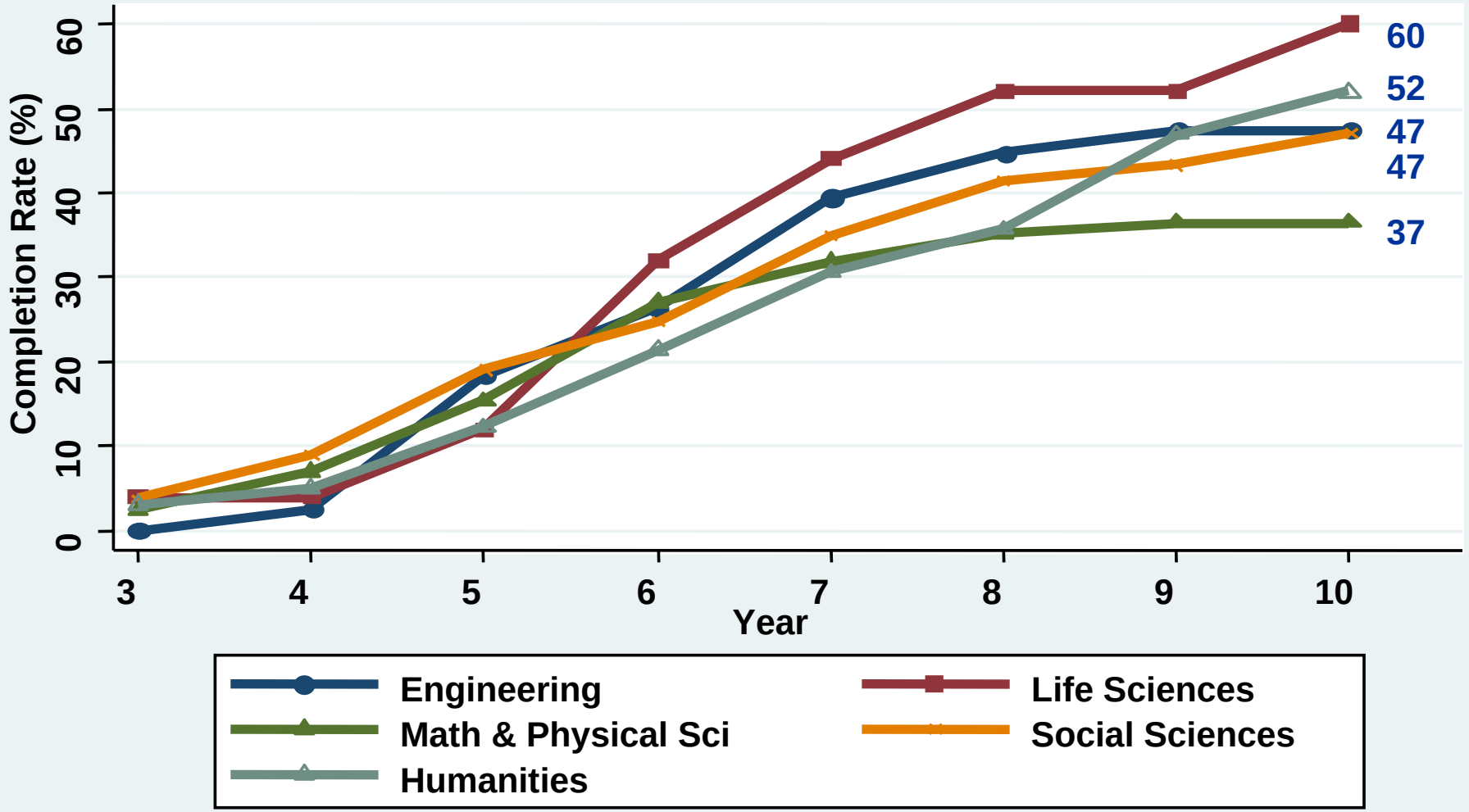
Ten-Year Completion Rates
Race/Ethnicity across Broad Fields



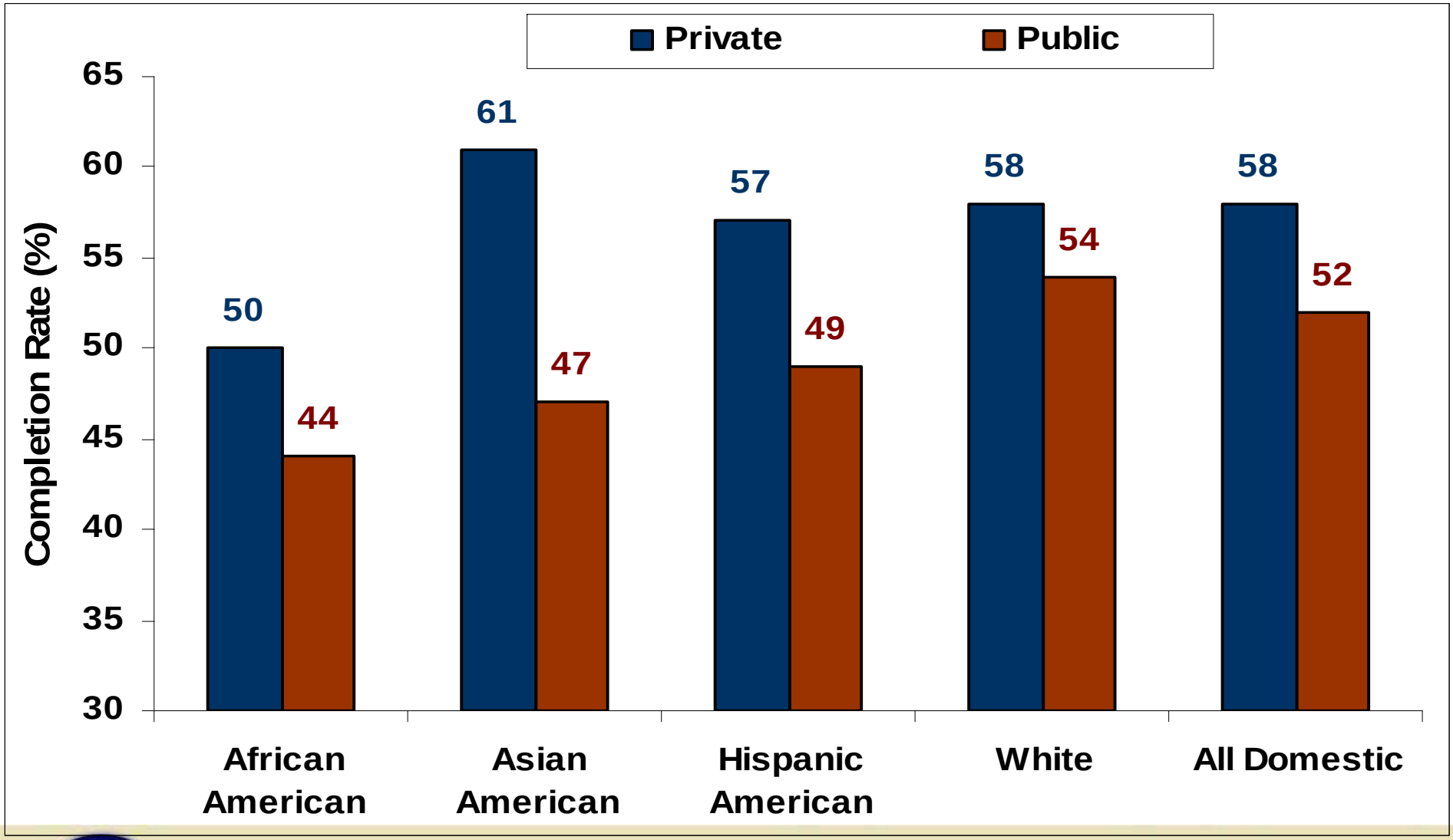
Race/Ethnicity Completion Rates
Statistically Significant Differences (p=.10)

- African American students complete at a higher rate in Life Sciences and in Humanities than in Mathematics & Physical Sciences
- White students complete at higher rates in Engineering, in Life Sciences, and in Social Sciences than in Humanities or Mathematics & Physical Sciences

Cumulative 10-Year Ph.D. Completion Rates by Broad Fields for African American Students



Cumulative Ten-Year Ph.D. Completion Rates by Race/Ethnicity and Institution Type



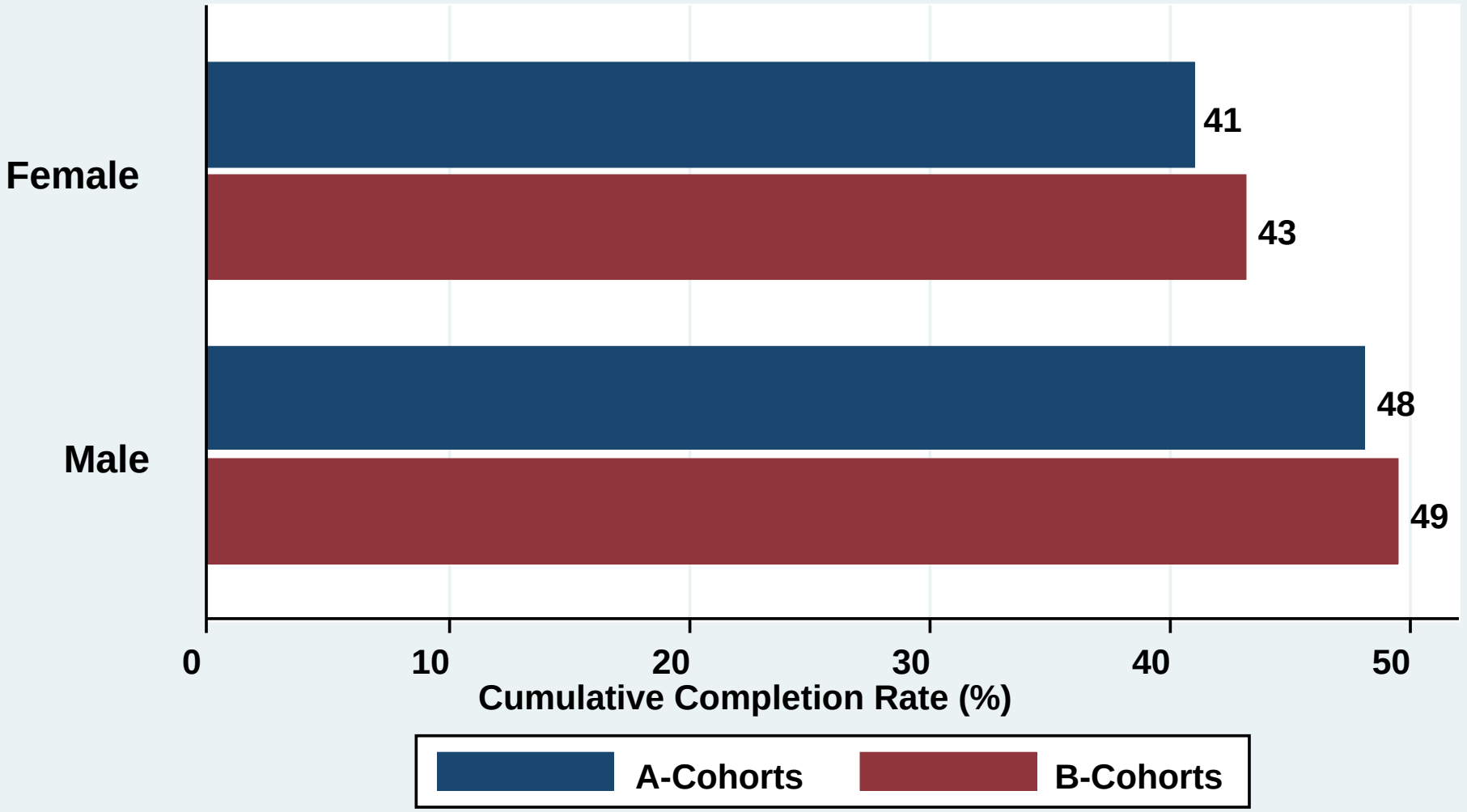
Race/Ethnicity Completion Rates
Statistically Significant Differences (p=.10)

- White students complete at a higher rate than Asian Americans or African Americans at public institutions
- White students and Asian American students have higher completion rates at private institutions than at public institutions

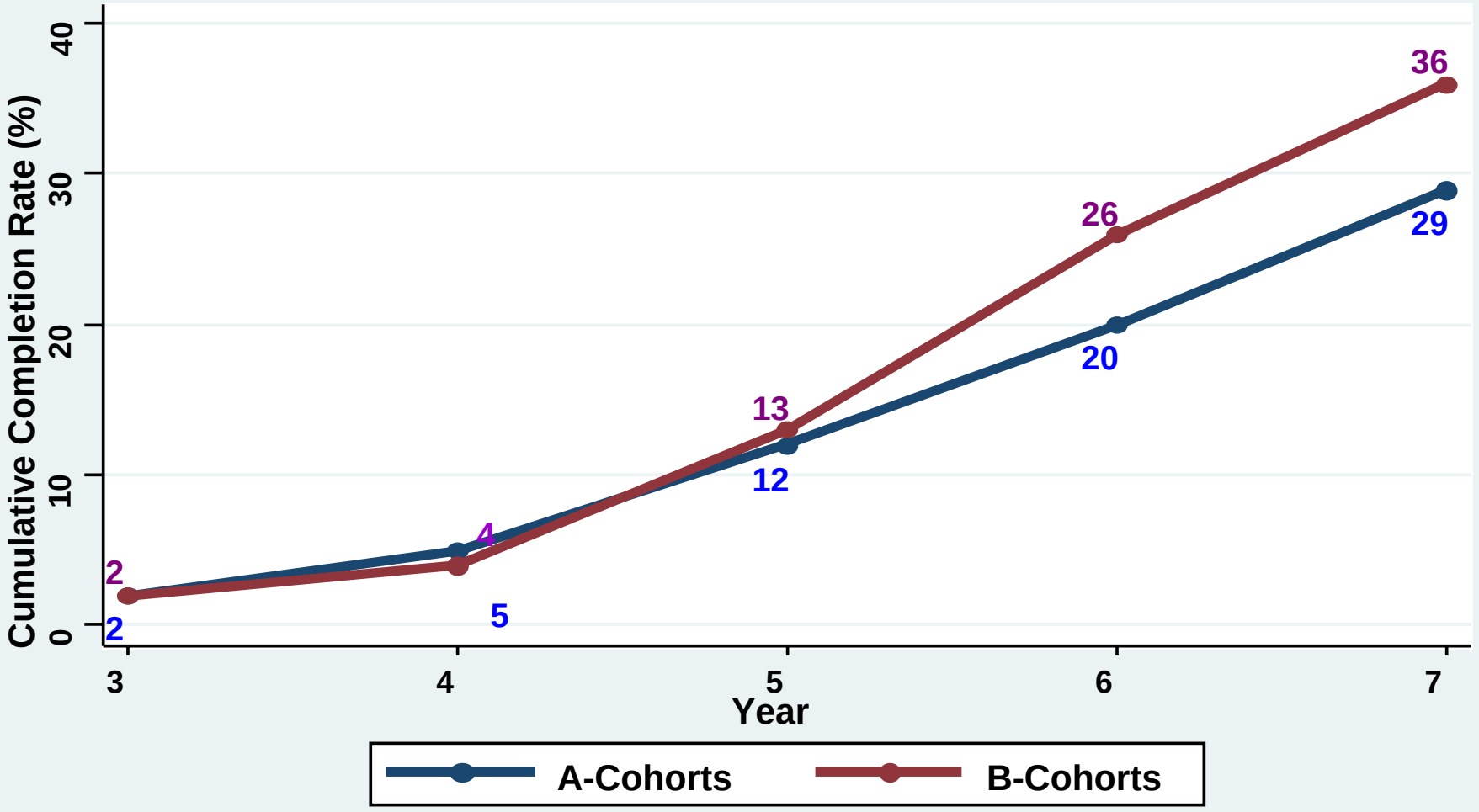
Comparison of Seven-Year Completion Rates For Students Entering Ph.D. Programs in 1992-93 through 1994-95 (A-Cohorts) vs. 1996-97 through 1998-99 (B-Cohorts)

- Completion: Overall and Broad Field
  - Gender
  - Citizenship
  - Ethnicity

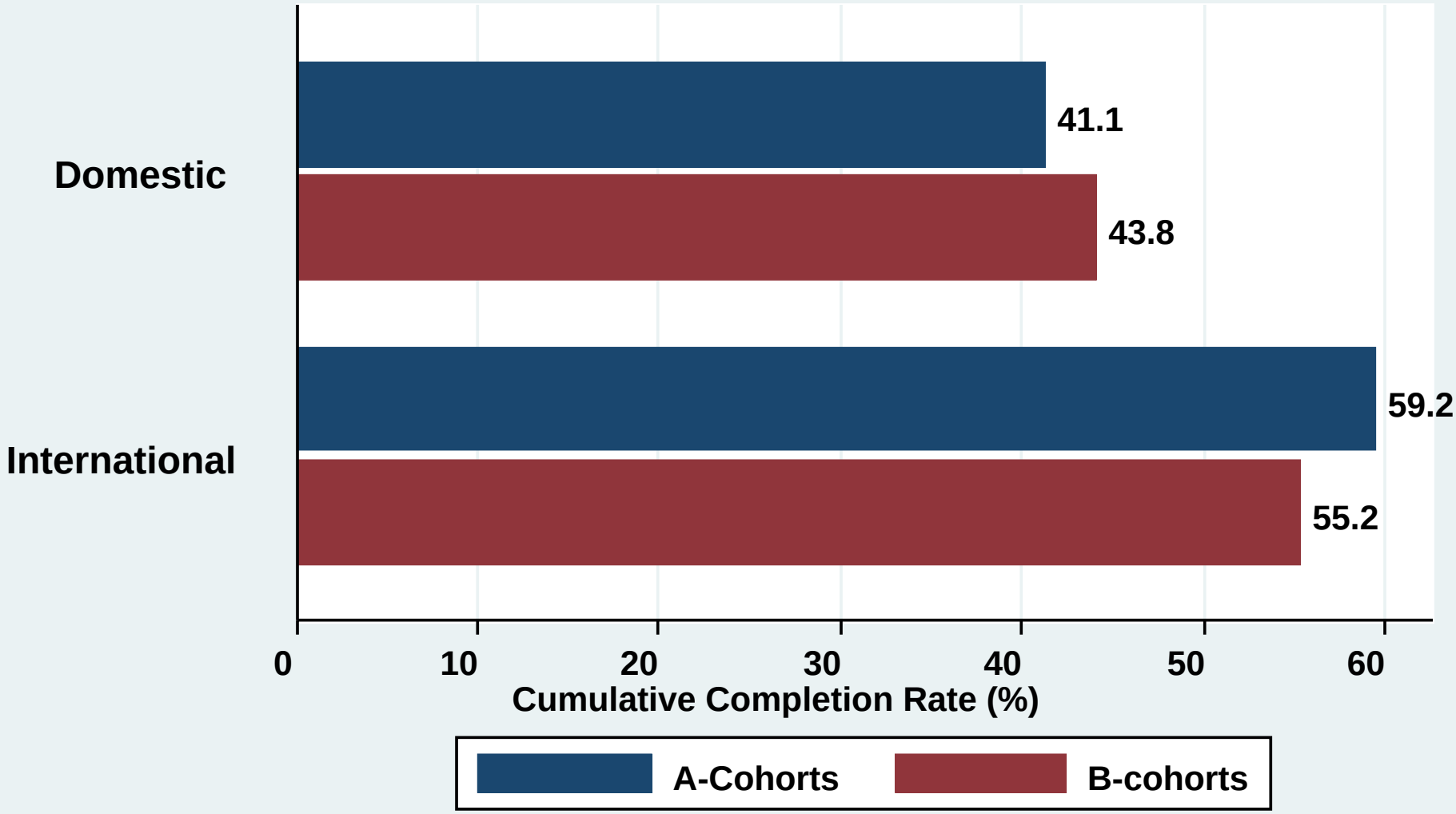
Cumulative Seven-Year Ph.D. Completion Rates for A- versus B- Cohorts by Gender



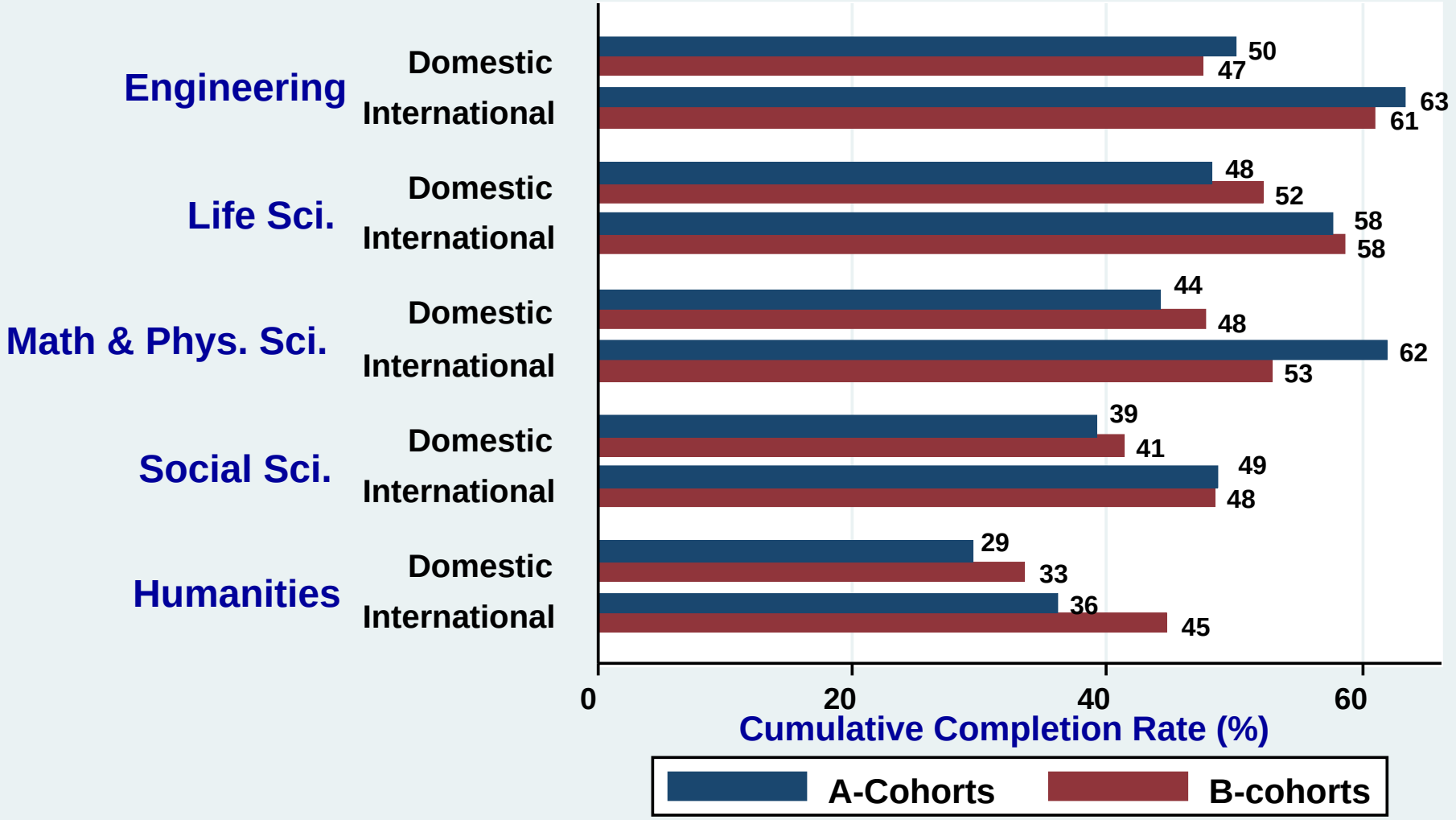
Cumulative Ph.D. Completion Rates for A- versus B-Cohorts for Male Students in Humanities



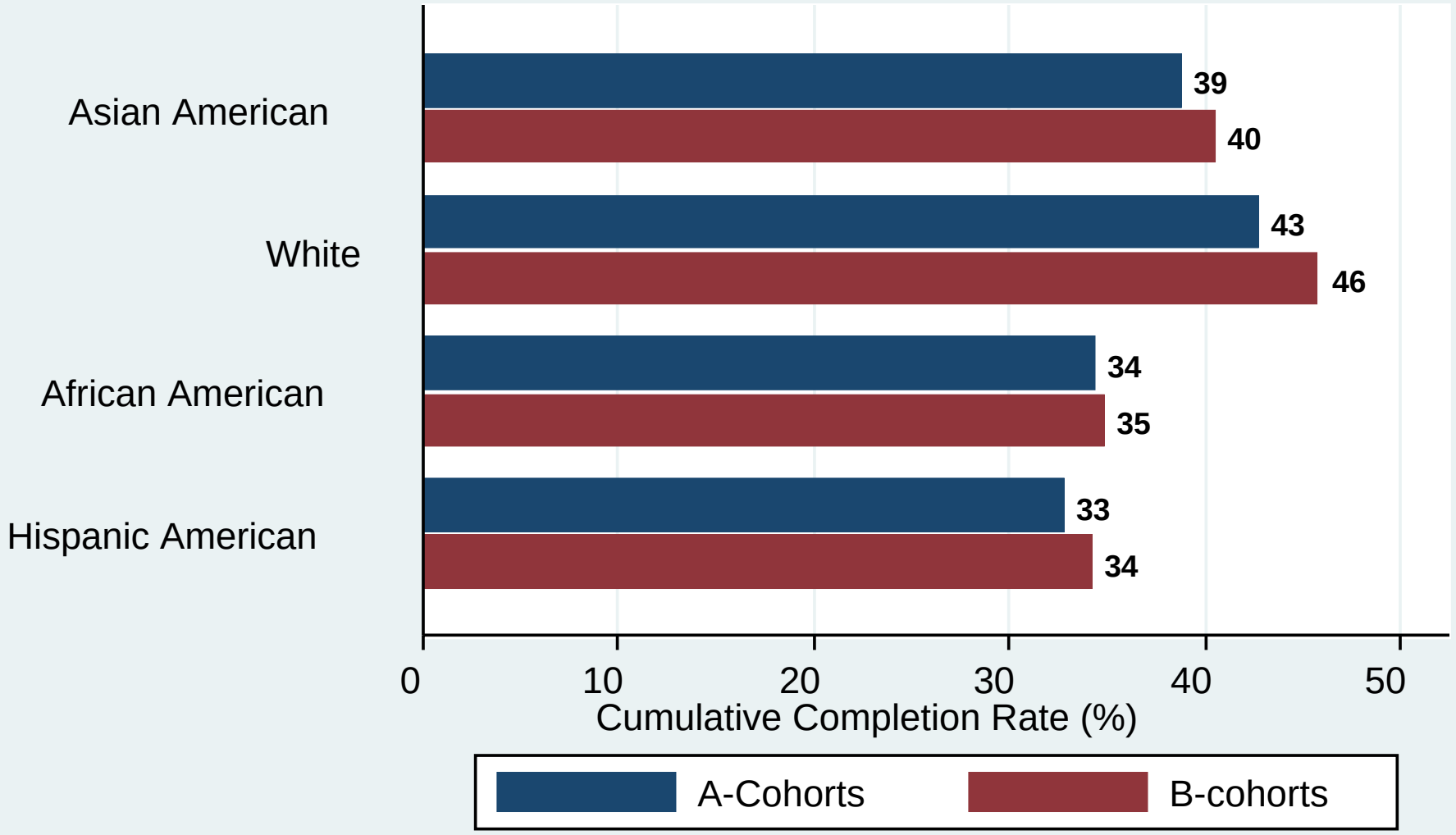
Cumulative Seven-Year Ph.D. Completion Rates for A- versus B- Cohorts by Citizenship



Cumulative Seven-Year Ph.D. Completion Rates for A- versus B- Cohorts by Citizenship and Broad Field



Cumulative Seven-Year Ph.D. Completion Rates for A- versus B- Cohorts by Race/Ethnicity



Future Ph.D. Completion Project Publications & Reports

- Student exit surveys
- Promising practices, policies and activities
- Reports based on 2007 data
- Final "Best Practices" report at the conclusion of Phase II of the project in 2010