



Findings from the 2019 CGS/GRE Survey of Graduate Enrollment and Degrees

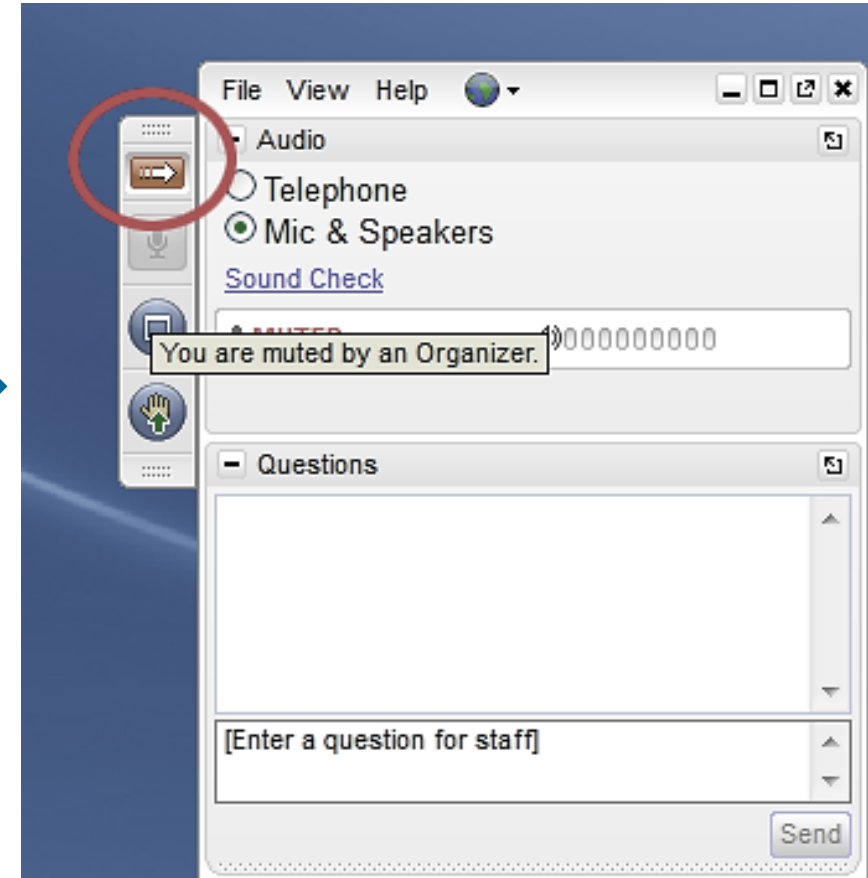
Thursday, October 22, 2020

Plan for today

- **Four speakers** will speak for approximately **45 minutes** total, followed by Q & A
 - **Hironao Okahana** of the Council of Graduate Schools will speak for approximately 5 minutes introducing the presenters and discussing the 2019 CGS/GRE Survey of Graduate Enrollment and Degrees.
 - He will then be joined by **Enyu Zhou** and **Janet Gao** also of the Council of Graduate Schools in presenting the survey findings for approximately 20 minutes.
 - Following their presentation **Barbara Knuth** (Cornell University and CGS) and **Jerry Weinberg** (Southern Illinois University Edwardsville) will discuss how the findings are reflected on specific campuses.

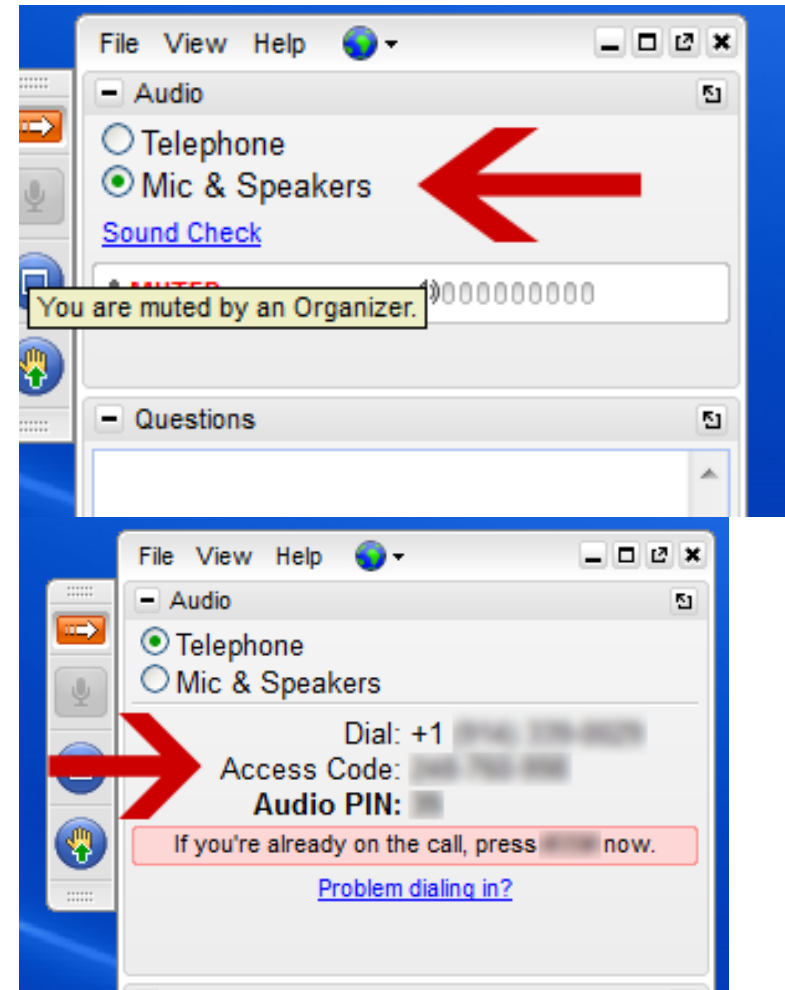
Technical Support

- Webinar **recording and slides** will be **emailed** to participants and **posted** on the CGS website
- Please **submit questions** through the GoToWebinar **control panel**
- **Technical issues?** Troubleshooting help available:
http://support.citrixonline.com/en_US/webinar



Audio Troubleshooting

- Having trouble hearing us? Try switching to a different audio connection. You can change from Telephone to Mic & Speakers or vice versa without leaving the session.
- If you experience trouble with a telephone connection, click “Problem dialing in?” for an alternate phone number to dial.





Findings from the 2019 CGS/GRE Survey of Graduate Enrollment and Degrees

Hironao Okahana, Enyu Zhou, and Janet Gao

About the CGS/GRE

Survey of Graduate Enrollment & Degrees

- Jointly sponsored by the Council of Graduate Schools (CGS) and Graduate Record Examinations (GRE) Board since 1986.
- The **only national survey** that collects data on first-time and total graduate enrollment across all fields of graduate study.
- The **only source** of data on graduate enrollment by degree level and on applications to graduate school by all broad field of study.
- The Fall 2019 survey was sent to 770 U.S. institutions of higher education, including CGS member and regional affiliate institutions, and received a 72.8% response rate.



How to Access the Report & Data Tables

[Home](#) / [Benchmarking](#) / Graduate Enrollment and Degrees

Graduate Enrollment and Degrees

[International Graduate Admissions Survey](#)

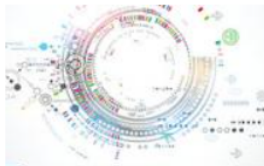
[Best Practices Data](#)

[Reports](#)

[Research and Policy Forums](#)

[Strategic Consultations](#)

[External Benchmarking Resources](#)



Graduate Enrollment and Degrees

Graduate Enrollment and Degrees

The CGS Graduate Enrollment and Degrees report, published annually since 1986, presents the findings of the CGS/GRE Survey of Graduate Enrollment and Degrees, is a joint project of the Council of Graduate Schools and the [Graduate Record Examinations \(GRE\) Board](#).

The latest report, [Graduate Enrollment and Degrees: 2008 to 2018](#), includes more than 100 figures and data tables, as well as interpretative text, on applications for admission to graduate school, first-time and total graduate student enrollment, and graduate degrees and certificates conferred. Current year and trend data are presented by broad field, gender, race/ethnicity, citizenship, attendance status, institutional characteristics, and more.

Access the report

The current survey report is available to the public online:

[Graduate Enrollment and Degrees: 2009 to 2019](#)

[Appendix A: Definitions](#)

[Appendix B: Data Tables, Fall 2019 Data](#)

[Appendix C: Data Tables, Trends between 2009 and 2019](#)

[Appendix D: Taxonomy of Fields of Study](#)

Downloadable Figures and Data Tables

Graduate Enrollment and Degrees Report by Fine Field: 2009 to 2019 (Members Only - Coming soon!)

[Home](#) / Graduate Enrollment and Degrees, 2009-2019: Downloadable Figures and Tables



Graduate Enrollment and Degrees, 2009-2019: Downloadable Figures and Tables

Below are downloadable figures and tables from Graduate Enrollment and Degrees, 2009-2019. Each figure and table is available as an image file and a PDF.

+ Figures

- Data Tables for Graduate Applications, First-Time Enrollment, and Total Enrollment, Fall 2019; and Degrees Conferred, 2018-19

Table B.1: Applications for Admission to Graduate School by Institution Type, Carnegie Classification, and Degree Level, Fall 2019 ([Image](#), [PDF](#), [Excel](#))

Table B.2: Applications for Admission to Graduate School by Broad Field and Degree Level, Fall 2019 ([Image](#), [PDF](#), [Excel](#))

Table B.3: First-Time Graduate Enrollment by Institution Type, Carnegie Classification, Gender, and Attendance Status, Fall 2019 ([Image](#), [PDF](#), [Excel](#))

Table B.4: First-Time Graduate Enrollment by Broad Field, Gender, and 30 Attendance Status, Fall 2019 ([Image](#), [PDF](#), [Excel](#))

Table B.5: First-Time Graduate Enrollment by Gender, Attendance Status, 30 and Broad Field, Fall 2019 ([Image](#), [PDF](#), [Excel](#))

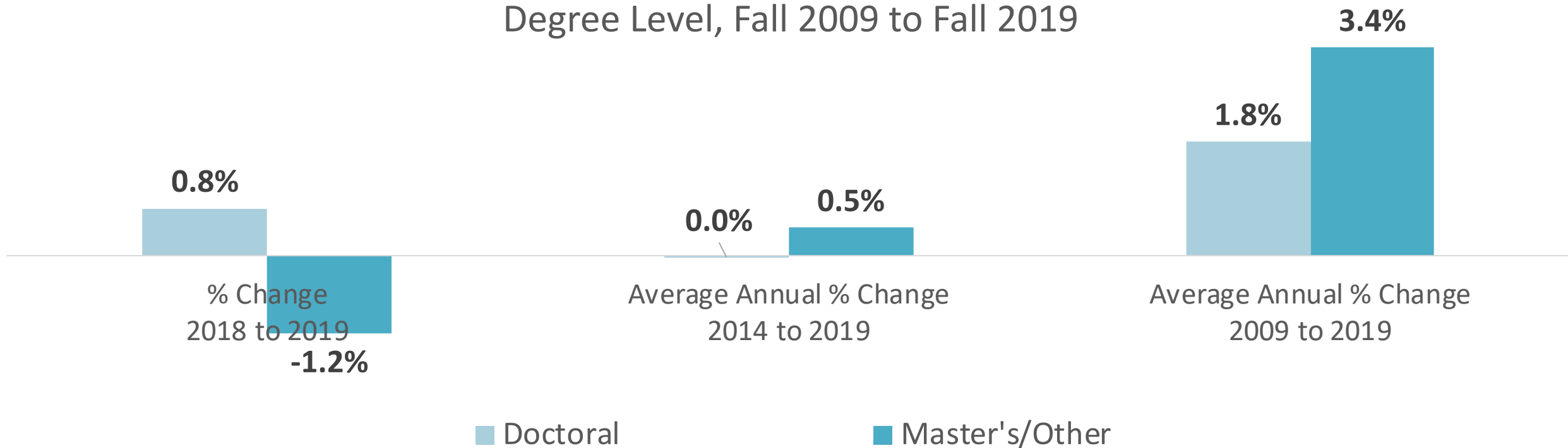
Table B.6: First-Time Graduate Enrollment by Broad Field and Degree Level, Fall 2019 ([Image](#), [PDF](#), [Excel](#))

Before we get to the Fall 2019 data ...

- Fall 2020 CGS International Graduate Admissions Survey is in the field. The deadline is **November 9, 2020**.
- There are two components to the F20 Int'l Survey, and if you have not received the survey invitation, please contact research@cgs.nche.edu.
- Fall 2020 CGS/GRE Survey of Graduate Enrollment & Degrees will launch in coming weeks.

Doctoral application counts increased slightly between Fall 2018 and Fall 2019; however, master's application counts decreased.

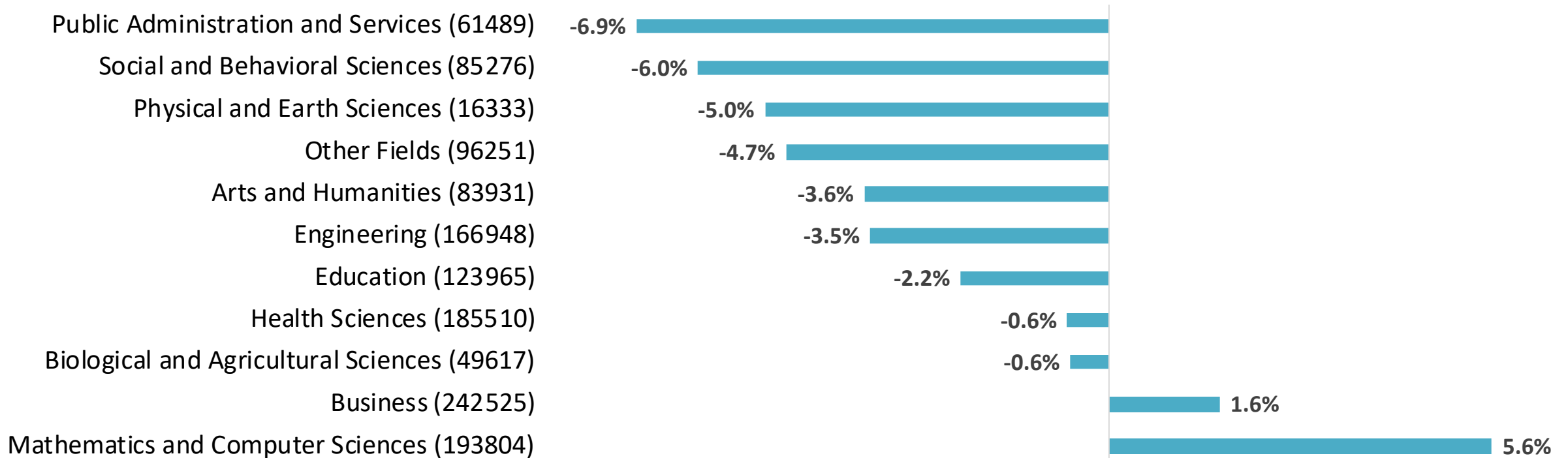
Annual Percent Changes in Applications for Admission to Graduate School by Degree Level, Fall 2009 to Fall 2019



Source: 2019 CGS/GRE Survey of Graduate Enrollment and Degrees, Table C.1

At the master's level, Mathematics and Computer Sciences had the highest one-year increase in the number of applications at the master's/other level.

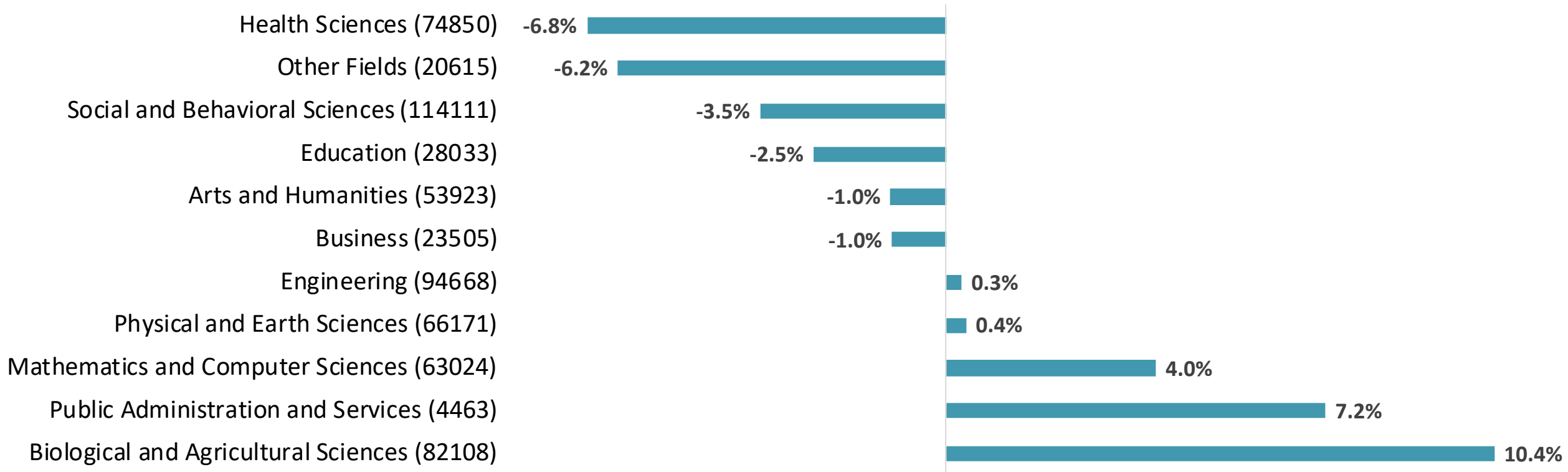
Annual Percent Changes in Master's/Other Applications by Field, Fall 2018 to Fall 2019



Source: 2019 CGS/GRE Survey of Graduate Enrollment and Degrees, Table C.3

Biological and Agricultural Sciences had the largest one-year increase at the doctoral level.

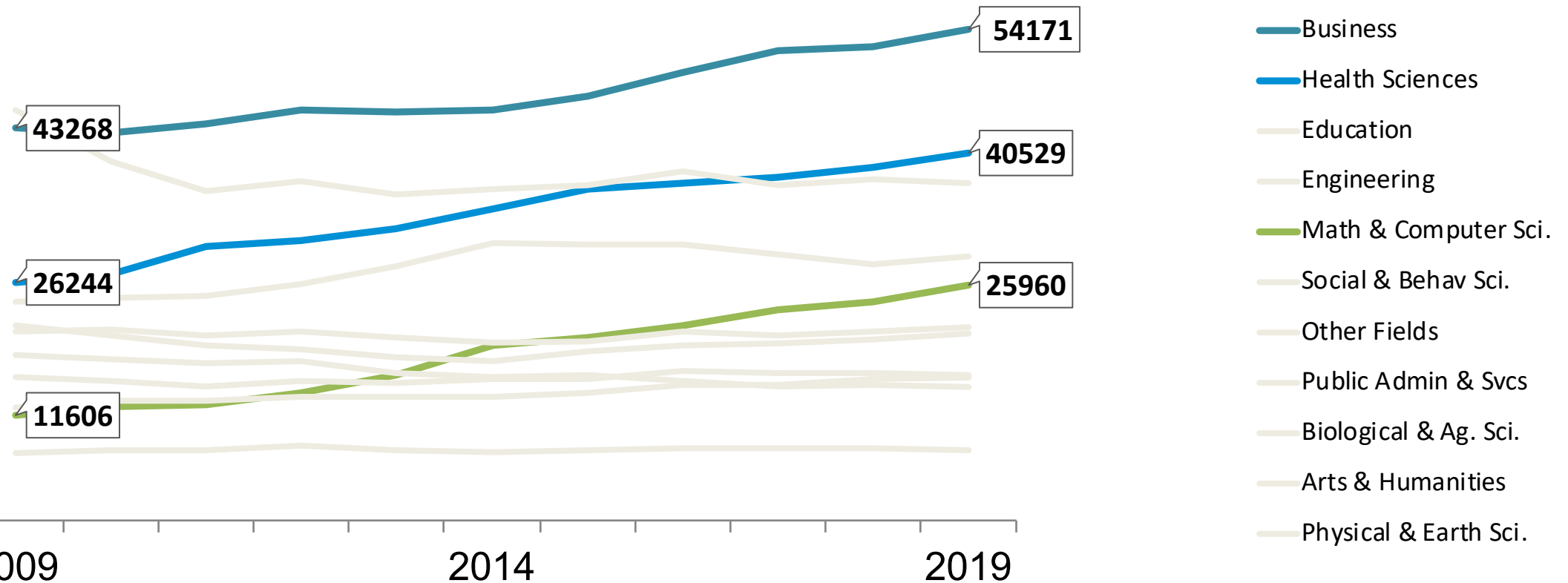
Annual Percent Changes in Doctoral Applications by Field, Fall 2018 to Fall 2019



Source: 2019 CGS/GRE Survey of Graduate Enrollment and Degrees, Table C.3

Business, Health Sciences and Math & Computer Sciences continue to grow its first-time enrollment.

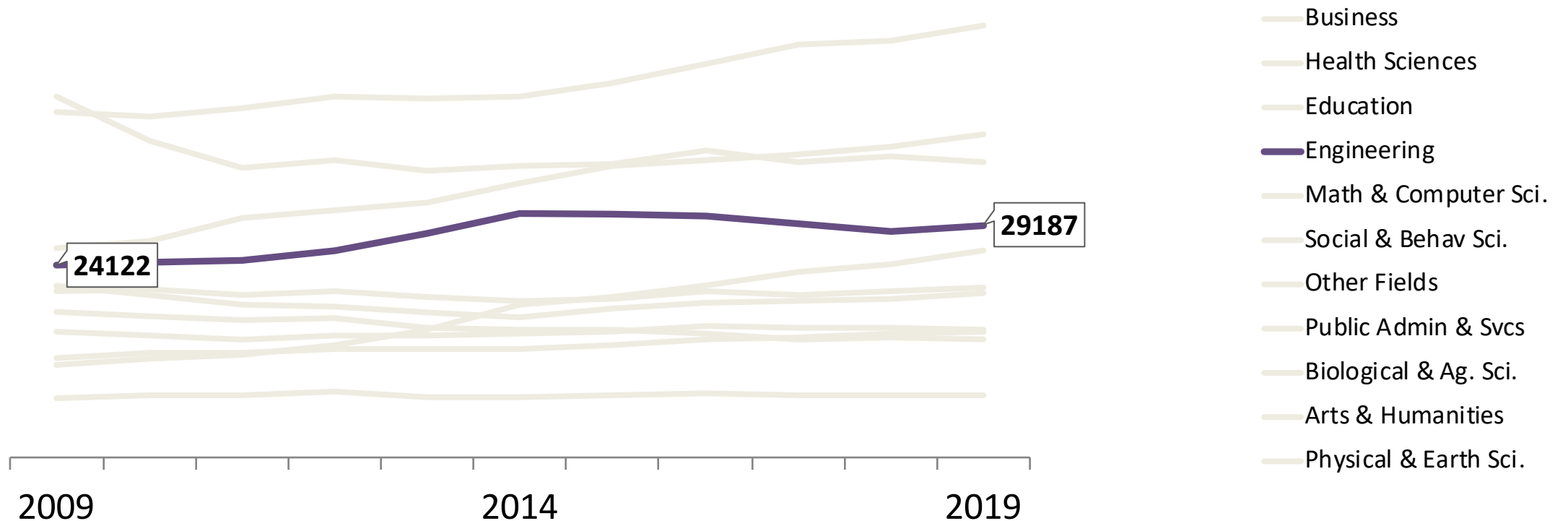
Trends in First-Time Graduate Enrollment by Broad Field of Study, Fall 2009 to Fall 2019



Source: 2019 CGS/GRE Survey of Graduate Enrollment and Degrees, Table C.3

The first-time enrollment for Engineering appears to be rebounding.

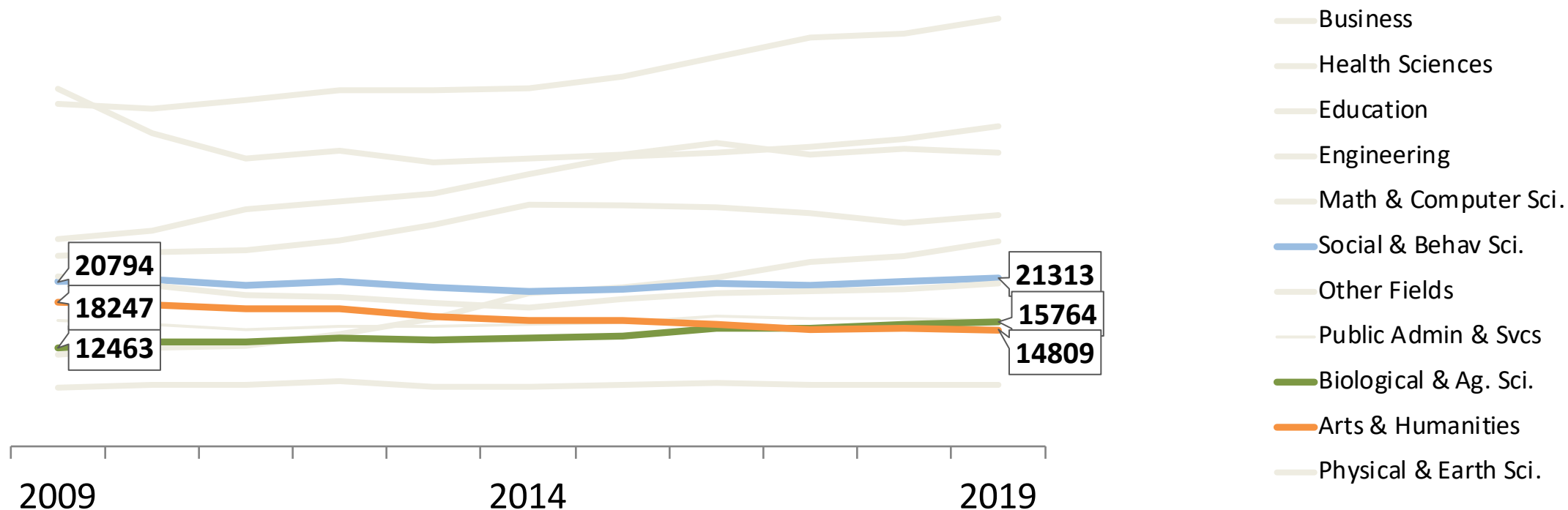
Trends in First-Time Graduate Enrollment by Broad Field of Study, Fall 2009 to Fall 2019



Source: 2019 CGS/GRE Survey of Graduate Enrollment and Degrees, Table C.3

First-time enrollment in Social & Behavior Sci., Arts & Humanities, and Biological & Agricultural Sci. continue to flatten.

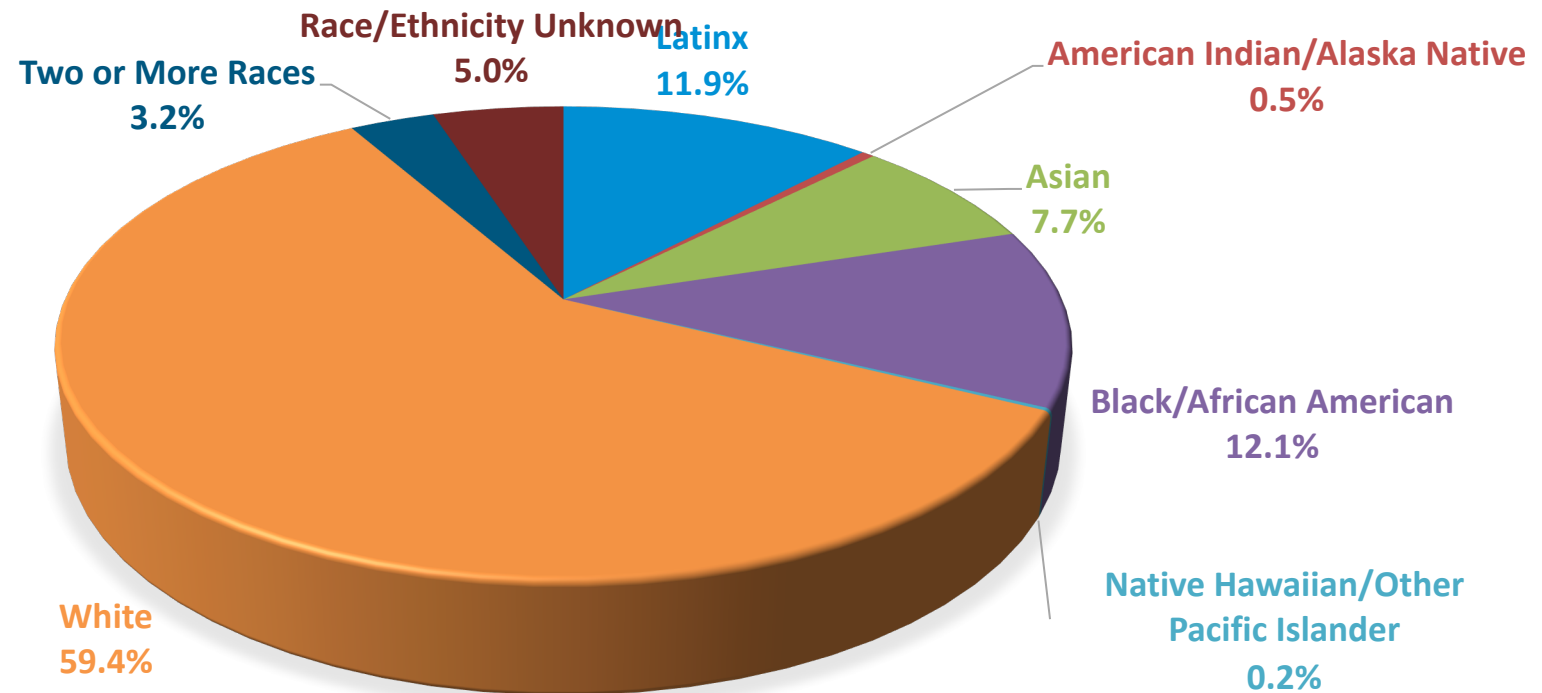
Trends in First-Time Graduate Enrollment by Broad Field of Study, Fall 2009 to Fall 2019



Source: 2019 CGS/GRE Survey of Graduate Enrollment and Degrees, Table C.3

Among U.S. citizens and permanent residents, underrepresented minorities (URM) consists 24.8% of first-time graduate enrollment in Fall 2019, slightly increased from previous years .

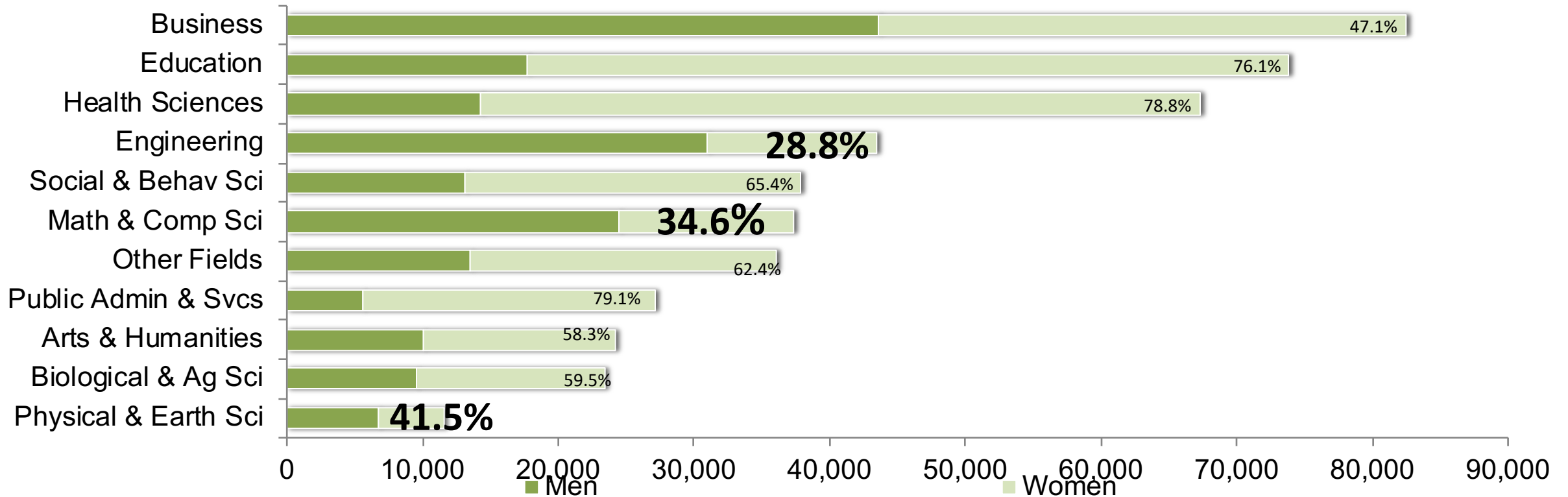
Figure 4. U.S. Citizen And Permanent Resident First-time Graduate Enrollment By Race/Ethnicity, Fall 2019



Source: Okahana, H., Zhou, E., & Gao, J. (forthcoming). *Graduate enrollment & degrees: 2009 to 2019*. Council of Graduate Schools. Figure 4.

Although, the overall majority of graduate students are women, they still are underrepresented in Engineering, Math & Computer Sciences, and Physical & Earth Sciences.

Figure 2. First-time Graduate Enrollment by Broad Field of Study and Gender, Fall 2019

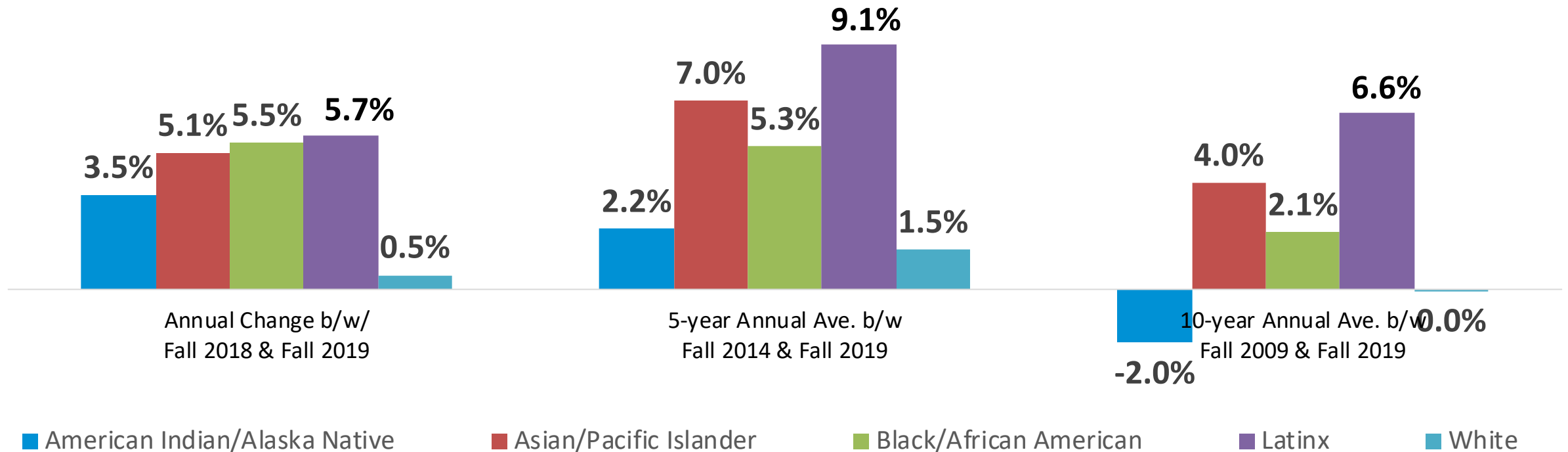


Source: 2019 CGS/GRE Survey of Graduate Enrollment and Degrees, Table B.4

Source: Okahana, H., Zhou, E., & Gao, J. (forthcoming). *Graduate enrollment & degrees: 2009 to 2019*. Council of Graduate Schools. Figure 2.

The number of first-time graduate students of color grew at faster rates than White students.

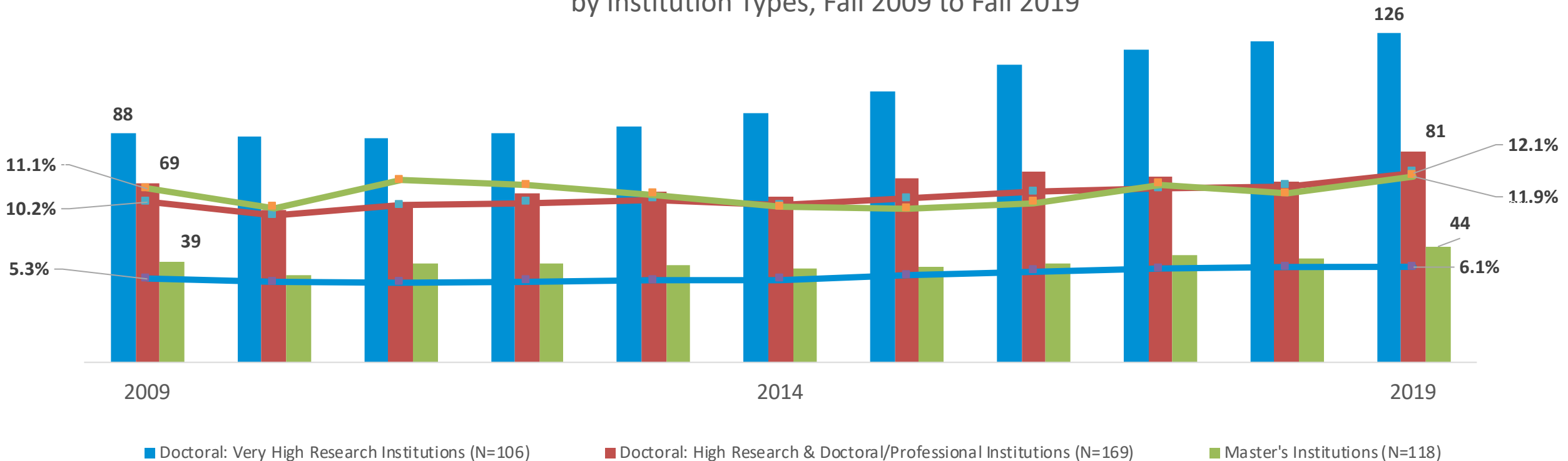
Comparisons of Average Annual Percent Changes in First-time, U.S. Domestic Graduate Enrollment by Race/Ethnicity, Fall 2009 to Fall 2019



Source: 2019 CGS/GRE Survey of Graduate Enrollment and Degrees, Table C.10

Despite the healthy increases in terms of the number of first-time enrollment, minority students remain substantially underrepresented as percent shares of the graduate student population.

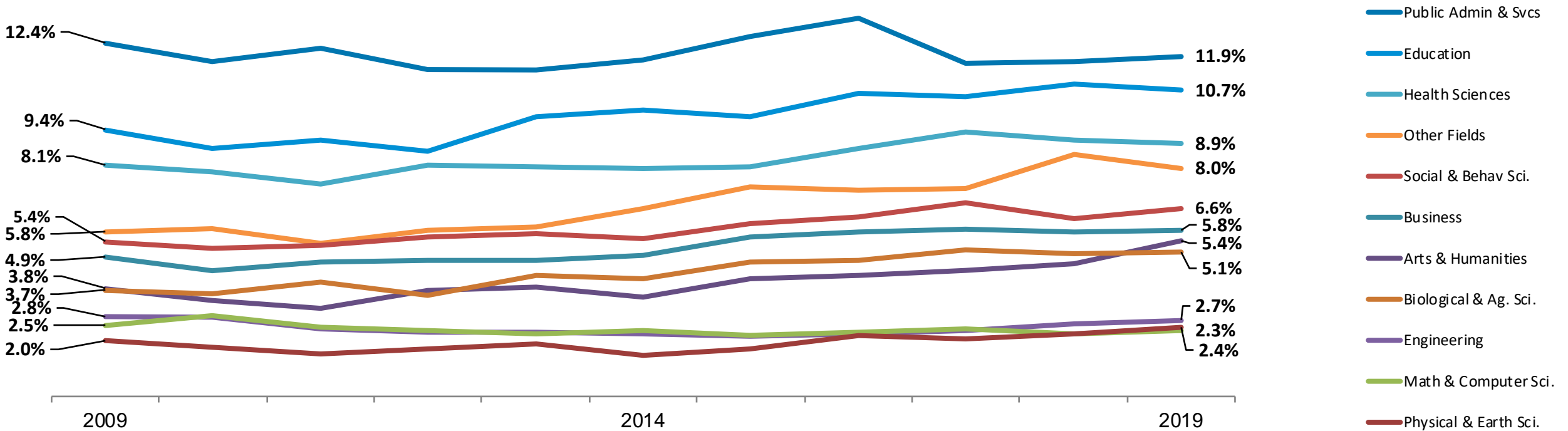
Average Number of Black First-time Graduate Students and Their % Shares among the Incoming Cohorts by Institution Types, Fall 2009 to Fall 2019



Source: Okahana, H., Zhou, E., & Gao, J. (forthcoming). *Graduate enrollment & degrees: 2009 to 2019*. Council of Graduate Schools. Figure 9.

In STEM fields, underrepresentation of Black students at Doctoral Universities with Very High Research Activities in particular is even more pronounced and persistent.

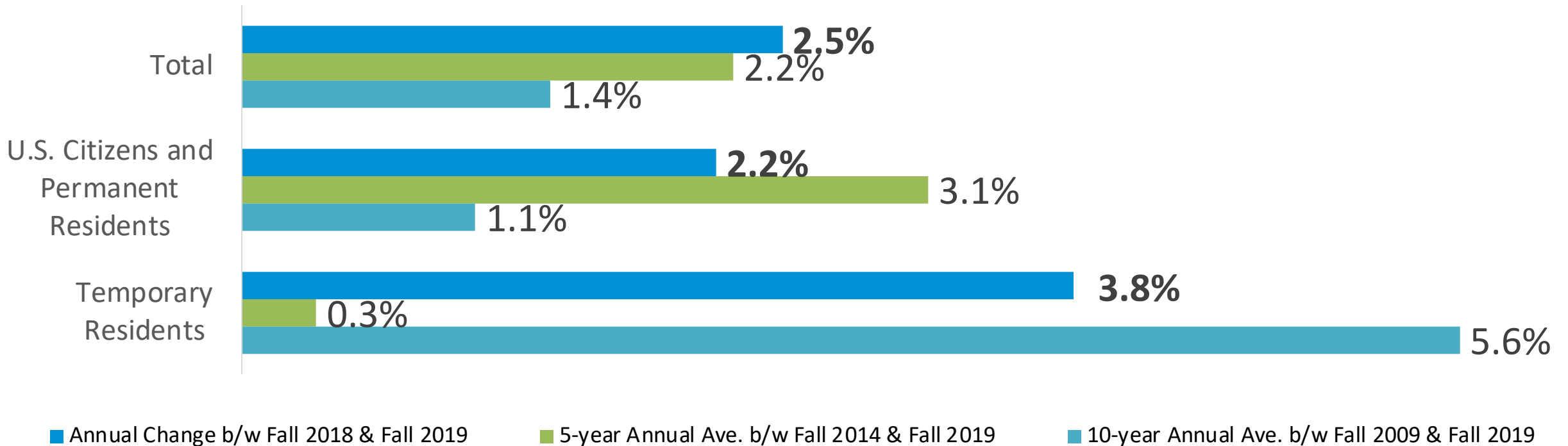
Percentage Shares of Black Students in First-time Graduate Enrollment by Broad Field of Study, Doctoral Research Universities: Very High Research Activity, Fall 2009 to Fall 2019



Source: Okahana, H., Zhou, E., & Gao, J. (forthcoming). *Graduate enrollment & degrees: 2009 to 2019*. Council of Graduate Schools. Figure 10.

Between Fall 2018 and Fall 2019, domestic first-time graduate enrollment grew slower than international students.

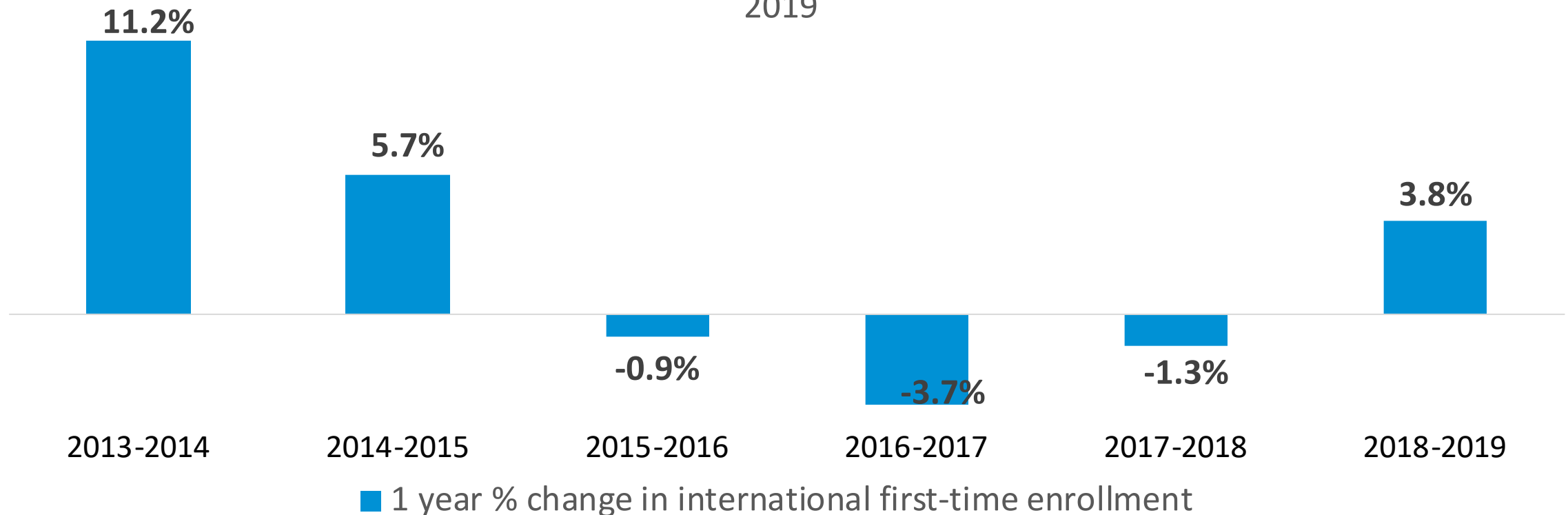
First-Time Graduate Enrollment by Broad Field and Citizenship
Fall 2009 to Fall 2019



Source: 2019 CGS/GRE Survey of Graduate Enrollment and Degrees, Table C.9

First-time enrollment growth of international students is rebounding and growing in Fall 2019.

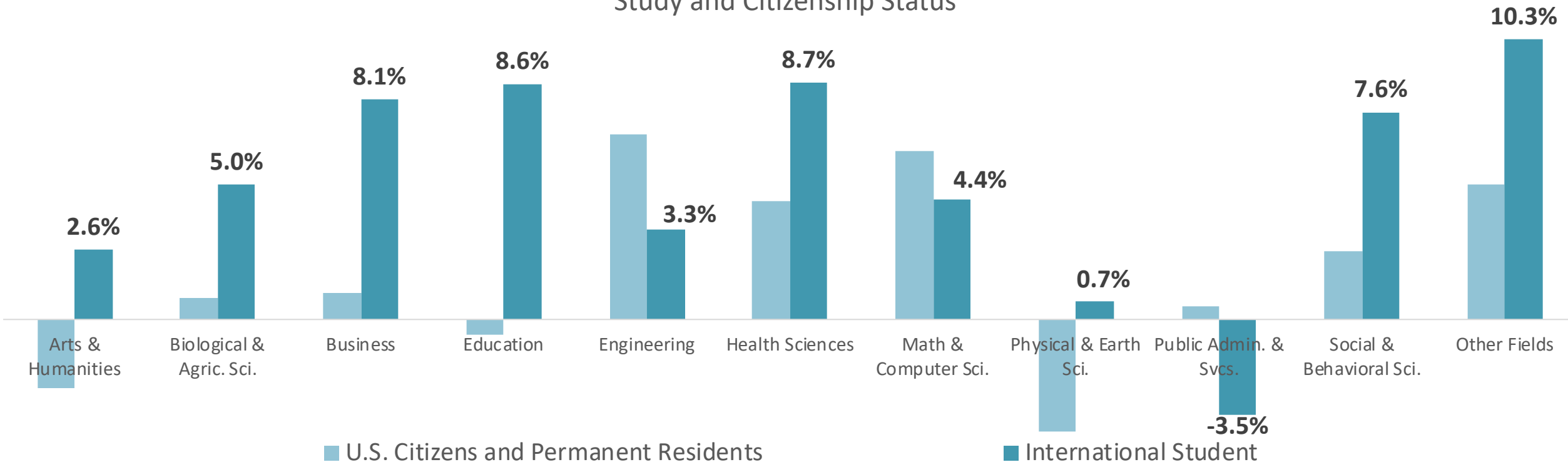
Percentage annual average change in international first-time enrollment, 2014-2019 to 2018-2019



Source: 2014, 2015, 2016, 2017, 2018, & 2019 CGS/GRE Survey of Graduate Enrollment and Degrees, Table C.9

First-time graduate enrollment of int'l students in Public Admi. declined by 3.5% between Fall 2018 & Fall 2019

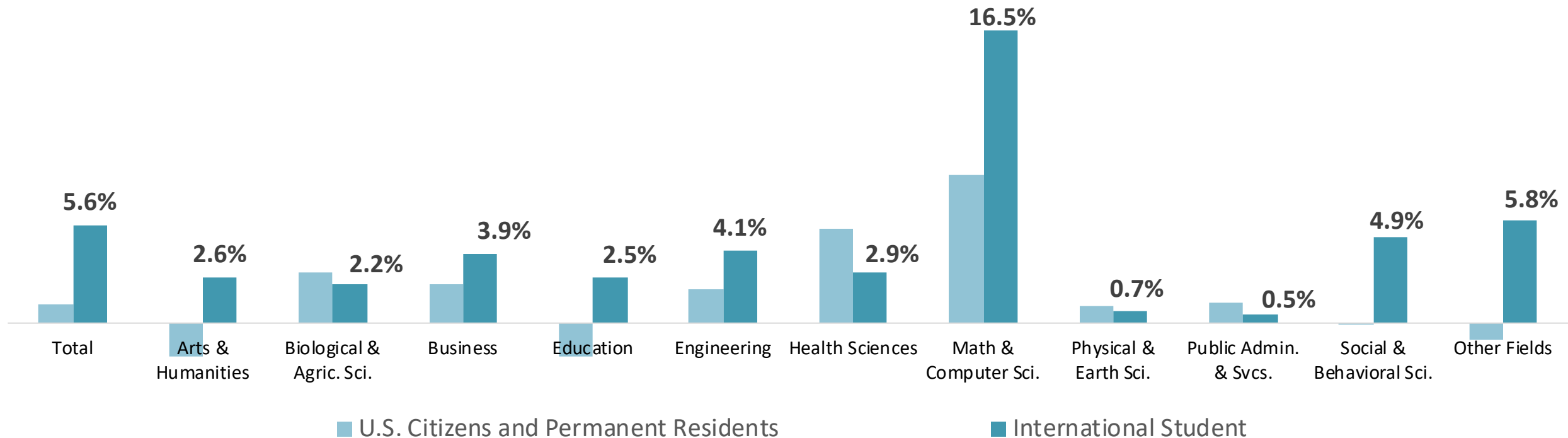
Annual % Changes in First-time Graduate Enrollment between Fall 2018 and Fall 2019 by Broad Field of Study and Citizenship Status



Source: 2019 CGS/GRE Survey of Graduate Enrollment and Degrees, Table C.9

However, the ten-year average annual rate of change of first-time graduate enrollment of int'l students remains strong.

Annual % Changes in First-time Graduate Enrollment between Fall 2009 and Fall 2019 by Broad Field of Study and Citizenship Status



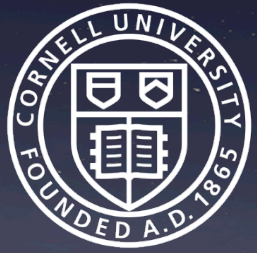
Source: 2019 CGS/GRE Survey of Graduate Enrollment and Degrees, Table C.9



Respondent Remarks

*Barbara A. Knuth, Former Dean, Graduate School, Cornell University
Dean-in-Residence, Council of Graduate Schools*

*Jerry B. Weinberg
Associate Provost for Research and Dean of the Graduate School
Southern Illinois University Edwardsville*



Actionable Responses to the CGS/GRE 2019 Survey of Graduate Enrollment & Degrees

Barbara A. Knuth, Former Dean, Graduate School, Cornell University
Dean-in-Residence, Council of Graduate Schools bknuth@cgs.nche.edu

Finding: “Minority Graduate Students Remain Substantially Underrepresented in Graduate Education”

❖ Why?

- Acknowledge full range of systemic & institutional causes, including pre-graduate school
- Assess all phases of graduate student “lifecycle” at the institution
 - CGS Report on *Holistic Review in Graduate Admissions*
https://cgsnet.org/ckfinder/userfiles/files/CGS_HolisticReview_final_web.pdf
 - “Critical to think beyond the admissions process when developing strategies for diversity and inclusion.”

❖ How to respond?

- Acknowledge limitations on ability to address range of causes
- Focus where graduate school has influence
- Enlist shorter-term and longer-term efforts
- Engage graduate students & faculty in analysis & change

Graduate Student Lifecycle

- ❖ Recruitment & Application
- ❖ Admissions
- ❖ Funding
- ❖ The (often-hidden) Curriculum & Culture
- ❖ Advising & Mentoring
- ❖ Exams: qualifying, candidacy, thesis/dissertation
- ❖ The Research Process: topic selection, prospectus/proposal, theory, methods, analysis, format, writing, presentations
- ❖ Personal & Professional Development:
 - Success as a student
 - Exploring/preparing for career paths

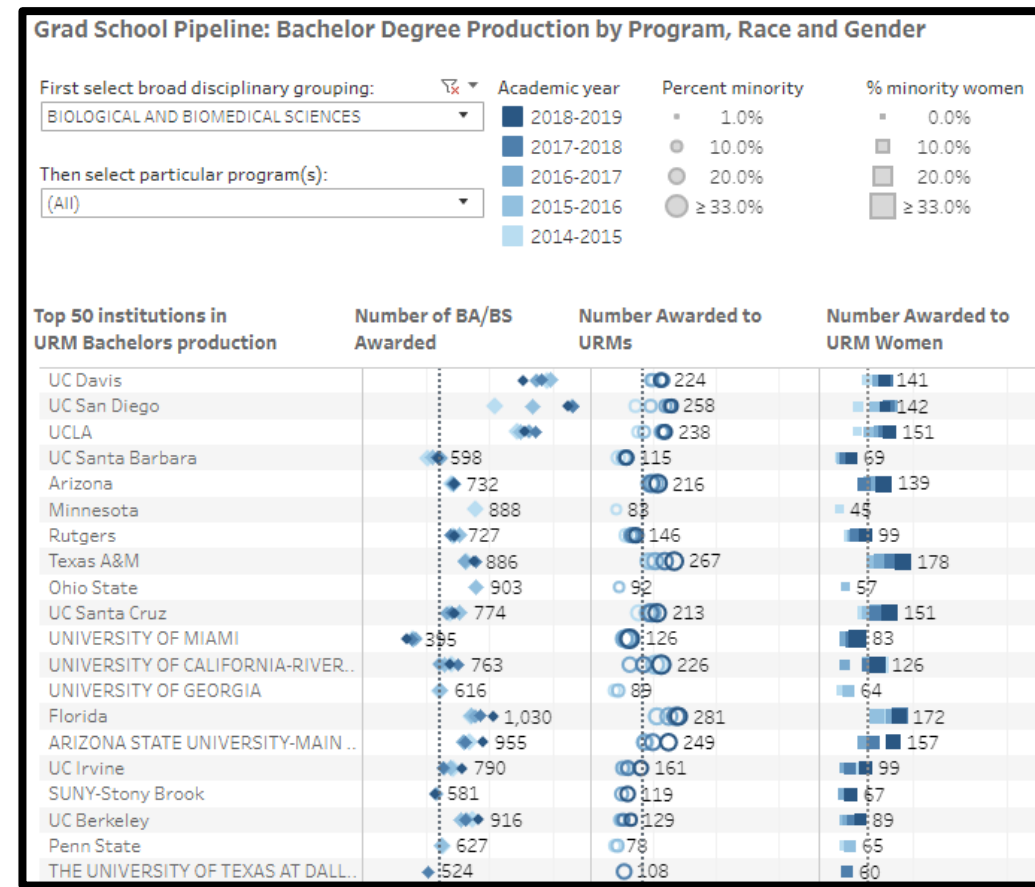


Recruitment & Application

❖ Use program-specific data on graduate admissions to identify potential applicants.

■ e.g., Cornell's Graduate School Pipeline Report:

- Uses IPEDS/NCES data
- Top 50 institutions in URM bachelors production
- By broad discipline & specific program
- URM, URM Women
- Cultivate recruitment relationships with institutions graduating URM bachelor's degree recipients (e.g., cross-visitations, summer programs, bridge programs)



Recruitment & Application

- ❖ Encourage more students to apply, from a broader range of experiences
 - e.g., Cornell's Computer Science PhD Program
 - <http://www.cs.cornell.edu/~bindel/paper/diversity.pdf>
 - NSF FLIP Alliance (Diversifying Future Leadership in the Professoriate)
 - Faculty & students attend key conferences
 - Grace Hopper Celebration
 - ACM Richard Tapia Celebration
 - McNair Scholar institutional outreach
 - *Black in AI* social media connections
 - Summer undergraduate research programs
 - Summer SoNIC research workshop partnerships
 - <https://www.cs.cornell.edu/content/workshop/sonic>



Recruitment & Application

- ❖ Reduce exploration/recruiting access barriers
 - e.g., Virtual Graduate School Fair (pandemic lessons learned!)
 - <https://cornellgraduateschoolfair.vfairs.com/>



Cornell Virtual Graduate School Fair
Tuesday, October 27, 2020
11:00 AM - 3:00 PM (ET)

Register here: <http://bit.ly/CornellGradFair>

Learn about Cornell's graduate programs and summer research internships for undergraduates.

Chat with faculty, staff, and graduate students from 55+ graduate programs.

Exhibit hall will remain open 30 days after live event.

All majors are welcome!



Admissions & Funding

- ❖ Provide admissions decision-makers with resources to evaluate applicants appropriately.
 - Holistic admissions training programs for faculty
 - Institutional workshops on equity-based holistic review for graduate admissions (e.g., <https://gradschool.cornell.edu/diversity-inclusion/faculty-resources/>)
 - Web-based resources (e.g., ETS/GRE: <https://www.holisticadmissions.org/>)
 - Selecting who to admit: evaluate potential rather than prior opportunity
 - e.g., Cornell's Computer Science PhD Program
 - <http://www.cs.cornell.edu/~bindel/paper/diversity.pdf>
 - How well has the applicant taken advantage of opportunities?
 - Does the applicant provide a unique perspective?
- ❖ Develop student funding models not tied to specific faculty advisors

Hidden Curriculum & Culture (application/admission)

- ❖ Is a PhD financially viable?
 - How much will a PhD cost me, and how do I pay for it?
 - What are assistantships & fellowships and how do I get them?
 - What are my post-graduate school employment prospects?
- ❖ How is applying to/attending graduate school different from undergrad?
 - Cohort vs. direct-to-faculty admits – depends on program
 - Consider individual faculty vs. the institution, location, etc.
 - Broad discipline of undergrad vs. specialty of research degree
 - Sense of community, independence, culture
- ❖ What is a statement of purpose vs. a personal statement?
- ❖ Who should I ask for letters of recommendation?
- ❖ Etc.!

Hidden Curriculum & Culture (requires faculty training & student ideas)

- ❖ Advising & Mentoring (e.g., culturally-appropriate; recognizing privilege)
- ❖ Exams (e.g., explicit insights for preparation, content, evaluation/rubrics, etc.)
- ❖ Course/Theory Preparation (e.g., decolonizing the curriculum)
- ❖ The Research Process (e.g., topic selection, prospectus/proposal, theory, methods, analysis, format, writing, presentations)
- ❖ Personal & Professional Support
 - Navigating graduate school (offer guidance, seek feedback)
 - Personal & family relationships (convey understanding)
 - Climate surveys & follow-on actions
 - Encourage engagement (sense of purpose & being valued)
 - Find allyship/offer allyship
 - e.g., <https://zamudiolab.org/2020/06/04/zamudio-lab-condemns-racism-and-proposes-action/>
 - Challenge long-held assumptions, co-create norms



Imagine the variety of ways your institution may be perceived ... and respond from the perspectives of the perceivers.



SOUTHERN ILLINOIS UNIVERSITY EDWARDSVILLE



- Doctoral/Professional Institution

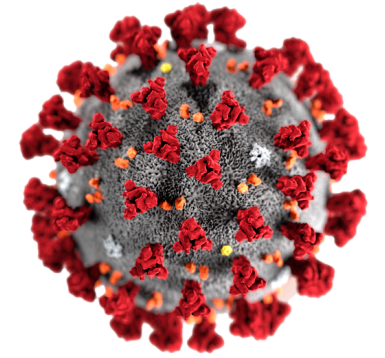
- Formerly Large Master’s Granting
- 50 Master’s programs, EdD, DNP, 4 cooperative PhD programs with SIUC
- Third highest for research expenditures per NSF HERD in our Carnegie Class
- Primarily undergraduate institution

	Pre-COVID	COVID	
	Fall 2019	Fall 2020	
Total Enrollment	13,061	12,860	-1.5%
Undergraduate	10,400	9,942	-4.4%
Graduate/Professional	2,661	2,981	+12%
New International Grad/Prof Enrollment	72	33	-54%

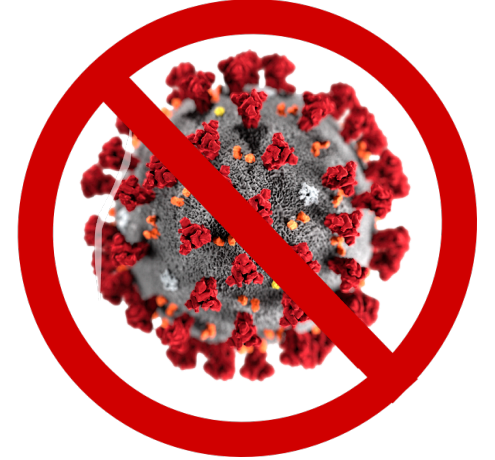
- Notable Program Increases

- MBA
 - Specialty in business analytics
- DNP
- Public Health
- Public Administration
- Social Work

Enrollment in the time of COVID



- What is driving the current rise in graduate enrollment?
 - Working from home combined with the extended online offerings?
 - Job loss or desire to change?
 - Current events driving the expectation of the job market?
 - Health care, social justice, social support, public administration
- What ways do we need to support these students?
 - For retention and completion
 - For providing a graduate level education
 - For providing a graduate level learning environment
- How do we support international admissions?
 - Supporting “online now, on campus later” students
 - Managing requests for deferrals to Fall 21



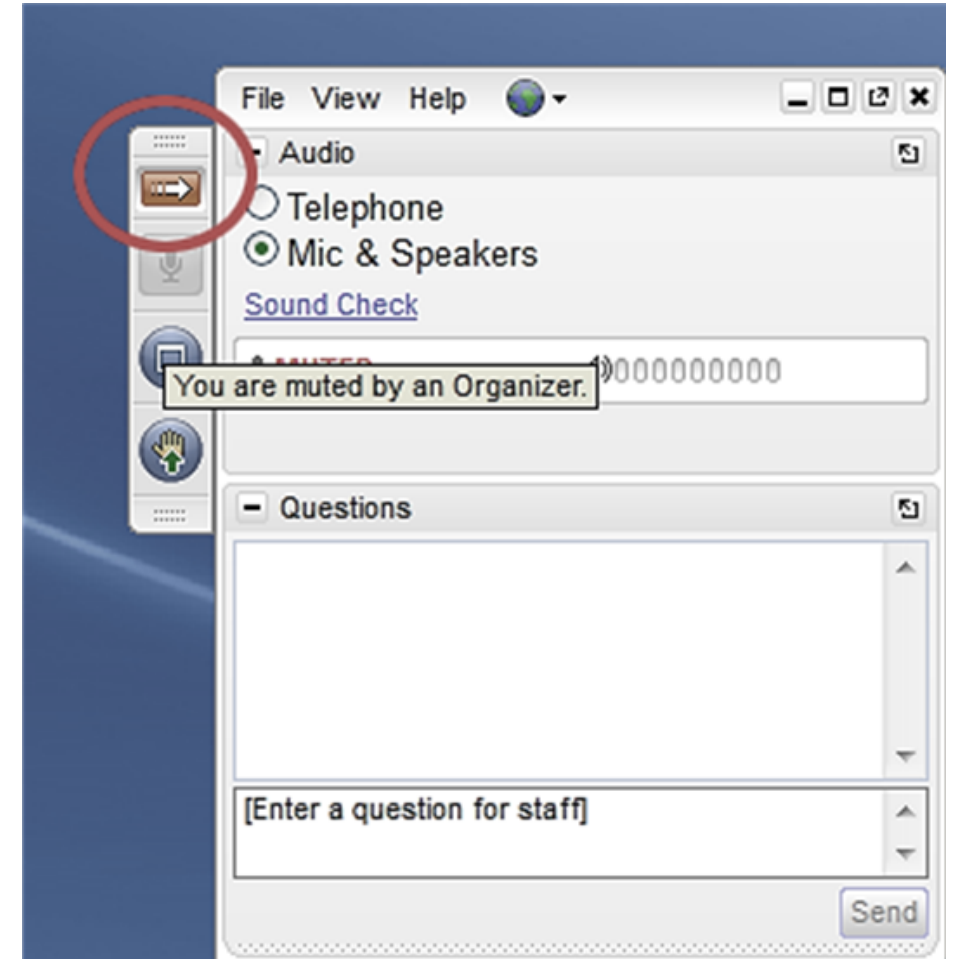
Enrollment Post-COVID

- How do we continue to serve this population?
 - What can we learn from their motivations for returning?
 - What can we learn about the mix programs and their delivery?
 - What can we learn about providing needed accessible support services?
- How do we support international students?
 - What supports do we need to consider for international students who deferred admission for a year?
- How do we report enrollment trends?
 - Will we need to have one or two years footnoted as the “COVID Bump”?

Questions?

Webinar **recording and slides** will be **emailed** to participants and **posted** on the CGS website.

Type them into the Questions box on the GoToWebinar control panel.



Upcoming Events

- **Remapping Graduate Recruitment for 2021: Strategies to Identify and Engage New Applicant Pools (Sponsored by Liaison)**
 - *Tuesday, October 27, 2020 from 2:00-3:00 PM EDT*
- **Virtual CGS 60th Annual Meeting**
 - *December 2-4, 2020*