

Where You Earn Your PhD Matters

Benjamin Jepson, *Penn State University, USA*

Pete Hatemi, *Penn State University, USA*

ABSTRACT

We collected data on every tenure-track (TT) faculty member in the 122 PhD-granting political science departments in the United States to identify which graduate programs place faculty members in our discipline's research universities. The top 20% of departments produced 75% of all faculty and the bottom 50% accounted for less than 5% of all TT faculty members at a research university. Forty-nine programs did not have a single graduate placed in a TT position at a PhD-granting department in the past 10 years, and 18 programs did not have a single graduate in a TT position at a PhD-granting department at all. The overwhelming majority of TT faculty members are at a lower or equally ranked department. The results have important implications for prospective graduate students and the future of our discipline.


Every year, thousands of students begin a political science PhD program. Many believe that their degree will lead them to a tenure-track (TT) position at a research university. In deciding whether to pursue a PhD or at which university, potential students may benefit by knowing the patterns of hiring. This article presents evidence that a small number of departments hold a virtual monopoly on placing students at PhD-granting universities.

The majority of PhD students, from 65% to 89% depending on the broad disciplinary category and 72% to 76% for political science specifically, enter their program with the goal of securing a TT academic position (Curtin, Malley, and Stewart 2016; Golde and Dore 2001; Kim, Benson, and Alhaddab 2018; Main, Prenovitz, and Ehrenberg 2019; National Science Foundation 2021, 2023; *Nature* 2019; Reithmeier et al. 2019; Sauermann and Roach 2012; St. Clair et al. 2017; 2023; Zheng and Coughlin 2023). Yet, there is a terrific imbalance between students' desires and actual jobs that are available: depending on the discipline, only 3.5% to 20% of those who *finish* their program achieve this goal (Berdahl, Malloy, and Young 2020; Cornell 2020; McGrath and Diaz 2021a, 2021b, 2023; Taylor, Martin, and Wilsdon 2010). The disparity between goal and realization is worse for research-university positions; the studies that are available report that 50% to 75% of PhD students, depending on the discipline, begin their program with the goal of being a professor at a PhD-granting research university. However,

the percentage of those who succeed is in the single digits, which does not include the 30% to 50% of those who leave before graduating (Golde and Dore 2001; Larson, Ghaffarzadegan, and Xue 2014; Nerad and Cerny 2003; Tiede 2022; Weissmann 2013).

Unfortunately, only a minority of students already socialized into higher education recognize the true gap in academic placement before they begin their PhD program (Main, Prenovitz, and Ehrenberg 2019; Weidman and DeAngelo 2020). On the one hand, many students know or learn early in their studies that finding a TT job is difficult (Casey 2009). On the other hand, there is a difference between knowing that the job market is competitive, versus that for many programs, there is no historical chance of securing a TT job at all. The majority of PhD graduates report that they eventually give up on their academic goals and pursue less desirable career paths because they cannot find a TT position (Cornell 2020; Council of Canadian Academies 2021; Etmanski, Walters, and Zarifa 2017; Kim, Benson, and Alhaddab 2018; Morrison, Rudd, and Nerad 2011; Simmering and Shafto 2021; St. Clair et al. 2017). This is not to ignore, discount, or diminish the importance of nonacademic career paths or the goals of those who never planned to seek a TT position. Rather, there is increasing evidence that more programs have begun to recruit or encourage students interested in government, non-governmental-organization, and industry positions (Berdahl, Malloy, and Young 2020). Some programs also have begun to socialize students after admission toward nonacademic jobs as faculty members are keenly aware of the realities of the TT job market (Roach and Sauermann 2017). One complication, however, is that whereas some PhD degrees translate well to nonacademic jobs, including business, computer science, engineering, and mathematics, this is not the

Benjamin Jepson is an MA graduate in international affairs at Penn State University. He can be reached at bjepson7@gmail.com.

Corresponding author: Pete Hatemi  is a distinguished professor of political science at Penn State University. He can be reached at phatemi@gmail.com.

© The Author(s), 2025. Published by Cambridge University Press on behalf of American Political Science Association. This is an Open Access article, distributed under the terms of the Creative Commons Attribution licence (<http://creativecommons.org/licenses/by/4.0>), which permits unrestricted re-use, distribution and reproduction, provided the original article is properly cited.

case for many if not most social science PhD programs and resource-limited departments. Most political science PhD programs do not appear to train students for skills that have a direct line to nonacademic careers, or how to successfully transfer the skills learned to other careers, or have advisors who have those

is one example: she quit her position after learning that her teaching assistant was making \$300 a month more than her (Lu 2024). If these circumstances are remotely reflective of the future of the discipline, they bode poorly for the approximate 50% of PhD holders who have an average of \$100,000 in student debt.

...50% to 75% of PhD students, depending on the discipline, begin their program with the goal of being a professor at a PhD-granting research university. However, the percentage of those who succeed is in the single digits...

connections, networks or skills themselves (Council of Canadian Academies 2021; Etmanski, Walters, and Zarifa 2017; Kolata 2016; Larson, Ghaffarzadegan, and Xue 2014; Nerad 2007; Nerad and Cerny 2003). There are exceptions: programs focused on “big data” analysis tend to place well in the technology sector, and some departments have long-established relationships with government, industry, intelligence agencies, think tanks, and defense, for example. However, these advantages are atypical for most programs. Although a political science PhD eventually can lead to many different careers outside of the academy and some of the skills learned ultimately are transferable, the doctorate is not needed for the vast majority of them (Cornell 2020; Simmering and Shafto 2021; Weissmann 2013; Wood 2019).

To support future graduate students aiming for a TT position, providing transparent information on the plausibility of landing that position based on where they might attend graduate school is one of the more important things we can do. Typically, it takes five to seven years of graduate school and at least two more years to find a TT job, if graduates find one at all (National Science Foundation 2021). The years that graduate students spend earning a PhD are the most critical in their age group’s professional and personal lives, when their nonacademic peers are building the foundation of their career and family. The mid-twenties to late thirties are widely argued to set one’s career trajectory and lifetime earning potential, and the opportunity cost of not securing a TT job (if desired) after the PhD investment can have lifelong consequences (Güvenen et al. 2021).¹ According to a study by the Foundation for Research on Equal Opportunity—a nonprofit, nonpartisan think tank—and using data from the US Department of Education College Scorecard and US Census, 70% to 80% of non-STEM, medical, and law doctorate earners experience a negative economic return on their PhD investment (Cooper 2022). Financial compensation, however, is not the only or primary reason to pursue a PhD. Undoubtedly, it is at least to take part in the scientific endeavor by contributing original research, which is the main requirement to earn a PhD. There is great value in a PhD education for education’s sake—but education alone does not pay for health insurance, rent, food, and other essentials to live. Moreover, the majority of new positions in political science are temporary (McGrath and Diaz 2021b). A pre-pandemic survey of 3,076 contingent faculty members across disciplines found that 33% earned less than \$25,000 annually (American Federation of Teachers 2020); only 15% could cover basic monthly expenses; less than 50% had employer-provided health insurance; and 40% had no job security after one term. The experience of Dr. Amanda Reiterman, a adjunct professor of humanities at the University of California, Santa Cruz,

In general, graduate students account for approximately 25% of student loans but they hold 50% of all US student debt (National Center for Education Statistics 2022). There also are important personal costs to consider if career goals are not realized after the seven-plus-year PhD investment. For example, the twenties and thirties are childbearing years, and women often delay having children until after graduate school and securing a TT job (Morgan et al. 2021).

Recently, some disciplines have begun to explore placement more systematically. Jones and Sloan (2022) found that more than half of faculty positions in economics are occupied by graduates from 15 universities and more than a third from six universities. Similar results were found for business, computer science, and history (Clauset, Arbesman, and Larremore 2015). Wapman et al. (2022) conducted a broad analysis of 300,000 faculty members and found that a small number of universities (20%) account for an overwhelming majority of all faculty hires (80%), across all institution types. This phenomenon has not yet been explored specifically for political science.²

There are several TT academic career paths, including teaching-intensive institutions such as community colleges and liberal arts and non-PhD-granting state universities, as well as institutions outside of the United States. This initial study focuses on the placement in TT positions at US PhD-granting political science departments for four primary reasons. First, as far as extant research can identify, a TT position at a PhD-granting institution remains the goal for the majority or at least the plurality of those entering academia (Cornell 2020; Golde and Dore 2001; Larson, Ghaffarzadegan, and Xue 2014; National Science Foundation 2023; Nature 2019; Reithmeier et al. 2019; Weissmann 2013). Second, these positions are considered the most desirable for salary, benefits, and resources, and they offer the best financial comparison to private enterprise (Tiede 2022) (see the online appendix for a comparison of salaries). Third, community colleges and bachelor’s- and master’s-only colleges have different needs, requirements, and career trajectories than PhD-granting institutions and from one another. Fourth, if PhD-granting departments were combined with two- to six-year colleges, within-discipline departmental comparisons could not be made. Smaller colleges, for example, often do not have discrete political science departments; instead, they combine departments across disciplines with faculty members from many different degree programs. The same holds if we extend beyond political science and include international affairs and policy schools, which also tend to be structured as professional-degree programs. That is, we would lose our equivalent discipline and department comparison necessary to provide accurate and actionable information

for future students who are choosing which political science PhD program to pursue.

We identified 122 PhD-granting political science departments in the United States that employ a total of 3,059 TT faculty members. Using the annual number of PhD graduates—between 650 and 770, which is the five-year average pre-COVID (National Science Foundation 2018)—and using the lowest published number (50%) of those who want to be a professor at a PhD-granting research-university, 11% of existing faculty members will need to leave the discipline every year. Simply stated, at the very least, the discipline is producing PhDs at a rate that requires a 100% turnover of the country's entire political science TT faculty at research universities every nine years—yet the average career length is 35 years (National Science Foundation 2021). Even if the number of PhD students interested in a research university professorship were decreased by half and adjusted downward for the relatively smaller percentage who seek positions outside of the United States, there still would be a tremendous mismatch between students' goals and the positions they are able to obtain (Golde 2001; Golde and Dore 2001; Roach and Sauermann 2017; Sauermann and Roach 2012). Moreover, and complicating the situation, every indicator forecasts a serious decline in undergraduate enrollment and subsequent TT hiring for the next 20 years (Marcus 2025).

This article answers the question of which graduate programs produce faculty members for our discipline's PhD-granting research universities. We also explore the importance of pedigree on promotion and advancement at PhD-granting institutions. Identifying which programs result in a desired TT faculty position is critical information not only for future political science students but also for departments to make informed and ethical programmatic decisions.

DATA AND METHODS

We used the public webpages of departments to identify every known TT faculty member (N=3,059) at every identified PhD-granting political science department (or synonym, N=122) in the United States. We collected curriculum vitae (CV) data through publicly available websites and manually entered the data into our database. Data collection started in November 2022 and finished in May 2023 (See the [online appendix](#) for details on program selection, data collection, and quality control.).

Our collection of CV data includes faculty members' current institution (N=3,059), year PhD was earned (N=2,970), university and discipline from which the degree was earned (N=3,055 and N=2,999, respectively), academic rank (N=3,059), years of promotions (N=1,236–2,028), undergraduate institution (N=2,838), and sex (N=3,059) (Jepson and Hatemi 2025). We restricted our analyses to publicly available data and did not collect ethnicity, race, family background, country of origin, income, opinions, or any sensitive information. Names were used to find the data but were not included in the database for analysis. Additional variables were derived from the data, including time to promotion and career length, among others. Citations and h-index data were collected from all who had a Google Scholar profile (80%; N=2,448) within a 24-hour window (additional descriptives and coding procedures are listed in [online appendix table S1](#)). All procedures contributing to this study complied with the ethical standards of the relevant national and institutional committees on human participants.

Where Do Our Political Scientists Come From?

Table 1 summarizes the characteristics of the discipline's PhD-granting department faculty members. These 3,059 professors graduated from 186 universities. Overwhelmingly, US political science professors are from US programs (96%), and 90% have a PhD in political science or synonym (the [online appendix](#) contains the full list of degree programs and synonyms). The only other degrees that are meaningfully represented in the discipline's research universities are public policy and administration (2.8%), economics and business (2.1%), and international service and affairs (1.3%). Not adjusted for missingness, more than 60% of US-educated professors attended private undergraduate schools compared to approximately 25% of the country's graduates, which is consistent with prior findings on the deep income and class divisions between faculty members and broader society (Morgan et al. 2022). Given the only recent pursuit of better representation, it is not surprising that 65% of current faculty members in PhD-granting political science departments are men. The relative

Table 1
Currently Placed Professors in Political Science

	Number	Percentage
Graduated from US PhD Program	2,930	95.9%
Graduated from International PhD Program	125	4.1%
Total Institutions Represented	186	
PhD Degree		
Political Science	2,686	89.6%
Public Policy/Affairs/Administration	84	2.8%
Economics or Business	63	2.1%
International Service/Affairs	38	1.3%
Sociology	23	0.8%
Philosophy	25	0.8%
Psychology	18	0.6%
Law	14	0.5%
History	12	0.4%
Area or Ethnicity Studies	5	0.2%
All Others (27 Programs)	31	1.0%
Missing	60	
Undergraduate Degree		
Research University	1,481	48.4%
Liberal Arts College/Religious	572	18.7%
Other 4-year/6-year	284	9.3%
Historically Black Colleges & Universities	15	0.5%
Military or Arts	8	0.3%
International	478	15.6%
Unknown	221	7.2%
Undergraduate: Public (US Only)	927	39.4%
Undergraduate: Private (US Only)	1,427	60.6%
Female/Male	1,060/1,999	34.7%/65.3%
Total Positions	3,059	100%

Table 2
Rank and Time to Promotion

	ALL		MEN		WOMEN	
	Number	Percentage	Number	Percentage	Number	Percentage
Assistant Professor	631	20.6%	322	16.1%	309	29.2%
Associate Professor	946	30.9%	578	28.9%	368	34.7%
Professor	1,482	48.4%	1,099	55.0%	383	36.1%
	Average/Standard Deviation	Range	Average/Standard Deviation	Range	Average/Standard Deviation	Range
Total Time in Career	20.8 (12.7)	0–62	22.5 (12.9)	1–62	17.5 (11.4)	0–58
Time to Associate Professor	7.3 (2.5)	2–24	7.1 (2.4)	2–24	7.7 (2.5)	2–23
Time to Professor	14.4 (4.8)	4–41	14.2 (4.9)	4–41	14.9 (4.3)	6–33
Associate for 10 Years or More	272	34.7%	179	37.4%	93	30.5%
N	783–3,059		478–1,999		305–1,060	

percentage of women was higher in the past 10 years (more than 45%), although it still is not at parity.

Career Progression

The average political scientist has been a faculty member for 21 years, with the longest-serving member an incredible 62 years (table 2). Almost 50% hold the rank of professor. At PhD-granting institutions, it takes an average of 7.3 years from graduation (PhD) to earn associate professor and 14.4 years to earn professor, with the longest time being 41 years. Approximately 35% of faculty members remain an associate professor throughout their career.³ All differences by sex were significant at $p < 0.05$ or better. Women were promoted, on average, six to nine months later than men to associate professor and professor, respectively. There is a far more balanced distribution by rank among women, whereas most men are at the professor rank.

Graduates from 50% of our political science programs account for less than 5% of all TT research-university positions.

Who Gets the Jobs? A Matter of Pedigree

Table 3 summarizes where all faculty members at one of the 122 US PhD-granting political science departments earned their PhDs.⁴ Along with the following tables, it includes only those graduates from US PhD-granting political science departments or synonyms—because this is our point of comparison—thereby reducing the sample to 2,661.⁵ The remaining 398 are graduates from international universities ($N=125$) and/or other disciplines ($N=313$; there is overlap) and they are not included in subsequent analyses comparing US programs. A complete placement listing of the 3,059 professors is in the online appendix, table S2.

Six programs account for 33% of all faculty positions in PhD-granting political science departments (see table 3A): 12 programs account for more than 50% of all positions;⁶ 27 programs (22%) account for 75% of all faculty positions (see tables 3A and 3B); and 54 programs have fewer than five graduates in TT positions at a PhD-granting institution. Graduates from 50% of political science programs account for less than 5% of all TT research-university

positions. Harvard University, at the top, averaged about five students a year⁷ in a PhD-granting political science department; only 20 programs averaged one a year or more; and the plurality averaged one every 15 to 45 years or less. Eighteen programs do not have a single PhD graduate in a TT position at a PhD-granting political science department, as far as we could find. Recall that table 3 reflects the entirety of the past 62 years of placements for those who remained employed as of May 2023. Overall, if past performance is any indication of future success, graduates from outside of the very top departments have a far lower and, in many cases, no historical chance of securing a TT job at any PhD-granting institution. We could find no discernable patterns between men and women (see online appendix table S3); for example, the top 20 programs revealed little difference and accounted for almost the exact percentage of placements (67.5% and 67.6%, respectively).

Recent PhD Program Performance

For students, knowing which programs are placing today is perhaps more important than which placed well during the past 60 years; the market is more competitive than ever before. In 2000, approximately 40,000 doctorates were awarded in the United States; in 2022, that number was 60,000 (Hanson 2024; National Science Foundation 2021). However, the number of TT positions, both academia-wide and within the discipline, has remained generally flat (McGrath and Diaz 2021a).

Three factors stand out when restricting the data to those hired in the past 10 years or to all those who graduated after 2012 (figure 1; see also online appendix tables S4 and S5). First, only 8% to 9% of political science PhD graduates found or remained in a TT position at a PhD-granting institution after 2012.⁸ Second, there has been some change in which programs placed graduates at PhD-granting institutions during the past half-century. Harvard continues to place more students than any other institution (4.7 per year); however, NYU and MIT moved into the top 10, whereas UCLA and Chicago

moved out. Several programs made substantial gains (more than 1%) in the total percentage of the market share of graduates placed when comparing placements from all of those before 2013 to those after, including NYU (+2.7%), Princeton (+1.9%), UCSD (+1.5%), Penn State (+1.0%) and UT Austin (+1.0%). Approximately 50 programs either held their position or made some gain. The remaining 72, however, lost market share in the past decade, including 15 programs that previously were ranked in the top 30 of placements that experienced a substantial decline in graduates placed (see [online appendix table S6](#)). Third, 49 programs (40%), as far as we could find, did not have a single political science graduate in a TT position at a PhD-granting political science department after 2012.⁹

Does Pedigree Determine How Far One Can Move Up?

The importance of ranking or prestige is a factor almost everyone in the academy speaks about to some degree, but our understanding is based largely on word-of-mouth, reputation, and views from colleagues or mentors but rarely on data. How likely is it that if someone graduated from the University of Lowly Ranked—all things being equal—they could land a TT position at University Dream Job or at least University Pretty Good? We ranked each department based on the number of graduates in a TT position (one being the best and 44 the worst; there were several ties). Recognizing that it is imperfect, we used this as our measure of rank or status, but we argue that it is perhaps an ideal metric for students who are deciding on which PhD program to pursue if they are interested in a TT position. [Figure 2](#) displays the difference in rank between where faculty members graduated and where they currently hold a TT position.¹⁰ The overwhelming majority of faculty members who have a TT position at a PhD-granting institution do so at a lower or equally ranked department (86%). Less than 2% moved up meaningfully during their career, whereas 50% moved down more than 1 standard deviation (mean/standard deviation = -14.4/14.1, N=2,657) (see [online appendix table S8](#)). One problem is that for all of those graduating from a top

program, they have nowhere to go but down (e.g., Harvard would have to hire all of its graduates to break even). Therefore, we removed graduates from the top 10 programs, reducing the sample by half (see [online appendix table S9](#) and [figure S1](#) for the results). The results were similar; 80% of those who secured a TT position did so at a lower or equally ranked department and less than 5% moved up more than 1 standard deviation during their career (mean/standard deviation = -8.9/12.4, N=1,354). Most of the upward movement was marginal.

A review of the faculty profiles at top institutions found that most of those faculty members are from the same group of institutions. This selectivity, however, cannot be attributed to pedigree alone.¹¹ [Table 4](#) presents the correlations between rank of programs as measured by placements, citations, and time to promotion. Rank of PhD institution, citation count, and attending a private undergraduate university are the strongest correlates with the rank of where a faculty member currently holds a TT position—in that order. Recall that lower rank is better, so a negative correlation means better rank and more citations. We found no significant differences by sex for securing a position at a higher-ranked university.¹² Furthermore, the correlation between a department's average citations and its department rank based on its placement record is also high: -0.72 ($p < 0.01/N = 2,661$) (see [online appendix table S11](#) for averages by department and missingness). That is, the faculty members at top departments are producing more highly cited works. However, it is well recognized that, in large part, the resources, norms, environments, and reward mechanisms of more prestigious institutions drive this increased productivity and citation count (Way et al. 2019).

Does Rank, Status, or Prestige Influence Promotion?

The better the citations, the faster faculty members are promoted. Regarding how long it takes to earn associate professor and where they earned their degree have no significant role. There is a modest

Table 3
Number of Graduates Currently in TT Positions at PhD-Granting Institutions

A. 12 Departments Account for >50% of Placements

University Name	Total Placed	%	Yearly Average
Harvard University	225	8.5	5.0
UC Berkeley	167	6.3	3.9
Princeton University	129	4.8	3.1
University of Michigan	125	4.7	2.7
Yale University	116	4.4	2.5
Columbia University	110	4.1	2.5
Stanford University	110	4.1	2.7
University of Chicago	108	4.1	2.4
UC Los Angeles	75	2.8	2.0
UC San Diego	72	2.7	2.0
Ohio State University	66	2.5	1.8
MIT	65	2.4	1.5
Totals	1,368	51.4	32.1

Table 3 (Continued)

B. 15 Additional Account for >75% of Placements

University Name	Total Placed	%	Yearly Average
Duke University	60	2.3	1.6
Cornell University	58	2.2	1.3
Washington Univ. St. Louis	55	2.1	1.3
University of Rochester	54	2.0	1.3
University of Wisconsin	53	2.0	1.3
University of Minnesota	51	1.9	1.0
New York University	46	1.7	1.3
UNC Chapel Hill	46	1.7	1.3
Michigan State University	37	1.4	0.9
University of Texas Austin	36	1.4	0.9
Northwestern	34	1.3	0.8
Illinois Urbana-Champaign	31	1.2	0.7
Emory University	30	1.1	0.9
Johns Hopkins	30	1.1	0.7
University of Iowa	30	1.1	0.7
Totals	651	24.5	15.9

Table 3 (Continued)

C. Next 36 Account for <20% of Placements

University Name	Total Placed	%	Yearly Average
Indiana University	27	1.0	0.7
University of Pennsylvania	27	1.0	0.6
University of Washington	24	0.9	0.7
Florida State University	23	0.9	0.6
SUNY Stony Brook	22	0.8	0.6
UC Davis	22	0.8	0.6
University of Maryland	22	0.8	0.6
University of Virginia	22	0.8	0.5
Cal Tech	21	0.8	0.5
Rutgers University	19	0.7	0.5
Georgetown University	18	0.7	0.5
Texas A&M University	18	0.7	0.5
Penn State	17	0.6	0.5
University of Notre Dame	17	0.6	0.5
University of Pittsburgh	17	0.6	0.4
Rice University	16	0.6	0.4
SUNY Binghamton	16	0.6	0.4
Brown University	12	0.5	0.3
UC Irvine	12	0.5	0.3
University of Colorado	11	0.4	0.3
Vanderbilt University	11	0.4	0.3
New School	9	0.3	0.3
Syracuse University	9	0.3	0.2
University of Arizona	9	0.3	0.2
UC Santa Barbara	9	0.3	0.2
University of Florida	9	0.3	0.2
University of Georgia	9	0.3	0.2
Claremont Graduate	8	0.3	0.1
University of Houston	8	0.3	0.2
University of Oregon	8	0.3	0.2
Arizona State University	7	0.3	0.2
City University of New York	7	0.3	0.1
George Washington	7	0.3	0.2
University at Buffalo SUNY	7	0.3	0.1
UC Riverside	7	0.3	0.2
University of Kentucky	7	0.3	0.1
Totals	514	19.3	12.7

correlation between the time it takes for promotion to professor and the rank of where the PhD was earned. More interesting are the correlations between the rank of where faculty members currently are employed and promotion and productivity. The directions are the same, but the magnitudes are at least two times greater. Finally, there are significant but minor sex differences: women have lower citation and impact factors—a finding consistent with extant research. There are at least four important considerations regarding these citation differences. First, career length is by far the strongest correlate of citation count in our data,

Table 3 (Continued)

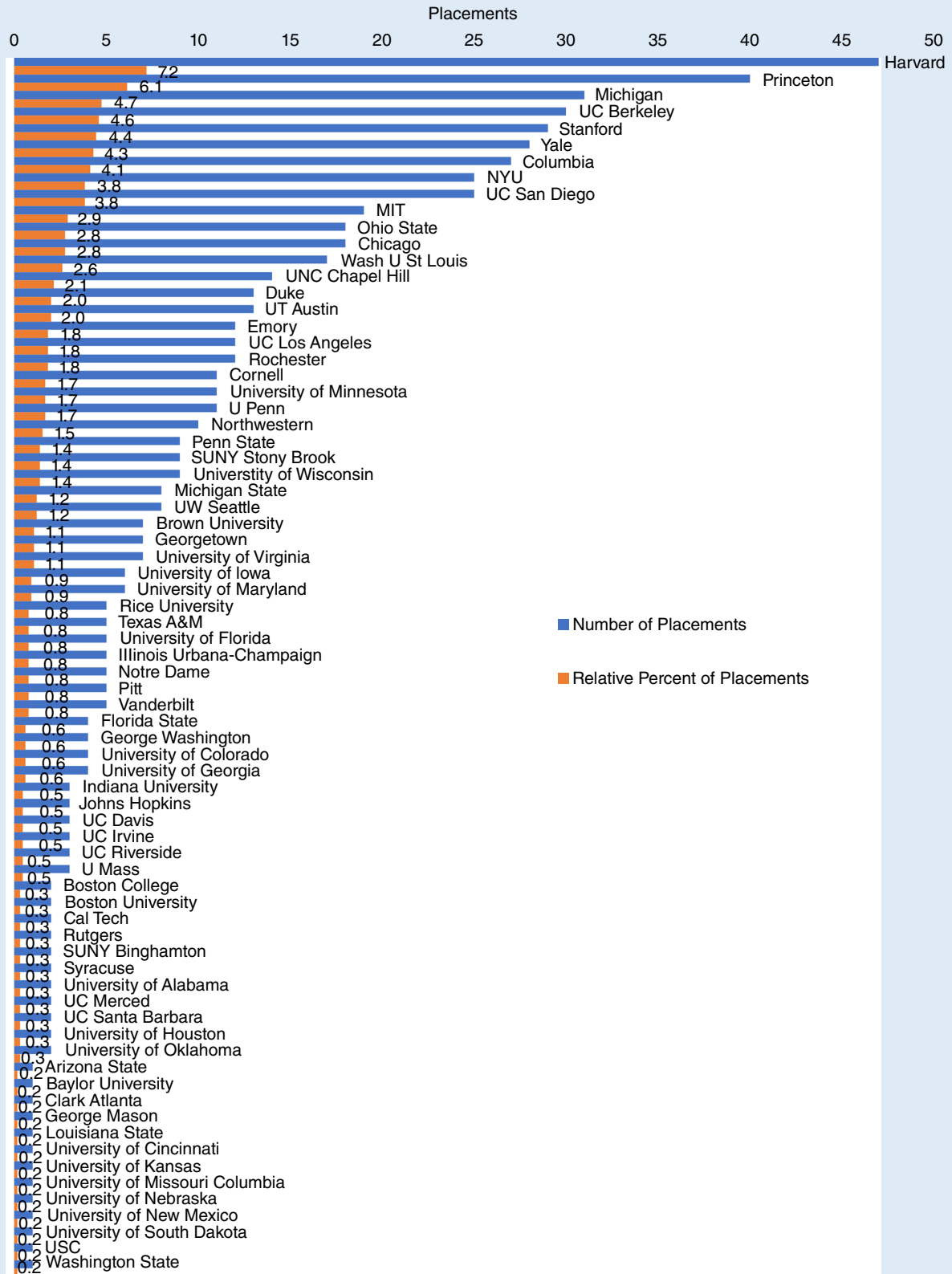
D. Bottom 50% Account for <5% of Placements

University Name	Total Placed	University Name	Total Placed
Boston College	6	Colorado State University	1
Purdue University	6	Fordham University	1
UMass Amherst	6	George Mason	1
University of Oklahoma	6	Georgia State Atlanta	1
Clark Atlanta University	5	Idaho State University	1
University of New Mexico	5	Kent State University	1
University of Wisconsin Milwaukee	5	Loyola Chicago	1
Unknown	4	Northern Arizona U	1
Boston University	4	Northern Illinois U	1
Brandeis University	4	Temple University	1
Howard University	4	Texas Tech University	1
Louisiana State University	4	University of Denver	1
University of Dallas	4	University of South Dakota	1
University of Hawaii Manoa	4	University of Utah	1
University of Kansas Lawrence	4	West Virginia University	1
University of Missouri Columbia	4	Case Western Reserve	0
University of South Carolina	4	Hillsdale College	0
University of Southern California	4	Florida International	0
Washington State University	4	Northeastern University	0
University of Nebraska Lincoln	3	Southern Illinois	0
University of North Texas	3	Tulane University	0
Catholic University of America	2	UC Santa Cruz	0
Miami University Ohio	2	University of Delaware	0
SUNY Albany	2	University of Idaho	0
University of Alabama	2	Univ of Illinois Chicago	0
UC Merced	2	University of Mississippi	0
University of Cincinnati	2	Univ of Missouri St. Louis	0
University of Connecticut	2	University of Nevada LV	0
University of New Orleans	2	University of Nevada Reno	0
University of Tennessee	2	University of Texas Dallas	0
American University	1	Virginia Polytechnic	0
Baylor University	1	Wayne State University	0
		Western Michigan	0
Total Placed/Percentage			128/4.8

Note: Yearly Average includes only the past 35 years of placements (i.e., the average career length of a TT professor).

Figure 1

Graduates Placed in TT Positions at PhD-Granting Institutions—Past 10 Years



The average number of placements, relative change, and the 49 programs that had no placements in the past 10 years are displayed in tables S4-S6 in the online appendix. University of South Dakota is shown but no longer has an active political science PhD program.

Figure 2
Graduates Move Down, Not Up

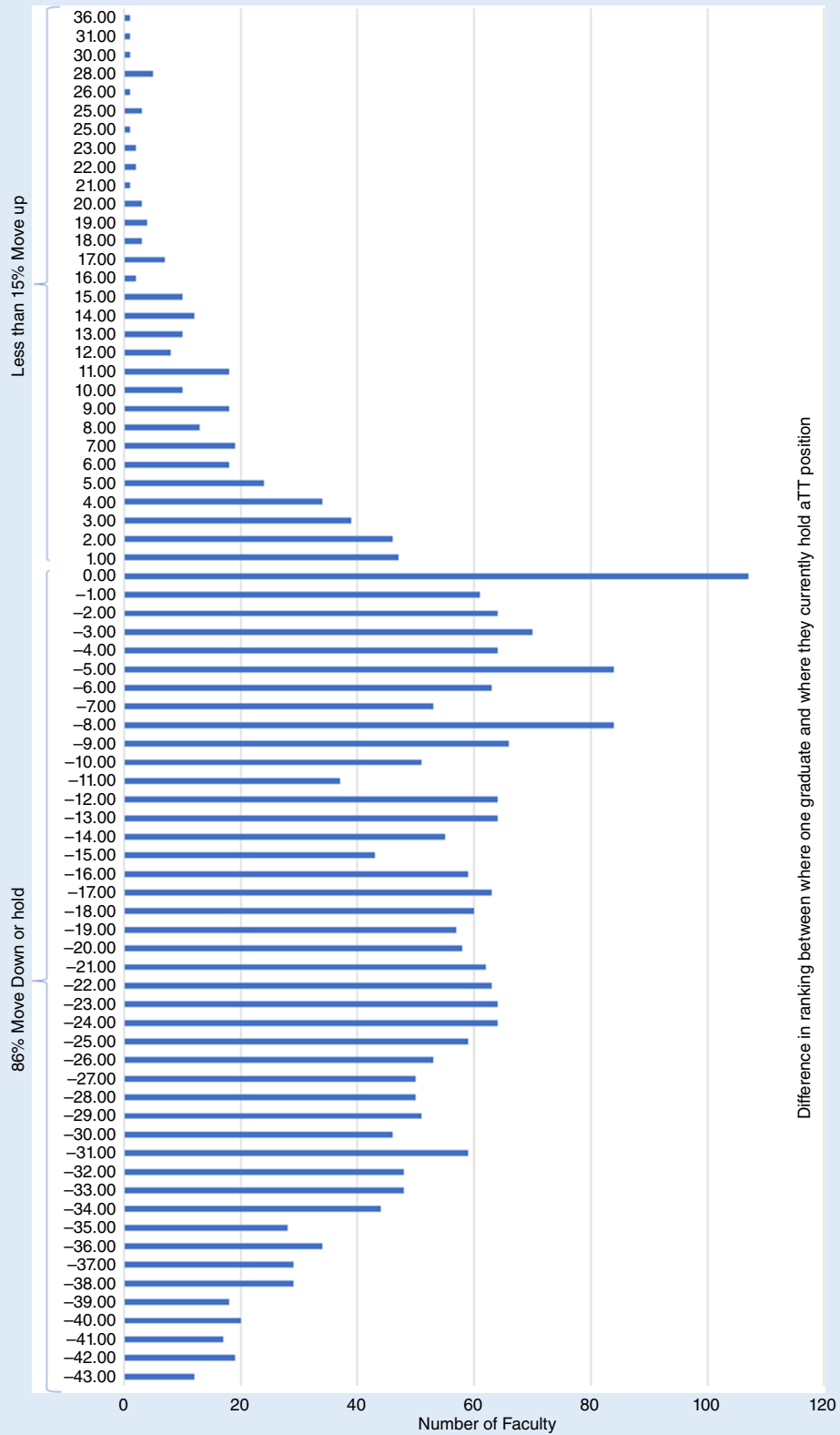


Table 4
Correlations Between Citations, Status, and Promotion

	Rank Graduating From	Rank Current Department	Years to Associate Professor	Years to Professor	Citations	H-index	Sex	Career Length
Rank Graduating From								
Rank Current Department	0.37**							
Years to Associate	0.02	0.16**						
Years to Professor	0.11**	0.30**	0.50**					
Citations	-0.13**	-0.28**	-0.19**	-0.30**				
H-index	-0.11**	-0.28**	-0.25**	-0.38**	0.80**			
Sex	0.01	0.00	-0.11**	-0.08**	0.14**	0.22**		
Career Length	-0.05**	-0.06**	-0.03	0.10**	0.42**	0.59**	0.18**	
Private versus Public Undergraduate	-0.22**	-0.16**	-0.01	-0.04	0.04	0.02	-0.12**	-0.02
N	1,088–2,657	1,088–2,657	1,064–1,793	902–1,088	1,699–2,101	1,728–2,143	2,126–2,598	2,100

Notes: Pearson's and point-biserial correlation were used for all relationships except Sex and Public/Private for which tetrachoric correlation was used. Ranks 1=highest; Sex male=1 and female=0; Private undergraduate=1 and Public=0 (US institutions only); years to promotion, citations, h-index, and career length are continuous. *p<0.01, **p<0.001.

and the overwhelming majority of hires were men during the past century, which results in men being in the profession longer. Second, there is a well-documented citation difference between sexes with clear negative consequences for the hiring, salaries, and promotion of women. Women are less likely to be cited by men; the disciplines with more women scholars have smaller gender citation gaps; women are significantly more likely to cite other women; and women are credited less for ideas and findings than men in coauthored pieces (Chatterjee and Werner 2021; Dion, Sumner, and Mitchell 2018; Ross et al. 2022). Third, we have no means to control for childbearing and parenting duties that overwhelming fall to women and have a real impact on their time available for academic work (Crawford and Windsor 2021). For example, whereas women without children produce, on average, 88% to 96% of the total number of papers compared to men, those who have children (as high as 78%) produce 74% to 83% of papers compared to men due to increased duties at home (Morgan et al. 2021). Fourth, we calculated all promotion times from when the PhD was earned and not from the time hired; we argue that the former is a more accurate measure because it includes the years spent pursuing a TT job.

Limitations

The data reflect the entirety of the field as of May 2023 and have many strengths. The data are not dependent on selective institutional reporting, survey participation, or a given year but instead comprise the complete record of all those currently in a TT position at a PhD-granting political science department. Similar to all data, however, there are limitations. The data are only as good as what departments report on their websites and what people declare on their public CV, dissertation, and faculty profile. For example, if anyone is listed as an affiliate faculty member on their department webpage but is, in fact, a TT faculty member, they would not be in our study. Similarly, if they listed their degree as international affairs but it was political science, they would not be included in the within-discipline analyses. We

took every step to reduce these errors, including scouring dissertations and cross-referencing professional webpages with CVs; indeed, a small number of CVs had incorrect information that we corrected, resulting in lower item-missingness. Our data do not include the few people who were promoted, changed jobs, left the academy, or were hired between the beginning and the end of our data collection. We did not capture all personnel changes through the life course but rather the end result of all of those changes—at least before May 2023. We also did not capture political science PhDs working outside of the field, such as those in policy schools. Nevertheless, given the large sample size and complete coverage of the field, these relatively small differences should have a minimal impact on our overall conclusions. There also is no evidence to expect different patterns of placement in administrative or non-political science roles. This is not meant to discount that some departments may have few placements in our data because they specialize in training toward community college, liberal arts, government, or public service. That is, in absolute terms, the lower-placing departments may have more placements at two- to six-year colleges; however, the extant research so far points to higher-ranked departments also dominating these positions (Wapman et al. 2022). Future research that is focused specifically on the discipline will need to confirm whether this is the case for political science.

Our analyses are based on the total number placed and those remaining in a TT position. This has several implications. First, we cannot account for the number of students admitted into each program; that is, we cannot provide a true probability of placement by department. These metrics, as far as we know, are not shared by any department and change yearly. Second, the data do not allow for a detailed exploration of the sociodemographic dynamics of PhD placement because this is a function of each program's cohort sizes, ethnicity and sex composition, and attrition rates—data that also are closely held by each program. Third, the data cannot provide any insight into those who did not make tenure or left the academy entirely. Fourth, the focus of this study is on

programmatically outcomes. That is, the study did not explore or collect data on the different constraints that affect choice or acceptance into a PhD program, including high school education, family resources and support, role of advisor, academic networks, mentorship, training in publication and grants, and other intangibles that lead to professional outcomes. These factors track with admission into high-status PhD programs, however, and have been explored elsewhere (Beaulieu et al. 2017; Carsey 2020; Curtin, Malley, and Stewart 2016; Yanow 2020).

DISCUSSION

The finding that the status, rank, or prestige of a student's PhD program matters should not be surprising. That it remains the strongest predictor of obtaining a TT position at a research institution for more than a half-century and is a limiting factor in the ability to move up to more resource-rich institutions, however, does merit attention. Indeed, for those 49 programs that do not have a single graduate placed in a PhD-granting political science department since 2012, including those 18 that may never have, or the many departments that placed only a few graduates at a research institution during the past 60 years, future students should approach those programs with these findings in mind. This guidance remains true even for those departments that place once every five to 10 years, which is the case for approximately 40 other programs. The reality is, there are few programs in which graduates have a reasonable expectation, depending on one's definition of reasonable, that with effort and luck, they could secure a TT position in any PhD-granting department.

The reality is, there are few programs in which graduates have a reasonable expectation, depending on one's definition of reasonable, that with effort and luck, they could secure a TT position in any PhD-granting department.

What do these results mean for the discipline? Some may see no issue and prefer the status quo. Others may view the data as evidence that most departments do not have the resources needed for a successful PhD program and cannot produce students competitive for research-university positions, and that there should be a retrenchment of PhD-granting departments. Discussion around the recent closures of several PhD programs suggests this as one reason. Others may view the data as more evidence that elitism is entrenched in academia and that inequality of resources and protectionism are primarily responsible for the lack of TT placement success for most PhD-granting departments. In this view, merit and effort can take most only so far and the hidden curriculum, quality of preparation for a TT career, and academic networks are not a reflection of the quality of the student but rather of the degree of advantages and connectedness that a select few universities provide (Wai et al. 2024). Layered within these factors are the academic qualifications of students who apply to different programs, the environments that they create, and the differing missions of universities.

We cannot adjudicate between those and other positions but instead advocate that we have an ethical obligation to provide potential students with real and useful information about their

chances of career success—as they define it—regardless of the reason. We recognize that there are departmental obligations to recruit good students. Many programs have their PhD admissions intertwined with teaching and grading needs. Those programs are likely trapped in a web of their own making, where graduate-student teaching assistants are a critical part of the instructional resource base, and they could not teach required undergraduate classes without them unless faculty teaching loads were significantly increased—which is a nonstarter at a research institution. The study's findings may speak to broader conversations and perhaps pressure points occurring in higher education about equity and equality, the value of graduate education, the use of PhD student labor, unfunded PhD students, increasing faculty demands, the corporatization of the university, chasing prestige, and the tension between the dual roles of graduate education to be a way to gain and create knowledge while leading to desired careers, at the very least.

Developing standards of transparency and reporting—similar to the way in which the field has enforced data transparency including truth in advertising and requirements for disclosing actual placement rates by type of position—appear justified. Documenting every political science department's placement web-pages, we found three that reported comprehensive raw or summary data on their graduates' placements and around half reported a 10-year or better list of placements. The remainder, however, reported either nothing or something between sporadic information and curated datapoints. Approximately 60% of PhD programs make a clear statement on their placement record; there are frequent quotes on department websites similar to “almost all graduates found academic jobs”; “most graduates gain tenure-

track positions at leading universities”; “our department is ranked #1 in the world”; and “96% of our graduates found meaningful placements within months.” Reconsideration of what is advertised, verifying the accuracy, and qualifying such statements may be helpful given the findings presented in this study. All statements are included in [online appendix table S12](#) for readers to assess their validity for themselves.

What we found largely absent were statements that clarified which type of career each PhD program primarily is designed for—whether for academia, teaching positions, industry, government, or other paths. We found none that made clear that *TT positions are an unlikely result for the overwhelming majority of their graduates*. Such information could benefit both the students and the program. Many argue that the issue of greatly overproducing PhDs is academia-wide and necessitates a rethinking of what we are doing, given the costs involved in earning a PhD and the unrealistic or underinformed expectations that most students entering a PhD program have (Berdahl, Malloy, and Young 2020; Brennan and Magness 2019; Larson, Ghaffarzadegan, and Xue 2014; *Nature* 2019; Weissmann 2013; Zheng and Coughlin 2023).

A different conversation is needed to address the intellectual stagnation that is a plausible result of the dominance of a handful of institutions placing the overwhelming number of graduates. We could lose 75% of our PhD programs and it would only make a dent in the TT academic labor market. We could lose 50% and most probably would not know it (Wapman et al. 2022). However, having so few institutions dominate PhD-granting positions can only result in those institutions replicating their own culture, teaching and research biases, potentially repressing new ideas—which, given the eroding reputation of academic research, is worth consideration. A more difficult conversation surrounds elitism. Not all students begin on the same footing, even considering the rank of their program, which ultimately may affect their competitiveness in the job market. Several faculty members, unprompted when responding to either our quality-control checks or public presentation, offered stories of exclusion, denial of funding, and ridicule or mistreatment by their colleagues that they believed was due to graduating from a lower-ranked or non-prestigious PhD program. This study focused only on public data, but conducting future interviews about the career path of those who are and are not from top programs may provide further insight.

What about promotion trajectory? It is difficult to measure, much less disentangle effort and merit from pedigree and status. Citations and impact factor are inherently biased toward those who already dominate the prestige hierarchy (Hanneman 2001). We found few cases in which scholars published their way upward. However, after landing a TT position, where one graduated from had little role in promotion. Publications appeared to be the more important promotion factor.

The findings may not help those students already in graduate school to obtain the position they are pursuing, but we hope the study results provide useful information for those who are seeking to begin a PhD program in political science. Our second equally important aim is to provide information to faculty members and departments to inform and perhaps motivate our discipline toward greater self-reflection and graduate-program transparency, to benefit both the field and our future students.

SUPPLEMENTARY MATERIAL

To view supplementary material for this article, please visit <http://doi.org/10.1017/S1049096525000071>.

ACKNOWLEDGMENTS

We thank all of our colleagues who made this study possible. We especially thank those who shared their personal experiences and assisted in quality control. We thank Lauren O'Rourke and Darby Matvey for their research assistance and countless hours of data collection. This project would not have occurred without them. We thank Doug Lemke, Charles Crabtree, Rose McDermott, Kevin Smith, the journal editors, and the anonymous reviewers for their thoughtful comments.

DATA AVAILABILITY STATEMENT

Research documentation and data that support the findings of this study are openly available at the *PS: Political Science & Politics* Harvard Dataverse at <https://doi.org/10.7910/DVN/2V5JA7>.

CONFLICTS OF INTEREST

The authors declare that there are no ethical issues or conflicts of interest in this research. ■

NOTES

1. For a discussion on the financial costs of not securing a TT position, salaries by type of institution, and quality-of-life outcomes, see the [online appendix](#).
2. We could find only one prior attempt: Oprisko, Dobbs, and DiGrazia's (2013) unpublished essay (see the [online appendix](#) for more details).
3. This includes all of those at the associate professor rank for 10 years or more. It is an imperfect estimate. We cannot know how many will be promoted in the future, which would bias the estimate upward. Conversely, we cannot know all those under 10 years who will never be promoted, which would bias the estimate downward.
4. Fordham, Miami Ohio, South Dakota, and New Orleans are shown but have discontinued their PhD programs. One graduate from the University of Denver listed a political science PhD—although that program currently does not have one, we erred on the side of inclusion and this graduate also is shown. None of these five institutions was counted as one of the 122 political science PhD-granting programs.
5. We included graduates from departments of government, politics, political science, and 73 other synonyms, including all dual-degree PhDs, in that list. We did not include graduates from other disciplines (see the [online appendix](#) for a full list of included departments). We coded the four faculty members who were missing their degree institution as the United States to err on the side of inclusion.
6. Oxford University (27) and University of Toronto (17) were the best-placing non-US departments.
7. See the [online appendix](#) for further discussion on average placements per year.
8. This is the number of post-2012 graduates in a TT-position institution (N=653), divided by the number of graduates during the past 10 years: between 7,150 and 8,470, depending on the cutoff date (2022–2023) and the low/high annual estimate of graduates (650/770).
9. Differences by sex are presented in [online appendix table S7](#).
10. For simplicity, we treated the distance between each ranking as equal, but we recognize that they are not. Harvard University, for example, ranked #1 (225 placements) but is not five times better than Yale ranked #5 (116 placements). Harvard, however, is at least 40 times better at placement than departments ranked #40.
11. We could detect only one clear pattern of Google Scholar profile missingness: there were more faculty members in departments that do not place well who did not have a profile. However, we could not find any patterns of missingness by scholar. Some of our most highly regarded scholars do not have a profile, whereas many of those with presumably low citations also do not have a profile.
12. The results of a linear model regressing rank of the program where one is employed on the rank of the program where one graduated, along with length of career, sex, citations, h-index, and whether one attended a private undergraduate institution as a rough measure of developmental resources are presented in [online appendix table S10](#). Putting aside post-treatment concerns, we found what is expected by the correlations: greater citations predicted upward mobility but where the PhD was earned is the stronger predictor.

REFERENCES

- American Federation of Teachers. 2020. "An Army of Temps: AFT 2020 Adjunct Faculty Quality of Work/Life Report." Washington, DC: American Federation of Teachers.
- Beaulieu, Emily, Amber E. Boydston, Nadia E. Brown, Kim Yi Dionne, Andra Gillespie, Samara Klar, Yanna Krupnikov, Melissa R. Michelson, Kathleen Searles, and Christina Wolbrecht. 2017. "Women Also Know Stuff: Meta-Level Mentoring to Battle Gender Bias in Political Science." *PS: Political Science & Politics* 50 (3): 779–83.
- Berdahl, Loleen, Jonathan Malloy, and Lisa Young. 2020. "Faculty Perceptions of Political Science PhD Career Training." *PS: Political Science & Politics* 53 (4): 751–56.
- Brennan, Jason, and Phillip W. Magness. 2019. "Why Universities Produce Too Many PhDs." In *Cracks in the Ivory Tower: The Moral Mess of Higher Education*, ed. Jason Brennan and Phillip W. Magness, 186–213. Oxford, UK: Oxford University Press.
- Carsey, Thomas M. 2020. *Tom's Comments: Advice about Graduate School, Finding a Job, Reaching Tenure in Political Science and Other Social Sciences, and All of the Steps in Between*. Chapel Hill: University of North Carolina Press.
- Casey, Bernard H. 2009. "The Economic Contribution of PhDs." *Journal of Higher Education Policy and Management* 31 (3): 219–27.
- Chatterjee, Paula, and Rachel M. Werner. 2021. "Gender Disparity in Citations in High-Impact Journal Articles." *JAMA Network Open* 4 (7): e2114509.
- Clauset, Aaron, Samuel Arbesman, and Daniel B. Larremore. 2015. "Systematic Inequality and Hierarchy in Faculty Hiring Networks." *Science Advances* 1 (1): e1400005.
- Cooper, Preston. 2022. "Is Grad School Worth It? A Comprehensive Return on Investment Analysis." *FREOPP*, October 19. <https://freopp.org/whitepapers/is-college-worth-it-a-comprehensive-return-on-investment-analysis>.

- Cornell, Bethan. 2020. *PhD Students and Their Careers*. London: Higher Education Policy Institute.
- Council of Canadian Academies. 2021. *Degrees of Success*. Ottawa: The Council of Canadian Academies.
- Crawford, Kerry F., and Leah C. Windsor. 2021. *The PhD Parenthood Trap: Caught Between Work and Family in Academia*. Washington, DC: Georgetown University Press.
- Curtin, Nicola, Janet Malley, and Abigail J. Stewart. 2016. "Mentoring the Next Generation of Faculty: Supporting Academic Career Aspirations Among Doctoral Students." *Research in Higher Education* 57:714–38.
- Dion, Michelle L., Jane Lawrence Sumner, and Sara McLaughlin Mitchell. 2018. "Gendered Citation Patterns Across Political Science and Social Science Methodology Fields." *Political Analysis* 26 (3): 312–27.
- Etmanski, Brittany, David Walters, and David Zarifa. 2017. "Not What I Expected: Early Career Prospects of Doctoral Graduates in Academia." *Canadian Journal of Higher Education* 47 (3): 152–69.
- Golde, Chris M. 2001. "The Career Goals of History Doctoral Students: Data from the Survey of Doctoral Education and Career Preparation." *Perspectives on History* 39 (7). www.historians.org/perspectives-article/the-career-goals-of-history-doctoral-students-data-from-the-survey-on-doctoral-education-and-career-preparation-october-2001.
- Golde, Chris M., and Timothy M. Dore. 2001. *At Cross Purposes: What the Experiences of Today's Doctoral Students Reveal About Doctoral Education*. Philadelphia: Pew Charitable Trusts.
- Guvenen, Fatih, Fatih Karahan, Serdar Ozkan, and Jae Song. 2021. "What Do Data on Millions of US Workers Reveal About Lifecycle Earnings Dynamics?" *Econometrica* 89 (5): 2303–39.
- Hanneman, Robert A. 2001. "The Prestige of PhD-Granting Departments of Sociology: A Simple Network Approach." *Connections* 24 (1): 68–77.
- Hanson, Melanie. 2024. "College Enrollment & Student Demographic Statistics." *College Enrollment & Student Demographic Statistics*. <https://educationdata.org/college-enrollment-statistics>.
- Jepson, Ben, and Pete Hatemi. 2025. "Replication Data for 'Where You Earn Your PhD Matters.'" *PS: Political Science & Politics*. DOI:10.7910/DVN/zV5JA7.
- Jones, Todd, and Arielle Sloan. 2022. "The Academic Origins of Economics Faculty." *Social Science Research Network*, IZA Discussion Paper No. 14965. https://scholar.google.com/scholar?hl=en&as_sdt=0%2C20&as_vis=1&q=Social+Science+Research+Network%2C+IZA+Discussion+Paper+No.+14965&btnG=.
- Kim, Eunyoung, Stefanie Benson, and Taghreed A. Alhaddab. 2018. "A Career in Academia? Determinants of Academic Career Aspirations Among PhD Students in One Research University in the US." *Asia Pacific Education Review* 19:273–83.
- Kolata, Gina. 2016. "So Many Research Scientists, So Few Openings as Professors." *New York Times*, July 14. www.nytimes.com/2016/07/14/upshot/so-many-research-scientists-so-few-openings-as-professors.html.
- Larson, Richard C., Navid Ghaffarzadegan, and Yi Xue. 2014. "Too Many PhD Graduates or Too Few Academic Job Openings: The Basic Reproductive Number R_0 in Academia." *Systems Research and Behavioral Science* 31 (6): 745–50.
- Lu, Adrienne. 2024. "After Learning Her TA Would Be Paid More Than She Was, This Lecturer Quit." *The Chronicle of Higher Education*, May 21.
- Main, Joyce B., Sarah Prenovitz, and Ronald G. Ehrenberg. 2019. "In Pursuit of a Tenure-Track Faculty Position: Career Progression and Satisfaction of Humanities and Social Sciences Doctorates." *Review of Higher Education* 42 (4): 1309–36.
- Marcus, Jon. 2025. "A Looming 'Demographic Cliff': Fewer College Students and Ultimately Fewer Graduates." *NPR*, January 8. www.npr.org/2025/01/08/nx-s1-5246200/demographic-cliff-fewer-college-students-mean-fewer-graduates.
- McGrath, Erin, and Ana Diaz. 2021a. "2020–2021 APSA eJobs Report: The Political Science Job Market." Washington, DC: American Political Science Association.
- McGrath, Erin, and Ana Diaz. 2021b. "APSA Graduate Placement Report: Analysis of Political Science Placements for 2018–2020." Washington, DC: American Political Science Association.
- McGrath, Erin, and Ana Diaz. 2023. "APSA Graduate Placement Report: Analysis of Political Science Placements for 2021–2022." Washington, DC: American Political Science Association.
- Morgan, Allison C., Nicholas LaBerge, Daniel B. Larremore, Mirta Galesic, Jennie E. Brand, and Aaron Clauset. 2022. "Socioeconomic Roots of Academic Faculty." *Nature Human Behaviour* 6 (12): 1625–33.
- Morgan, Allison C., Samuel F. Way, Michael J. D. Hofer, Daniel B. Larremore, Mirta Galesic, and Aaron Clauset. 2021. "The Unequal Impact of Parenthood in Academia." *Science Advances* 7 (9): eabd1996.
- Morrison, Emory, Elizabeth Rudd, and Maresi Nerad. 2011. "Early Careers of Recent US Social Science PhDs." *Learning and Teaching* 4 (2): 6–29.
- National Center for Education Statistics. 2022. *Trends in Student Loan Debt for Graduate School Completers*. Washington, DC: US Department of Education.
- National Science Foundation. 2018. *The National Science Foundation 2018 Survey of Earned Doctorates*. Alexandria, VA: National Center for Science and Engineering Statistics.
- National Science Foundation. 2021. *The National Science Foundation 2021 Survey of Earned Doctorates*. Alexandria, VA: National Center for Science and Engineering Statistics.
- National Science Foundation. 2023. *The National Science Foundation 2023 Survey of Earned Doctorates*. Alexandria, VA: National Center for Science and Engineering Statistics.
- Nature. 2019. "Nature PhD Students Survey Data." DOI:10.6084/m9.figshare.10266299.v1.
- Nerad, Maresi. 2007. *Social Science PhDs, Five+ Years Out: A National Survey of PhDs in Six Fields*. Seattle: University of Washington, Center for Innovation and Research in Graduate Education.
- Nerad, Maresi, and Joseph Cerny. 2003. "Career Outcomes of Political Science PhD Recipients: Results from the PhDs Ten Years Later Study." Seattle: University of Washington, Center for Research and Innovation in Graduate Education.
- Oprisko, Robert, Kirstie L. Dobbs, and Joseph DiGrazia. 2013. "Honor, Prestige, and the Academy: A Portrait of Political Science Tenured and Tenure-Track Faculty in PhD-Granting Institutions (2012–2013)." *Social Science Research Network*. <https://ssrn.com/abstract=2303567>.
- Reithmeier, Reinhart, Liam O'Leary, Xiaoyue Zhu, Corey Dales, Abokor Abdulkarim, Anum Aquil, Lochin Brouillard, Samantha Chang, Samantha Miller, and Wenyangzi Shi. 2019. "The 10,000 PhDs Project at the University of Toronto: Using Employment Outcome Data to Inform Graduate Education." *PLoS One* 14 (1): e0209898.
- Roach, Michael, and Henry Sauermann. 2017. "The Declining Interest in an Academic Career." *PLoS One* 12 (9): e0184130.
- Ross, Matthew B., Britta M. Glennon, Raviv Murciano-Goroff, Enrico G. Berkes, Bruce A. Weinberg, and Julia I. Lane. 2022. "Women Are Credited Less in Science Than Men." *Nature* 608 (7921): 135–45.
- Sauermann, Henry, and Michael Roach. 2012. "Science PhD Career Preferences: Levels, Changes, and Advisor Encouragement." *PLoS One* 7 (5): e36307.
- Simmering, Vanessa, and Carissa L. Shafro. 2021. "Career Paths Beyond the Tenure Track for Cognitive Scientists." *Proceedings of the Annual Meeting of the Cognitive Science Society*. <https://cognitivesciencesociety.org/coogsci-2021>.
- St. Clair, Rebekah, Tamara Hutto, Cora MacBeth, Wendy Newstetter, Nael A. McCarty, and Julia Melkers. 2017. "The 'New Normal': Adapting Doctoral Trainee Career Preparation for Broad Career Paths in Science." *PLoS One* 12 (5): e0177035.
- Taylor, Martin, Ben Martin, and James Wilsdon. 2010. *The Scientific Century: Securing Our Future Prosperity*. Brighton, UK: University of Sussex. <https://royalsocietypublishing.org/doi/10.1098/rsos.100126>.
- Tiede, Hans-Joerg. 2022. *The 2022 AAUP Survey of Tenure Practices*. Washington, DC: American Association of University Professors.
- Wai, Jonathan, Stephen M. Anderson, Kaja Perina, Frank C. Worrell, and Christopher F. Chabris. 2024. "The Most Successful and Influential Americans Come from a Surprisingly Narrow Range of 'Elite' Educational Backgrounds." *Humanities and Social Sciences Communications* 11 (1): 1–10.
- Wapman, K. Hunter, Sam Zhang, Aaron Clauset, and Daniel B. Larremore. 2022. "Quantifying Hierarchy and Dynamics in US Faculty Hiring and Retention." *Nature* 610 (7930): 120–27.
- Way, Samuel F., Allison C. Morgan, Daniel B. Larremore, and Aaron Clauset. 2019. "Productivity, Prominence, and the Effects of Academic Environment." *Proceedings of the National Academy of Sciences* 116 (22): 10729–33.
- Weidman, John C., and Linda DeAngelo. 2020. *Socialization in Higher Education and the Early Career: Theory, Research and Application*. Berlin, Germany: Springer Nature.
- Weissmann, Jordan. 2013. "How Many PhDs Actually Get to Become College Professors?" *The Atlantic*, February 23. www.theatlantic.com/business/archive/2013/02/how-many-phds-actually-get-to-become-college-professors/273434.
- Wood, L. Maren. 2019. "Odds Are, Your Doctorate Will Not Prepare You for a Profession Outside Academe." *The Chronicle of Higher Education*, July 19. www.chronicle.com/article/odds-are-your-doctorate-will-not-prepare-you-for-a-profession-outside-academe.
- Yanow, Dvora. 2020. "Mentoring, Past and Present." *PS: Political Science & Politics* 53 (4): 770–74.
- Zheng, Laura, and Thomas R. Coughlin. 2023. "PhDs by the Numbers: Important Stats for Current and Job-Seeking PhDs." *PhD Source*, November 1. www.phdsources.com/blog/phds-by-the-numbers-important-stats-for-current-and-job-seeking-phds.