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DISCUSSION PAPER SERIES

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DECEMBER 2021

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# The Academic Origins of Economics Faculty

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## ABSTRACT

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# The Academic Origins of Economics Faculty\*

We use roster data of 96 top U.S. economics departments to document the academic origins of their tenure-track faculty. Academic origins may have implications for how undergraduate (B.A.) and doctoral (Ph.D.) students are trained and placed, as well as the type of research produced. We find that faculty educated at top-ranked Ph.D. universities are overrepresented; e.g., over half of our sample attended a top 15 university, and over a third attended a top six university. We find similar, but less pronounced, patterns for B.A. origins; e.g., over a third of those with a U.S. B.A. attended a top 15 university.

**JEL Classification:** I2, I23, J2, J4

**Keywords:** doctoral origins, Ph.D. origins, bachelor origins, B.A. origins, academic labor market, economics faculty

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# 1 Introduction

Each Fall, universities across the United States post openings for tenure-track faculty (“faculty”) positions in economics departments (McFall et al., 2015). An applicant’s success in this market depends on his or her ability to correctly judge which programs might be most interested in him or her (Cawley, 2018). Numerous considerations factor into the determination that an applicant and a position make a good fit, such as a candidate’s research background, the position’s teaching load, and the needs of the program’s faculty (Cawley, 2018).

It is unclear how heavily the average applicant should weigh one important consideration: how the ranking of the applicant’s Ph.D. program compares to the ranking of the program at which they would like to teach. Numerous academic rankings systems exist, from the popular U.S. News rankings to the international THE-QS World University Rankings (Jones, 2011; Morse et al., 2011). Although these rankings each use different metrics (and have their fair share of critics), they all attempt to quantify the quality of education that a university provides (Jones, 2011; Morse et al., 2011). It may therefore be assumed that coming from a highly ranked program weighs in the favor of the applicant, but to what extent is this the case?

One rough way to estimate the value of an individual’s Ph.D. program ranking in the hiring process is to quantify the average rankings of Ph.D. origins of current faculty in the hiring program.<sup>1</sup> In this descriptive paper, we compare the rankings of faculty doctoral alma maters to the rankings of the programs in which faculty currently teach (a concept hereinafter referred to as “Ph.D. origins”). We additionally consider undergraduate program origins (“B.A. origins”).

Describing academic origins allows us to highlight the level of academic diversity in a program’s faculty roster. The academic origins of university faculty members may influence how undergraduate and graduate students are trained and the type of research conducted,

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<sup>1</sup>Of course, it is theoretically possible that the rank of one’s Ph.D. program plays no role in the hiring process, though we think that this is unlikely.

which can in turn influence how ideas are perpetuated around the world.

We find that faculty in our sample are much more likely to have graduated from higher-ranked economics Ph.D. programs than from lower-ranked programs. Graduates from the top 15 Ph.D. programs make up more than half of faculty in the sample (59%), and graduates from Harvard and MIT make up an entire 15% of the sample, or 391 of 2,686. Overall, we find relatively little “upward mobility” in the top 96 economics programs, meaning that few economics professors in this group are teaching at programs ranked higher than their own Ph.D. programs. We find even starker results when we restrict the sample to faculty currently at the top eight departments: 76% received their Ph.D. from one of these same departments. We find some differences between men and women and between assistant professors and full professors, but in general these differences are small. We also find substantial geographic concentration of Ph.D.s around New England, Chicago, and the Bay Area. [Angus et al. \(2021\)](#) find similarly for geographic concentration among economics journal editors.

We also study B.A. origins. Compared to only a small share of international Ph.D.s among faculty in our sample, we find that nearly half (47%) have international B.A. degrees. Top-ranked universities in the US produce a substantial share of the faculty in our sample, with respect to B.A. Excluding international B.A.s, 63% of faculty in the sample are from a top 96 university, and of these, 34% are from the top 15. Faculty with B.A.s from Harvard consist of more than 100 faculty (106).

Ph.D. origins/networks of faculty have been studied to a greater or lesser extent in many fields, such as history, business, computer science, finance, law, political science, sociology, English, political science, anthropology, and management ([Clauset et al., 2015](#); [Morgan et al., 2018](#); [Way et al., 2016](#); [Bair, 2003](#); [Jones and Xiong, 2021](#); [Segall and Feldman, 2018](#); [Schmidt and Chingos, 2007](#); [Burris, 2004](#); [Headworth and Freese, 2016](#); [Colander and Zhuo, 2015](#); [Fowler et al., 2007](#); [Kawa et al., 2019](#); [Bedeian et al., 2010](#)). But in more than 25 years, economics Ph.D. origins among faculty have not been thoroughly examined across the number of departments that we consider in this paper. [Colander \(2015\)](#) evaluates Ph.D. origins of faculty from the top five economics programs in the U.S. and finds that Harvard

and MIT have historically hired each other’s former students. Similarly, Svorenčík (2018) considers the number of faculty produced by 10 of the top departments, Chen (2014) considers the Ph.D. origins of faculty at 15 top economics departments, Svorenčík (2014) focuses on MIT graduates specifically, Wu (2005) considers the 25 top economics departments (and also considers other disciplines), and Klein (2005) considers 25 of the top 200 departments.<sup>2</sup> To our knowledge, we are the first in over 25 years to focus on the Ph.D. origins of the economics faculty from all ranked Ph.D. institutions. To our knowledge, the research most similar to ours is that of Pieper and Willis (1999), who use data from 1992 to document where faculty at 121 doctoral-granting departments received their Ph.D.s.<sup>3</sup>

We also add to the literature on the B.A. origins in economics. Much pre-existing work considers where economics Ph.D. students or graduates received their Bachelors or pre-doctoral training (e.g., Spellman and Gabriel, 1978; Siegfried and Stock, 2007; Stock and Siegfried, 2014, 2015; Schlauch et al., 2018; Bryan, 2019). In some cases, these articles consider where Ph.D. graduates did their pre-doctoral training as well as where they place (Bryan, 2019; Stock and Siegfried, 2014). We differ in that we begin with all the faculty at ranked departments and focus both on their B.A. and Ph.D. origins.

We conclude that faculty rosters at top programs are often, but not always, less academically diverse than rosters at lower-ranked universities. We hypothesize that Ph.D. origins play a large role in hiring decisions,<sup>4</sup> but we do not know whether this influence is direct or indirect. For example, Ph.D. origins may be proxies for an applicant’s level of experience, amount of subject matter knowledge, published research, or networking skills.

This paper proceeds as follows. We first provide details about the data collection and data in Section 2. We then present results on Ph.D. origins in Section 3 and on B.A. origins in Section 4. Section 5 concludes.

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<sup>2</sup>Other papers are somewhat related to ours. Boustan and Langan (2019) describe how female economics Ph.D. graduates experience uneven rates of success in academia across several metrics relative to men. Amir and Knauff (2008) use placement to create a new way to rank departments. Several papers study factors revolving around the application and hiring process among new economics job market candidates (e.g., Siegfried and Stock, 1999; Stock and Siegfried, 2001; Formby and Hoover, 2002; McFall et al., 2015).

<sup>3</sup>Spellman and Gabriel (1978) document the universities attended by economics Ph.D. recipients over the time period 1940-1974.

<sup>4</sup>Way et al. (2016) find that Ph.D. prestige plays an important role in the computer science field.

## 2 Description of Data

We collected data over several steps to produce our dataset of the name, rank, gender, current university, Ph.D. university, and B.A. university of the tenure-track faculty of the top 96 USNWR-ranked departments.<sup>5</sup> See Appendix Table A.1 for a list of these departments. As a baseline, we gathered the names and titles (Assistant Professor, etc.) of all faculty at these 96 ranked USNWR schools.<sup>6</sup> Of these, we consider only those that we determine to be tenure track professors and classify these as Assistant, Associate, and Full Professors. To fill in the gender and Ph.D. university fields, we merge in data provided by Andrew Langan (Langana, 2018) and data we collected from the internet (primarily from departmental rosters and faculty webpages/CVs). We obtain the B.A. university from internet searches and are able to locate this information for 98.7% of the sample; we report B.A. results conditional on this variable being non-missing. We match the current department, the Ph.D. university, and the B.A. university to the 2017 economics program rankings from the U.S. News & World Report (USNWR, 2017). We further classify all US universities outside the top 96 as “Other U.S.,” and all international universities as “International.” For the figures to have a unique value on the x-axis, we give each department a unique ID to break the ties (within a tie, the ID is assigned alphabetically by school name) (Table A.1). Our sample consists of 2,686 faculty members in 96 departments. The Data Appendix contains additional details on the data.

Departments with higher rankings tend to have larger faculties than lower-ranked universities, with the steepest drop in faculty size between ranks 1 and 25 (Appendix Figure A.1). Princeton, for example, has 59 faculty members, while Oregon State has only 6.<sup>7</sup>

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<sup>5</sup>The sample consists of faculty in economics departments only. For Ph.D. (B.A.) variable, we consider only the Ph.D. (B.A.) university, not the department or discipline. For instance, we would classify both Chicago Economics and Chicago Public Policy as Chicago. We then assign both the Chicago economics department ranking from the USNWR. Throughout the paper, we use the terms “department” and “university” interchangeably.

<sup>6</sup>A research assistant collected these departments in a random order and did so between August 30th and September 25th, 2020. The USNWR includes 138 departments in its ranking, but only scores the 96 that comprise our sample. We note that notable institutions such as California Institute of Technology and Georgia Institute of Technology are not included in these rankings.

<sup>7</sup>CUNY Graduate School has the most, at 75.



The proportion of women on faculty rosters is relatively constant across department rank, generally hovering around 20% (Appendix Figure A.2). Higher-ranked universities typically have a higher proportion of full professors and a lower proportion of associate professors than lower-ranked universities, in which proportions of assistant, associate, and full professor are more equal (Appendix Figure A.3). This trend is driven by male professors; ratios of the three faculty ranks are more equal throughout the distribution among female faculty. There are also disproportionately fewer full professors among women versus men.

### 3 Ph.D. Origins

#### 3.1 Faculty Produced by Ph.D. Departments

Higher-ranked Ph.D. departments produce more faculty in our sample than lower-ranked Ph.D. departments. Figure 1 Panel A shows that Ph.D. departments ranked 50 and below produce very few faculty, while top-ranked departments produce disproportionately many.<sup>8</sup> One in seven professors (14.6%) received their Ph.D. at just one of two universities: Harvard and MIT (Appendix Table A.2). Forty two percent of faculty come from just eight departments (which are also the top 8 ranked departments), and 60% come from just 15 departments (Appendix Table A.2). Moreover, higher-ranked Ph.D. departments place their students at higher-ranked departments than do lower-ranked departments (Appendix Figure A.5).

#### 3.2 Ph.D. Origins by Department Tier

We now turn our attention to the department at which the professors are teaching and describe the concentration of Ph.D.s by department tier. We consider the following department tiers: Harvard/MIT, 3-6, 7-15, 16-26, 27-52, 53-96. The Ph.D. tiers also include “Other U.S.” and “International.” The Sankey Diagram in Figure 2 documents flows from Ph.D.

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<sup>8</sup>It is uncommon for a faculty member to be at a department ranked higher than their Ph.D. department. See Appendix Figure A.4

(middle) to current department (right).<sup>9</sup> (We discuss the B.A. results below in Section 4.) The height of a tier (e.g., Harvard and MIT) denotes the percentage of individuals in that tier, and the height of the flow denotes the percentage of individuals going from a given Ph.D. tier to a given Department tier. Nearly all Ph.D.s come from one of the 96 ranked USNWR universities or from international universities. Among those from the 96 ranked USNWR universities, fewer than 5% come from universities ranked lower than 52. More than half of all faculty come from the top 15 Ph.D. departments (59%), and more than half of faculty from the top 15 departments (57%) come from the top 6 departments.<sup>10</sup> A substantial proportion of all faculty come from Harvard and MIT (15%). The percentage of faculty with Ph.D.s from Harvard and MIT is much higher at the top 6 departments (44%) and Harvard and MIT (59%).

### 3.3 Ph.D. Origins by Individual Department

Figure 3 Panel A shows, for a given department (x-axis), the average rank of Ph.D. programs faculty members completed. Faculty members from the 42 unranked USNWR programs are assigned the rank of 97; faculty members from US departments not in the USNWR rankings and international departments are excluded. There is a linear relationship between department ID and the average rank of Ph.D. programs, and the top departments employ faculty who come from very highly-ranked Ph.D. departments on average. The slope coefficient is much smaller than 1, indicating that on average, faculty received Ph.D.s at higher ranked programs than the ones at which they teach.

Figure 4 shows where faculty at individual departments (stacked bars) received their Ph.D.s, where the Ph.D.s are presented in tiers.<sup>11</sup> While the broad patterns seen in Section 3.2 are evident, there is also variation across departments. Some departments draw

<sup>9</sup>Appendix Table A.3 shows this information in table format: for each department grouping (rows), it displays the fraction of faculty that come from Ph.D. groupings (columns).

<sup>10</sup>We do not have data on the number of Ph.D. graduates per program, but it is our sense that the higher ranked programs tend to have more Ph.D. students. This may be part of the reason we find that the top schools produce more professors.

<sup>11</sup>For a zoomed-in version, see Appendix Figures A.6 and A.7.

much more heavily from certain tiers than similarly-ranked departments.<sup>1213</sup>

Figure 5 Panel A focuses on only the top eight departments. Each column is a department, and the stacked bars within represent the fraction of faculty who come from a given Ph.D. department, from a department outside of the top 8 departments, or from an international department. More than half of the faculty at each of the eight departments received their Ph.D.s at one of the top eight departments. Approximately 60% of faculty at Harvard and MIT comes from Harvard or MIT. Yale and the University of Chicago have the greatest percentage of faculty from outside the top eight departments: 41.5% and 31.4% of their professors come from either international Ph.D. programs or from U.S. programs outside of the top 8.

### 3.4 Ph.D. Origins by Faculty Characteristics and Geography

How do Ph.D. origins differ by characteristics such as gender, rank, and geography? Appendix Figure A.11 replicates Figure 3, but splits by gender. On average, female professors come from slightly higher ranked Ph.D. programs than do male professors (until about the 80th ranked department), though these differences are very small and the confidence intervals overlap.<sup>14</sup>

How do these patterns vary over time? While we cannot answer this perfectly, we can at least compare assistant to full professors, keeping in mind that the full professors have

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<sup>12</sup>Appendix Figure A.8 shows the data in another way: the fraction of a department's faculty who came from Harvard/MIT, the top 6, 15, 26 etc., departments.

<sup>13</sup>We also calculate Herfindahl indices for broad categories of institutions in order to construct a measure of how concentrated these broad categories are in terms of the individual institutions they hire from. We find that the top six departments have a Herfindahl index of 0.12. This is monotonically decreasing over department ranking tier: departments ranked 7-15 have an index of 0.06; 16-26 have an index of 0.05; 27-52 have an index of 0.03; and 53-96 have an index of 0.02. We also compute Herfindahl indices for each of the 96 individual departments. First, we compute it with respect to broad categories of universities (1-6, 7-15, 16-26, 27-52, 53-96, Other U.S., and International) and second with respect to individual universities. These are also displayed in Appendix Table A.4 and in Appendix Figures A.9 and A.10. On average the higher-ranked, the higher-ranked departments have higher Herfindahl indices, suggesting that their faculty are concentrated among fewer Ph.D. departments.

<sup>14</sup>There are some differences at the highest-ranked departments. A higher percentage of female professors at the top six departments received their Ph.D.s at Harvard and MIT than did male professors. In addition, all female professors at four of the top eight departments received their Ph.D.s at one of the top eight; this is not the case for any of the top eight departments among male professors. Additionally, 84% of female faculty at the top eight departments come from the top eight, and 51% from Harvard and MIT. See also Appendix Table A.5 Panels A and B.

survived the tenure process and are more likely than assistant professors to have switched institutions,<sup>15</sup> and that the rankings we use are not necessarily the same as when full professors started (though they are likely quite correlated). Appendix Figure A.12 shows that assistant and full professor on average came from similarly-ranked Ph.D. programs for the top 25 departments, with assistant professors coming from higher ranked departments thereafter, providing at least a little evidence that these institutions have become more selective (along this metric) over time (though the confidence intervals overlap).<sup>16</sup>

How do these patterns vary over space? Appendix Figure A.13 shows geographic concentration faculty by department (Panel A) and by Ph.D. department (Panel B). Each dot is a department, and bigger dots mean more faculty or Ph.D.s. The color corresponds to department rank, where a darker color is a higher rank. Panel A shows that there are few departments in the West, Northwest, and South, with most being situated in the Northeast, Midwest, and California. Faculty size is relative even across departments. Panel B shows that faculty are disproportionately educated around New England, Chicago, and the Bay Area. Relatively few come from the West and South.

## 4 B.A. Origins

We now turn our attention to B.A. origins and largely mirror the discussion of Ph.D. origins above. Figure 1 Panel B shows the number of faculty in the sample produced by B.A. university, where the B.A.s are ranked using the same USNWR rankings as above. The overall pattern reflects that found for Ph.D. origins (Panel A), though the magnitude is smaller. To put this in perspective, consider 1) that there are orders of magnitude more US B.A. programs than there are U.S. economics Ph.D. departments; and 2) as we will see below, only about half of faculty in our sample attended a US B.A. program. The top-ranked B.A. universities produce a disproportionate number of faculty. More than twice as many come from Harvard (106) than from any other university (Berkeley is second with 52; see

<sup>15</sup>For instance, no assistant professors at Harvard (MIT) received their Ph.D.s at Harvard (MIT).

<sup>16</sup>See also Appendix Table A.5 Panels C and D for transition matrices.

Appendix Table A.6). Considering only those with U.S. B.A.s, 20% received their B.A. at one of only five universities (Harvard, Berkeley, Princeton, Yale, and MIT); similarly, 20% of those with U.S. B.A.s received their B.A. from a university in the Ivy League.

Figure 2 shows the transition from B.A. (left) to Ph.D. (middle).<sup>17</sup> Nearly half (47%) studied internationally, a much higher percentage than those with international Ph.D.s (9%). Among U.S. B.A.s, nearly two-thirds (63%) come from the 96 ranked universities. Among those with B.A.s in the top 96, 53% come from the top 15 (i.e., 34% of U.S. B.A.s are from the top 15).<sup>18</sup> This is striking given that there are thousands of universities in the U.S.

Figure 3 Panel B depicts the average rank of the B.A. university a department's faculty came from, restricted to the 138 USNWR universities. Broadly speaking, the same pattern is found as with Ph.D.s (Panel A), particularly among higher-ranked departments: on average, faculty at the elite departments received their B.A.s at elite undergraduate institutions.

The final figure, Figure 5 Panel B displays the universities at which the faculty of the top eight departments received their B.A.s. In contrast to the Ph.D. version in Panel A, a large percentage of faculty B.A.s are international. There is a good amount of variance, ranging from 33% at Harvard to 63% at Princeton. We also see that five of eight departments (all but Yale, Northwestern, and Chicago) have more than half of their U.S. faculty from one of these same eight universities. A large share of these come from Harvard, and, to a lesser extent, Princeton.

## 5 Discussion and Conclusion

We find that graduates of highly ranked doctoral economics programs are far more common on faculty rosters than graduates of lower-ranked doctoral economics programs. This finding

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<sup>17</sup>Appendix Figure A.14 shows the stacked bar chart version, analogous to Figure 4.

<sup>18</sup>It is also interesting to consider the most common B.A.-Ph.D. pathways. Appendix Table A.7 shows that 47 students attended Harvard for B.A. and Harvard for Ph.D. The next several are: 19 for Harvard (B.A.)-MIT (Ph.D.); 17 for Yale-MIT; 13 for Berkeley-Berkeley; 11 for Chicago-Chicago; and 10 for Princeton-Stanford. Considering all three steps: B.A.-Ph.D.-Department, five students did Harvard (B.A.) - Harvard (Ph.D.) - Harvard (Department). Five did Harvard-MIT-MIT. And another five did Harvard-Berkeley-Harvard.

is particularly pronounced for graduates of top-15 programs, top-six programs, and Harvard and MIT. These findings support the finding of Colander (2015) that elite economics programs generally hire from their own or a small number of departments. We go beyond that finding to show that this pattern extends to many universities and across faculty rosters, but to a lesser degree for the lowest-ranked schools.

One way to view the patterns that we document is that they are evidence of lack of “intellectual diversity” among top departments.<sup>19</sup> The top schools send their students to positions in these same top schools, and if students follow ideologies of their professors, then these ideologies may be perpetuated when these students become professors themselves.<sup>20</sup> On the other hand, it is possible that, given department objectives, current hiring practices make sense.

Why might we observe the patterns we do? There are several possibilities, beginning with the supply (candidate) side of the market. First is candidate preferences. Candidates may have preferences over highly-ranked departments, departments with colleagues with similar research interests, or departments that support their research with funding opportunities. Candidates may also have preferences over geography and prefer to live in specific locations such as their alma mater or a school close to their home or Ph.D.<sup>21</sup> Second, candidate confidence in their suitability for the position may be a factor: candidates from lower-ranked Ph.D. departments may feel less qualified to apply for a position in a higher-ranked department. Third, higher-ranked departments may have more job market candidates than do lower-ranked departments.

There are also several possible factors on the demand (department) side. First is networks and information. The hiring committee may be more familiar with an applicant and/or an applicants’ advisors from highly-ranked schools and feel like they can trust that

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<sup>19</sup>Colander (2015) makes this point as well.

<sup>20</sup>We do note, however, that there could exist a substantial amount of intellectual diversity within top departments, particularly because they typically have a relatively large number of faculty.

<sup>21</sup>Appendix Table A.8 shows departments by share of Ph.D.s from a given Ph.D. program (restricted to a minimum of three faculty, which excludes some small departments). With our data, it is not possible to disentangle geographical preferences from other factors, but we do observe many candidates at departments near their Ph.D., such as 27% of Northeastern’s faculty being from MIT.

the applicant is likely to be successful. Faculty advisors at top departments are more also likely to be well-known in the profession and may be able to exert influence in their students' behalf. This has been seen in domains such as economics publishing (Colussi, 2018). Second is selection. If the best candidates are at the best schools, then it may make sense to hire them.<sup>22</sup> Third is the presumed academic prowess of candidates from certain departments. Candidates of same or higher-ranked schools may be perceived (accurately or inaccurately) to be more hard-working, intelligent, ambitious, and/or capable than those from lower-ranked schools. Finally, the hiring department may desire certain research or teaching philosophies or approaches. Applicants of highly ranked schools have been trained in certain philosophies or using certain teaching styles that top-ranked schools may prefer.

Future research might address what departments are trying to maximize (or minimize, such as the uncertainty of getting an unproductive colleague) in their faculty hiring, to what extent department hiring is efficient, to what extent there might be “diamonds in the rough” from lower-ranked departments (Conley and Önder, 2014), and how the results we document compare to those in other fields.

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<sup>22</sup>If the best candidates are indeed at the best schools, this may be due to selection in Ph.D. program admissions if the top-ranked Ph.D. programs attract many of the very best students. It may also be due to department value-added if the best departments train their students better than lower-ranked departments, giving them a higher level of the skills that the market values.

# References

- Amir, R. and M. Knauff (2008). Ranking economics departments worldwide on the basis of phd placement. *The Review of Economics and Statistics* 90(1), 185–190.
- Angus, S. D., K. Atalay, J. Newton, and D. Ubilava (2021). Geographic diversity in economic publishing. *Journal of Economic Behavior & Organization* 190, 255–262.
- Bair, J. H. (2003). Hiring practices in finance education: Linkages among top-ranked graduate programs. *American Journal of Economics and Sociology* 62(2), 429–433.
- Bedeian, A. G., D. E. Cavazos, J. G. Hunt, and L. R. Jauch (2010). Doctoral degree prestige and the academic marketplace: A study of career mobility within the management discipline. *Academy of Management Learning & Education* 9(1), 11–25.
- Boustan, L. and A. Langan (2019). Variation in women’s success across phd programs in economics. *Journal of Economic Perspectives* 33(1), 23–42.
- Bryan, K. A. (2019). Young “stars” in economics: What they do and where they go. *Economic Inquiry* 57(3), 1392–1407.
- Burris, V. (2004). The academic caste system: Prestige hierarchies in phd exchange networks. *American sociological review* 69(2), 239–264.
- Cawley, J. (2018). A guide and advice for economists on the us junior academic job market 2018-2019 edition.
- Chen, Z. (2014). The path to being an economics professor. *Comparative Advantage*, 51.
- Clauset, A., S. Arbesman, and D. B. Larremore (2015). Systematic inequality and hierarchy in faculty hiring networks. *Science advances* 1(1), e1400005.
- Colander, D. (2015). Intellectual incest on the charles: Why economists are a little bit off. *Eastern Economic Journal* 41(2), 155–159.



- Colander, D. and D. Zhuo (2015). Where do phds in english get jobs? an economist’s view of the english phd market. *Pedagogy: Critical Approaches to Teaching Literature, Language, Composition, and Culture* 15(1), 139–156.
- Colussi, T. (2018). Social ties in academia: A friend is a treasure. *Review of Economics and Statistics* 100(1), 45–50.
- Conley, J. P. and A. S. Önder (2014). The research productivity of new phds in economics: The surprisingly high non-success of the successful. *Journal of Economic Perspectives* 28(3), 205–16.
- Formby, J. P. and G. A. Hoover (2002). Salary determinants of entry-level academic economists and the characteristics of those hired on the tenure track. *Eastern Economic Journal* 28(4), 509–522.
- Fowler, J. H., B. Grofman, and N. Masuoka (2007). Social networks in political science: Hiring and placement of ph. ds, 1960–2002. *PS: Political Science & Politics* 40(4), 729–739.
- Headworth, S. and J. Freese (2016). Credential privilege or cumulative advantage? prestige, productivity, and placement in the academic sociology job market. *Social Forces* 94(3), 1257–1282.
- Jones, T. (2011). University rankings - what do they measure? *Research Trends* 22, 5–6.
- Jones, T. and H. Xiong (2021). The phd origins of finance faculty. *Working Paper*.
- Kawa, N. C., J. A. Clavijo Michelangeli, J. L. Clark, D. Ginsberg, and C. McCarty (2019). The social network of us academic anthropology and its inequalities. *American Anthropologist* 121(1), 14–29.
- Klein, D. B. (2005). The ph. d. circle in academic economics. *Econ Journal Watch* 2(1), 133.

- Langan, A. (2018). Female managers and gender disparities: The case of academic department chairs. *Princeton, NJ: Job Market Paper*.
- McFall, B. H., M. Murray-Close, R. J. Willis, and U. Chen (2015). Is it all worth it? the experiences of new phds on the job market, 2007–10. *The Journal of economic education* 46(1), 83–104.
- Morgan, A. C., D. J. Economou, S. F. Way, and A. Clauset (2018). Prestige drives epistemic inequality in the diffusion of scientific ideas. *EPJ Data Science* 7(1), 40.
- Morse, R., A. Krivian, and K. Hines (2011). Methodology: Best social sciences and humanities schools rankings. *Research Trends* 22, 5–6.
- Pieper, P. J. and R. A. Willis (1999). The doctoral origins of economics faculty and the education of new economics doctorates. *The Journal of Economic Education* 30(1), 80–88.
- Schlauch, G., R. Startz, et al. (2018). The path to an economics phd. *Economics Bulletin* 38(4), 1864–1876.
- Schmidt, B. M. and M. M. Chingos (2007). Ranking doctoral programs by placement: A new method. *PS: Political Science & Politics* 40(3), 523–529.
- Segall, E. J. and A. Feldman (2018). The elite teaching the elite: Who gets hired by the top law schools? *J. Legal Educ.* 68, 614.
- Siegfried, J. J. and W. A. Stock (1999). The labor market for new ph. d. economists. *Journal of Economic Perspectives* 13(3), 115–134.
- Siegfried, J. J. and W. A. Stock (2007). The undergraduate origins of phd economists. *The Journal of Economic Education* 38(4), 461–482.
- Spellman, W. E. and D. B. Gabriel (1978). Graduate students in economics, 1940-74. *The American Economic Review* 68(1), 182–187.

- Stock, W. A. and J. J. Siegfried (2001). So you want to earn a ph. d. in economics: how much do you think you'll make? *Economic Inquiry* 39(2), 320–335.
- Stock, W. A. and J. J. Siegfried (2014). Fifteen years of research on graduate education in economics: What have we learned? *The Journal of Economic Education* 45(4), 287–303.
- Stock, W. A. and J. J. Siegfried (2015). The undergraduate origins of phd economists revisited. *The Journal of Economic Education* 46(2), 150–165.
- Svorenčík, A. (2014). Mit's rise to prominence: Outline of a collective biography. *History of Political Economy* 46(suppl.1), 109–133.
- Svorenčík, A. (2018). The missing link: Prosopography in the history of economics. *History of Political Economy* 50(3), 605–613.
- USNWR (2017). *U.S. News & World Report Best Economics Schools, 2017 Rankings*. <https://www.usnews.com/best-graduate-schools/top-humanities-schools/economics-rankings>.
- Way, S. F., D. B. Larremore, and A. Clauset (2016). Gender, productivity, and prestige in computer science faculty hiring networks. In *Proceedings of the 25th International Conference on World Wide Web*, pp. 1169–1179.
- Wu, S. (2005). Where do faculty receive their phds? a comparison across six disciplines. *Academe* 91(4), 53–54.

## 6 Data Appendix

We keep individuals who are listed on the directory at the time of data collection even if they have not been removed after a recent move to another department.

We primarily used the titles collected from the faculty rosters to classify individuals to their rank; in some cases, we also used additional information, such as that obtained from faculty webpages. In general, we exclude instructional faculty such as professors of practice, lecturers, and instructors; affiliate and courtesy faculty (including secondary appointments at Duke); emeritus professors; those who have not started yet; fixed term faculty; and research professors. We assume that chairs are full professors unless it explicitly states that they are otherwise, such as associate professors. We also assume department chairs, deans, and those in other university leadership roles are full professors. It sometimes happens that a chaired professor's title is in another discipline such as finance; we include these cases. We note that classification is an imperfect process and that in some cases judgement calls have to be made. We also corrected several errors in the dataset that we became aware of, but a small amount of measurement error likely remains. The gender of the candidate was obtained by photo and/or pronouns and, in some cases in the data provided by Langan (Langan, 2018), using an algorithm of likely gender based on name. Individuals almost always have only one Ph.D., but can have multiple; in such cases we consider only one.<sup>23</sup>

Classifying B.A. institution is often straightforward, but not always. If the person has two Bachelors degrees, we use the one that is in economics. If both or neither are in economics, we use the one that appears to have a later graduation date. We use our judgement when classifying international degrees. If we do not see a Bachelors but do see another (non-doctoral) degree from an international university, we consider the earliest non-doctoral degree to be the B.A. (even if there is a later degree in economics and the earlier one is not); this is necessary due to the sometime imperfect mapping of foreign degrees to B.A.s. If there is a (non-doctoral) school listed with no graduation date or degree (even

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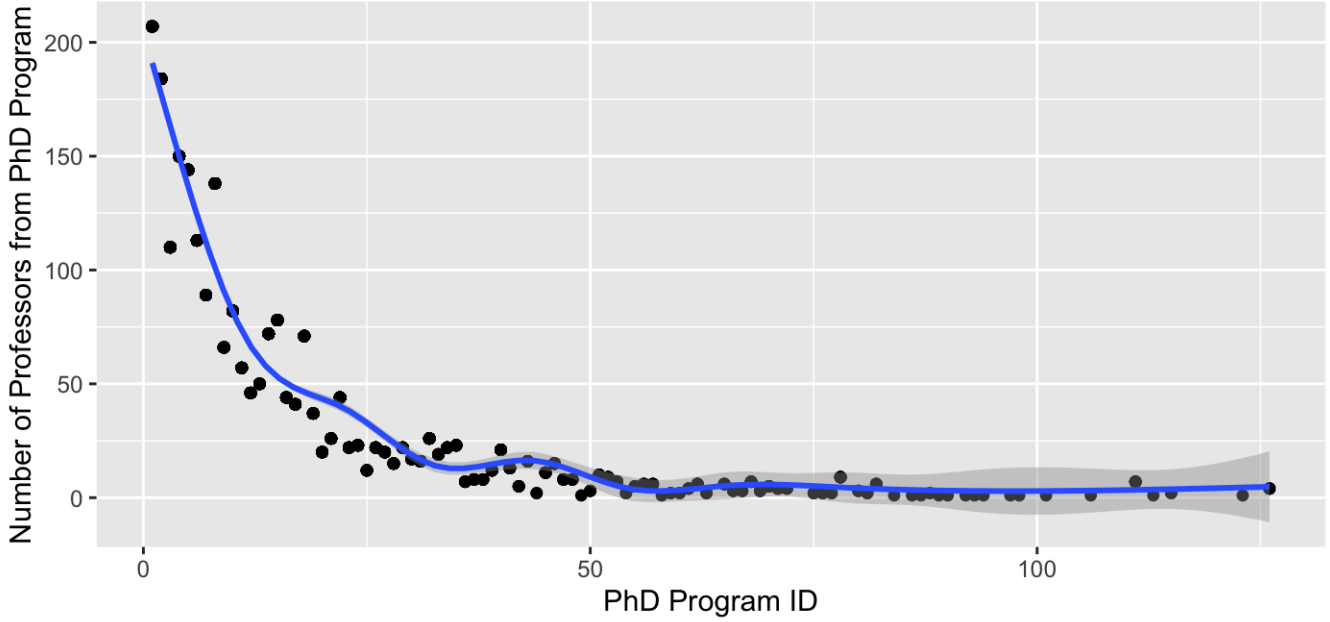
<sup>23</sup>A university can be referred to by multiple names or change names over time. It is possible that in rare instances we classify a given university as multiple universities; this may affect things such as the Herfindahl calculations.

if they did not graduate from there), we consider that to be the B.A. If they have a dual degree from two universities with one in the U.S., we go with the one in the U.S. We use our judgement in other situations.

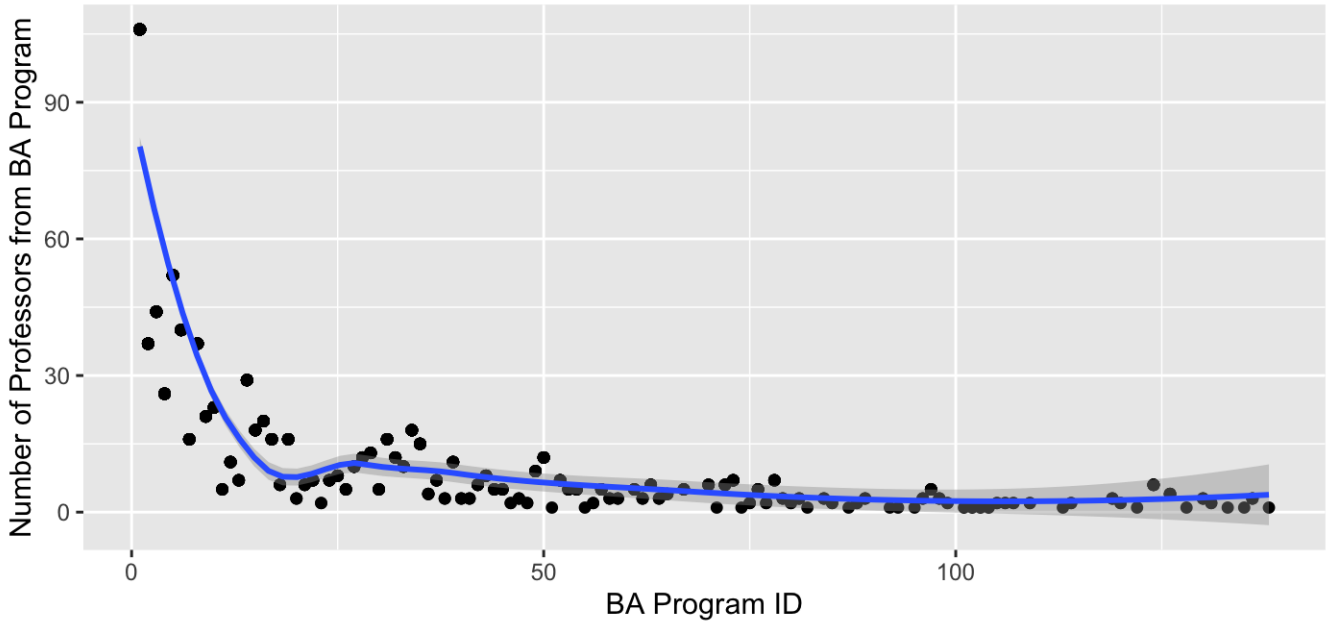
## 7 Figures

Figure 1: Number of Faculty (in Sample) Produced, by Ph.D. and by B.A. University

Panel A: Faculty Produced by Ph.D. University

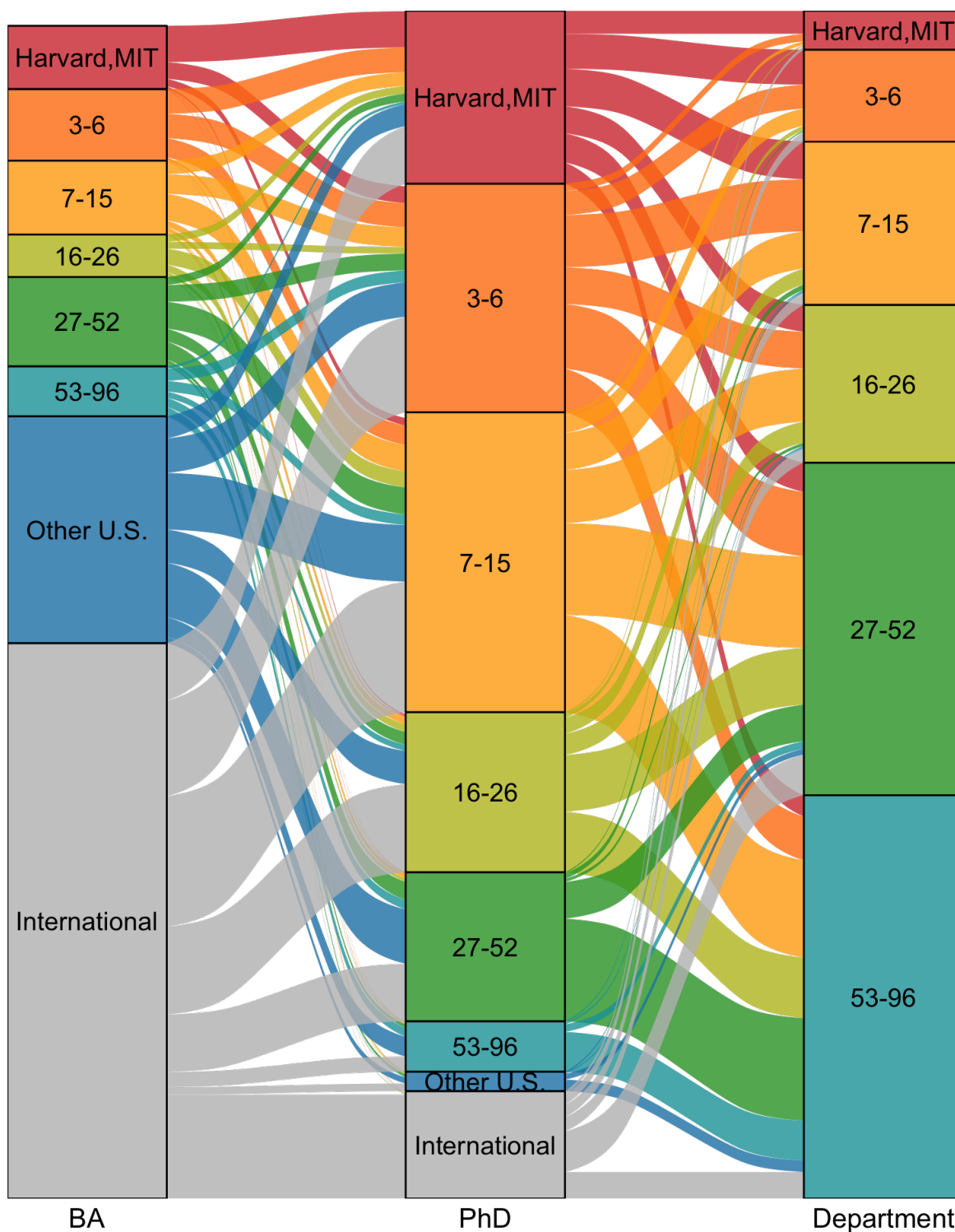


Panel B: Faculty Produced by B.A. University



*Notes:* This figure displays the number of faculty produced by Ph.D. university (Panel A) and by B.A. university (Panel B), which is ordered according to ID (see Appendix Table [A.1](#)). In other words, this displays how many graduates of a given Ph.D. or B.A. university are now faculty members at departments in the sample. Because the Ph.D. and B.A. universities use the same ranking, the x axis refers to the same universities in both panels. Ph.D. and B.A. universities are limited to those in Table [A.1](#), including those listed in the table notes.

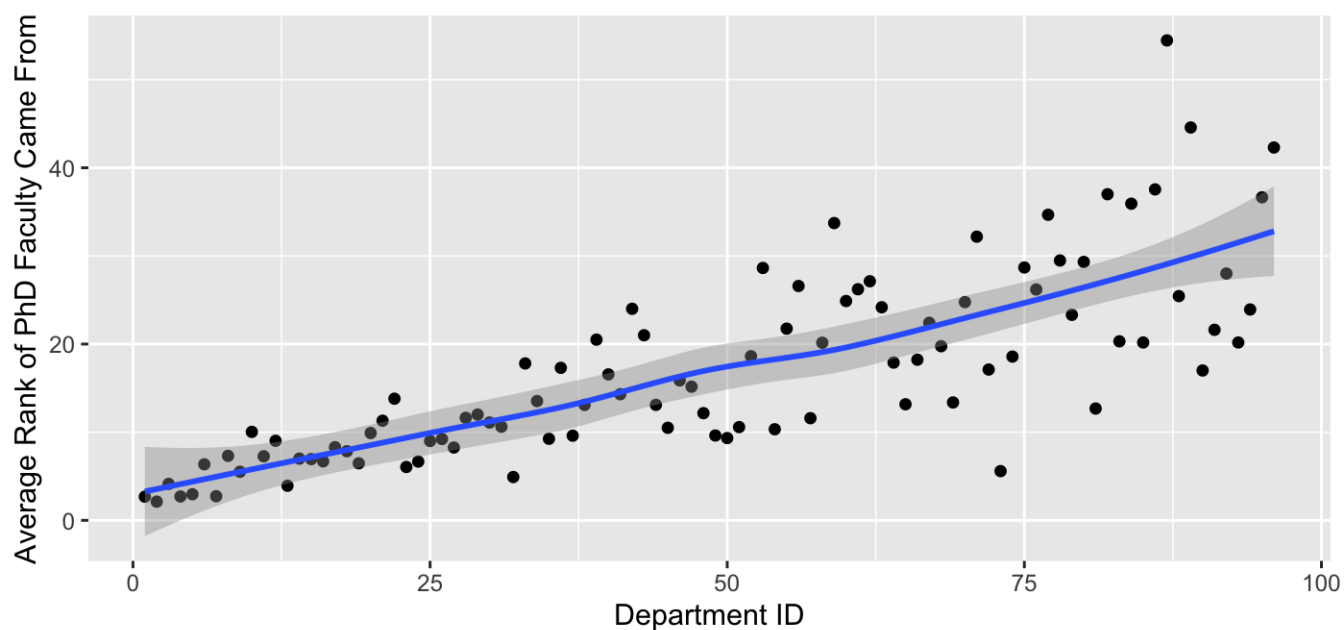
Figure 2: Flows From B.A. Programs (Left) to Ph.D. Programs (Middle) to Departments (Right), by Tier



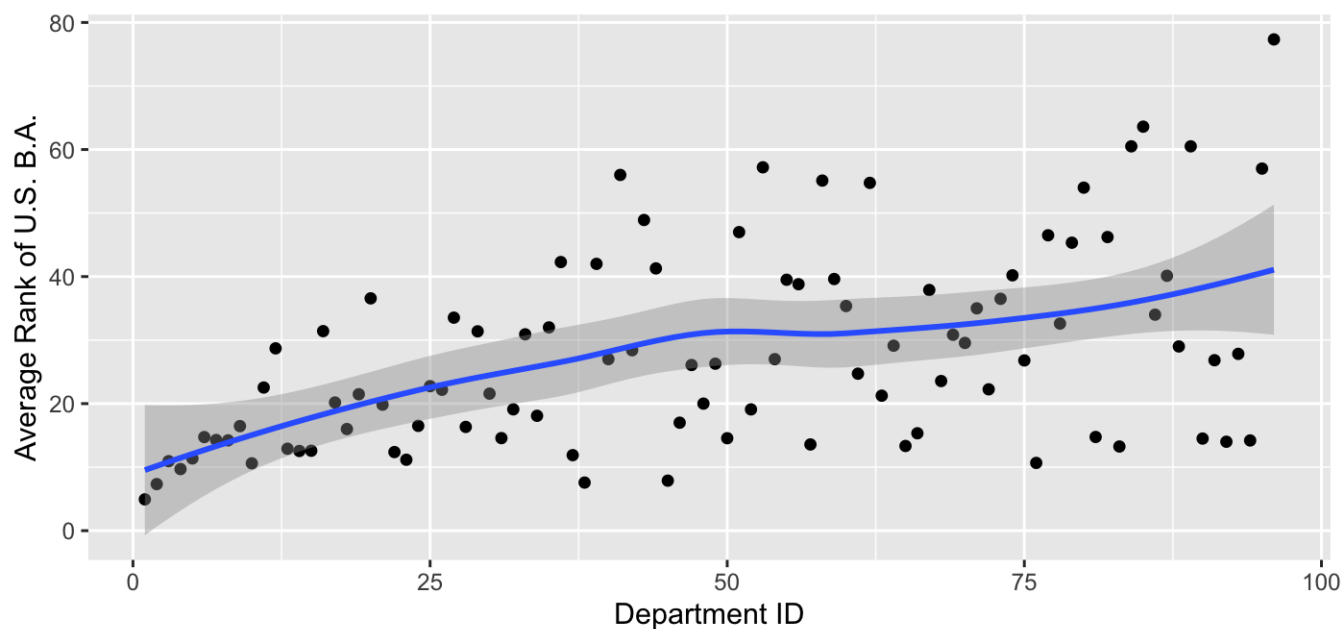
*Notes:* This Sankey diagram shows flows from B.A. programs (left) to Ph.D. programs (middle) to departments (right). The height of the flow represents the number of individuals going from one group to another. The B.A. column is shorter due to missing data on B.A.s.

Figure 3: Average Rank of Ph.D.s and B.A.s of a Department's Faculty

Panel A: Average Rank of Ph.D.



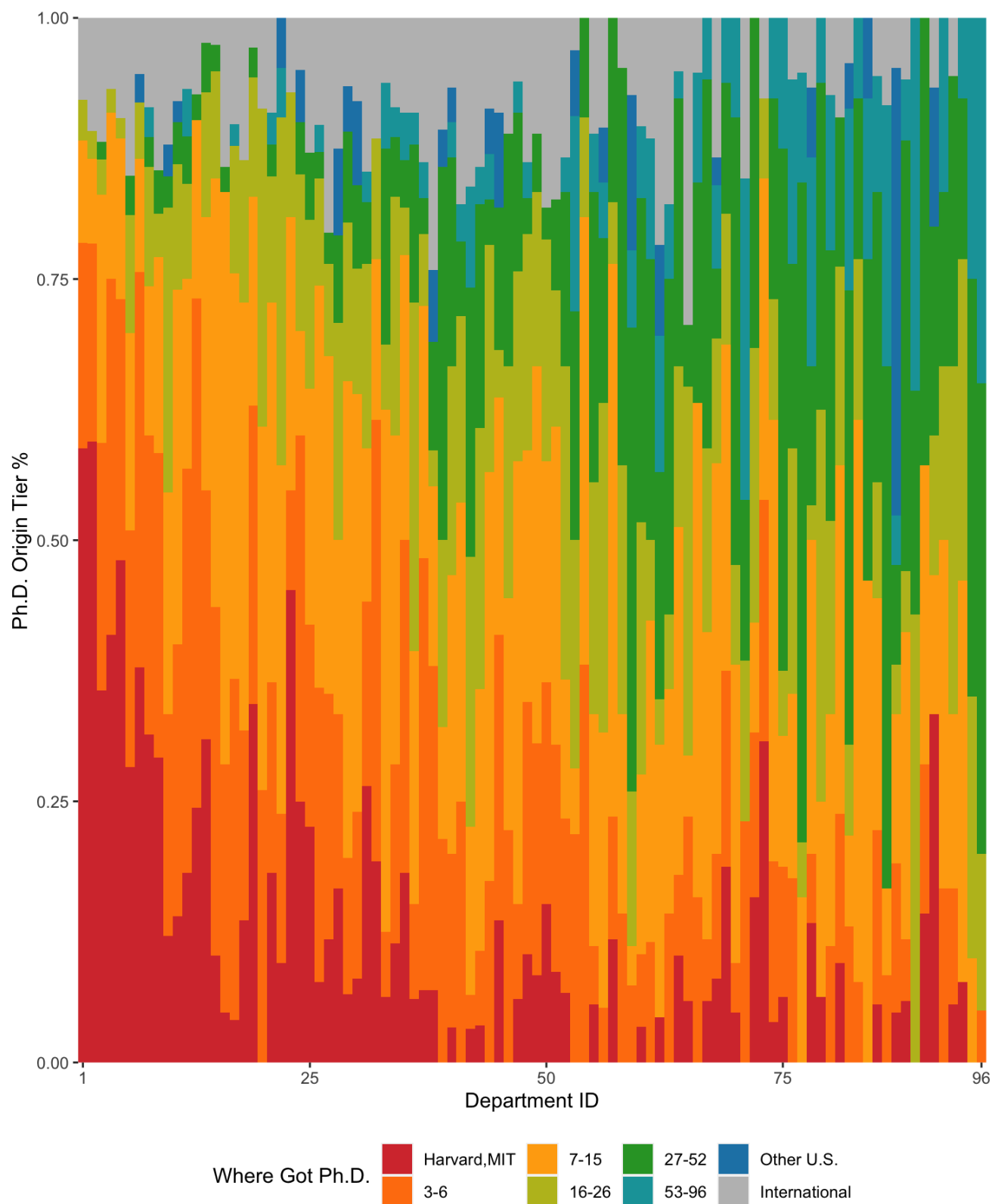
Panel B: Average Rank of B.A.



*Notes:* This figure displays, for a given department, the average rank of the Ph.D. programs faculty members attended (Panel A) and the average rank of the B.A. programs faculty members attended (Panel B). Departments are ordered on the x-axis according to ID (see Appendix Table [A.1](#)). Because the Ph.D. and B.A. universities use the same ranking, the x axis refers to the same universities in both panels. The sample is restricted to those who attended schools (for Ph.D. or B.A., depending) included in USNWR rankings.



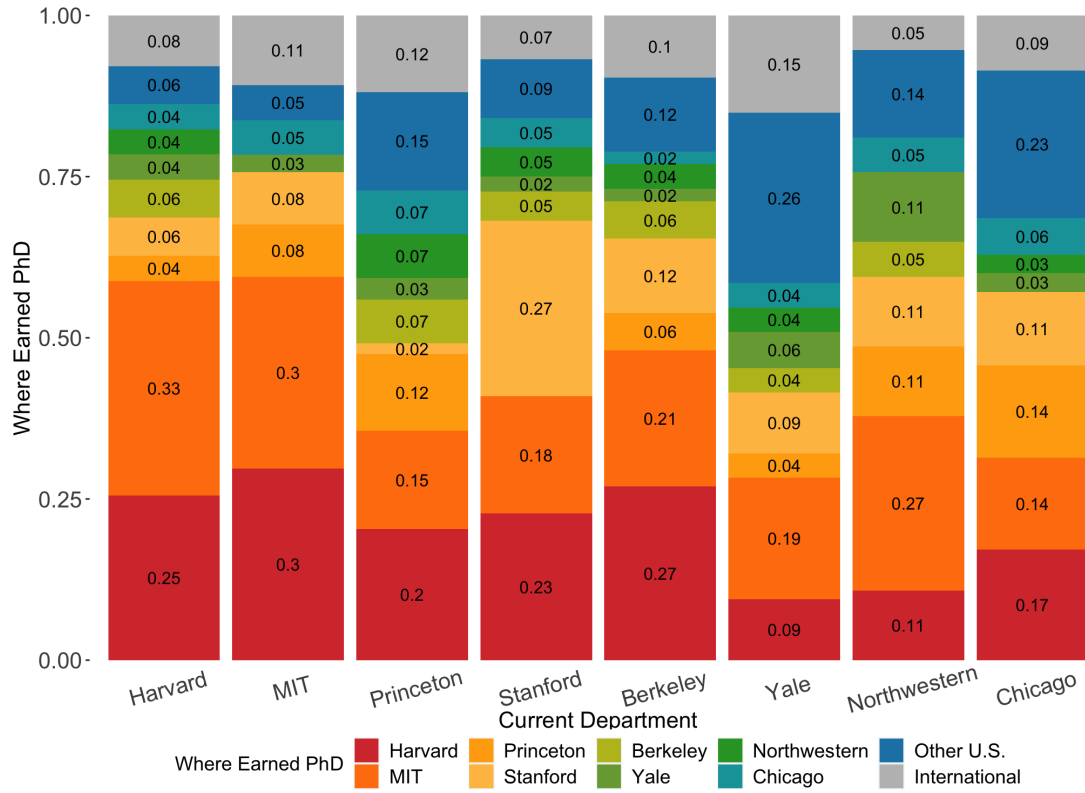
Figure 4: % of Department Faculty from Different Tiers of Ph.D. Program



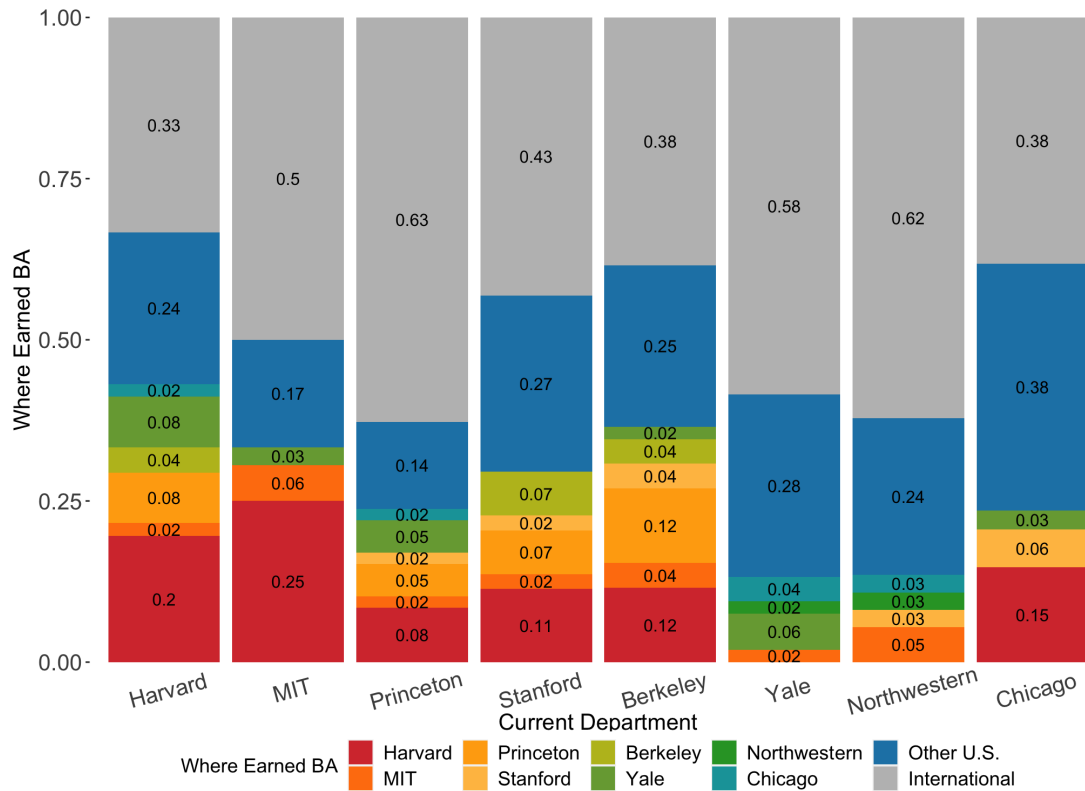
*Notes:* This bar chart displays the percentage of a department's faculty that came from groupings of Ph.D. program rankings. Each row is a department, and the colorings of the row represent the percentage of faculty that come from the particular Ph.D. program group. Departments are ordered according to ID (see Appendix Table [A.1](#)).

Figure 5: Ph.D.s and B.A.s of Faculty of Top 8 Departments

Panel A: Ph.D.s of Faculty of Top 8 Departments



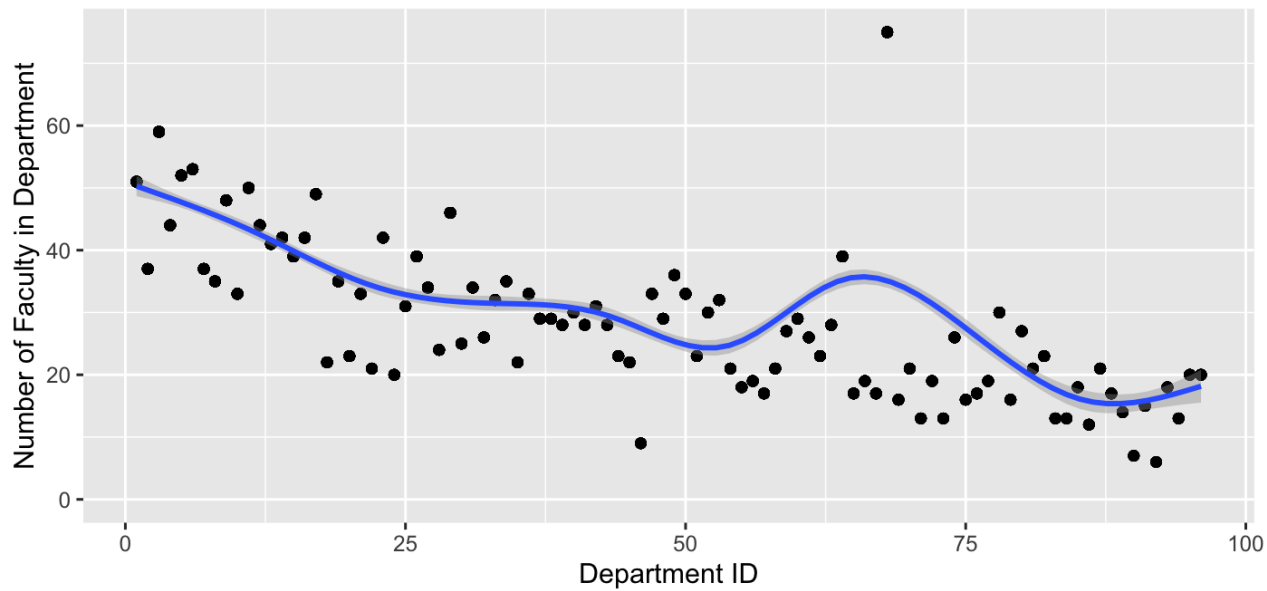
Panel B: B.A.s of Faculty of Top 8 Departments



Notes: This figure displays the percentage of a department's faculty that came from top 8 Ph.D. programs (Panel A) and from the same B.A. universities (Panel B). Each row is a department, and the colorings of the row represent the percentage of faculty that come from the particular Ph.D. or B.A. program.

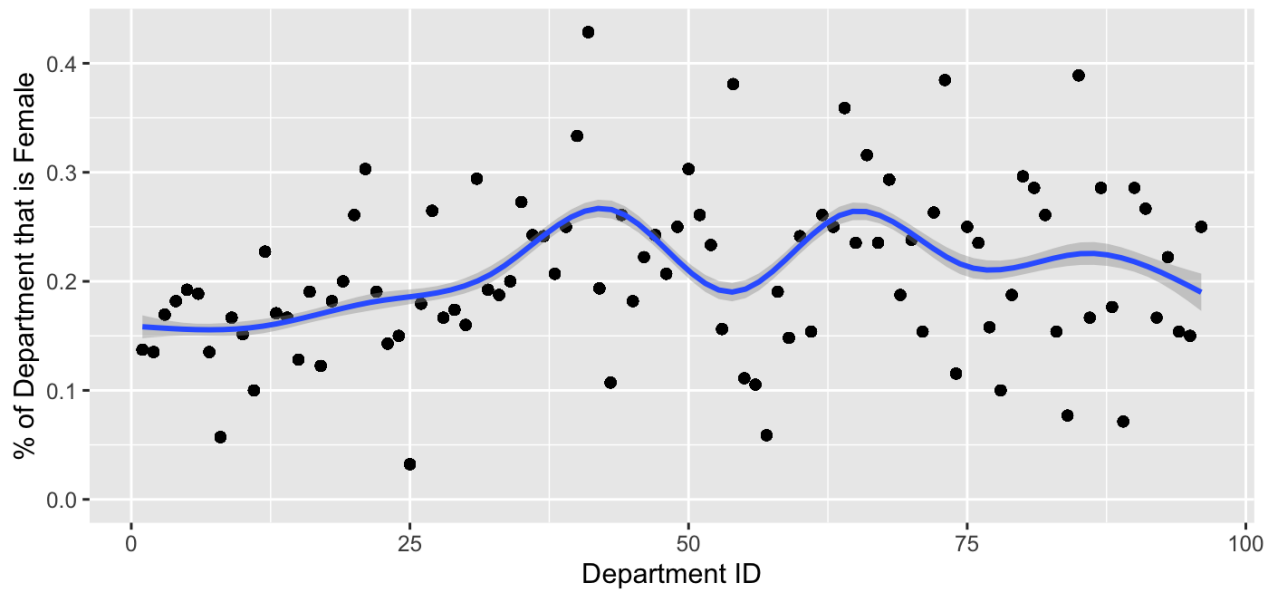
## Appendix Figures

Figure A.1: Number of Faculty by Department



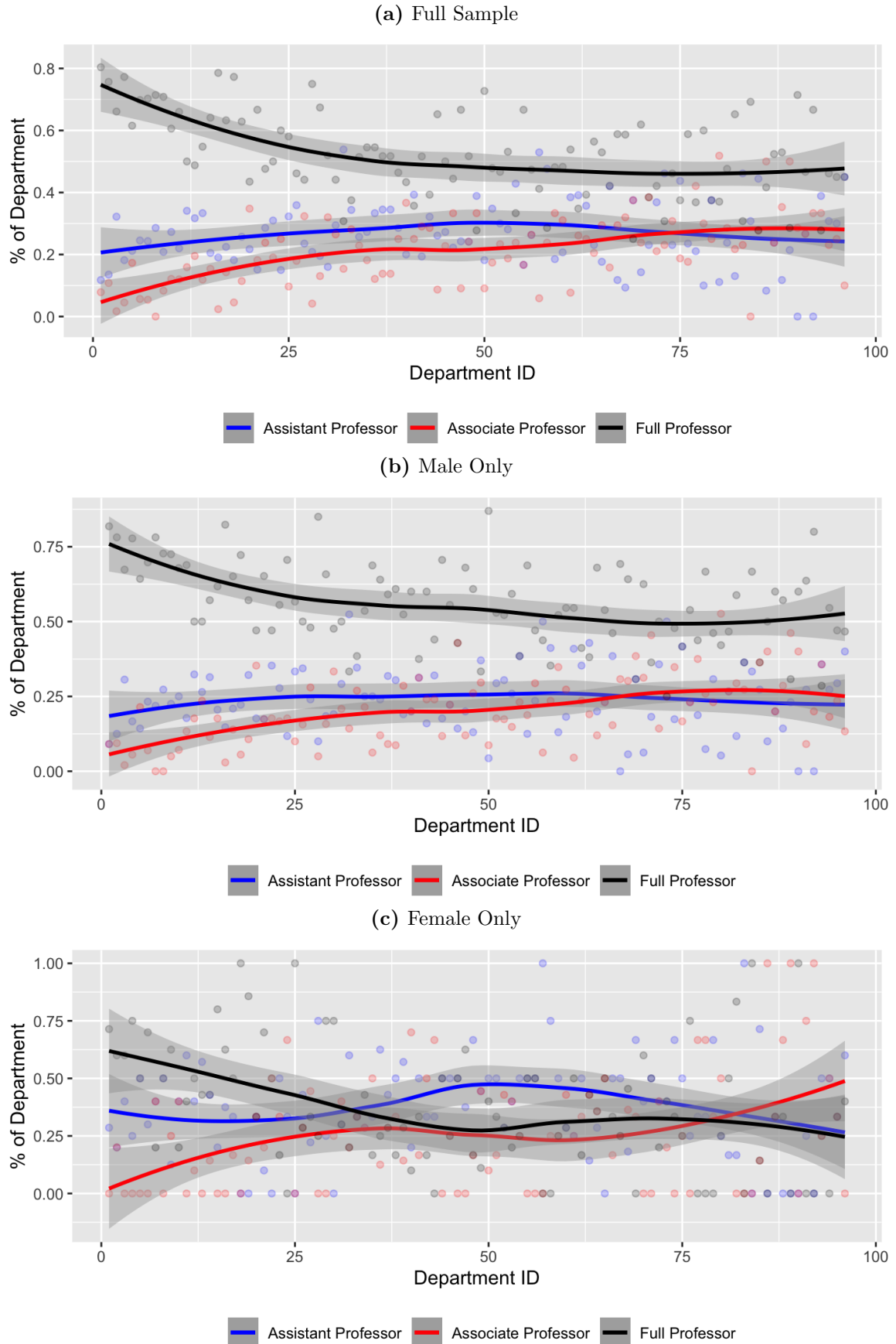
Notes: This figure displays the number of faculty by department, which is ordered according to ID (see Appendix Table [A.1](#)).

Figure A.2: Percent of Faculty Who Are Female, by Department



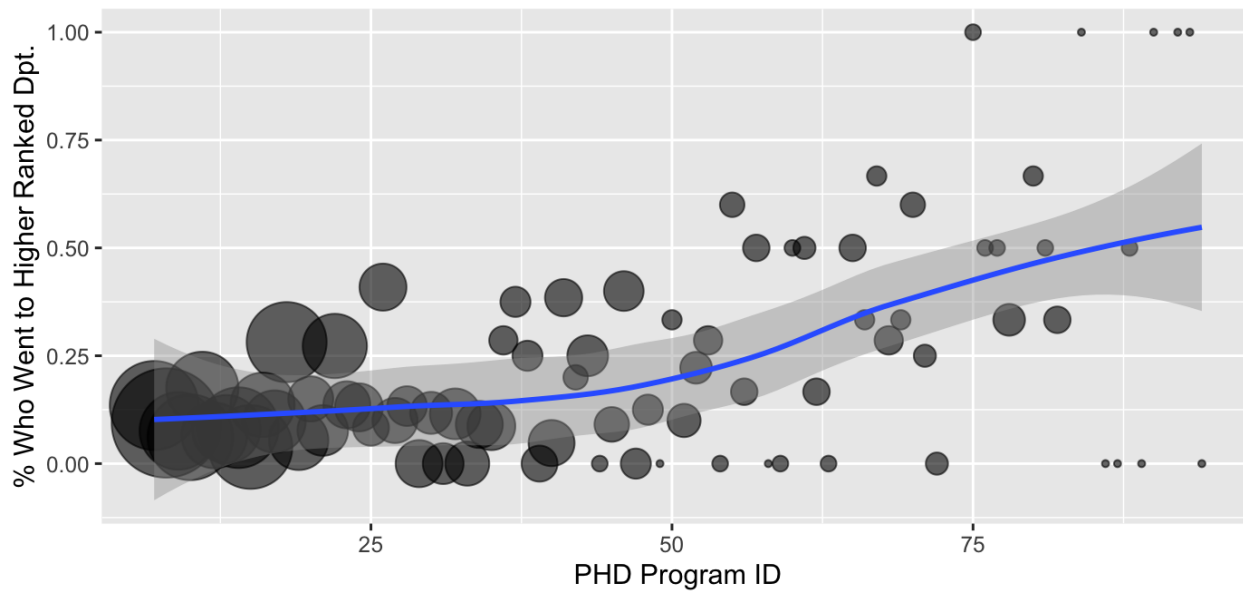
Notes: This figure displays the percentage of faculty who are female by department, which is ordered according to ID (see Appendix Table [A.1](#)).

Figure A.3: Percent of Faculty Who Are Assistant, Associate, and Full Professors, by Department



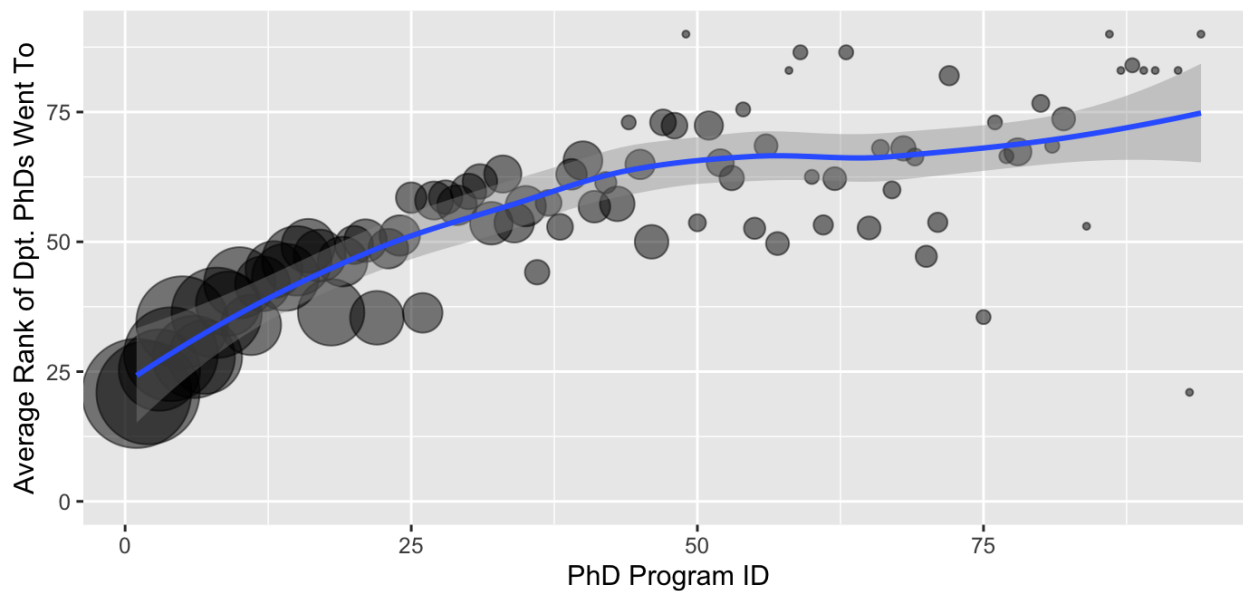
*Notes:* This figure displays the percentage of faculty who are an assistant professor (blue), associate professor (red), and full professor (black) by department, which is ordered according to ID (see Appendix Table [A.1](#)). Panel (a) shows the full sample; Panel (b) restricts the sample to male; and Panel (c) restricts the sample to female.

Figure A.4: Percentage of a Ph.D. Programs' Graduates Who Went to Higher-ranked Department, by Ph.D. Program



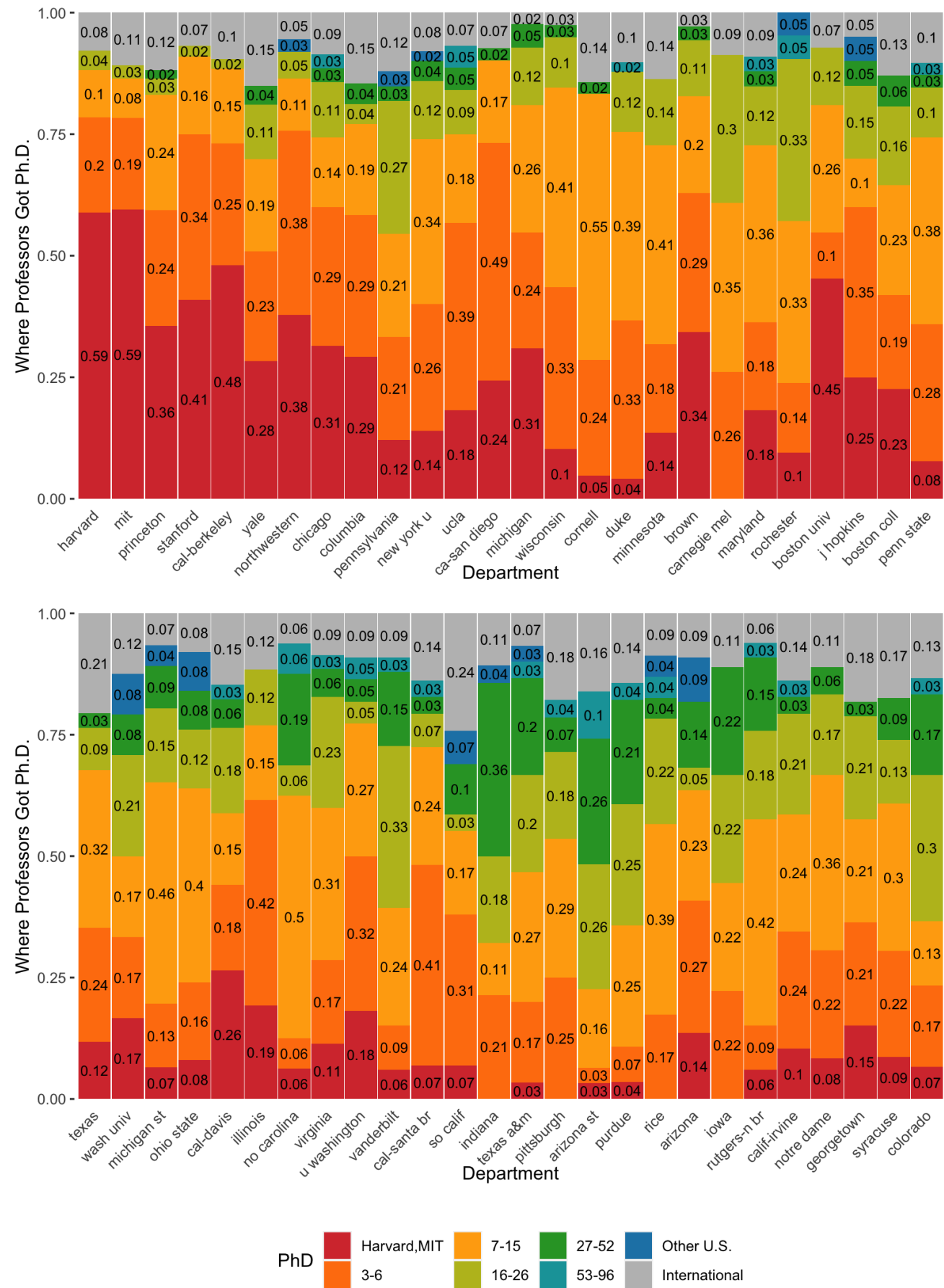
*Notes:* This figure displays the percentage of a Ph.D. programs' graduates (in the sample) who went to a higher-ranked department than their Ph.D. program. Ph.D. programs are ordered according to ID (see Appendix Table [A.1](#)). Because by definition those who graduate from the top-ranked Ph.D. programs cannot go to a department ranked higher than theirs, they are excluded. Ph.D. programs are weighted by number of graduates (in the sample).

Figure A.5: Average Rank of Department a Ph.D. Programs' Graduates Went To, by Ph.D. Program



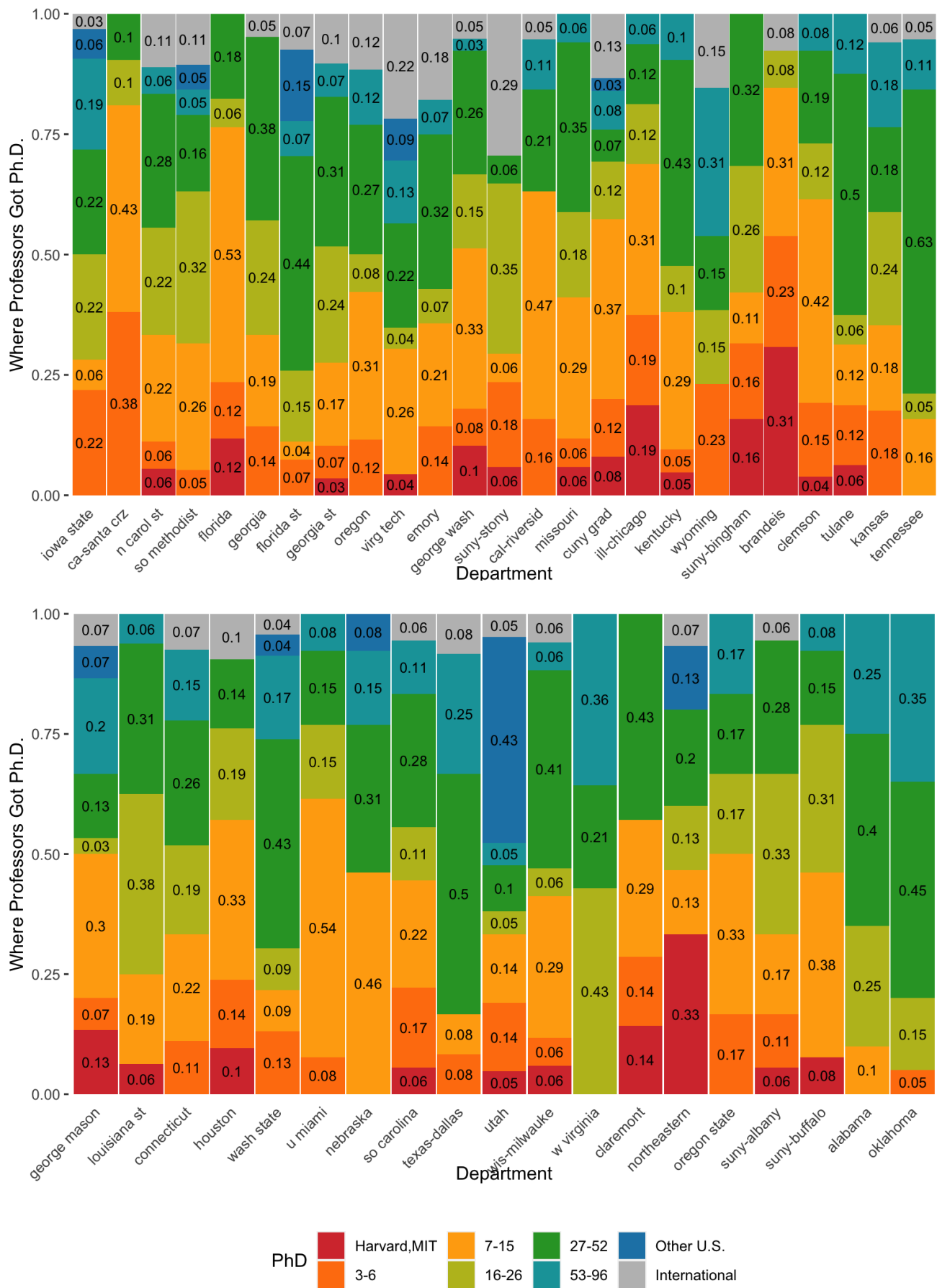
*Notes:* This figure displays the average department rank that graduates of a particular Ph.D. program went to. Ph.D. programs are ordered according to ID (see Appendix Table [A.1](#)). Ph.D. programs are weighted by number of graduates (in the sample).

Figure A.6: % of Department Faculty from Different Tiers of Ph.D. Program, Dpts. 1-26 and 27-52



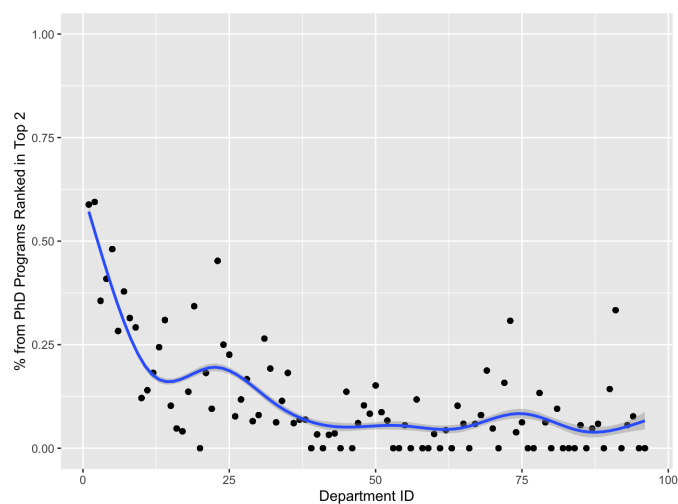
Notes: This figure displays the percentage of a department's faculty that came from groupings of Ph.D. program rankings. Each row is a department, and the colorings of the row represent the percentage of faculty that come from the particular Ph.D. program group. Panel (a) shows department with IDs 1-26, while Panel (b) shows departments with IDs 27-52.

Figure A.7: % of Department Faculty from Different Tiers of Ph.D. Program, Dpts. 53-77 and 78-96

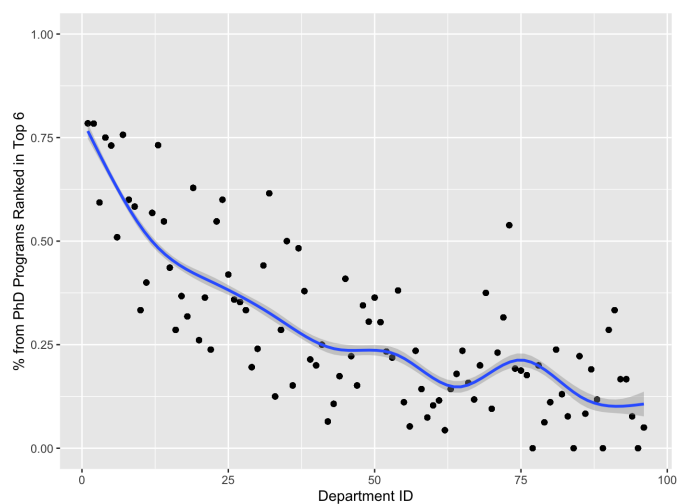


Notes: This figure displays the percentage of a department's faculty that came from groupings of Ph.D. program rankings. Each row is a department, and the colorings of the row represent the percentage of faculty that come from the particular Ph.D. program group. Panel (a) shows department with IDs 53-77, while Panel (b) shows departments with IDs 78-96.

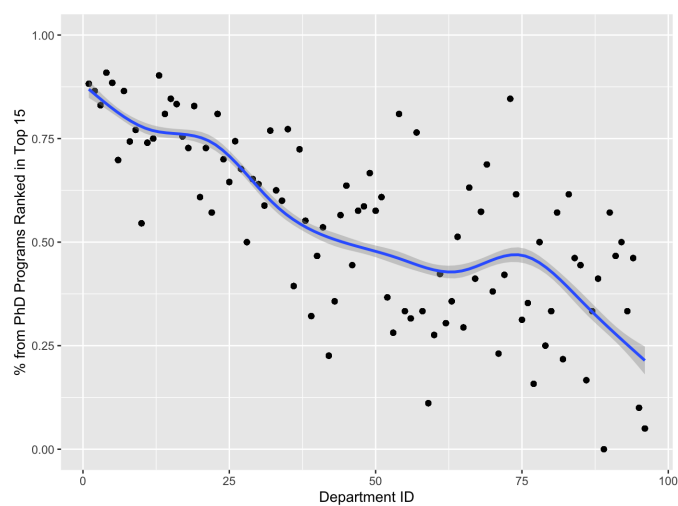
Figure A.8: Percentage of Department Faculty from Top X Ranked Ph.D. Programs, by Department



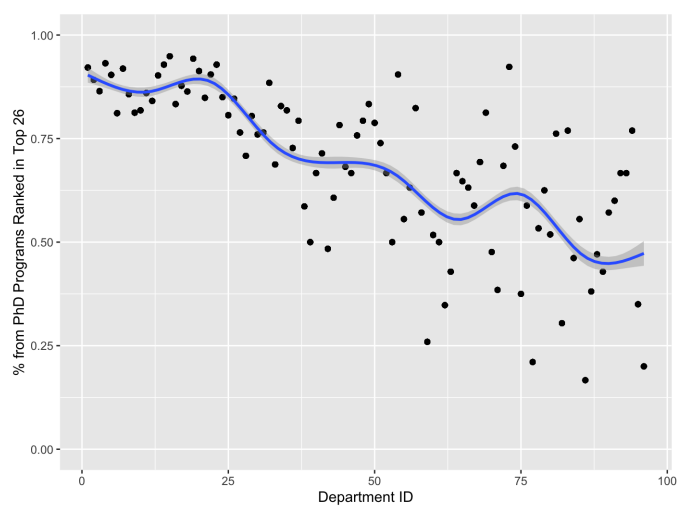
(a) Harvard and MIT



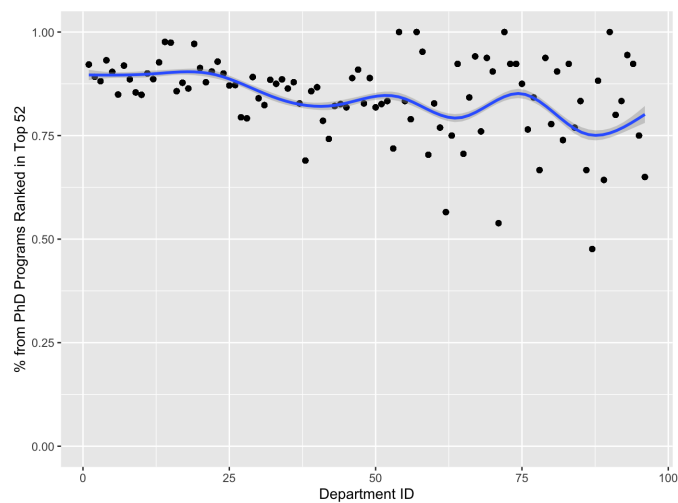
(b) 1-6



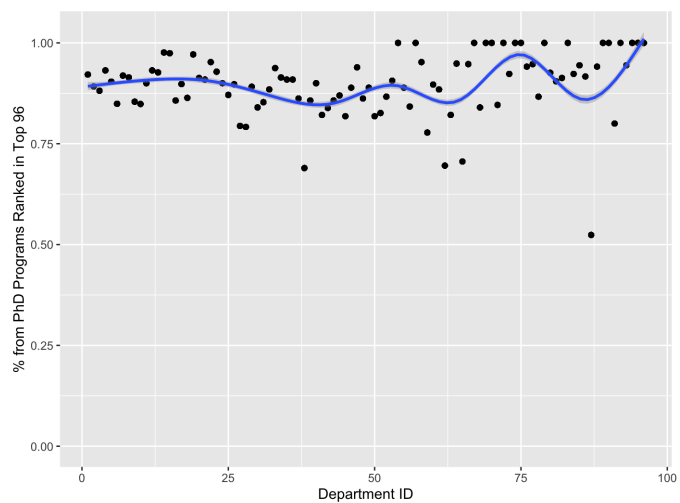
(c) 1-15



(d) 1-26



(e) 1-52

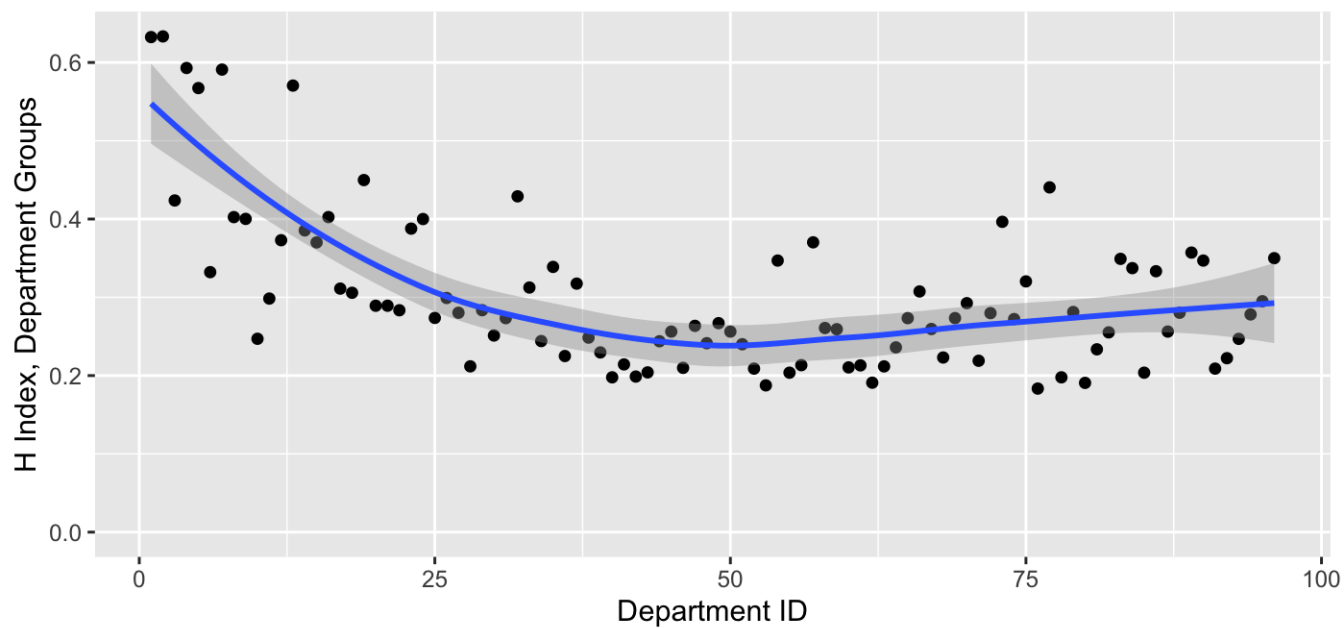


(f) 1-96

*Notes:* This graph shows the percentage of a department's faculty from the departments indicated in the Panel title.

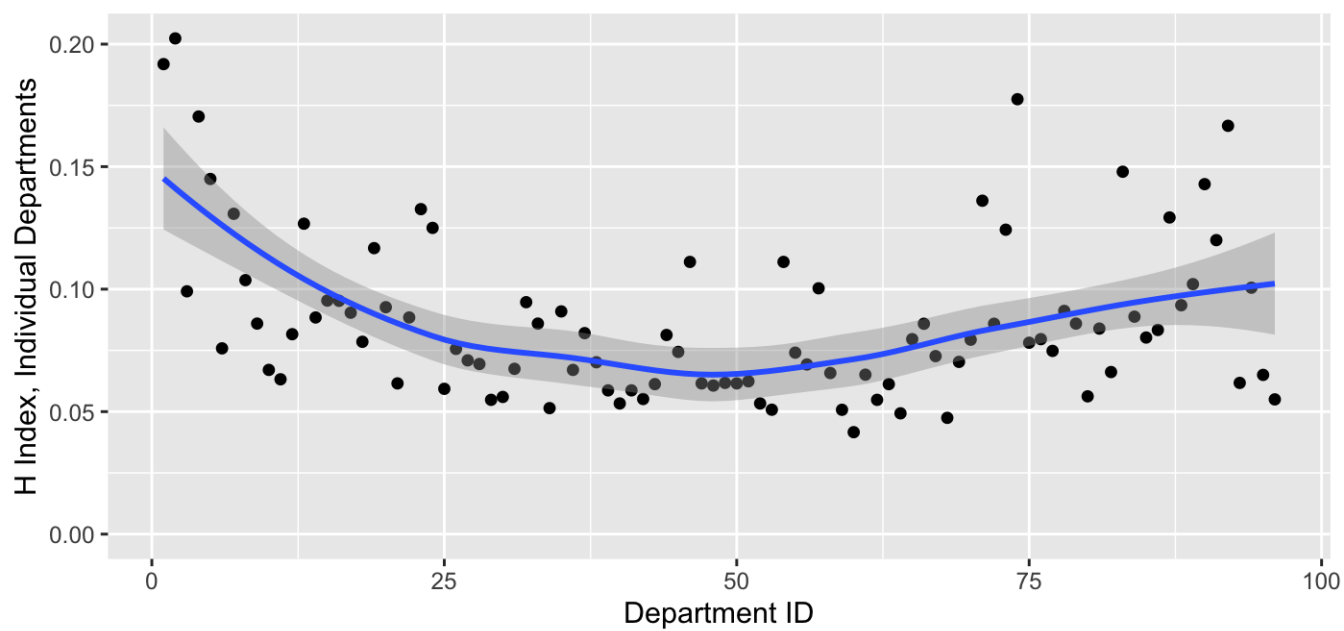


Figure A.9: Herfindahl Index, Broad Categories



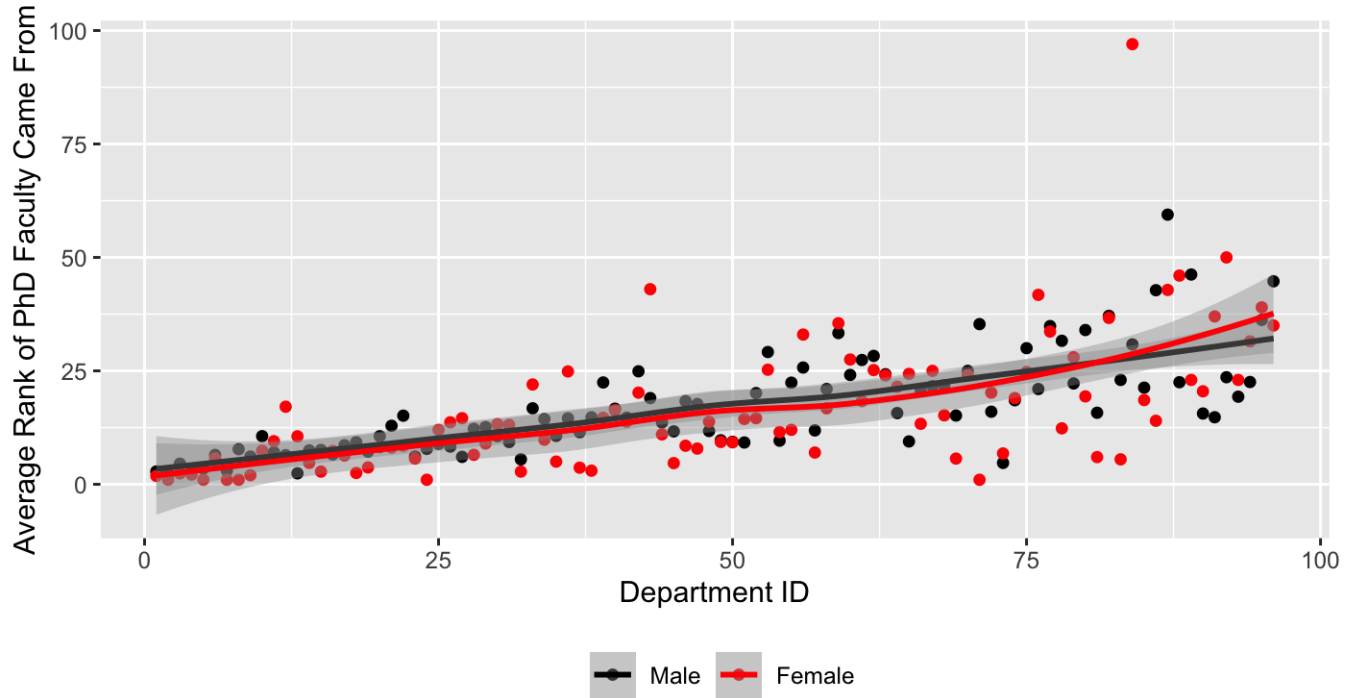
*Notes:* This figure displays the Herfindahl indices for each department. The index is computed using broad categories of Ph.D. departments.

Figure A.10: Herfindahl Index, Individual Departments



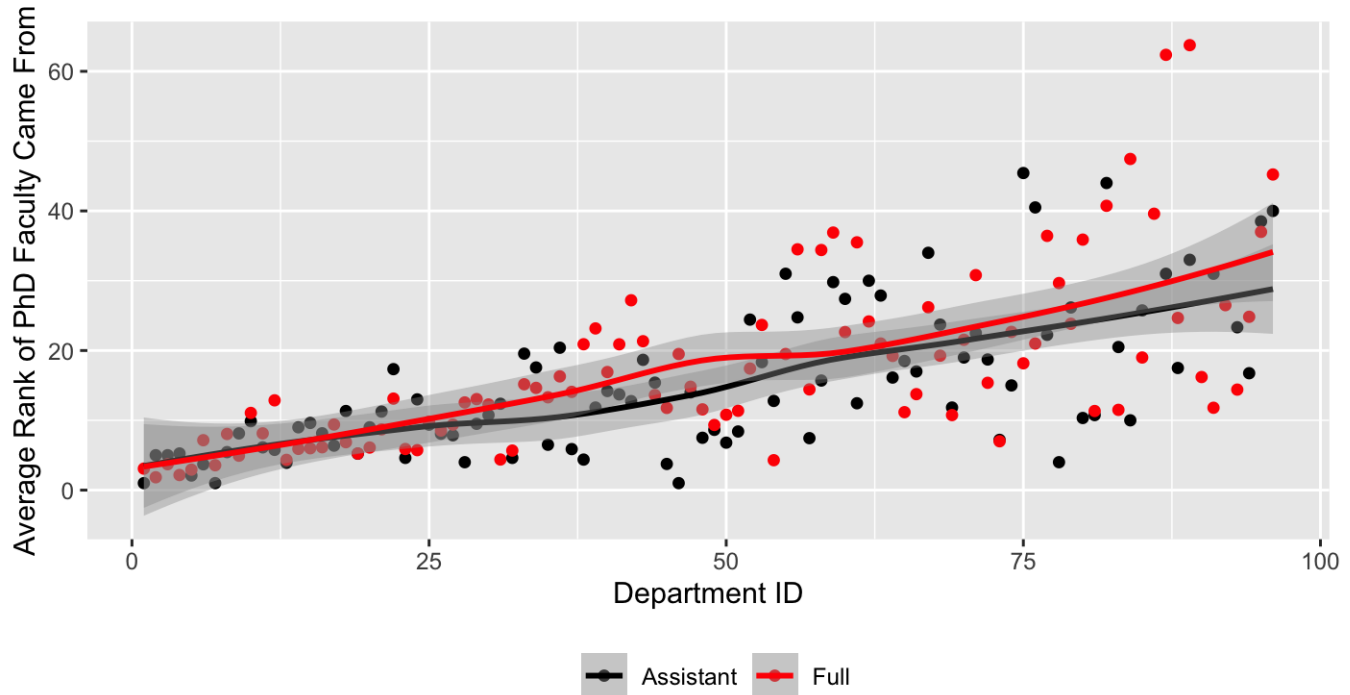
*Notes:* This figure displays the Herfindahl indices for each department. The index is computed using individual Ph.D. departments.

Figure A.11: Average Rank of Ph.D. Programs of a Department's Faculty, by Male and Female Professors



*Notes:* This figure displays, for a given department, the average rank of the Ph.D. programs faculty members attended. Departments are ordered on the x-axis according to ID (see Appendix Table [A.1](#)). The sample is restricted to those who went to USNWR Ph.D. programs.

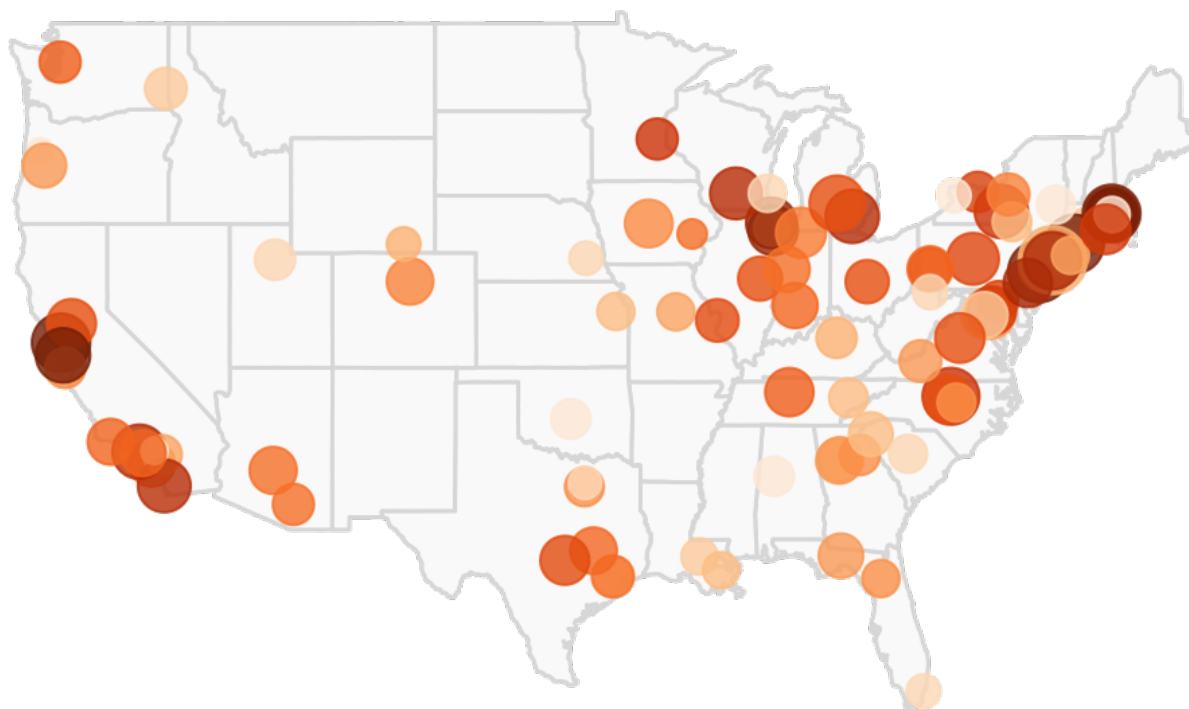
Figure A.12: Avg. Rank of Ph.D. Programs of a Department's Faculty, by Assistant and Full Professors



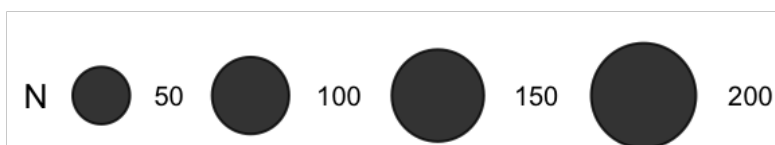
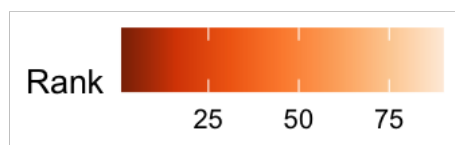
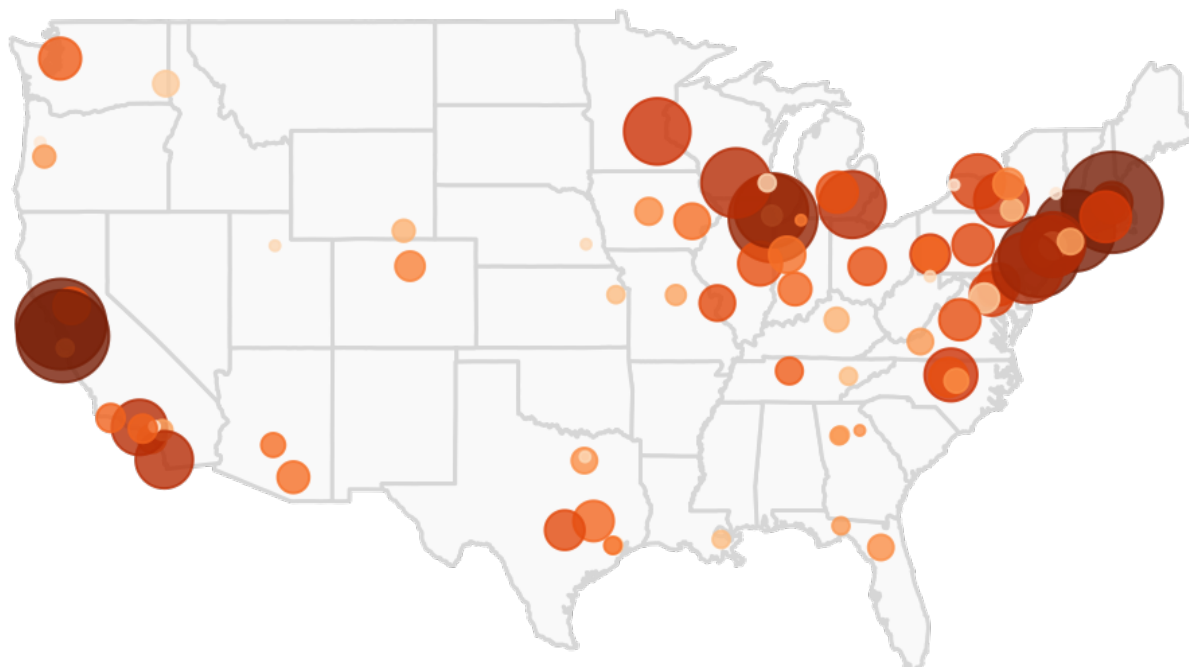
*Notes:* This figure displays, for a given department, the average rank of the Ph.D. programs faculty members attended. Departments are ordered on the x-axis according to ID (see Appendix Table [A.1](#)). The sample is restricted to those who went to USNWR Ph.D. programs.

Figure A.13: Geographic Distribution of Faculty, by Department and Ph.D. School Attended

Panel A: Distribution of Faculty

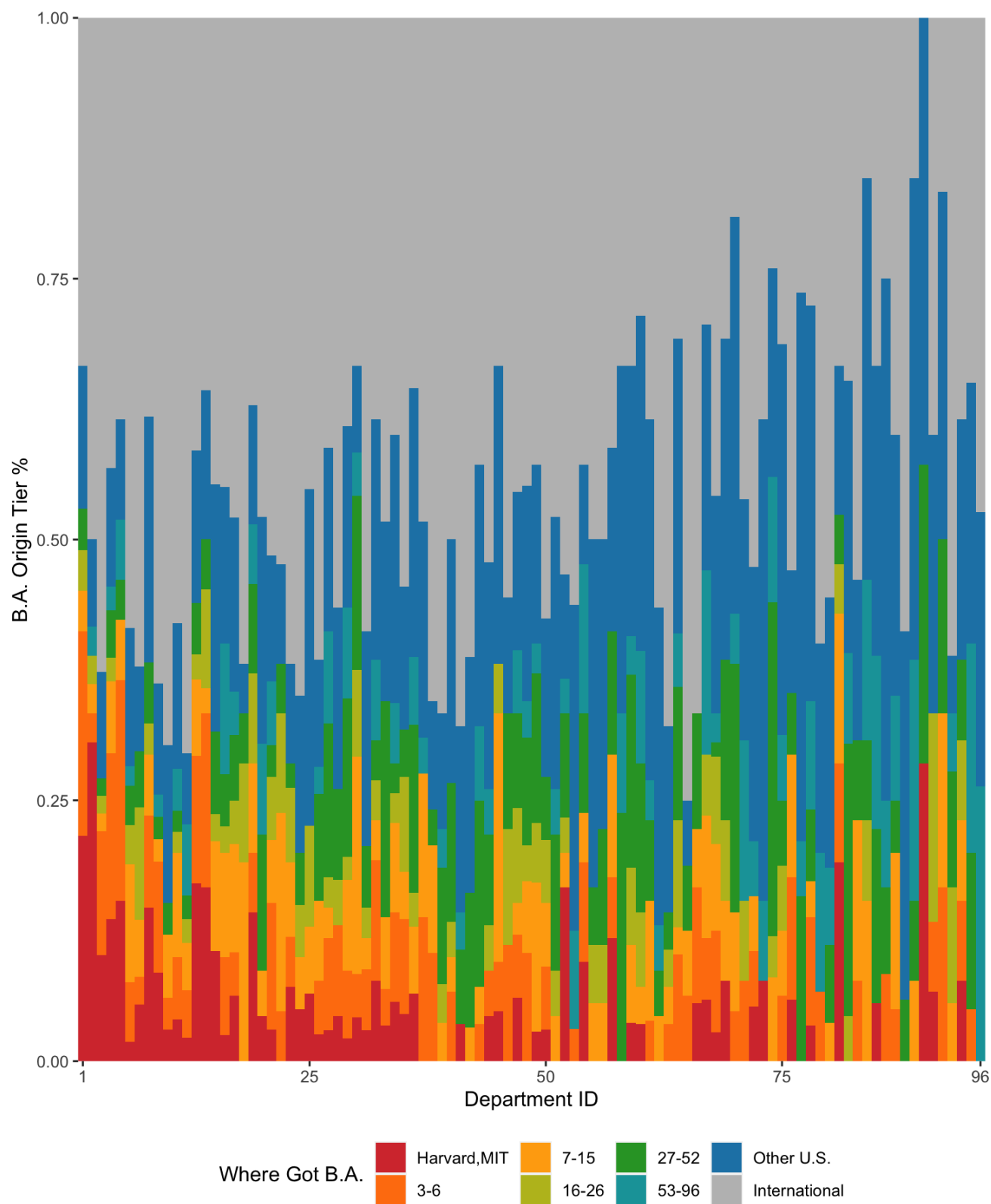


Panel B: Distribution of Ph.D. Origins



*Notes:* This figure plots the distribution of faculty, where each dot is a department (Panel A) or a Ph.D. school attended (Panel B). Dot size (color) corresponds to number of individuals (rank) in the department or Ph.D. school attended. Only the 1-96 ranked USNWR departments are included.

Figure A.14: % of Dpt. Faculty from Different Tiers of B.A. Program, by Department



*Notes:* This bar chart displays the percentage of a department's faculty that come from groupings of B.A. program rankings. Each row is a department, and the colorings of the row represent the percentage of faculty that come from the particular B.A. program group. Departments are ordered according to ID (see Appendix Table [A.1](#)). Observations with missing information on B.A. are excluded.

# Appendix Tables

Table A.1: Department USNWR Rankings and IDs

School	USNWR	ID
Harvard University	1	1
Massachusetts Institute of Technology	1	2
Princeton University	1	3
Stanford University	1	4
University of California–Berkeley	1	5
Yale University	1	6
Northwestern University	7	7
University of Chicago	7	8
Columbia University	9	9
University of Pennsylvania	10	10
New York University	11	11
University of California–Los Angeles	12	12
University of California–San Diego	12	13
University of Michigan	12	14
University of Wisconsin	12	15
Cornell University	16	16
Duke University	16	17
University of Minnesota	16	18
Brown University	19	19
Carnegie Mellon University	20	20
University of Maryland	21	21
University of Rochester	21	22
Boston University	23	23
Johns Hopkins University	23	24
Boston College	25	25
Pennsylvania State University	25	26
University of Texas–Austin	27	27
Washington University in St. Louis	27	28
Michigan State University	29	29
Ohio State University	29	30
University of California–Davis	29	31
University of Illinois–Urbana-Champaign	29	32
University of North Carolina	29	33
University of Virginia	29	34
University of Washington	35	35
Vanderbilt University	35	36
University of California–Santa Barbara	37	37
University of Southern California	37	38
Indiana University	39	39
Texas A&M University	39	40
University of Pittsburgh	39	41
Arizona State University	42	42
Purdue	42	43
Rice University	42	44
University of Arizona	42	45
University of Iowa	42	46
Rutgers	47	47
University of California–Irvine	47	48
University of Notre Dame	47	49
Georgetown University	50	50

School	USNWR	ID
Syracuse University	50	51
University of Colorado–Boulder	50	52
Iowa State University	53	53
University of California–Santa Cruz	53	54
North Carolina State University	55	55
Southern Methodist University	55	56
University of Florida	55	57
University of Georgia	55	58
Florida State University	59	59
Georgia State University	59	60
University of Oregon	59	61
Virginia Tech	59	62
Emory University	63	63
George Washington University	63	64
Stony Brook University	63	65
University of California–Riverside	63	66
University of Missouri	63	67
CUNY Graduate School	68	68
University of Illinois–Chicago	68	69
University of Kentucky	68	70
University of Wyoming	68	71
Binghamton University	72	72
Brandeis University	72	73
Clemson University	72	74
Tulane University	72	75
University of Kansas	72	76
University of Tennessee	72	77
George Mason University	78	78
Louisiana State University	78	79
University of Connecticut	78	80
University of Houston	78	81
Washington State University	78	82
University of Miami	83	83
University of Nebraska	83	84
University of South Carolina	83	85
University of Texas–Dallas	83	86
University of Utah	83	87
University of Wisconsin–Milwaukee	83	88
West Virginia University	83	89
Claremont Graduate University	90	90
Northeastern University	90	91
Oregon State University	90	92
University at Albany	90	93
University at Buffalo	90	94
University of Alabama	90	95
University of Oklahoma	90	96

*Notes:* This table show the 2017 US News & World Report rankings of economics departments. There are many cases in which departments are tied; as such, we create a unique ID in order to distinguish tied schools, which are arranged alphabetically. Departments that are listed but unranked are: American University, Auburn University, Clark University, Colorado School of Mines, Colorado State University, Drexel University, Florida International University, Fordham University, Howard University, Kansas State University, Lehigh University, Middle Tennessee State University, Mississippi State University, New Mexico State University, New School, Northern Illinois University, Oklahoma State University, Rensselaer Polytechnic Institute, Southern Illinois University–Carbondale, Southern New Hampshire University, Suffolk University, Teachers College, Temple University, Texas Tech University, University of Arkansas, University of Central Florida, University of Cincinnati, University of Delaware, University of Hawaii, University of Massachusetts–Amherst, University of Memphis, University of Mississippi, University of Missouri–Kansas City, University of New Hampshire, University of New Mexico, University of New Orleans, University of Rhode Island, University of Southern Mississippi, University of South Florida, Utah State University, Wayne State University, Western Michigan University. We assign each a rank of 97. California Institute of Technology is the only other U.S. school that produced Ph.D.s in our sample.

Table A.2: Ph.D. Departments with Highest Number of Faculty Graduates

School	N	CumPerc
Harvard University	207	7.7
Massachusetts Institute of Technology	184	14.6
Stanford University	150	20.1
University of California–Berkeley	144	25.5
University of Chicago	138	30.6
Yale University	113	34.8
Princeton University	110	38.9
Northwestern University	89	42.3
University of Pennsylvania	82	45.3
University of Wisconsin	78	48.2
University of Michigan	72	50.9
University of Minnesota	71	53.5
Columbia University	66	56
New York University	57	58.1
University of California–San Diego	50	60
University of California–Los Angeles	46	61.7
Cornell University	44	63.3
University of Rochester	44	65
Duke University	41	66.5
Brown University	37	67.9
University of Illinois–Urbana-Champaign	26	68.8
University of Maryland	26	69.8
California Institute of Technology	25	70.7
Johns Hopkins University	23	71.6
University of Washington	23	72.4
Boston University	22	73.3
Michigan State University	22	74.1
Pennsylvania State University	22	74.9
University of Virginia	22	75.7
Texas A&M University	21	76.5
Carnegie Mellon University	20	77.3
University of Texas–Austin	20	78
University of North Carolina	19	78.7
Ohio State University	17	79.3
Purdue	16	79.9
University of California–Davis	16	80.5
University of Iowa	15	81.1
Washington University in St. Louis	15	81.6
University of Pittsburgh	13	82.1
Boston College	12	82.6
Indiana University	12	83
University of Arizona	11	83.4
Syracuse University	10	83.8
George Mason University	9	84.1
University of Colorado–Boulder	9	84.5

*Notes:* This table displays the number of faculty produced by US Ph.D. department. Departments with fewer than 9 faculty are excluded. The cumulative percentage is the percentage over the entire sample, including those with international degrees.

Table A.3: Transition Matrix, Ph.D. to Department

PhD	Harvard,MIT	3-6	7-15	16-26	27-52	53-96
Harvard,MIT	0.59	0.38	0.23	0.17	0.09	0.05
3-6	0.19	0.26	0.32	0.23	0.19	0.11
7-15	0.09	0.19	0.23	0.34	0.28	0.24
16-26	0.03	0.05	0.10	0.13	0.17	0.15
27-52	0.00	0.01	0.03	0.02	0.11	0.25
53-96	0.00	0.00	0.01	0.01	0.02	0.10
Other U.S.	0.00	0.00	0.01	0.01	0.02	0.03
International	0.09	0.11	0.08	0.09	0.12	0.07

*Notes:* This transition matrix displays the percentage of faculty in a given tier (columns) that come from the different tiers of Ph.D. programs (rows).



Table A.4: Herfindahl Indices

Rank	School	USNWR_Rank	H_Broad	H_Indiv
Schools with USNWR Rankings 1-15				
1	Massachusetts Institute of Technology	1	0.63	0.20
2	Harvard University	1	0.63	0.19
3	Stanford University	1	0.59	0.17
4	Northwestern University	7	0.59	0.13
5	University of California–San Diego	12	0.57	0.13
6	University of California–Berkeley	1	0.57	0.14
7	Princeton University	1	0.42	0.10
8	University of Chicago	7	0.40	0.10
9	Columbia University	9	0.40	0.09
10	University of Michigan	12	0.39	0.09
11	University of California–Los Angeles	12	0.37	0.08
12	University of Wisconsin	12	0.37	0.10
13	Yale University	1	0.33	0.08
14	New York University	11	0.30	0.06
15	University of Pennsylvania	10	0.25	0.07
Schools with USNWR Rankings 16-52				
1	Brown University	19	0.45	0.12
2	University of Illinois–Urbana-Champaign	29	0.43	0.09
3	Cornell University	16	0.40	0.10
4	Johns Hopkins University	23	0.40	0.12
5	Boston University	23	0.39	0.13
6	University of Washington	35	0.34	0.09
7	University of California–Santa Barbara	37	0.32	0.08
8	University of North Carolina	29	0.31	0.09
9	Duke University	16	0.31	0.09
10	University of Minnesota	16	0.31	0.08
11	Pennsylvania State University	25	0.30	0.08
12	University of Maryland	21	0.29	0.06
13	Carnegie Mellon University	20	0.29	0.09
14	Michigan State University	29	0.28	0.05
15	University of Rochester	21	0.28	0.09
16	University of Texas–Austin	27	0.28	0.07
17	Boston College	25	0.27	0.06
18	University of California–Davis	29	0.27	0.07
19	University of Notre Dame	47	0.27	0.06
20	Rutgers	47	0.26	0.06
21	University of Arizona	42	0.26	0.07
22	Georgetown University	50	0.26	0.06
23	Ohio State University	29	0.25	0.06
24	University of Southern California	37	0.25	0.07
25	University of Virginia	29	0.24	0.05
26	Rice University	42	0.24	0.08
27	University of California–Irvine	47	0.24	0.06
28	Syracuse University	50	0.24	0.06
29	Indiana University	39	0.23	0.06
30	Vanderbilt University	35	0.22	0.07
31	University of Pittsburgh	39	0.21	0.06
32	Washington University in St. Louis	27	0.21	0.07
33	University of Iowa	42	0.21	0.11
34	University of Colorado–Boulder	50	0.21	0.05
35	Purdue	42	0.20	0.06
36	Arizona State University	42	0.20	0.06
37	Texas A&M University	39	0.20	0.05

Rank	School	USNWR_Rank	H_Broad	H_Indiv
	Schools with USNWR Rankings 53-96			
1	University of Tennessee	72	0.44	0.07
2	Brandeis University	72	0.40	0.12
3	University of Florida	55	0.37	0.10
4	West Virginia University	83	0.36	0.10
5	University of Oklahoma	90	0.35	0.06
6	University of Miami	83	0.35	0.15
7	Claremont Graduate University	90	0.35	0.14
7	University of California–Santa Cruz	53	0.35	0.11
9	University of Nebraska	83	0.34	0.09
10	University of Texas–Dallas	83	0.33	0.08
11	Tulane University	72	0.32	0.08
12	University of California–Riverside	63	0.31	0.09
13	University of Alabama	90	0.30	0.07
14	University of Kentucky	68	0.29	0.08
15	Louisiana State University	78	0.28	0.09
16	University of Wisconsin–Milwaukee	83	0.28	0.09
17	Binghamton University	72	0.28	0.09
18	University at Buffalo	90	0.28	0.10
19	University of Illinois–Chicago	68	0.27	0.07
20	Stony Brook University	63	0.27	0.08
21	Clemson University	72	0.27	0.18
22	University of Georgia	55	0.26	0.07
23	University of Missouri	63	0.26	0.07
24	Florida State University	59	0.26	0.05
25	University of Utah	83	0.26	0.13
26	Washington State University	78	0.26	0.07
27	University at Albany	90	0.25	0.06
28	George Washington University	63	0.24	0.05
29	University of Houston	78	0.23	0.08
30	CUNY Graduate School	68	0.22	0.05
31	Oregon State University	90	0.22	0.17
32	University of Wyoming	68	0.22	0.14
33	Southern Methodist University	55	0.21	0.07
34	University of Oregon	59	0.21	0.07
35	Emory University	63	0.21	0.06
36	Georgia State University	59	0.21	0.04
37	Northeastern University	90	0.21	0.12
38	University of South Carolina	83	0.20	0.08
38	North Carolina State University	55	0.20	0.07
40	George Mason University	78	0.20	0.09
41	Virginia Tech	59	0.19	0.05
42	University of Connecticut	78	0.19	0.06
43	Iowa State University	53	0.19	0.05
44	University of Kansas	72	0.18	0.08

*Notes:* This table shows two different Herfindahl indices for individual departments. The first, “H\_Broad,” computes the index based on the broad categories, while the second, “H\_Indiv,” computes the index based on individual departments. Schools are grouped based on rankings (1-15; 16-52; and 53-96). Within a grouping, schools are sorted based on “H\_Broad.” The school’s rank is also indicated.

Table A.5: Transition Matrix, Ph.D. to Department: Male, Female, Assistant Professor, Full Professor

Panel A: Male						
PhD	Harvard,MIT	3-6	7-15	16-26	27-52	53-96
Harvard,MIT	0.58	0.36	0.23	0.17	0.09	0.05
3-6	0.20	0.25	0.31	0.22	0.19	0.10
7-15	0.09	0.21	0.23	0.33	0.27	0.23
16-26	0.04	0.05	0.10	0.14	0.17	0.15
27-52	0.00	0.02	0.03	0.02	0.12	0.26
53-96	0.00	0.00	0.01	0.01	0.02	0.11
Other U.S.	0.00	0.00	0.01	0.01	0.02	0.03
International	0.09	0.11	0.08	0.10	0.11	0.07
Panel B: Female						
PhD	Harvard,MIT	3-6	7-15	16-26	27-52	53-96
Harvard,MIT	0.67	0.45	0.24	0.18	0.09	0.06
3-6	0.17	0.32	0.35	0.27	0.19	0.13
7-15	0.08	0.11	0.20	0.35	0.29	0.27
16-26	0.00	0.03	0.07	0.11	0.18	0.15
27-52	0.00	0.00	0.06	0.03	0.09	0.25
53-96	0.00	0.00	0.02	0.00	0.02	0.07
Other U.S.	0.00	0.00	0.00	0.00	0.00	0.03
International	0.08	0.11	0.06	0.05	0.15	0.04
Panel C: Assistant Professors						
PhD	Harvard,MIT	3-6	7-15	16-26	27-52	53-96
Harvard,MIT	0.45	0.41	0.18	0.18	0.06	0.04
3-6	0.27	0.18	0.37	0.18	0.21	0.09
7-15	0.18	0.27	0.21	0.34	0.31	0.31
16-26	0.00	0.02	0.08	0.15	0.15	0.15
27-52	0.00	0.02	0.05	0.02	0.08	0.25
53-96	0.00	0.00	0.00	0.00	0.00	0.07
Other U.S.	0.00	0.00	0.01	0.01	0.02	0.02
International	0.09	0.10	0.09	0.11	0.17	0.07
Panel D: Full Professors						
PhD	Harvard,MIT	3-6	7-15	16-26	27-52	53-96
Harvard,MIT	0.62	0.37	0.25	0.19	0.10	0.06
3-6	0.16	0.30	0.29	0.25	0.19	0.11
7-15	0.09	0.15	0.22	0.34	0.26	0.25
16-26	0.04	0.06	0.12	0.11	0.17	0.13
27-52	0.00	0.01	0.03	0.01	0.13	0.24
53-96	0.00	0.00	0.01	0.01	0.03	0.12
Other U.S.	0.00	0.00	0.01	0.00	0.02	0.04
International	0.09	0.10	0.07	0.09	0.10	0.06

*Notes:* This transition matrix displays the percentage of faculty in a given tier (columns) that come from the different tiers of Ph.D. programs (rows). Panel A is for male professors, Panel B is for female professors, Panel C is for assistant professors, and Panel D is for full professors.

Table A.6: BA Universities with Highest Number of Faculty Graduates

BA	N	Cum_Perc_All	Cum_Perc_US
Harvard University	106	4	7.6
University of California–Berkeley	52	6	11.3
Princeton University	44	7.6	14.5
Yale University	40	9.1	17.3
Massachusetts Institute of Technology	37	10.5	20
University of Chicago	37	11.9	22.6
University of Michigan	29	13	24.7
Stanford University	26	14	26.6
University of Pennsylvania	23	14.9	28.2
Columbia University	21	15.6	29.7
Cornell University	20	16.4	31.2
Swarthmore College	20	17.2	32.6
University of Virginia	18	17.8	33.9
University of Wisconsin	18	18.5	35.2
Williams College	17	19.2	36.4
Brown University	16	19.8	37.5
Duke University	16	20.4	38.7
Northwestern University	16	21	39.8
University of California–Davis	16	21.6	41
University of Washington	15	22.1	42
Dartmouth College	14	22.7	43.1
Miami University of Ohio	14	23.2	44.1
Brigham Young University	13	23.7	45
Carleton College	13	24.2	45.9
College of William and Mary	13	24.7	46.8
Michigan State University	13	25.2	47.8
Georgetown University	12	25.6	48.6
Tufts University	12	26.1	49.5
University of Illinois–Urbana-Champaign	12	26.5	50.4
Washington University in St. Louis	12	27	51.2
Wesleyan University	12	27.4	52.1
California Institute of Technology	11	27.8	52.9
Indiana University	11	28.2	53.7
Oberlin College	11	28.7	54.4
University of California–Los Angeles	11	29.1	55.2
Amherst College	10	29.4	55.9
University of North Carolina	10	29.8	56.7
University of Texas–Austin	10	30.2	57.4
University of Notre Dame	9	30.5	58
Boston College	8	30.8	58.6
Pomona College	8	31.1	59.2
Purdue	8	31.4	59.7

*Notes:* This table displays the number of faculty produced by US B.A. department. Departments with fewer than 8 faculty are excluded. The cumulative percentage all column is the percentage over the entire sample, including those with international degrees (but excluding those with missing B.A. information). The cumulative percentage US column is computed only among those with nonmissing US BAs.

Table A.7: BA-Ph.D. Combinations with Highest Number of Graduates

BA	PhD	N
Harvard University	Harvard University	47
Harvard University	Massachusetts Institute of Technology	19
Yale University	Massachusetts Institute of Technology	17
University of California–Berkeley	University of California–Berkeley	13
University of Chicago	University of Chicago	11
Princeton University	Stanford University	10
Massachusetts Institute of Technology	Massachusetts Institute of Technology	9
Harvard University	Stanford University	8
Princeton University	Harvard University	8
Yale University	Harvard University	8
Harvard University	University of California–Berkeley	7
Massachusetts Institute of Technology	Harvard University	7
Princeton University	Massachusetts Institute of Technology	7
Harvard University	Princeton University	6
Stanford University	Stanford University	6
University of California–Berkeley	Harvard University	6
University of California–Berkeley	Stanford University	6
Amherst College	Massachusetts Institute of Technology	5
Cornell University	University of California–Berkeley	5
Harvard University	University of Chicago	5
Harvard University	Yale University	5
Swarthmore College	Yale University	5
University of Michigan	University of California–Berkeley	5
University of Pennsylvania	Massachusetts Institute of Technology	5
Brown University	Harvard University	4
Massachusetts Institute of Technology	Princeton University	4
Stanford University	Massachusetts Institute of Technology	4
University of California–Berkeley	Massachusetts Institute of Technology	4
University of California–Berkeley	University of California–Los Angeles	4
University of California–Berkeley	Yale University	4
University of Chicago	Harvard University	4
University of Illinois–Urbana-Champaign	University of Illinois–Urbana-Champaign	4
University of Michigan	University of Wisconsin	4
University of Pennsylvania	Harvard University	4
University of Washington	University of Chicago	4
Wesleyan University	Massachusetts Institute of Technology	4

*Notes:* This table displays the number of faculty produced by US BA-Ph.D. combinations. Combinations with fewer than 4 faculty are excluded.

Table A.8: Departments, by Percentage of Faculty from a Given Ph.D. Program

PhD Origin	Department	Percent
University of Chicago	Clemson University	38
Massachusetts Institute of Technology	Harvard University	33
Harvard University	Massachusetts Institute of Technology	30
Massachusetts Institute of Technology	Massachusetts Institute of Technology	30
Harvard University	Boston University	29
Stanford University	Stanford University	27
Massachusetts Institute of Technology	Northwestern University	27
Harvard University	University of California–Berkeley	27
Massachusetts Institute of Technology	Northeastern University	27
Harvard University	Brown University	26
Harvard University	Harvard University	26
Yale University	Johns Hopkins University	25
New School	University of Utah	24
Massachusetts Institute of Technology	Brandeis University	23
University of California–Berkeley	University of Wyoming	23
University of Chicago	University of Miami	23
University of Pennsylvania	University of Miami	23
Harvard University	Stanford University	23
Harvard University	University of California–San Diego	22
University of Pennsylvania	University of North Carolina	22
Harvard University	University of Michigan	21
Johns Hopkins University	West Virginia University	21
Massachusetts Institute of Technology	University of California–Berkeley	21
University of California–Berkeley	University of California–Santa Barbara	21
Northwestern University	Duke University	20
Harvard University	Princeton University	20
George Mason University	George Mason University	20
University of California–Berkeley	University of California–San Diego	20
Northwestern University	Cornell University	19
Stanford University	University of California–Santa Cruz	19
Massachusetts Institute of Technology	Yale University	19
Massachusetts Institute of Technology	Stanford University	18
Yale University	University of Wisconsin	18
Northwestern University	University of Florida	18
University of Michigan	University of Wisconsin–Milwaukee	18
University of Minnesota	Carnegie Mellon University	17
Harvard University	University of Chicago	17
Harvard University	Columbia University	17
Massachusetts Institute of Technology	Boston University	17
Stanford University	University of California–Los Angeles	16
Harvard University	Binghamton University	16
University of California–San Diego	University of California–Riverside	16
University of California–Berkeley	University of Illinois–Urbana-Champaign	15
University of Chicago	Pennsylvania State University	15
University of Wisconsin	University of Oregon	15
Yale University	University of Illinois–Urbana-Champaign	15
Massachusetts Institute of Technology	Princeton University	15
Harvard University	Johns Hopkins University	15

*Notes:* This table displays the number of faculty produced by US Ph.D.-Department combinations. Combinations with fewer than 3 faculty are excluded.