



Systemic change toward equity and belonging in graduate education

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abstract: Several factors demand systemic change in graduate education, including mismatches between doctoral training and skills needed, and persistent gaps in representation in faculty ranks. In this session, the presenters focus on the imperative to pursue equity and belonging and how it intersects these other trends. They will describe their ideal end state, and what they are doing at their respective universities to improve access, belonging, and success.

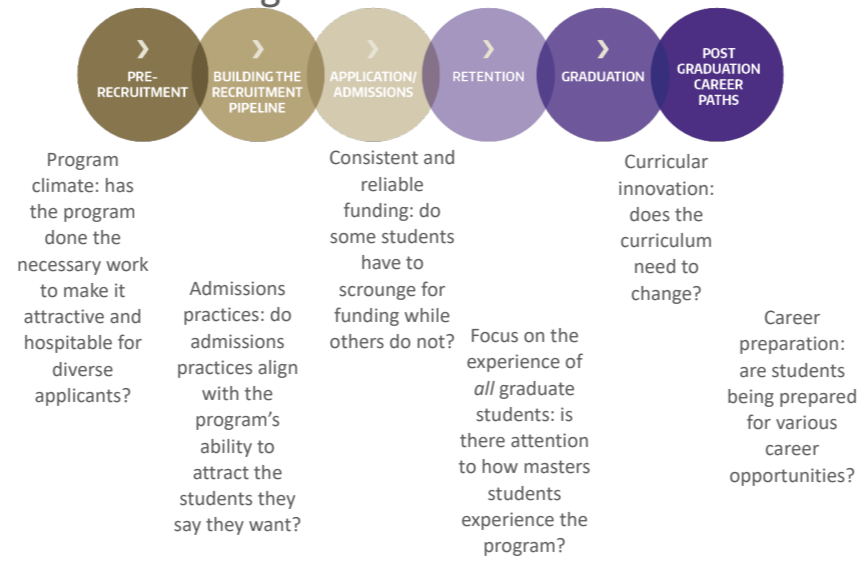
1. Introductions



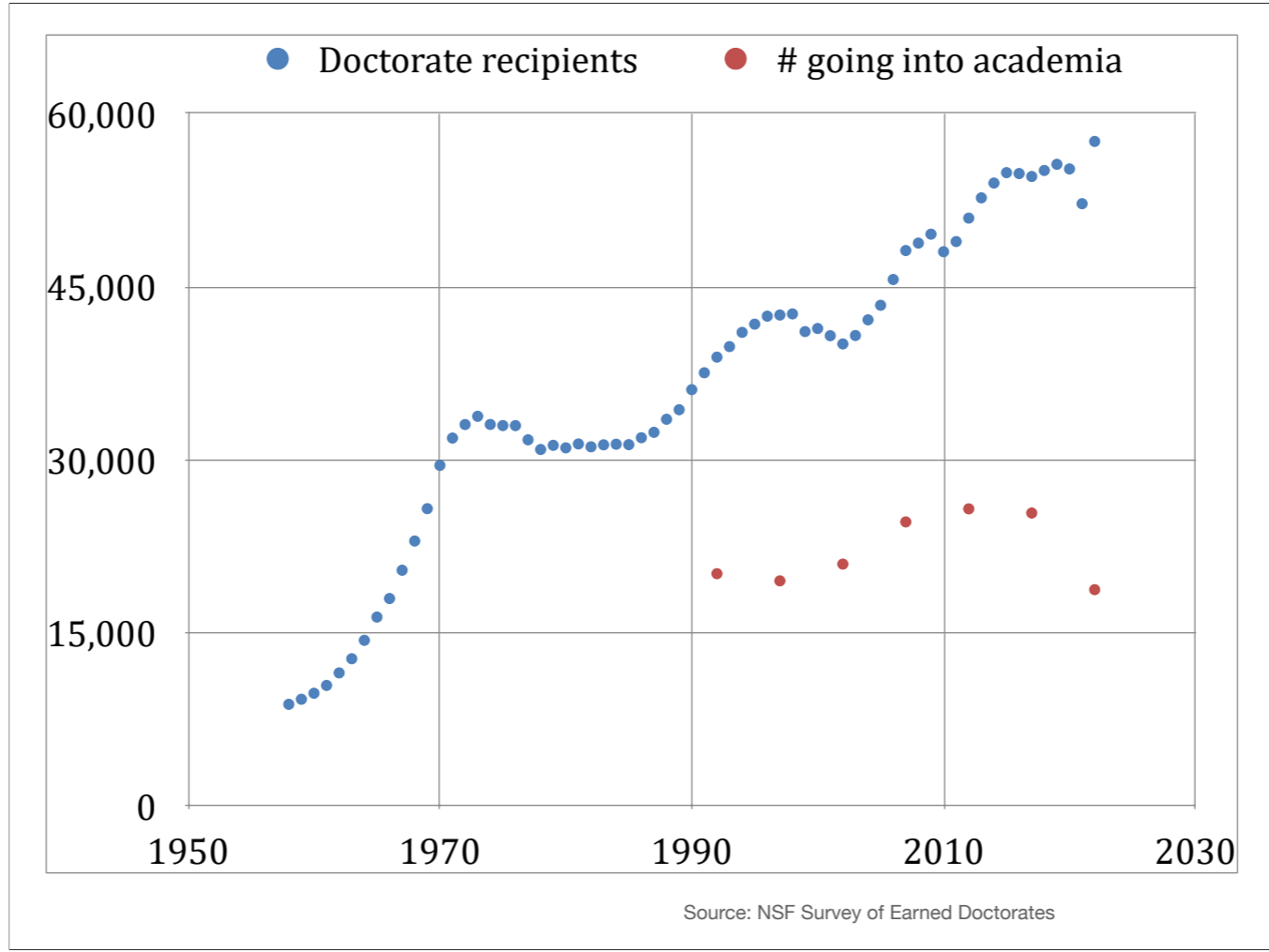


UW came up with this diagram to describe the student journey, which provides a framework for thinking about where we might make interventions to improve diversity, equity, inclusion, and belonging.

What do you see as key factors needing systemic change in graduate education?



Questions we might ask ourselves with respect to each step in the graduate student journey.

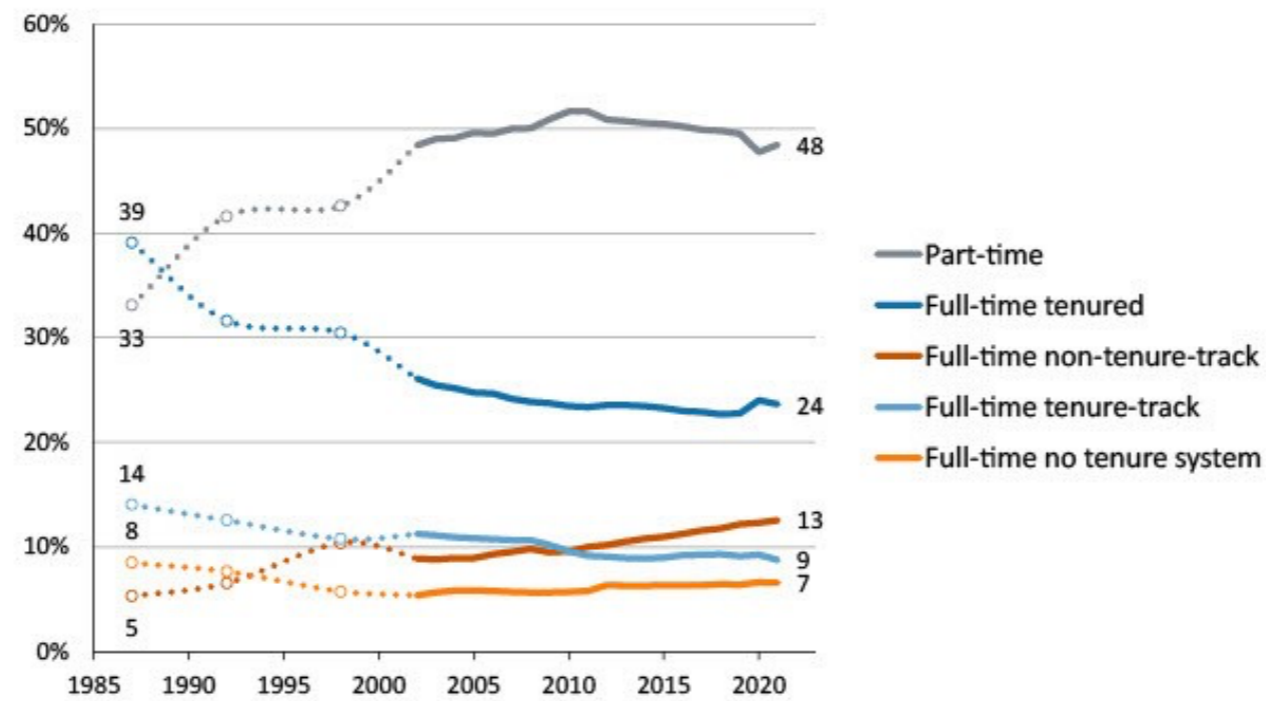


The 1960s were a golden era of higher education. The number of doctorates graduated per year roughly tripled; funding for research and graduate positions was plentiful, and rapid expansion of undergraduate enrollment meant that most PhDs could go straight into a faculty position. Since then, the number of doctorates has continued to rise, but the number going into academia as a first job has been roughly stagnant for the past 30 years.

(note: percentages vary widely by field, from 10% for Engineering to 63% for humanities and arts. Part of the reason for the shift is a higher mix of doctorates in fields where academia is not the primary destination, like engineering and biotech. Note also that there was a large dip in completions in 2020 as students, especially in the humanities, delayed completing their degrees. That dip shows up in the red dots as well.)

The US academic workforce has shifted from mostly full-time tenured or tenure-track faculty to mostly contingent faculty.

Percentage of total number of faculty, by appointment type, fall 1987 through fall 2021

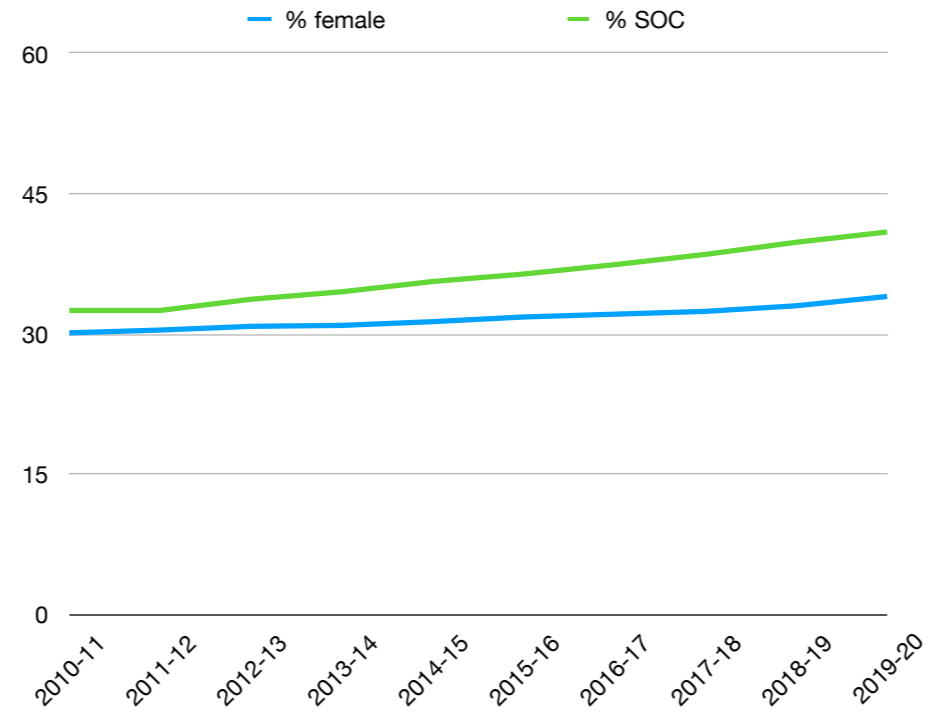


Source: AAUP

Figures represent nonmusical instructional staff with or without formal faculty status in degree-granting nonprofit institutions participating in Title IV. Dashed lines (1987-98) are estimates from the National Study of Postsecondary Faculty series, nationally representative samples with margins of sampling error; solid lines (2002-21) are from IPEDS, a census survey required for all institutions participating in Title IV programs.

<https://www.aaup.org/article/data-snapshot-tenure-and-contingency-us-higher-education>

Percent underrepresented groups, US STEM programs



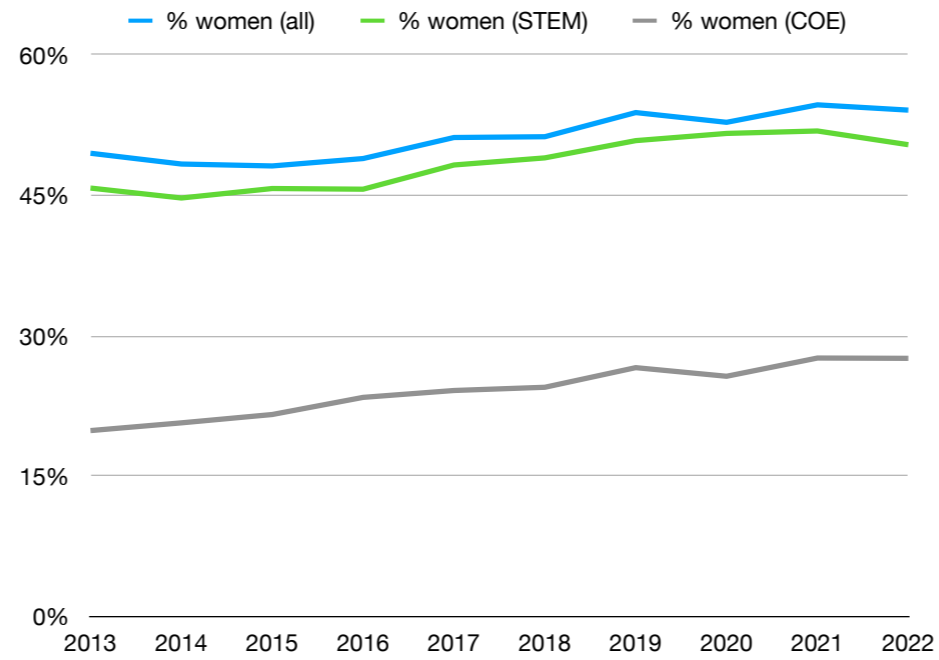
IPEDS data

Graduate education has made some progress, though it's dimly slow.

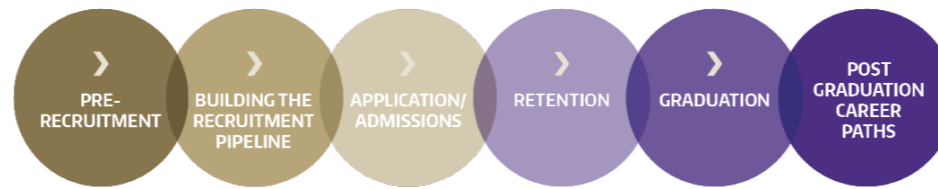
Beyond these graphs: other types of underrepresented students, veterans, part-time, etc.

Percent women at OSU

All programs, STEM colleges, Engineering

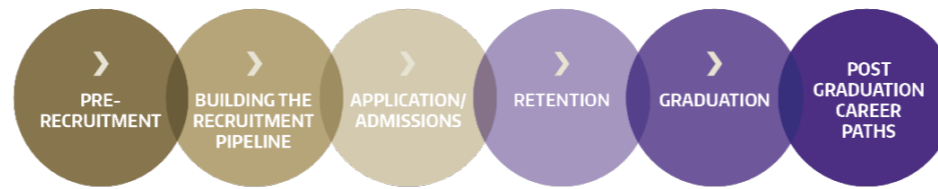


At OSU, we have done much better than national averages at including women in STEM graduate programs, even in the College of Engineering which is well above the national average. Still, 30% is far from where we need to be, and the situation is worse for other underrepresented groups.



3) describe characteristics of successful graduate education in 2030, especially regarding equity and belonging

These are all linked: (a) greater emphasis on transferable skills, (b) shorter time to degree with less emphasis on required coursework, and (c) intellectual belonging, welcoming novel viewpoints not just on the margins but in the fundamentals. Doing all three of these means reinventing graduate curricula to be more flexible and streamlined. The foregoing mostly applies to traditional MS and PhD programs, but we also (especially in R1s) need to value and strengthen practical masters degree programs with non-thesis options, and smaller credentials. These expand access and can meet the needs of today's learners at various points in their careers, replacing the default "train them when they're 24 and they're good for life" model.



4) what do you think we need to do to get there and what do you see happening at your university and/or elsewhere?

Program by program, we need to engage faculty and reimagine graduate education for the 21st century. Requires combination of culture change backed by evidence, and encouraged with incentives. At OSU we're beginning the conversation about revamping curricula to focus better on the needs of today's students and be more welcoming. Builds on earlier successes with holistic admissions and OSU Grad Advantage (similar to UC Davis's GradPathways). Also Grad summer Step, transitional program for incoming grad students.

PRE-RECRUITMENT **BUILDING THE RECRUITMENT PIPELINE** **APPLICATION/ADMISSIONS** **RETENTION** **GRADUATION** **POST GRADUATION CAREER PATHS**

ENVISION UC DAVIS **AMIGA** **GRADUATE MENTORING INITIATIVE UC Davis Graduate Studies** **UC DAVIS GradPathways Institute for Professional Development Graduate Studies**

Envision
The Envision program enables California's most promising grad school hopefuls to develop an understanding and appreciation of graduate education.

The Alliance for Multi-Campus Inclusive Graduate Admissions (AMIGA)
Funded by a grant from the Mellon Foundation. Graduate program faculty developed holistic review for graduate admissions in a total of 8 humanities and humanistic social science graduate programs at UCLA and UC Davis.

Graduate Mentoring Initiative (GMI)
GMI offers a holistic mentoring program aimed at fostering a culture of faculty-graduate student mentoring across all academic disciplines.

GradPathways Institute for Professional Development (GPI)
GPI provides innovative programming based on 8 core competencies to help graduate students and postdoctoral scholars succeed in their chosen career paths.



• **UC Davis Programs to meet the full spectrum of needs**

• **Envision**

- The Envision UC Davis program is one critical way we are expanding our pipelines, outreach, and recruitment.
- Envision seeks to eliminate the barriers that prevent underrepresented students from successfully entering and completing graduate school.
- And it encourages applications from individuals who have perspectives or experiences of groups who are historically underrepresented in higher education.
- The Envision UC Davis program sponsors California senior undergraduates and recent bachelor's degree grads for an action-packed weekend on the Davis campus and allows them to *envision* their future as a graduate student at UC Davis.
- Last month, we just wrapped our 6th annual Envision program, and we're focused now on ways we can expand and enhance this program to enable even more opportunities to more students.

• **Holistic Review and AMIGA:**

- Holistic Review or "whole file" review is a process that:
 - Considers all applicant information without any one deciding factor.
 - Employs specific contextualization of an applicant's background – i.e., achievements in the context of opportunities/challenges.
 - Is systematic and comprehensive to improve the equity of admissions, while addressing diversity and inclusion as well.

- Since 2017, UC Davis has been at the forefront of holistic graduate admissions.
- Along with the AMIGA project – which has been instrumental in the adoption of holistic review methods – we have provided significant leadership during challenging admissions cycles (including the pandemic admissions cycles) that resulted in more than half of the graduate programs at UC Davis eliminating the requirement for standardized test scores.
- In 2022, UC Davis also led a system-wide dialogue about holistic review, and we are currently developing toolkits that will allow broader access to holistic review methodology.

• **GMI and GPI**

- Of course, we can't only focus on pipelines and admissions.
- Retention, student success, and career preparation are equally important to overcoming the demographic gaps.
- At UC Davis, we are heavily focused on mentoring and career prep through two programs:
 - the Graduate Mentoring Initiative that showcases lived experiences and resources on campus.
 - And the GradPathways Institute for Professional Development that provides innovative programming based on 8 core competencies, including career management, wellness and life balance, and presentation skills, among others.

• Mentoring, along with professional development opportunities, is essential to not only ensuring all students find success in graduate school.

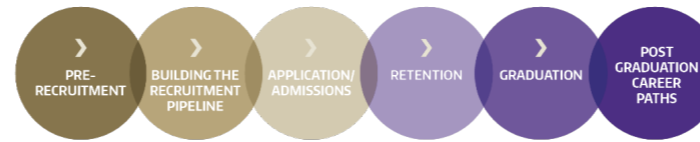
• But that they are also able to find success in their post-graduation career paths.

• The future of graduate education can't look like the past.

• We've already seen the data gaps between number of graduate candidates and number of academic positions.

• So how can we create the educational and scholarly experiences that meet today's academic AND industry needs?

4) what do you think we need to do to get there and what do you see happening at your university and/or elsewhere?



Program climate: has the program done the necessary work to make it attractive and hospitable for diverse applicants?

Admissions practices: do admissions practices align with the program's ability to attract the students they say they want?

Consistent and reliable funding: do some students have to scrounge for funding while others do not?

Focus on the experience of *all* graduate students: is there attention to how masters students experience the program?

Curricular innovation: does the curriculum need to change?

Career preparation: are students being prepared for various career opportunities?

Oregon State University actions highlighted in areas with orange text: holistic admissions, OSU Grad Advantage (Like UCD's Grad Pathways), CIMER training for faculty, looking at data - yield rates of students of color, exit surveys - to look for signs of trouble with program climate.