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Committee on the Status of Women in the Economics Profession (CSWEP) Annual Survey of U.S. Economics Departments, United States, 1994-2020

American Economic Association. Committee on the Status of Women in the Economics Profession

Survey Report 2020

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IV. Status of Women in the Economics Profession[1]

A. Women's Status in the Economics Profession: Summary

This report presents the results of the 2020 CSWEP survey of U.S. economics departments. It compares the top ranked economics departments – which produce the vast majority of faculty in PhD granting departments – to all PhD and non-PhD granting departments. It also examines gender differences in outcomes in the PhD job market and progress (and attrition) of women through the academic ranks. After a long period of stagnation in the representation of women in economics, the last few years have begun to show a promising uptick. The share of women in the faculty of PhD-granting economics departments has increased each year since 2017, reaching 25.0%, its highest level ever, in 2020 (Table 1). At every level of the professoriate, the female share is higher in 2020 than at any point in the past. The share of women entering PhD programs has also increased each of the last three years, reaching 35.9% in 2020. The increases of the last three years are small, but they suggest a hopeful inflection. The female share of the first year class first reached 35% in 2003, peaked at 35.8% in 2008, and then stayed between 30 and 33 percent until 2018. There has been no increase in the share of new PhDs going to women, but the female share of assistant professors has also reached a new high of 31.0%. Another sign of progress in 2020 is that a record twelve top-twenty departments have first year classes that are at least 35% female (Table 7). Note that despite this progress, there are still more women in non-tenure track positions (261) in PhD-granting economics departments than either full (234) or associate (191) professors (Table 1) and women make up less than a quarter of the incoming class in five of the top twenty departments (Table 7).

The share of women among undergraduate economics majors at these same schools has increased (from 32.1% in 1998 to 34.1% in 2020), but is still well below parity, and does not approach the 55% share of women in the undergraduate population.[2]

In 1971 the AEA established CSWEP as a standing committee to monitor the status and promote the advancement of women in the economics profession. In 1972 CSWEP undertook a broad survey of economics departments and found that women represented 7.6% of new PhDs, and 8.8% of assistant, 3.7% of associate, and 2.4% of full professors. In the two decades after CSWEP's first survey, there was significant improvement in women's representation in economics. By 1994, women made up almost a third of new PhD students

[1] This survey report is written by Margaret Levenstein, CSWEP Associate Chair and Survey Director. We gratefully acknowledge the assistance of Dawn Zinsser in the administration and analysis of the survey.

[2] According to the National Center for Science and Engineering Statistics report on *Women, Minorities, and Persons with Disabilities in Science and Engineering*, 55% of full-time undergraduates are female (National Science Foundation, National Center for Science and Engineering Statistics. 2019. Women, Minorities, and Persons with Disabilities in Science and Engineering: 2019. Special Report NSF 19-304. Alexandria, VA. Available at https://www.nsf.gov/statistics/wmpd).

and almost a quarter of assistant professors in economics departments with doctoral programs. The share of associate and full professors who were women had almost tripled.

Progress at increasing the representation of women continued through the early 2000s and then essentially stopped. While the shares of women in the more senior ranks of the professoriate continued to increase as women progressed through the leaky academic pipeline, the share of women entering economics PhD programs peaked at 35.8% in 2008 and has not reached that level since (Table 1). The share of women receiving economics PhDs and becoming assistant professors reached 29% in 2005 and did not exceed that until 2019. Similarly the share of new economics PhDs going to women has been essentially flat since 2006. Hopefully, the small but positive changes in the last two to three years are the beginning of a new period of sustained improvements in the representation of women in the economics profession.

B. The CSWEP Annual Surveys, 1972-2020

In fall 2020 CSWEP surveyed 126 doctoral departments and 111 non-doctoral departments. This report analyzes the responses provided by 125 doctoral and 100 non-doctoral departments – a remarkable achievement while most were operating remotely due to the COVID-19 pandemic and a sign of the importance that many in the economics profession attach to the status of women in our profession.[3] The non-doctoral sample is based on the listing of "Baccalaureate Colleges – Liberal Arts" from the *Carnegie Classification of Institutions of Higher Learning* (2000 Edition). Starting in 2006 the survey was augmented to include departments in research universities that offer a Master's degree but not a PhD degree program in economics. We have harmonized and documented the departmental-level data from the 1990s to the current period to improve our analysis of long-run trends in the profession. Department-level longitudinal reports are provided to all responding departments; these reports are shared with department chairs and CSWEP liaisons on an annual basis. Previous years of the survey are accessible as ICPSR study 37118 at https://doi.org/10.3886/ICPSR37118.v4.[4]

C. 2020 Survey Results

In 2020 the share of tenure-track faculty in PhD-granting economics departments who are women reached an all-time high at 21.7% (Table 1, Figure 1). The shares of women at each

[3] We handle missing data as follows. We impute responses for missing items or non-responding departments. In years when non-responders to the CSWEP survey did respond to the AEA's Universal Academic Questionnaire (UAQ), we use UAQ data to impute missing responses. When the department responded to neither CSWEP nor UAQ, we use linear interpolation from survey responses in other years. Table 8 and appendix figures provide more detail on response rates and the impact of imputation on reported results. We are very grateful to Charles C. Scott and the American Economic Association for sharing the UAQ data with us.
[4] Aggregate time series data are publicly available. Department-level panel data are available with a restricted data use agreement. The data are updated annually.

level of the professoriate – assistant, associate, and full – reached all-time highs. Perhaps most importantly, after having been flat since 2005, the share of assistant professors in PhD-granting departments increased in each of the last three years. Progress in doctoral students is not as striking: while the share of some in the first year class increased in each of the last three years, it is still below the share reached in 2008. Women make up less than a quarter of all faculty in PhD-granting departments, and over a quarter of all female faculty in PhD-granting departments are in non-tenure track positions.

Turning to the 21 economics departments that make up the "top twenty," and produce the vast majority of faculty who teach in PhD-granting departments, we see a consistent story. There are three more female professors in 2020 than there were in 2019, and the number and share of women at the full level has increased for the last three years (Table 2b). The number and share of associate professors actually fell last year, and the year before that. This negative trend at the associate level may reflect promotion or attrition of individuals, but taking the longer view, it is clearly the result of the stagnation in the number of female assistant professors in this group of departments. It had reached 27% in 2008, when there were a total of 63 female assistant professors in "top 20" departments. In the decade between 2010 and 2019, there were on average 43.5 female assistant professors in these departments. In 2020, the number of female assistant professors in this group reached 50 for the first time since 2008. Women still make up a smaller share of assistant professors than they did in 2006. One sign of progress is that both the top 10 and the top 20 increased both the share and the number of women in the entering PhD class. Women make up 32.6% of new students in top ten departments, the highest fraction ever.

Turning to an examination of non-doctoral departments, Figure 2 and Table 3 show a similar pattern to that observed in PhD-granting departments.[5] The share of faculty who are women is higher than in PhD-granting departments, at every level of the professoriate, but there has been remarkably little change in this century. In general, the share female falls as the research intensity of the department increases (e.g., from top 20 to top ten). The one exception is among undergraduates. In the top ten departments, women made up 35.8% of econ major undergrads; 37.2% of majors in the top 20; 34.1% in all PhD granting departments; and 38.9% in non-doctoral departments (Tables 1, 2, and 3). Both doctoral and non-doctoral programs rely on women to teach, with women making up 39.3% of all non-tenure track faculty in the former and 28.5% in the latter.

At every level of the academic hierarchy, from entering PhD student to full professor, women have been and remain a minority. Moreover, within the tenure track, from new PhD to full professor, the higher the rank, the lower the representation of women (Figure 1). In 2020 new doctorates were 34.7% female, falling to 31.0% for assistant professors, to 27.5% for tenured associate professors, and 14.8% for full professors. This pattern has been characterized as a "leaky pipeline." Our reliance on this leaky pipeline for incremental

[5] We report data on non-PhD departments beginning in 2006. The sample changed considerably in that year, expanding to include departments in universities that give masters. Figure 2 and Table 3 use a consistent panel of departments over time.

progress in women's representation in the profession depends on continued growth in entry, which has not occurred in this century. To the contrary, the pipeline seems to leak earlier in the academic pipeline, as the share of assistant professors who are female is no longer tracking those who complete their PhDs.

To provide a visual representation and estimates of this leaky pipeline, this report presents a simple lock-step model of typical academic career advancement (Figures 3 and 4). We track the gender composition of younger cohorts from when they enter graduate school and older cohorts from receipt of their degree. We compare the share female as the cohort progresses through academic ranks. CSWEP's model has long shown that women complete their PhDs and enter into assistant professor positions at proportions roughly equal proportions to their share as new graduate students for each cohort. Women have been less likely to transition to tenured associate or full professors, creating a leaky pipeline. While women continue to complete their PhDs at the same rate as men (compare the blue and red lines in Figure 3), they have disproportionately exited (or perhaps never entered) the assistant professor ranks prior to coming up for tenure (compare the red and green lines in Figures 3 and 4). As suggested above, a slightly more hopeful picture is suggested by the last few years of data. The estimated leakage of associate professors was smaller in 2019 and 2020 (note the convergence of the green and purple lines for the graduating classes of 2005 and 2006); this may also reflect the increased leakage from those cohorts into and while they were assistant professors. That is, there was real regression in women's status in economics; women receiving PhDs in 2005 and 2006 were less likely to be assistant professors seven years later, but those who persisted were less likely to exit at the full professor transition. The last two years suggest a reversal, as the estimated leakage of assistant professors was smaller in 2019 and 2020 (the green line approaches the red line for the classes of 2012 and 2013 in Figure 4).

Figure 5 shows the trend for women undergraduate senior majors (for PhD and non-PhD granting departments) over time. The female share is somewhat higher in non-PhD departments than in PhD-granting departments, but they have converged in recent years. Unfortunately, they have converged at around 35%, the maximum reached by PhD-granting departments, well below the 40% reached by undergrad-focused schools earlier in the century. The share female fell increased in 2020, at least in the non-PhD granting departments.

Tables 4, 5, and 6 provide snapshots of the job market experiences of women from different types of PhD programs. Women made up 27.7% of job candidates from the top 20 schools last year (Table 4) and almost 36% of all PhD students on the market (Table 5). While in 2019 women were "over-represented" in their placements in positions in PhD granting departments (relative to their share on the market), that was not true of students on the market in 2020. The number of students placed was down significantly, presumably because of the COVID-19 pandemic and its impact on the budgets of academic institutions. But in addition, women were less likely to be placed in PhD granting departments, whether they were coming from a top 10 or top 20 department. Table 5 presents the share female and

outcomes for job market candidates in PhD-granting departments outside the top 20. Just over 36% of job market candidates from these departments were female. Table 6 presents placement data slightly differently, showing where last year's job market candidates placed, by the rank of the originating department. Men coming from top 20 departments were more likely to place in a PhD-granting department than women from the same departments. Women, on the other hand, were more likely to take public sector positions, especially when coming from top ten schools. That is not true of new PhDs coming from lower ranked departments where there seems to be more gender equity in placements.

D. Conclusions

This report is more optimistic than those of previous years, with small increases in women's representation at all levels of tenure track faculty suggesting a hopeful change from the lack of progress over the previous decade and more. This progress cannot continue unless economics is able to increase the number of women studying economics at both the undergraduate and graduate levels. While the share of women in first year PhD programs has increased in each of the last three years, this progress has simply meant a return to the share that was reached in the early years of this century. Women make up a larger share of undergraduate majors, suggesting that a pool from which to attract graduate students does exist. However, even at the undergraduate level the share of women does not approach parity and it has not been increasing. Women are over-represented in non-tenure-track teaching jobs. Over a third of the female faculty in top twenty economics departments are in non-tenure track teaching positions. This may play a role in shaping how undergraduate women view the economics profession. The increases in the female share of the incoming PhD class and in assistant professors, where rapid change is most possible, suggest that the efforts and attention to the status of women in economics over the past few years can have a measurable impact.

CSWEP's many years of data on the evolution of faculty composition at the department level are unique in the social sciences and beyond. CSWEP now makes department-level longitudinal data available to individual departments so that they have this information to determine appropriate steps to achieve gender equity. Annual aggregate data and departmental-level data are available for research purposes in a manner that protects the confidentiality of the responding departments through the Inter-university Consortium for Political and Social Research and will be updated annually.

Figure 1. Pipeline for Departments with Doctoral Programs:
Percent of Doctoral Students and Faculty who are Women, 1994-2020

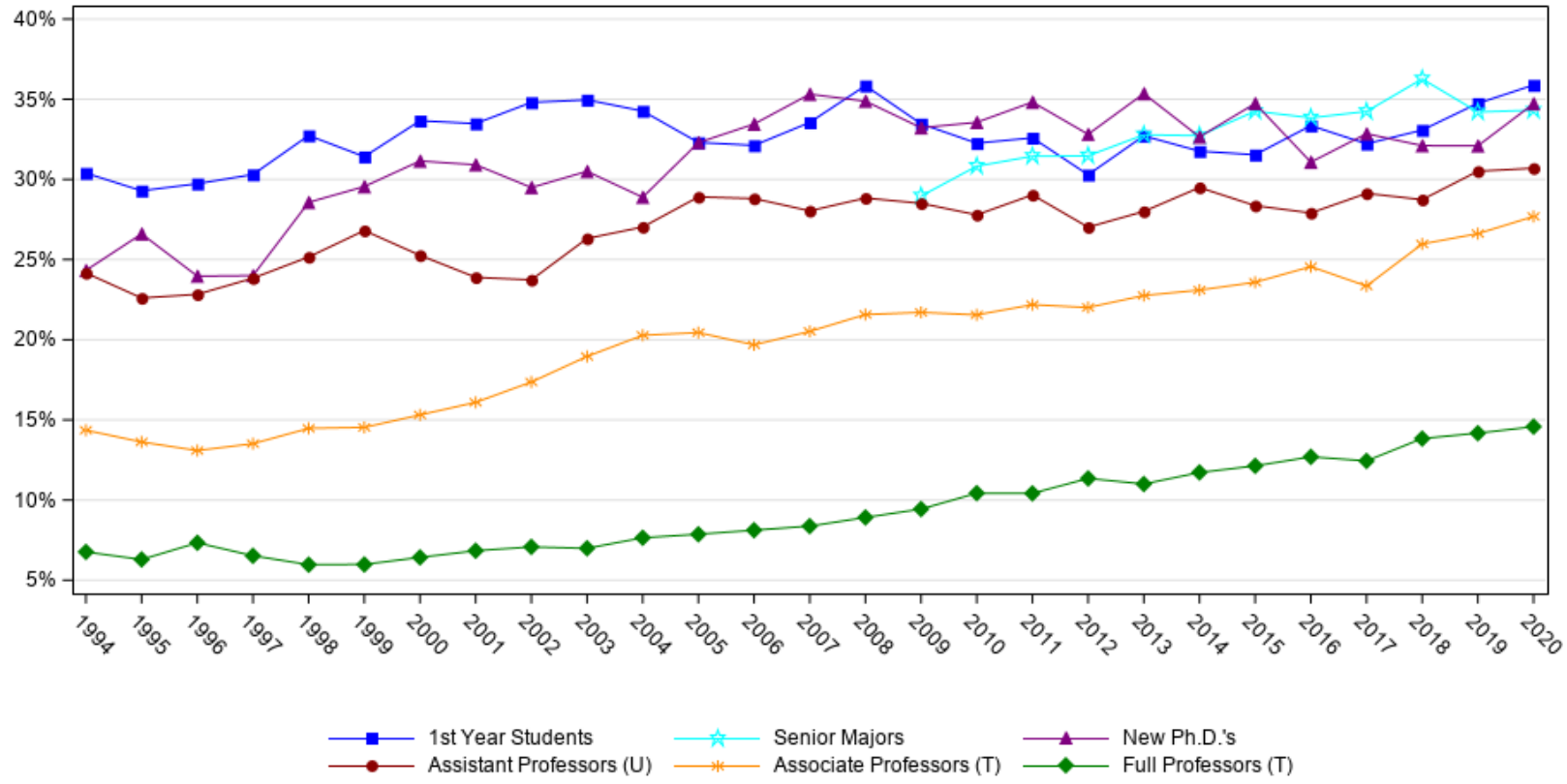


Figure 2. Pipeline for Departments without Doctoral Programs:
Percent of Students and Faculty who are Women, 2006-2020

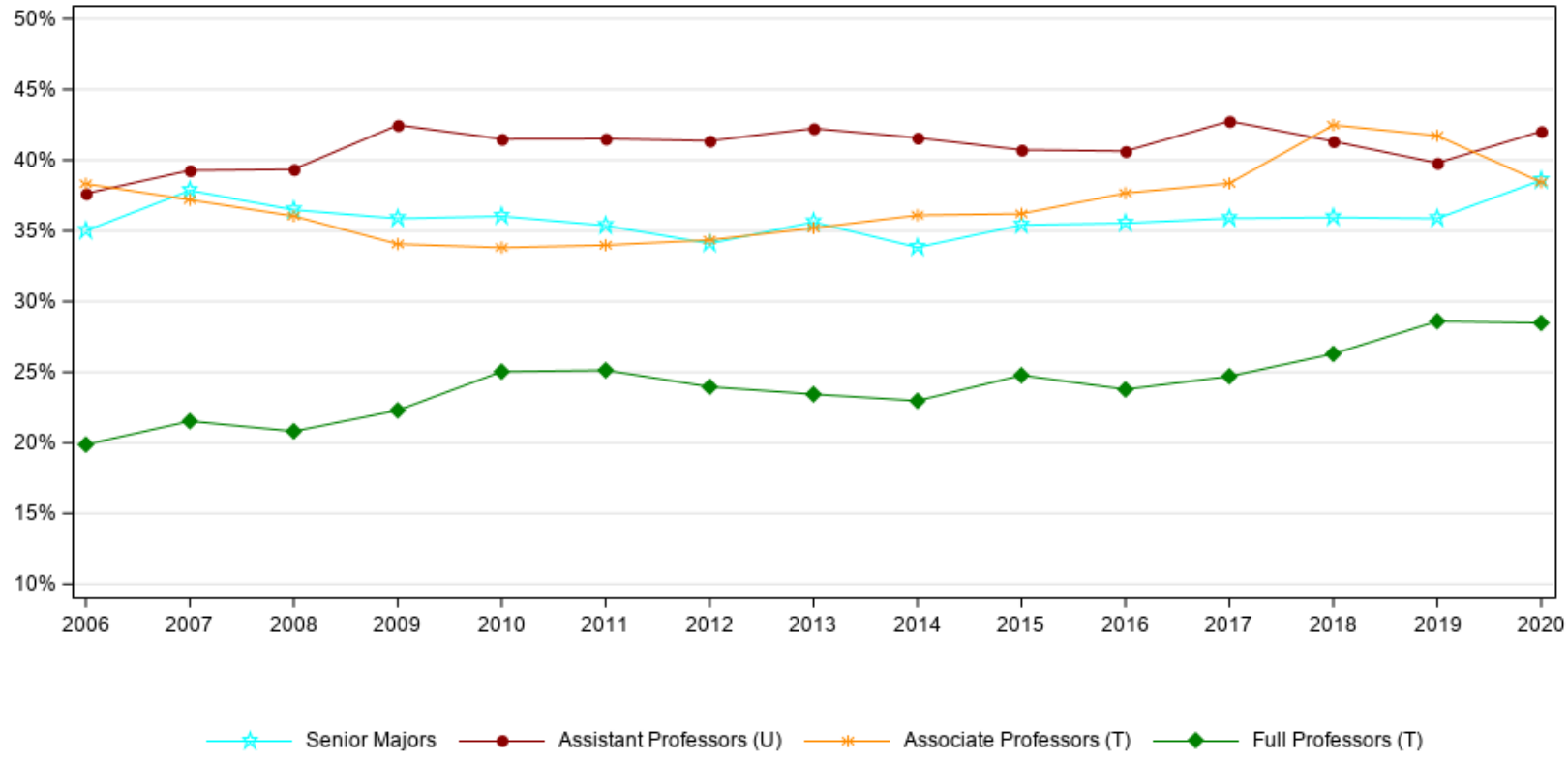


Figure 3. Lock-Step Model: Percentage of women, by entering PhD cohorts:
Matriculation, graduation and entry into first-year assistant professorship

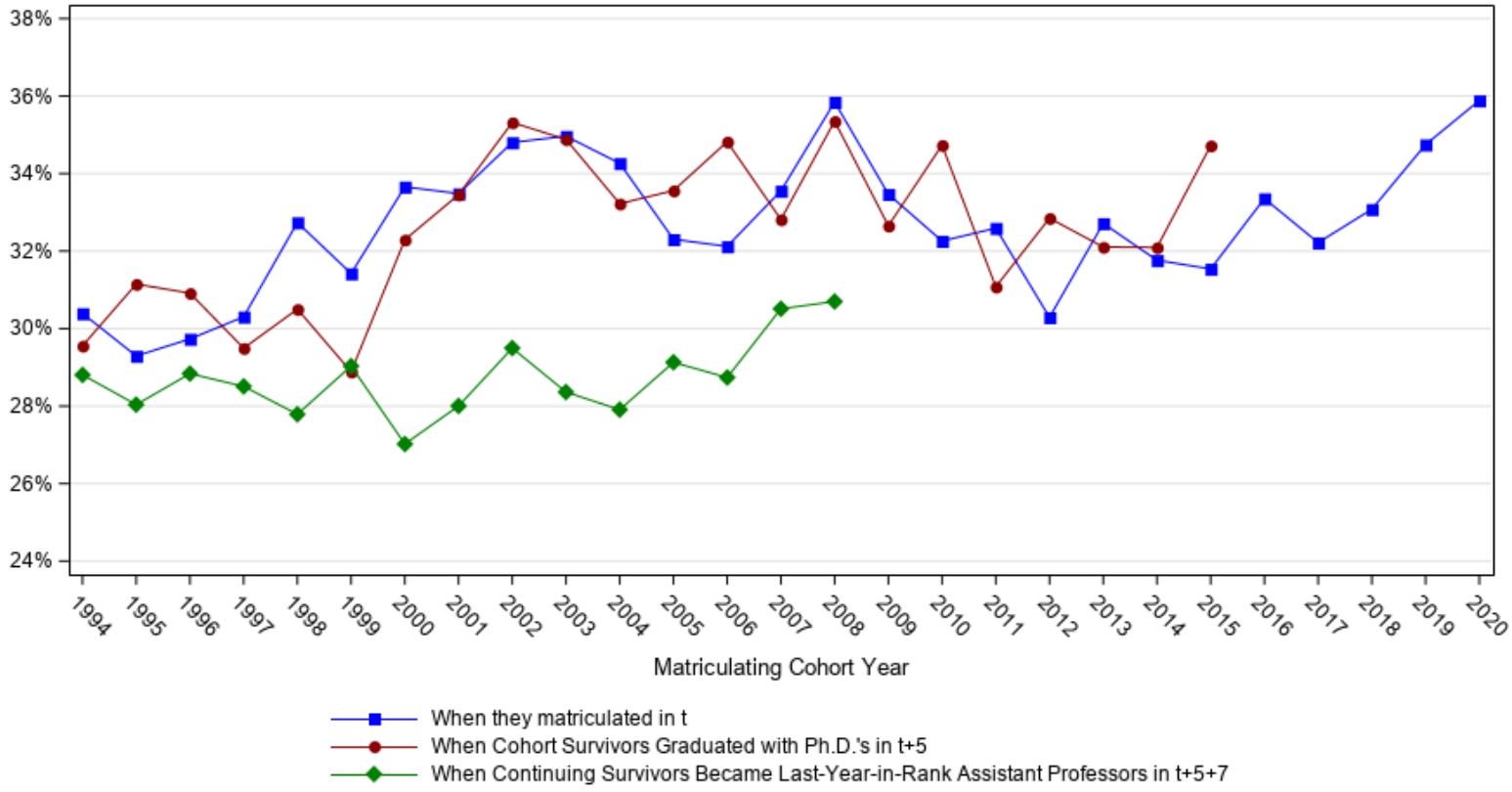


Figure 4. Lock-Step Model: Percentage of women, by receiving-PhD cohort:
Graduation, last year-in-rank assistant professorship, and last year-in-rank associate professors

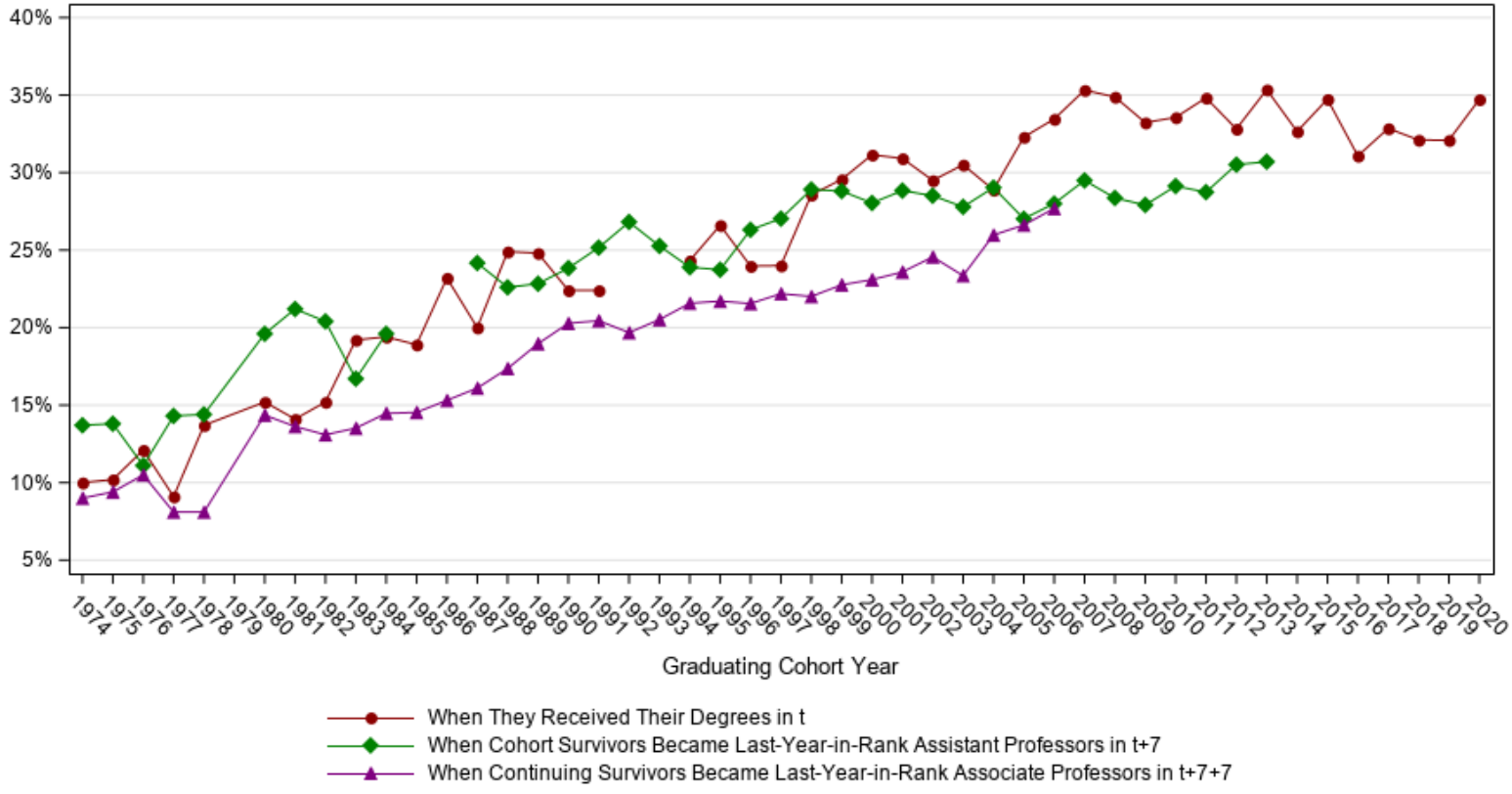
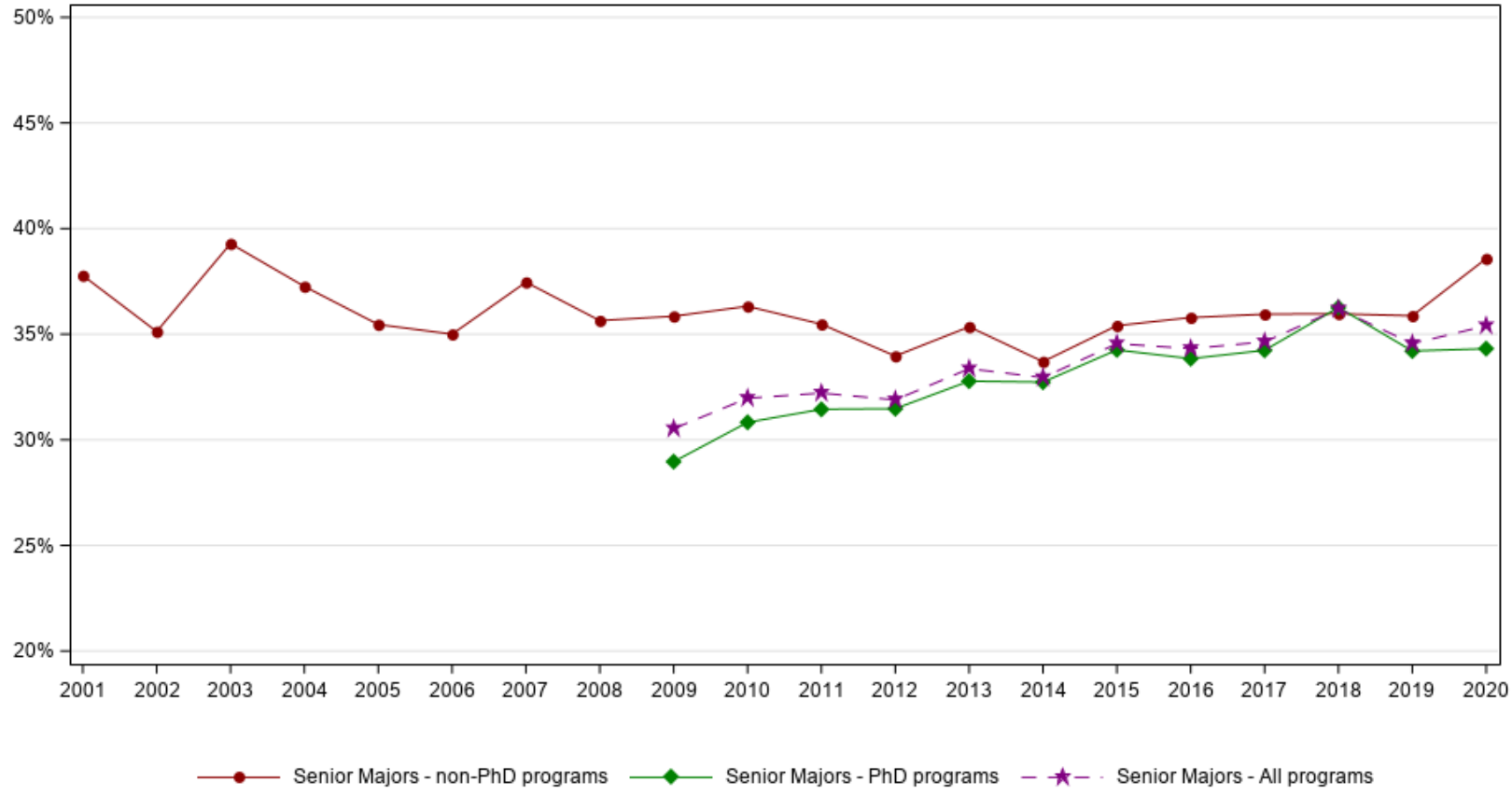


Figure 5: Undergraduate senior economics majors



**Note: CSWEP PhD survey began collecting senior major counts in 2009*

Table 1. The Pipeline for Departments with Doctoral Programs: Percent and Number of Doctoral Students and Faculty who are Women

	1994-1997	1998-2002	2003-2007	2008-2012	2013	2014	2015	2016	2017	2018	2019	2020
Faculty												
Full Professor												
Percent	6.8%	6.4%	7.8%	10.6%	10.9%	11.7%	12.1%	12.8%	12.5%	13.9%	14.2%	14.8%
Number	93.7	94.9	122.7	167.2	168.2	182.5	190.2	202.0	191.0	219.0	227.0	234.4
Associate Professor												
Percent	13.4%	15.6%	20.2%	22.3%	23.0%	23.2%	24.0%	25.3%	23.5%	26.0%	26.2%	27.5%
Number	74.5	85.4	113.0	134.3	136.8	149.9	155.9	173.5	157.0	174.0	184.0	191.3
Assistant Professor												
Percent	23.6%	24.3%	27.9%	28.4%	27.8%	29.0%	28.2%	27.9%	28.5%	28.6%	30.2%	31.0%
Number	136.5	144.3	198.2	223.2	211.2	226.5	231.7	232.0	245.5	236.0	247.0	249.4
All Tenure Track (Subtotal)												
Percent	12.1%	12.4%	15.3%	17.7%	17.9%	18.7%	19.0%	19.6%	19.4%	20.5%	21.1%	21.9%
Number	304.7	324.6	433.9	524.8	516.3	558.8	577.9	607.5	593.5	629.0	658.0	675.1
All Non-Tenure Track												
Percent	33.2%	30.9%	33.2%	34.5%	35.2%	37.8%	34.8%	35.1%	34.9%	36.9%	38.0%	39.3%
Number	38.7	90.8	150.7	209.4	181.5	223.3	296.7	311.0	324.0	234.0	285.3	260.7
All Faculty												
Percent	13.0%	14.3%	17.7%	20.5%	20.5%	21.9%	22.4%	23.1%	23.0%	23.3%	24.4%	25.0%
Number	343.4	415.5	584.6	734.1	697.8	782.2	874.6	918.5	917.5	863.0	943.3	935.8
Ph.D. Students												
Ph.D. Granted												
Percent	24.7%	29.9%	32.1%	33.9%	35.4%	32.7%	34.7%	31.1%	32.8%	32.1%	32.1%	34.7%
Number	213.5	264.2	325.2	366.5	391.2	356.7	403.8	372.0	361.0	370.0	345.0	374.9
ABD												
Percent	27.4%	30.6%	33.9%	33.8%	32.1%	32.2%	31.7%	31.7%	33.0%	32.7%	32.9%	32.6%
Number	643.0	845.7	1215.0	1314.7	1225.5	1345.0	1324.5	1428.0	1467.0	1470.0	1454.0	1465.6
First Year												
Percent	29.9%	33.2%	33.4%	32.9%	32.7%	31.8%	31.5%	33.4%	32.2%	33.1%	34.7%	35.9%
Number	443.4	516.0	567.0	555.9	478.0	504.0	498.0	516.0	491.0	475.0	541.0	459.8
Undergraduate Economics Majors Graduated												
Percent	32.0%	32.2%	31.7%	30.5%	32.1%	33.6%	33.2%	32.9%	34.0%	34.1%	33.4%	34.1%
Number	2491	3275	5103	5723	5731	7004	7753	7538	7894	8198	8342	8590
Undergraduate Senior Majors												
Percent	missing	missing	missing	30.7%	32.8%	32.7%	34.3%	33.8%	34.2%	36.3%	34.2%	34.3%
Number	missing	missing	missing	7589	5762	6682	6842	7148	7424	8413	8347	7434

*Notes: Entry and exit change the population universe. Any known Ph.D. programs are considered members of the population. Any non-respondents were imputed first with UAQ survey responses and, if those are unavailable, with linear interpolation. All programs responded to the 2019 survey. For five year intervals, simple averages are reported.

Table 2a. The Pipeline for Top Departments: Percent and Numbers of Faculty and Students who are Women

	All Top 10 Schools											
	1994-1997	*1998-2002*	*2003-2007*	*2008-2012*	*2013*	*2014*	*2015*	*2016*	*2017*	*2018*	*2019*	*2020*
Faculty												
Full Professor												
Percent	4.7%	7.1%	8.3%	8.9%	9.6%	9.7%	9.6%	9.2%	9.1%	10.7%	12.2%	12.5%
Number	10.8	17.8	21.5	25.8	28.0	27.0	27.0	26.0	27.0	33.0	39.0	39.0
Associate Professor												
Percent	12.5%	21.1%	16.4%	22.5%	23.3%	21.9%	25.0%	28.9%	30.8%	26.3%	21.2%	22.2%
Number	4.5	6.1	4.8	7.7	7.0	7.0	8.0	13.0	12.0	10.0	7.0	8.0
Assistant Professor												
Percent	20.4%	18.0%	22.7%	23.1%	17.0%	20.0%	21.6%	18.0%	20.2%	17.9%	19.8%	22.4%
Number	20.8	19.0	23.7	23.0	15.0	18.0	21.0	18.0	22.0	17.0	19.0	22.0
All Tenure Track (Subtotal)												
Percent	9.9%	11.1%	12.7%	13.3%	12.2%	13.0%	13.6%	13.3%	13.7%	13.6%	14.5%	15.5%
Number	36.0	42.9	50.0	56.5	50.0	52.0	56.0	57.0	61.0	60.0	65.0	69.0
All Non-Tenure Track												
Percent	34.7%	31.4%	40.0%	35.9%	35.2%	33.9%	44.3%	39.3%	33.3%	34.4%	35.7%	34.2%
Number	5.3	7.6	15.2	20.0	19.0	20.0	43.0	35.0	29.0	22.0	30.3	25.0
All Faculty												
Percent	10.8%	12.3%	15.1%	15.8%	14.8%	15.7%	19.5%	17.8%	16.9%	16.2%	17.9%	18.1%
Number	41.3	50.5	65.2	76.5	69.0	72.0	99.0	92.0	90.0	82.0	95.3	94.0
Ph.D. Students												
Ph.D. Granted												
Percent	24.6%	24.8%	28.6%	26.7%	31.3%	25.9%	25.9%	26.4%	28.4%	23.6%	29.9%	23.6%
Number	51.3	51.0	57.0	54.0	67.0	51.0	52.0	58.0	57.0	49.0	64.0	49.0
ABD												
Percent	22.9%	24.4%	28.0%	26.1%	30.4%	25.4%	25.1%	25.4%	24.6%	26.9%	25.2%	24.7%
Number	134.8	184.0	240.2	218.8	255.0	217.0	225.0	247.0	221.0	264.0	234.0	233.0
First Year												
Percent	24.5%	28.1%	26.3%	24.4%	27.9%	24.0%	23.9%	29.8%	25.8%	26.1%	32.1%	32.6%
Number	69.3	72.5	66.8	61.0	65.0	62.0	52.0	68.0	66.0	59.0	71.0	71.0
Undergraduate Economics Majors Graduated												
Percent	31.1%	34.1%	35.7%	35.5%	39.6%	37.2%	36.9%	36.0%	39.6%	36.3%	36.8%	35.8%
Number	372	668	777	744	866	849	895	907	990	866	981	979
Undergraduate Senior Majors												
Percent	missing	missing	missing	38.7%	38.0%	38.6%	37.3%	36.6%	38.3%	38.6%	36.2%	36.2%
Number	missing	missing	missing	967	994	1003	898	924	984	947	993	996

Table 2b. The Pipeline for Top Departments: Percent and Numbers of Faculty and Students who are Women

	All Top 20 Schools											
	1994-1997	*1998-2002*	*2003-2007*	*2008-2012*	*2013*	*2014*	*2015*	*2016*	*2017*	*2018*	*2019*	*2020*
Faculty												
Full Professor												
Percent	4.3%	6.4%	7.7%	8.8%	9.6%	10.0%	10.1%	11.3%	10.2%	11.6%	12.7%	13.1%
Number	17.3	29.5	36.5	42.8	49.0	49.0	50.0	58.0	53.0	62.0	69.0	72.0
Associate Professor												
Percent	11.9%	17.1%	16.3%	22.5%	19.1%	20.4%	19.6%	20.2%	20.6%	20.6%	16.8%	16.4%
Number	9.8	11.6	10.1	19.9	17.0	19.0	19.0	22.0	20.0	20.0	16.0	15.0
Assistant Professor												
Percent	18.0%	18.2%	24.5%	22.9%	18.7%	21.3%	21.5%	21.2%	20.7%	21.5%	22.3%	25.0%
Number	31.8	35.3	50.6	49.4	37.0	43.0	44.0	44.0	43.0	45.0	43.0	50.0
All Tenure Track (Subtotal)												
Percent	9.0%	10.6%	13.1%	14.1%	12.9%	14.1%	14.2%	14.9%	14.0%	15.1%	15.4%	16.3%
Number	58.8	76.4	97.2	112.1	103.0	111.0	113.0	124.0	116.0	127.0	128.0	137.0
All Non-Tenure Track												
Percent	37.3%	32.3%	41.5%	34.3%	38.9%	39.6%	42.8%	39.3%	38.2%	32.2%	39.0%	40.4%
Number	11.5	16.7	30.2	46.5	44.0	57.0	83.0	70.0	72.0	48.0	75.3	70.5
All Faculty												
Percent	10.2%	12.0%	15.6%	17.0%	16.1%	18.1%	19.8%	19.2%	18.5%	17.7%	19.8%	20.4%
Number	70.3	93.1	127.4	158.6	147.0	168.0	196.0	194.0	188.0	175.0	203.3	207.5
Ph.D. Students												
Ph.D. Granted												
Percent	25.0%	24.9%	29.5%	28.2%	33.2%	29.3%	28.4%	26.2%	26.9%	25.3%	32.0%	27.7%
Number	84.3	84.1	102.1	100.6	124.0	102.0	110.0	112.0	98.0	98.0	123.0	103.0
ABD												
Percent	23.4%	26.2%	29.9%	28.2%	30.3%	26.5%	25.7%	26.7%	27.0%	27.3%	25.9%	26.9%
Number	218.9	297.4	407.1	401.5	444.0	427.0	390.0	451.0	444.0	447.0	396.0	439.0
First Year												
Percent	25.8%	29.3%	28.4%	27.6%	28.4%	27.4%	24.9%	29.5%	26.0%	29.9%	32.5%	34.4%
Number	124.1	142.5	135.4	129.2	121.0	123.0	112.0	130.0	116.0	126.0	167.0	128.0
Undergraduate Economics Majors Graduated												
Percent	32.2%	33.9%	35.5%	35.5%	39.3%	37.4%	37.2%	37.3%	38.8%	37.0%	36.8%	37.2%
Number	866	1362	1906	1943	2241	2290	2494	2502	2512	2431	2340	2416
Undergraduate Senior Majors												
Percent	missing	missing	missing	36.1%	39.1%	37.8%	37.8%	37.5%	37.4%	39.7%	39.0%	39.4%
Number	missing	missing	missing	2326	2627	2676	2243	2226	2252	2702	2589	2527

**Notes: For each category, the table gives women as a percentage of total. For the five-year intervals, simple averages of annual percentages are reported.*

Table 3. Percent Women Faculty and Students: Economics Departments without Doctoral Programs

	2006	*2007*	*2008*	*2009*	*2010*	*2011*	*2012*	*2013*	*2014*	*2015*	*2016*	*2017*	*2018*	*2019*	*2020*
Faculty															
Full Professor															
Percent	19.7%	21.1%	20.3%	21.9%	24.6%	24.6%	23.7%	23.3%	23.3%	23.8%	23.6%	24.7%	26.7%	28.8%	27.9%
Number	80.4	89.8	92.8	107.2	117.4	119.8	113.6	107.3	108.0	111.0	107.0	115.5	121.5	132.5	128.0
Associate Professor															
Percent	37.2%	35.9%	34.4%	32.6%	32.4%	32.9%	33.9%	35.6%	35.0%	36.1%	37.5%	38.8%	42.2%	41.9%	38.9%
Number	92.9	93.3	92.9	89.9	94.2	94.8	93.4	93.2	95.2	96.8	97.1	104.8	114.5	119.5	108.2
Assistant Professor															
Percent	38.0%	39.2%	39.4%	42.2%	40.2%	40.3%	40.2%	40.4%	41.8%	41.4%	40.5%	42.4%	40.9%	40.2%	41.9%
Number	91.7	100.3	106.2	114.5	118.9	123.0	122.4	113.6	119.3	127.2	127.1	133.5	131.2	139.8	152.7
All Tenure Track (Subtotal)															
Percent	29.4%	30.1%	29.3%	30.1%	31.1%	31.3%	31.1%	31.3%	31.6%	32.2%	32.3%	33.6%	35.0%	35.8%	35.3%
Number	265.0	283.3	291.9	311.6	330.5	337.5	329.4	314.0	322.5	335.0	331.2	353.8	367.2	391.8	388.8
All Non-Tenure Track															
Percent	34.7%	35.3%	37.1%	29.5%	37.7%	35.4%	32.9%	36.0%	35.6%	36.6%	35.3%	33.3%	27.5%	34.7%	28.5%
Number	82.6	87.3	98.0	83.2	94.3	90.4	98.9	64.3	84.0	132.0	114.0	93.0	46.7	83.3	58.2
All Faculty															
Percent	30.5%	31.2%	30.9%	29.9%	32.3%	32.1%	31.5%	32.0%	32.3%	33.3%	33.0%	33.5%	34.0%	35.6%	34.2%
Number	347.7	370.6	389.9	394.8	424.8	427.9	428.3	378.3	406.5	467.0	445.2	446.8	413.8	475.2	447.0
Students															
Undergraduate Economics Majors															
Percent	34.0%	33.1%	33.3%	34.7%	35.3%	34.3%	33.9%	34.7%	34.1%	33.9%	35.6%	35.9%	35.3%	35.6%	38.9%
Number	1406.8	1449.7	1580.2	1678.4	1754.8	1713.1	1581.1	1441.0	1826.6	2093.8	2255.1	2133.3	2230.5	2191.5	2797.5
Undergraduate Senior Majors															
Percent	35.0%	37.9%	36.5%	35.9%	36.0%	35.4%	34.1%	35.6%	33.8%	35.4%	35.5%	35.9%	35.9%	35.9%	38.6%
Number	1549.3	1805.4	1784.3	1917.6	1935.2	1871.8	1793.5	1697.6	1826.8	2340.2	2301.9	2310.7	2383.8	2298.7	2854.2
M.A. Students Graduated															
Percent	33.2%	43.1%	33.3%	38.4%	35.4%	39.7%	39.2%	32.2%	39.9%	40.1%	39.9%	38.8%	38.2%	36.8%	39.8%
Number	17.7	61.5	77.7	89.3	81.8	66.9	56.3	34.0	59.0	55.0	43.5	40.0	20.0	63.5	39.3
M.A. Students Expected to Graduate															
Percent	missing	missing	missing	missing	missing	missing	missing	42.2%	37.4%	34.2%	42.3%	35.5%	35.2%	32.8%	34.9%
Number	missing	missing	missing	missing	missing	missing	missing	43.0	61.8	49.3	43.3	60.0	34.0	64.0	25.0
N respondents															
Number	106.0	106.0	107.0	107.0	109.0	109.0	109.0	110.0	110.0	110.0	111.0	111.0	111.0	111.0	111.0

**Notes: For each category, the table gives women as a percentage of women plus men. For the five-year intervals, simple averages of annual percentages are reported.*

Table 4. Percent Women in Job Placements of New Ph.D.s from the Top Economics Departments

	All Top 10 Schools								*All Top 20 Schools*							
	1994-1997	*1998-2002*	*2003-2007*	*2008-2012*	*2013-2017*	*2018*	*2019*	*2020*	*1994-1997*	*1998-2002*	*2003-2007*	*2008-2012*	*2013-2017*	*2018*	*2019*	*2020*
U.S.-based, All Types																
Percent	24.9%	29.7%	30.1%	26.2%	27.7%	20.7%	37.7%	25.9%	26.7%	29.1%	31.6%	29.3%	28.3%	23.8%	35.6%	28.8%
Number	35.8	39.1	45.3	35.6	38.2	31.0	52.0	42.0	58.9	59.9	80.0	66.1	71.0	64.0	88.0	78.0
Faculty, PhD Granting																
Percent	22.1%	25.9%	29.8%	24.5%	28.0%	17.6%	42.6%	23.0%	24.0%	26.3%	30.9%	27.8%	27.3%	20.2%	40.9%	24.4%
Number	16.0	18.9	26.8	17.8	19.4	13.0	29.0	14.0	27.0	29.5	44.4	33.2	29.4	22.0	38.0	22.0
Faculty, Non-PhD Granting																
Percent	42.1%	50.1%	26.5%	35.1%	34.4%	14.3%	0.0%	20.0%	41.8%	50.2%	30.8%	41.2%	33.0%	14.3%	28.6%	10.0%
Number	6.8	5.3	2.4	2.5	2.0	1.0	0.0	1.0	8.8	7.3	6.6	6.9	6.0	1.0	4.0	1.0
Non-Faculty, Any Academic																
Percent	missing	missing	missing	missing	35.4%	26.7%	28.6%	33.3%	missing	missing	missing	missing	28.9%	28.6%	19.2%	34.8%
Number	missing	missing	missing	missing	3.4	4.0	2.0	5.0	missing	missing	missing	missing	6.0	8.0	5.0	8.0
Public Sector																
Percent	24.1%	30.3%	31.4%	29.9%	27.2%	10.0%	36.4%	32.3%	28.3%	28.8%	33.6%	28.9%	26.4%	23.1%	37.5%	32.7%
Number	6.5	8.5	7.3	6.9	4.6	1.0	8.0	10.0	12.3	12.9	14.2	11.5	9.8	9.0	15.0	16.0
Private Sector																
Percent	22.4%	30.8%	28.6%	24.1%	25.7%	27.3%	34.2%	24.0%	25.2%	28.9%	31.7%	28.5%	29.7%	27.9%	35.1%	31.3%
Number	6.5	6.4	8.8	8.4	8.8	12.0	13.0	12.0	10.9	10.2	14.8	14.5	19.8	24.0	26.0	31.0
Foreign-based, All Types																
Percent	17.8%	14.5%	23.1%	22.9%	20.2%	27.7%	24.2%	25.9%	17.8%	19.6%	22.7%	24.4%	24.8%	26.7%	28.8%	25.4%
Number	5.8	4.3	9.1	12.3	8.4	13.0	15.0	15.0	10.8	11.2	18.4	26.8	22.0	28.0	34.0	29.0
Academic																
Percent	24.5%	13.4%	25.3%	23.0%	23.1%	27.3%	25.0%	28.3%	19.8%	19.9%	25.2%	22.3%	26.5%	26.7%	32.2%	27.3%
Number	5.3	3.0	7.1	9.3	6.8	9.0	11.0	15.0	8.5	8.2	13.6	17.7	16.8	20.0	28.0	27.0
Non-Academic																
Percent	6.1%	17.7%	18.1%	22.6%	11.6%	28.6%	22.2%	0.0%	13.2%	17.7%	17.6%	29.6%	20.6%	26.7%	19.4%	13.3%
Number	0.5	1.3	2.0	3.1	1.6	4.0	4.0	0.0	2.3	3.0	4.8	9.1	5.2	8.0	6.0	2.0
Unknown Placement																
Percent	missing	missing	missing	missing	missing	100.0%	100.0%	50.0%	missing	missing	missing	missing	missing	33.3%	33.3%	50.0%
Number	missing	missing	missing	missing	missing	2.0	1.0	1.0	missing	missing	missing	missing	missing	2.0	1.0	1.0
No Placement																
Percent	19.6%	31.7%	6.7%	0.0%	6.7%	50.0%	0.0%	0.0%	18.5%	34.7%	23.4%	18.1%	25.7%	50.0%	33.3%	16.7%
Number	6.5	2.5	0.6	0.0	0.2	1.0	0.0	0.0	9.0	4.0	3.5	1.2	0.8	2.0	2.0	1.0
Total on the Market																
Percent	23.3%	27.1%	28.0%	24.8%	25.9%	23.4%	33.3%	26.0%	24.1%	27.2%	29.4%	27.5%	27.4%	25.0%	33.4%	27.7%
Number	48.0	45.9	55.0	47.9	46.8	47.0	68.0	58.0	78.6	75.1	101.9	94.1	93.8	96.0	125.0	109.0

Table 5. Percent Women in Job Placements of New Ph.D.s from All Other Economics Departments

	All Other Schools							
	1994-1997	*1998-2002*	*2003-2007*	*2008-2012*	*2013-2017*	*2018*	*2019*	*2020*
U.S.-based, All Types								
Percent	29.4%	33.3%	35.6%	38.7%	37.6%	36.9%	34.6%	36.3%
Number	90.7	119.4	169.3	209.7	170.9	174.0	159.0	140.3
Faculty, PhD Granting Department								
Percent	31.3%	30.5%	31.8%	36.8%	33.3%	39.0%	36.9%	36.0%
Number	27.9	32.7	50.9	65.7	36.5	30.0	31.0	25.1
Faculty, Non-PhD Granting Department								
Percent	29.1%	35.6%	40.9%	38.8%	38.6%	35.7%	35.7%	40.3%
Number	29.4	33.1	57.4	62.3	48.8	50.0	41.0	29.0
Non-Faculty, Any Academic Department								
Percent	missing	missing	missing	missing	30.8%	41.4%	33.8%	30.9%
Number	missing	missing	missing	missing	15.4	29.0	22.0	17.0
Public Sector								
Percent	30.9%	35.6%	36.4%	36.9%	35.5%	28.0%	31.1%	31.9%
Number	18.9	26.8	28.6	37.1	22.5	14.0	19.0	23.0
Private Sector								
Percent	24.9%	32.7%	33.6%	44.0%	45.3%	37.8%	34.1%	39.3%
Number	14.4	26.8	32.4	44.6	47.7	51.0	46.0	46.1
Foreign-based, All Types								
Percent	17.8%	27.2%	26.3%	30.3%	31.9%	29.6%	24.1%	35.8%
Number	23.8	29.9	42.3	69.2	57.7	66.0	41.0	66.1
Academic								
Percent	21.2%	30.6%	29.8%	32.5%	34.7%	30.6%	25.4%	34.6%
Number	17.6	18.5	26.7	44.1	42.7	49.0	32.0	46.1
Non-Academic								
Percent	12.3%	23.0%	21.9%	26.9%	25.9%	27.0%	20.5%	38.8%
Number	6.2	11.4	15.7	25.0	15.0	17.0	9.0	20.0
Unknown Placement								
Percent	missing	missing	missing	missing	missing	8.0%	7.7%	58.3%
Number	missing	missing	missing	missing	missing	2.0	1.0	7.0
No Placement								
Percent	21.7%	25.9%	35.0%	37.2%	42.7%	53.7%	35.9%	30.1%
Number	21.1	13.5	19.4	35.6	15.3	51.0	14.0	17.3
Total on the Market								
Percent	25.1%	31.2%	33.4%	36.3%	36.3%	36.0%	31.5%	36.0%
Number	135.5	162.8	231.1	314.4	243.9	293.0	215.0	230.6

**Note: For five year intervals, simple averages are reported*

Table 6. New Ph.D. Job Placement by Gender and Department Rank, Current Year

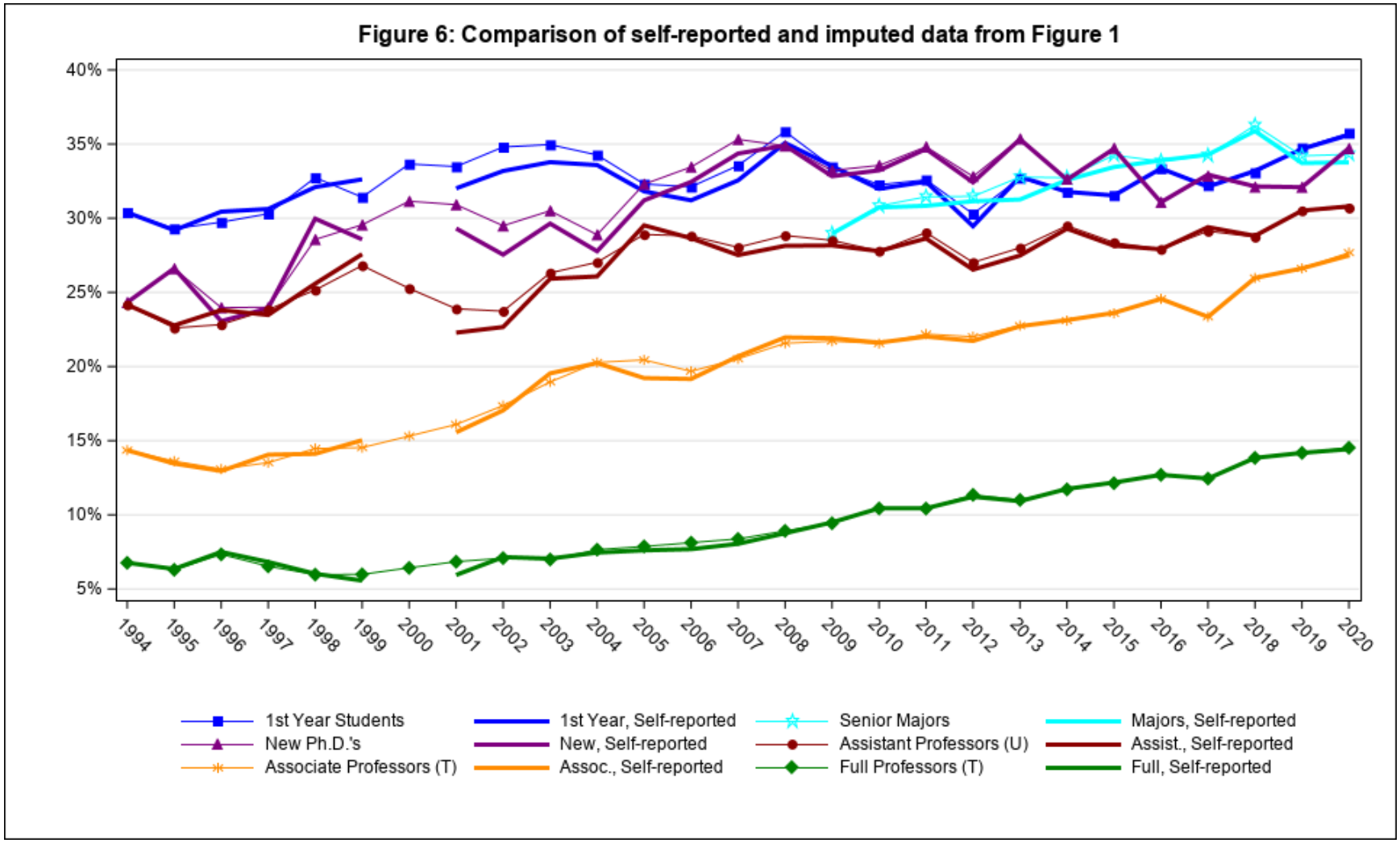
2019-2020	*Top 10*		*Top 11-20*		*All Others*	
	Women	*Men*	*Women*	*Men*	*Women*	*Men*
U.S.-based, All Types						
(Share of all individuals by gender)	**72.4%**	**72.7%**	**70.6%**	**61.3%**	**60.8%**	**59.7%**
Faculty, PhD Granting Department	33.3%	39.2%	22.2%	28.8%	17.9%	18.0%
Faculty, Non-PhD Granting Department	2.4%	3.3%	0.0%	6.8%	20.7%	17.7%
Non-Faculty, Any Academic Department	11.9%	8.3%	8.3%	6.8%	12.1%	14.4%
Public Sector	23.8%	17.5%	16.7%	16.4%	16.4%	20.3%
Private Sector	28.6%	31.7%	52.8%	41.1%	32.9%	29.5%
Foreign-based, All Types						
(Share of all individuals by gender)	**25.9%**	**26.1%**	**27.5%**	**35.3%**	**28.7%**	**29.2%**
Academic	100.0%	88.4%	85.7%	81.0%	69.8%	73.4%
Non-Academic	0.0%	11.6%	14.3%	19.0%	30.2%	26.6%
Unknown Placement						
(Share of all individuals by gender)	**1.7%**	**0.6%**	**0.0%**	**0.0%**	**3.0%**	**1.2%**
No Placement						
(Share of all individuals by gender)	**0.0%**	**0.6%**	**2.0%**	**3.4%**	**7.5%**	**9.9%**
Total on the Market	**58**	**165**	**51**	**119**	**231**	**406**

Table 7. Distribution of Top 20 Departments by Female Share of First Year PhD class, 2014-2020

	Number of Programs				
	2016	*2017*	*2018*	*2019*	*2020*
Share of women in 1st year PhD class					
40% or above	6	2	7	9	7
35-39%	1	1	0	0	5
30-34%	2	8	2	5	3
25-29%	5	1	3	5	1
20-24%	3	3	3	0	4
Below 20%	4	6	6	2	1

**Note: This table classifies departments by the share of women in their entering class. This differs from the average share of women entering PhD programs, each year, because of differences in the size of different programs.*

Appendix Figures and Tables on Data Quality and Reporting



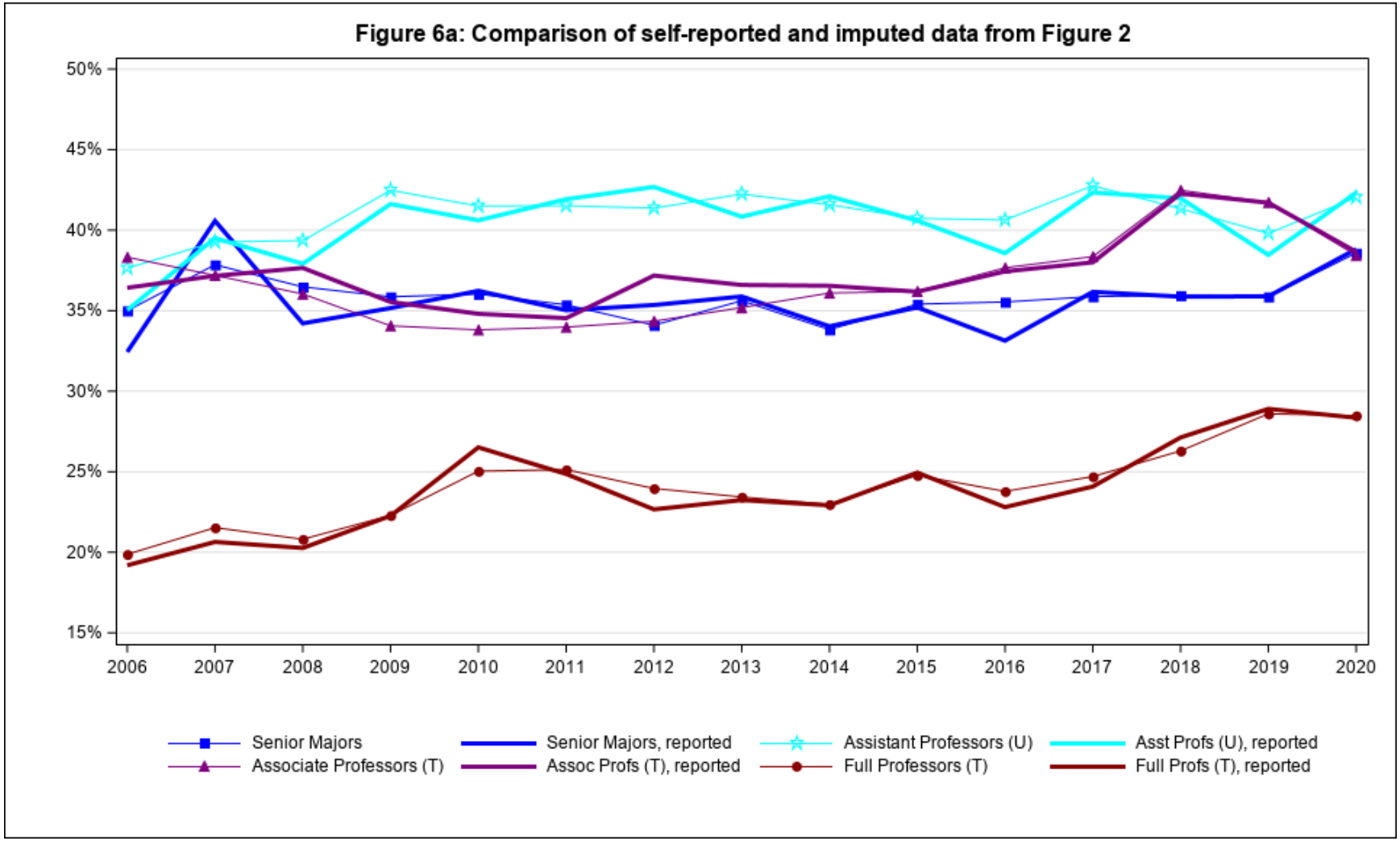


Figure 6a: Comparison of self-reported and imputed data from Figure 2
50%
45%
40%
35%
30%
25%
20%
15%
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
Senior Majors
Senior Majors, reported
Assistant Professors (U)
Asst Profs (U), reported
Associate Professors (T)
Assoc Profs (T), reported
Full Professors (T)
Full Profs (T), reported

Table 8. Number of Economics Departments in the CSWEP Survey, by Year and Type of Program

	Year of survey																		
	2001	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**
With Doctoral Programs																			
Number responded CSWEP	68	77	92	98	91	93	100	110	120	122	122	117	122	124	124	126	126	126	126
Number of programs (analysis)	121	122	122	123	123	124	124	124	124	126	126	126	127	127	127	126	126	126	126
Without Doctoral Programs																			
Number responded CSWEP	49	33	49	61	65	69	63	71	66	80	82	62	101	104	107	84	109	108	104
Number of programs (analysis)	89	92	96	102	106	106	106	107	107	110	110	110	111	111	111	112	112	112	112

**Notes: Any non-respondents are imputed, first with UAQ if they responded to that survey, and then with linear interpolation for any remaining non-responding years.*