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Founded: 1883 18 College and Schools Enrollment: 51,832 (2018) Undergradate students: 40,804 Graduate students: 11,028

The Graduate School was established in 1910

Over 100 fields of study (~90 PhD / >120 Masters Programs)

~ 900 doctoral degrees / yr; ~ 2,000 Master's degrees / yr

Marv Hackert - Univ. Tx

BILLI

Preparing PhD Students for Tomorrow's Careers

Goal - to provide PhD students with the knowledge, skills, and abilities to be successful in careers both within and beyond academia

Funding:



Humanities – 2yr

CGS PhD Career Pathways is a coalition of 70 doctoral institutions working to better understand and support PhD careers across all broad fields of study. Over the course of the project, universities will continue collecting data from current PhD students and alumni using surveys that were developed by CGS in consultation with senior university leaders, funding agencies, disciplinary societies, researchers, and PhD students and alumni. The resulting data will allow universities to analyze PhD career preferences and outcomes at the program level and help faculty and university leaders strengthen career services, professional development opportunities, and mentoring.



A PROJECT OF THE COUNCIL OF GRADUATE SCHOOLS

"Today, universities recognize that PhD students aspire to a wide variety of careers, including academic research and teaching," said CGS President Suzanne Ortega. "Knowing what your alumni do— and how well they are prepared—is becoming the new paradigm, and our university partners are leading the way for the entire community of doctoral institutions."



Navid Ghaffarzadegan et al. of Virginia Tech studied changes in number of PhD graduates and faculty positions in the biological and medical sciences and found that the PhD graduation rate outpaced academic job growth. They estimate that there is **one tenure-track** position in the United States **for every 6.3** newly minted PhD holders.

Image: Reprinted from Ghaffarrzadegan N, et al., 2014, "A Note on PhD Population Growth in Biomedical Sciences," Systems Research and Behavioral Science 32: 402–405 (doi:10.1002/sres.2324).

UT Austin PhD Career Pathways Project

CGS Prepared Surveys:

Alumni surveys (Fall) - 3rd, 8th, 15th year from PhD

Current Student surveys (Spring) - 2nd and 5th year

Scope of UT Austin Pilot Project:

Humanities (2 yr study): English / History / Art History / Sociology

STEM (3 yr study): Math / Physics / Chemistry / Cell & Molecular Biology / Chemical Engineering / Civil Engineering

CGS PhD Career Pathways Partners

- The Graduate School
- Faculty Innovation Center

Laura Struve





- Graduate and International Admissions Center
 - Program Coordinators

Shannon Neuse



UT Student Survey

IMPORTANT FACTORS FOR JOB AFTER PHD



82% of students said **work-life balance** was "extremely important" or "very important" in deciding their first job after earning their PhD. For Humanities students, 58% stated this was "extremely important" in deciding their first job, compared to 34% of STEM students.



80% of students said *intellectual challenge* was "extremely important" or "very important" in deciding their first job after earning their PhD. A similar share of STEM (43%) and Humanities (42%) students stated this was "extremely important " in deciding their first job.

Room to Improve



Students reported feeling least prepared in grant writing. Overall, 47% of students stated they felt they were "very poorly" or "poorly" prepared for **grant writing**.



30% of students stated they "strongly disagreed" or "somewhat disagreed" that their advisor had worked with them in **developing a career plan**. Humanities students were more likely that STEM students to agree that their advisor had worked with them in their career planning.

Preferences for Employment Sector after PhD



CGS Alumni Survey F2017

CGS Research in Brief, April 2019 By Hironao Okahana, Enyu Zhou, & Timothy Kinoshita

If you had to start again, how likely would you:

- pursue a Ph.D. in general?
- puruse a PhD in the same field?

2017		Pursue a PhD in General		in the Same Field	
		Academic	Non- Academic	Academic	Non- Academic
Biological Sciences	3 Year	84%	82%	80%	67%
	8 Year	83%	83%	83%	76%
	15 Year	88%	87%	82%	85%
Engineering	3 Year	93% 87%	83%	85%	77%
	8 Year		83%	87%	77%
	15 Year	100%	88%	98%	82%
Physical & Earth Sciences	3 Year	88%	83%	81%	74%
	8 Year	89%	90%	82%	77%
	15 Year	96%	81%	88%	69%
Soc & Behavioral Sciences	3 Year	82%	7 8%	77%	75%
	8 Year	87%	89%	82%	78%
	15 Year	92%	94%	88%	83%

Boldface denotes statistically significant difference by employment sector. P<0.05

See 'About the Data Source' on page 3 for data collection information.

By Hironao Okahana

Figure 1. Share of Ph.D. Holders who Started Their Current Jobs within 3 Years by Cohort and Selected Broad Fields of Study

CGS Alumni Survey F2018 CGS Research in Brief, July 2019

> PhD holders who earned doctorates:

3 yrs Cohort A

8 yrs Cohort B

15 yrs Cohort C



Data Source: Council of Graduate Schools, Understanding PhD Career Pathways for Program Improvement (NSF/DGE #1661272 and Mellon Foundation #31600612), Fall 2018 Alumni Survey.

Campus Discussions on Career Options for PhD Students

- Does your campus offer a variety of professional development opportunities?
- What resources does your campus offer to help faculty better advise students about a range of job opportunities and career pathways?
- Do your seminar programs include presenters from a variety of institutions – industry, business, gov. labs, non-profits, etc. and not just academics?
- What pathways are there at your university for PhDs with experience outside the academy to contribute to the university enterprise and all stages of their careers?

All events are open to both graduate students and postdoctoral scholars unless otherwise noted.

Featured Events

All events are open to both graduate students and postdoctoral scholars unless otherwise noted.

GS Career Resources

(Fall 2019)

Wednesday, August 21 What Every International

Graduate Student Should Know About U.S. Employment

10-11:30 a.m. and 3-4:30 p.m. Peter O'Donnell Jr. Building (POB), AVAYA Auditorium (2.302)

Interested in hearing how H-1B sponsorship happens from the inside? Dan Beaudry, former head of campus recruiting at Monster.com and author of the book "Power Ties: The International Student's Guide to Finding a Job in the United States," shares the potent job search system used by many international students to find U.S. employment.

Thursday, October 24, and Friday, October 25 Three-Minute Thesis Competition (3MT)

9 a.m.-4 p.m. Peter O'Donnell Jr. Building (POB), AVAYA Auditorium (2.302)

3MT is an academic competition that challenges master's and doctoral students to describe their research to a general audience within three minutes.

For graduate students only

Friday, November 15

Persuading Other People with Jean-Luc Doumont

10 a.m.-12 p.m. Peter O'Donnell Jr. Building (POB), AVAYA Auditorium (2.302)

Being able to persuade others is a critical skill for any career. We must convince an employer to hire us,



Teaching Preparation Series

The Faculty Innovation Center and campus partners offer a professional development opportunity for graduate student instructors to learn about, observe, practice, receive feedback on, and reflect upon classroom teaching techniques. Wednesday, September 4

Converting Your CV to a Resume 10-11 a.m. | Patton Hall (RLP) 1.302B

Wednesday, September 11

The Well-Written Academic Cover Letter 12-1:30 p.m. | Perry-Castañeda Library (PCL), Learning Lab 1 (2.370.1)

Wednesday, September 18

Networking: Building Authentic Professional Relationships 10-11:30 a.m. | Patton Hall (RLP) 1.302

Wednesday, September 18 Writing the Dissertation 2-4 p.m. | Perry-Castañeda Library (PCL), Learning Lab 2 (2.340) For graduate students only

Friday, September 20 Time Management for Academics 10-11:30 a.m. | Perry-Castañeda Library (PCL), Learning Lab 2 (2.340)

Saturday, September 28 Graduate Writing Retreat 10 a.m.-5 p.m. | Perry-Castañeda Library (PCL) 2.330

Wednesday, October 2

Research Speed Dating 5-6:30 p.m. | Perry-Castañeda Library (PCL), Learning Lab 1 (2.370.1) For graduate students only

Wednesday, October 9 Identifying Your Transferable Skills 10-11 a.m. | Patton Hall (RLP) 1.302B

Saturday, October 26 Graduate Writing Retreat 10 a.m.-5 p.m. | Perry-Castañeda Library (PCL) 2.330

Wednesday, November 6

Job Search Strategies for Careers in Industry, Government, and Nonprofit 10-11 a.m. | Patton Hall (RLP) 1.302B

Wednesday, November 6

Developing a Diversity, Equity, and Inclusion (DEI) Statement 5-6:15 p.m. | Patton Hall (RLP) 1.302B

Friday, November 8

Drafting Teaching Statements: How Do I Articulate My Beliefs About Teaching? 12-1:15 p.m. | George I. Sánchez Building (SZB) 104

Friday, November 15

Persuading Other People with Jean-Luc Doumont 10 a.m.-12 p.m. | Peter O'Donnell Jr. Building (POB), AVAYA Auditorium (2.302)

Saturday, November 16 Graduate Writing Retreat 10 a.m.-5 p.m. | Perry-Castañeda Library (PCL) 2.330

Friday, November 22

Workshop Your Teaching Statement: What Is Working? What Can I Improve? 12-1:15 p.m. | George I. Sánchez Building (SZB) 104

Wednesday, December 4 Strategic Interviewing 10-11 a.m. | Patton Hall (RLP) 1.302B

Saturday, December 7 Graduate Writing Retreat 10 a.m.-5 p.m. | Perry-Castañeda Library (PCL) 2.330

Register online at careerservices.utexas.edu/graduate-student-events/

https://careerservices.utexas.edu/graduate-student-events/

Career Resources

University Resources

The University of Texas at Austin

Graduate School

Career Services for Graduate Students >

As part of the <u>College to Career Initiative</u>, University Career Services is here to help you find the many resources available at UT to help you discover your career options, learn about how to get experiences to prepare you for your next steps, and provide you with the skills and resources to succeed.

Non-Academic Job Search >

Liberal Arts Career Services provides career coaching for all graduate liberal arts students.

External Resources

Versatile Ph.D. >

All UT Austin graduate students are eligible to use the resources of Versatile Ph.D., an online community for non-academic and non-faculty job seekers.

Career-Planning Tool for the Sciences >

Learn how to leverage your expertise into a career through My IDP (Individual Development Plan).

ETS Writing Mentor >

The Writing Mentor application provides feedback about your writing to help you to make it convincing, well-developed, coherent, and welledited!

ImaginePhD >

https://gradschool.utexas.edu/services-and-resources/career-resources

A free, online career exploration and planning tool for Ph.D. students and postdoctoral scholars in the humanities and social sciences.

Three Newer Initiatives

AGEP: California Alliance Research Exchange
 https://gradschool.utexas.edu/ut-ca-alliance

<u>https://gradschool.utcxas.cdu/ut-ca-allanc</u>

Graduate Education Taskforce

https://provost.utexas.edu/graduate-education-task-force

AAU PhD Education Initiative

https://www.aau.edu/education-community-impact/graduate-education/phdeducation-initiative

The California Alliance Research Exchange Program



NEW Program: Call for interested students and faculty hosts

The University of Texas at Austin is a participating institution in the California Alliance's Research Exchange Program - one of the <u>Alliances for Graduate Education and the Professoriate (AGEP)</u> programs funded by NSF.

It seeks to **further diversity in mathematics, physical sciences, computer science, engineering** by introducing **underrepresented minority graduate students** (and postdocs) to faculty at competitive research and teaching institutions. Participating students will **receive up to \$1,500 for travel expenses** for visits lasting about **1 week**.

The program is open to current UT Austin Ph.D. students in candidacy and postdoctoral fellows who are underrepresented minorities (African American, Chicano/Latino, Native American/Alaskan Native or Pacific Islander) and in the mathematical, physical and computer science and engineering fields. Applicants must be U.S. citizens or permanent residents.

Students interested in participating or faculty interested in hosting should contact Mary Hackert at m.hackert@austin.utexas.edu or visit https://gradschool.utexas.edu/ut-ca-alliance.

Graduate Education Task Force

 Daina Ramey Berry, Associate Dean
 https://provost.utexas.edu/graduate-education-task-force

 Oliver H. Radkey Regents Professor of History

A Graduate Education Task Force consisting of faculty and graduate students will explore and recommend strategic solutions for enhancing graduate education at UT-Austin. The task force is examining potential solutions that are critical to the future success of our graduate programs, including recommendations for improving:

- Graduate student compensation
- Time-to-degree and graduation and job placement rates
- Support services for students' physical and mental well-being

Recognizing the benefit of having supporting data for review and discussion, the task force is working with the <u>Office of Institutional Reporting, Research, and Information Systems</u> (IRRIS) to collect internal data and provide peer data comparisons. **Report due to Provost – Dec. 2019**.

Graduate Education Task Force

https://provost.utexas.edu/graduate-education-task-force

Preliminary Recommendations (May 22, 2019)

- Increasing TRB for students working as 20 Hr TAs and Als to **fully cover the cost of tuition**.
- Aligning graduate student stipends to be competitive with those of peer institutions.
- A health care system that provides **continuous access to health care** throughout their degree program, improve mental health care, and affordable options for dependent care.
- **Strategic planning** for graduate programs funding, ratio of graduate students to tenure/tenure track faculty, establishing goals for long-term faculty and graduate program success.
- Generating **guidelines** for the employment, advising, and mentoring of graduate students by faculty and University units.
- Engage University Housing Dining on **housing** issues as they relate to graduate students.



PhD Initiative

To improve the educational experience of doctoral students in all disciplines and in recognition of the **diverse career pathways available to PhD graduates**, AAU has launched an initiative in collaboration with our member universities aimed at **changing the established culture** *surrounding doctoral education at AAU institutions.*

The overarching objective for the AAU PhD Education Initiative is: to promote more student-centered doctoral education at AAU universities by making diverse PhD career pathways visible, valued, and viable.

The AAU PhD Education Initiative is generously funded by:









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CHARLES KOCH FOUNDATION

AAU - PhD Initiative

AAU PhD Initiative - Phase I: identify a pilot **cohort of eight** member universities and support their engagement in **three key activities** that will occur in parallel over the 2019-2022 academic years.

Eight pilot campuses:

Boston University, Duke, Indiana, Illinois, Iowa, Missouri, UT Austin and Virginia.

Three Key Activities:

1) Institutional Change • Influence the culture and behavior at the department level to provide PhD students with the knowledge, skills, and abilities to be successful in careers both within and beyond academia.

2) Data Transparency • Develop an infrastructure and the institutional policies required to regularly and *uniformly collect and make public PhD program and career outcome data*

3) Learning and Dissemination • Participate in cross-cohort institutional learning (e.g., workshops, online webinars, campus exchanges, and AAU site visits). Highlight and encourage effective university, disciplinary society, and federal agency strategies and programs.

"A common theme across these conversations was the need for programand institutional-level metrics and student outcome data."

Example: University of Michigan - <u>https://secure.rackham.umich.edu/academic_information/program_statistics/</u> (Date available by program, cohort year, degree, etc. in Tableau or Table Formats)

	Doctoral Program Statistics		
+ ONIVERSITI OF MICHIGAN	Field of Study		
	All Rackham 🔹		
All Rackham			

The University of Michigan offers a remarkably broad and rigorous array of graduate degree programs that are among the very best in the country in each field of study. The U-M attracts outstanding students to graduate study, and prepares them to make lasting contributions to society through successful careers in professions and academic disciplines. Interdisciplinary study and joint degrees are a special strength of U-M's programs. The vibrant community of graduate and professional students on campus is highly diverse in citizenship, demographic background, and intellectual perspective. The Rackham Graduate School works together with faculty in the schools and colleges of the University to sustain this diversity, understanding it as critical to our dynamic intellectual climate. In order to make the activity and culture of graduate programs more visible, we provide basic statistics about the Ph.D. programs at the University of Michigan. The data and variables were selected to offer a more accurate and helpful picture than those provided by external sources. We also encourage you to visit specific graduate program websites to learn more about the intellectual life, successes, and opportunities in each of our Ph.D. programs.

Example: University of Michigan - https://secure.rackham.umich.edu/academic_information/program_statistics/

ENROLLMENT



A comparison to the overall pattern of applications in Rackham is offered next to the program.



Demographics

Insights into the citizenship, gender, and ethnicity of students enrolled in All Rackham for 2018. Ethnicity is reported only for domestic students (US Citizens or Permanent Residents). Hispanic students are excluded from the Two or More category.



* In many cases, students competed successfully for external funding and did not need additional financial support.

Funds

(?)

A glimpse into the distribution of funds comparing tuition and stipend support over the years.

URM

Example: University of Michigan - https://secure.rackham.umich.edu/academic information/program_statistics/



Median Time to Candidacy (TTC) & Time to Degree (TTD)

Comparison of the median time to candidacy and degree for the selected program for the last 5 years of graduates.





Exit Survey Data on Publications and Presentations: Data reflects responses from students who completed PhD programs between from 2014 to 2018. If a program had fewer than 5 respondents, data for that program are not shown.



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Completion by Entering Cohort

The percentage of students that have completed their degree as of September 2018. Students are grouped by entering years. Categories with fewer than three students are not shown.







Tenure-Track Faculty