

Committee on the Status of Women in the Economics Profession (CSWEP)

I. Introduction

A standing committee of the American Economic Association since 1971, the Committee on the Status of Women in the Economics Profession (CSWEP) serves professional women economists by promoting their careers and monitoring their progress. In 1972, CSWEP fielded the first survey of economics departments regarding the gender composition of faculty and, since 1993, has surveyed some 250 departments annually with findings reported in the *American Economic Review Papers and Proceedings* and reprinted in the *CSWEP Annual Report*. The CSWEP Board, staff, non-Board committee members, and CSWEP's network of liaisons to over 270 departments and institutions provide substantial public goods to the profession as a whole. CSWEP organizes mentoring programs that serve more than 300 economists annually. These include the internationally renowned CeMENT Mentoring Workshops for junior women and the Mentoring Breakfasts at the Annual AEA/ASSA Meetings as well as career development round tables and panels at the Annual AEA/ASSA Meetings and at the meetings of the four regional economics associations. CSWEP provides professional opportunities to junior women through competitive-entry paper sessions at both the Annual AEA/ASSA Meetings and at regional economic association meetings. CSWEP also endeavors to raise awareness among men and women of the challenges that are unique to women's careers in economics and of best practices for increasing diversity in the economics profession. To recognize and celebrate the accomplishments of women, CSWEP awards the Carolyn Shaw Bell Award annually (for furthering the status of women in the economics profession) and the Elaine Bennett Prize biennially (for fundamental contributions to economics by a woman

within seven years of the PhD). On the web at CSWEP.org and via the thrice-yearly CSWEP News, CSWEP disseminates information on women in economics, professional opportunities, and career development.

The centerpiece of this report is the summary of the 2017 Annual Survey in Section IV. Briefly, we find that there has been little progress in increasing the representation of women in economics during the past decade, with the female share of PhD students and assistant professors remaining essentially constant and a continued lower probability of advancing to tenured associate professor for women, relative to men. With the support of the AEA, we have completed a project to document and harmonize our 45 years of data and to make longitudinal department-level data available to individual departments.

Section II reports on the administration of CSWEP activities from our University of California, Santa Barbara (UCSB) office, our continuing efforts to make the CSWEP office more institutionally portable, our evolving approach to communicating with CSWEP's community, and our historical data harmonization project. Of particular interest is the need for the AEA to plan for a transition, since the term of CSWEP Chair Shelly Lundberg ends in January 2019. Section III describes CSWEP activities addressing the challenges women continue to face in the economics profession. Associate Chair Terra McKinnish continued to oversee CSWEP mentoring programs, which have expanded under her direction. Associate Chair Margaret Levenstein directed the 2017 CSWEP Annual Survey, analyzed the results, and wrote the report on the status of women in the economics profession in Section IV. Section V concludes with well-deserved acknowledgments of many who have contributed to CSWEP's mission. Appendix A lists the 2017 Board members.

II. CSWEP Administration

A. CSWEP Office and Upcoming Transition

The CSWEP Administrative Assistant, Amber Pipa, has been working remotely from the Bay Area since July 2017. This arrangement has been working very well, illustrating the extent to which we have successfully migrated CSWEP resources online. Lundberg and Pipa communicate regularly using UCSB's video-conferencing software Zoom. Databases for CSWEP affiliates, liaisons, and department chairs have been consolidated in Zoho, a flexible customer relationship management (CRM) tool. All files have been migrated to Dropbox. A Wordpress site has been developed that makes CSWEP policies and procedures available to all Board and Committee members—and provide CSWEP with an institutional memory as the Board, Chair, and staff change. These changes will make the CSWEP office much more portable for the next Chair transition in January 2019.

B. CSWEP Communications

The success of CSWEP programs in advancing the status of women in economics depends upon our ability to communicate broadly and effectively to our community, junior and senior, within and outside the academy, and also to the profession as a whole. Several recent initiatives have improved that ability.

Liaison Network.—In 2014, the CSWEP Liaison Network was created in an effort to increase awareness about the work of CSWEP, to expand the distribution of the CSWEP newsletter and announcements, and to streamline the yearly collection of departmental gender data for the CSWEP Annual Survey. The goal has been to recruit a tenured faculty liaison in every department of economics including, where appropriate, economics groups in business, public policy, and environmental schools as well as government and private research units. This initiative has continued to be remarkably successful, and has reduced the response time to the call for departmental data for the CSWEP Survey and increased applications and registration for all CSWEP activities.¹

Website.—Amber Pipa and previous CSWEP AA Jennifer Socey have restructured and updated the CSWEP pages on the AEA website, and this should make it easier for the CSWEP community to get news about CSWEP activities and programs and to locate information such as professional development materials, annual reports, and newsletters. We have received reports from users that it is difficult to find CSWEP's home page from the AEA home page, and there are still issues with the management of the site, including the occasional disappearance of pages.

Social Media.—In January 2017, we launched a Twitter account, @AEACSWEP, and have been tweeting prize announcements, calls for papers, and other notices as a supplement to our email list and liaison network. Approaching 1,000 followers, our Twitter presence seems to have improved our communications with younger economists, as suggested by the increased rate at which our mentoring programs fill up.

C. Historical Data Harmonization Project

In 2016, the AEA provided funds to CSWEP to enhance our data assets as follows:

- (i) Create a research-ready, documented, database integrating the CSWEP and UAQ data.
- (ii) Generate reports to be provided annually to interested PhD-granting departments on the current and historical status of women in their department relative to their peers.

We have completed the integration, harmonization, and documentation of data for the years 1993–2017 for doctoral departments. These data are now ready for researcher use. We are continuing this work for the non-PhD departments and for the years before 1993 (using UAQ data only).

This year, CSWEP generated a longitudinal report for each PhD-granting economics department based on its previous 20 years of individual submissions to CSWEP. These reports were sent to individual departments along with the

¹ Visit https://www.aeaweb.org/committees/cswep/Liaison_Network.php for a list of current members of the

annual CSWEP report. We plan to update and send these individual reports to each department each year.

III. CSWEP Activities in 2017

A. CSWEP Board Statement on Professional Climate and EJMR

In response to the controversy about harassment and misogyny on the anonymous online forum Economic Job Market Rumors (EJMR) and the ensuing discussion about the professional climate for women in economics, the CSWEP Board issued a statement and set of recommendations for the AEA Executive Committee that can be found here: <https://www.aeaweb.org/about-aea/committees/cswep/statement>. The Board affirms our commitment to a diverse and open profession that fosters the free exchange of ideas and highest-quality scholarship and urges the AEA to do the same and take actions to advance that goal.

B. Mentoring Programs

The effective mentoring of women economists is central to CSWEP's mission. While mentoring and creating professional networks is an ongoing aspect of most CSWEP activities, the internationally recognized CeMENT Mentoring Workshops hold center stage, and the CSWEP Mentoring Breakfasts have expanded our reach to more junior and mid-career economists. At the 2017 AEA/ASSA meetings, CSWEP also provided media training sessions and partnered with CSMGEP for a panel discussion on recruiting and mentoring diverse economists.

CeMENT Mentoring Workshop for Faculty in Doctoral Programs.—The 2017 PhD granting institutions CeMENT workshop was held after the Chicago AEA/ASSA meetings on January 8–10, 2017. Led for a third year by CeMENT Director Kosali Simon, the 2017 workshop served 40 participants joined by 16 mentors.²

The workshop consisted of large group discussions on career development topics and small group sessions pairing two mentors with five junior economists with similar research interests. The six large group sessions focused on the topics: publishing and research, teaching, managing service, work-life balance, the tenure process, and professional networking. Each large group session began with advice from a panel of three of the senior mentors, but most of the time was reserved for Q&A. The small group sessions allowed each junior participant to receive detailed feedback on a working paper from the other members of the small group. Each junior participant was allocated a cloud storage file for sharing their CV, research description, and workshop paper in advance to enable groups to become familiar with each other's work. Most small groups also spent some time giving participants more general career advice based on their CV. Based on informal and formal feedback, the workshop was a great success, the average participant rating was 6.87 on a scale of 1–7 where 1 is “not at all helpful” and 7 is “extremely helpful.”

In response to significant excess demand, in January 2014 the Executive Committee of the AEA approved moving the workshop from a biennial to an annual frequency, effectively doubling the capacity. Funding is currently provided through 2021. For the 2017 workshop, 122 applications were received, 80 of which were judged to meet the workshop criteria. Of these 80 applications, 12 were given priority admission as applicants who were randomized out in 2016. The additional 28 participants were chosen by random selection from the remaining 68 applications. Despite moving to offer the workshop annually instead of biennially, excess demand for the workshop remains very high. Given the intensity and duration of the workshop, recruiting senior mentors at the top of their field has been difficult, so we see limited potential for further expansion of workshop capacity.

²We are grateful to the mentors who volunteered their time for the January 2017 workshop: Lisa Barrow (Federal Reserve Bank Chicago), Kasey Buckles (Notre Dame University), Nora Gordon (Georgetown University), Ana Herrera (University of Kentucky), Madhu Khanna (University of Illinois), Nicole Maestas (Harvard University),

Pinar Karaca Mandic (University of Minnesota), Emily Oster (Brown University), Karen Palmer (Resources for the Future), Tanya Rosenblat (University of Michigan), Laura Schechter (University of Wisconsin), Kathy Spier (Harvard University), Betsey Stevenson (University of Michigan), Tavneet Suri (Massachusetts Institute of Technology), Jing Zhang (Federal Reserve Bank Chicago).

CeMENT Mentoring Workshop for Faculty in Non-Doctoral Programs.—The CeMENT workshop for female faculty at institutions who do not offer a PhD in Economics was held in June 2017, immediately preceding the Western Economic Association International annual conference. Thirty-one junior female faculty and nine senior female economists attended the two-day workshop organized by Ann Owen.³ Participants received advice about publishing, teaching, networking, the tenure process, and achieving a work/life balance. They also worked together in small groups on goal setting and provided feedback on research papers to other group members. This workshop was also highly rated by its participants, receiving an average rating of 6.7/7.

Mentoring Breakfasts for Junior Economists.—CSWEP hosted two mentoring breakfasts for junior economists, organized by Amalia Miller, at the 2017 AEA/ASSA meetings. A total of 124 junior economists and 62 senior mentors participated across the 2 breakfasts. The junior mentoring breakfasts are open to both male and female participants, and roughly 10 percent of the junior participants at the 2017 breakfasts were male. Senior mentors staffed topical tables (Research/Publishing, Teaching, Tenure/Promotion, Non-Academic Careers/Grant-Writing, Work/Life Balance, Job Market and Job Market Special Topics—Dual Career Couples, Job Search 4+ Years post PhD) and junior participants rotated between tables at 20-minute intervals based on their own interests. In a post-event survey of participants, the average rating was 85 out of 100.

Peer Mentoring Breakfast for Mid-Career Economists.—CSWEP hosted a mid-career mentoring breakfast, organized by Ragan Petrie, at the 2017 AEA/ASSA meetings. Thirty-seven mid-career women and 13 mentors registered to

attend the event. The breakfast kicked off with a series of short talks. Rachel Croson (Michigan State University) spoke about “Expanding your Research Portfolio” in the context of promotion to full professor and Hilary Hoynes (University of California-Berkeley) spoke about “Saying ‘No’ and the Mindfulness of Giving your Time.” The remainder of the breakfast was devoted to informal discussion at the breakfast tables. Each table consisted of 4–6 mid-career participants and 2 senior mentors who moderated the discussion. After introductions, each participant was given time to ask questions and receive feedback from their table on topics such as promotion to full professor, whether to accept administrative roles, managing research time, work/life balance, career transitions, and negotiating with department and university administrators. The average rating for the event was 87 out of 100.

Media Training.—As a follow-up to the 2016 round table “Who’s Doing the Talking: Women Economists and the Media,” CSWEP hosted a large-group media training session at the 2017 AEA/ASSA Meetings in Chicago. The event “Tools for Confident & Effective Media Engagement” was moderated by Diane Whitmore Schanzenbach, and led by media trainer Anne Dickerson. During the seminar, Anne addressed how to prepare for media interviews, develop a set of messages that will help frame discussion of your work, and how to reframe the conversation if necessary. These tools have broad application outside of media interactions as well, and can improve presentations and teaching. A total of 92 participants registered for the 2 Media Training Sessions. In a participant survey after the event, 92 percent of participants said that the session would improve the way they address the media.

Best Practices in Recruiting and Mentoring Diverse Economists.—Amanda Bayer organized and moderated a lunch-time panel discussion on Best Practices in Recruiting and Mentoring at the 2017 AEA Meetings in Chicago (jointly sponsored by CSWEP and CSMGEP). Panelists included David Wilcox (Director of the Division of Research and Statistics, Board of Governors of the Federal Reserve System), David Laibson (Chair of the Economics Department, Harvard University), Marie Mora (Professor of Economics, The University of Texas Rio Grande

³We are grateful to the mentors who volunteered their time for the June 2017 workshop: Bevin Ashenmiller (Occidental), Eleanor Brown (Pomona), Maria Cruz-Saco (Connecticut College), Denise Hare (Reed), Candace Howes (Connecticut College), Caitlin Myers (Middlebury), Sarah Pearlman (Vassar), Sarah West (Macalaster), and Andrea Ziegert (Denison). Maureen Pirog (Indiana University and former editor of *Journal of Policy Analysis and Management*) participated in a session providing publishing tips from an editor’s perspective.

Valley, and Director of Mentoring, CSMGEP), Terra McKinnish, (Professor of Economics, University of Colorado, and Director of Mentoring, CSWEP), and Rhonda Sharpe (President, Women's Institute for Science, Equity and Race). The panelists provided insights and strategies to department chairs and other economists who are recruiting, evaluating, training, and serving as colleagues to women and members of underrepresented groups. A total of 78 participants registered for this event. In a participant survey after the event, the average approval rating was 88 on a 1–100 scale.

AEA Summer Economics Fellows Program.—Began in 2006 with seed monies from the National Science Foundation (NSF) and designed and administered by a joint AEA-CSMGEP-CSWEP committee, the AEA Summer Economics Fellows Program aims to enhance the careers of underrepresented minorities and women during their years as senior graduate students or junior faculty members. Fellowships vary from one institution to the next, but generally senior economists mentor the fellows for a two-month period, and fellows, in turn, work on their own research and have a valuable opportunity to present it. Many fellows have reported this experience as a career-changing event.

The number of applicants placed by the *AEA Summer Economics Fellows Program*⁴ fell from 15 in 2016 to 12 in 2017 despite an increase in the number of applicants. The percentage of applicants placed fell to 11 percent—the lowest percentage since 2011. The percentage of female applicants placed was 12 percent; minority applicants, 12 percent; and US citizen/permanent residents/HIB visas, 19 percent. This decline in placements was due in part to a government-wide hiring freeze. The number of institutions hiring summer fellows fell from ten to seven—Federal Reserve Banks in Atlanta, Boston, Cleveland, Kansas City, New York, Richmond, and St. Louis.

⁴Many thanks to the 2017 committee for screening and matching: Daniel Newlon from the AEA (chair), CSWEP Board member Amalia Miller, Gustavo Suarez of the Board of Governors of the Federal Reserve System, and Lucia Foster of the Center for Economic Studies at the US Bureau of the Census. Thanks as well to Dick Startz who initiated the program in 2006. More information on the AEA Fellows Program is available at <https://www.aeaweb.org/about-aea/committees/summer-fellows-program>.

We received 105 applications: 82 from women, 17 from underrepresented minority groups, and 32 from US citizens/permanent residents/HIB visas. Ten of the 12 fellows hired were female non-minority graduate students. The remaining two fellows hired were male graduate students from underrepresented groups. Six of the fellows were US citizens/permanent residents or had HIB Visas.

C. Carolyn Shaw Bell Award

Awarded annually since 1998, the Carolyn Shaw Bell Award recognizes an individual for outstanding work that has furthered the status of women in the economics profession. The 2017 award goes to Dr. Rachel Croson, Dean of the College of Social Science and MSU Foundation Professor of Economics at Michigan State University. Professor Croson is an accomplished scholar and gifted academic leader who has devoted an enormous amount of energy and creativity to mentoring women in economics. She has been a vital part of CSWEP's mentoring effort since 1998, when she was a mentee in its very first workshop. She has implemented mentoring programs wherever she has worked, targeting women at all levels, from undergraduates to senior women seeking leadership positions.

The Bell Award will be presented at the 2018 CSWEP Business Meeting on January 6 during the AEA/ASSA Meeting in Philadelphia. All are welcome to join the celebration. The full press release is available online.⁵

For holding to high standards and spotlighting the extraordinary accomplishments of women in economics, we owe an enormous debt to the selection committee. While they must remain anonymous, we also thank those who did the hard work of nominating the candidates and those who wrote the thoughtful, detailed letters in support of each candidacy.

D. CSWEP's Presence at Annual Association Meetings

The 2017 American Economic Association Meeting.—In addition to mentoring activities, presentation of the Annual Report, and the presentation of awards, CSWEP sponsors six

⁵<https://www.aeaweb.org/content/file?id=5774>.

competitive-entry paper sessions at the Annual AEA/ASSA Meetings. In 2017, Susan Averett and Kevin Lang organized two sessions on the economics of gender. Karen Conway and Petra Todd organized two sessions on Educational Economics and Meredith Fowlie, Catherine Wolfram, and Anne Winkler organized two sessions on Energy and Environment Economics. These committees selected nine papers for publication in three pseudo-sessions in the *AER Papers and Proceedings* issue. To be considered for these sessions, papers must have at least one junior author and, in non-gender-related sessions, at least one author must be a junior female.

The submissions process for these sessions is highly competitive. There were 132 abstract submissions for the 2017 sessions, over 20 more than in 2016. Women consistently report that these sessions, which put their research before a wide audience, are professionally valuable. Even though many included papers have male authors, as of 2017 CSWEP sessions still accounted for a disproportionate share of women on the AEA Program.

Four 2017 Regional Economic Association Meetings.—CSWEP maintains a strong presence at all four of the Regional Economic Association Meetings. At most regional meetings, CSWEP now hosts a networking breakfast or lunch, as well as paper sessions and panels. The events are well attended by men as well as women and provide an informal opportunity for CSWEP representatives and senior women on career development panels to network and mentor one-on-one. We are grateful to the four Board Regional Representatives who organize and host CSWEP's presence at the Regionals.

The 2017 year kicked off with the Eastern Economic Association Meeting in New York in February, where Karen Conway (CSWEP Board Eastern Representative) organized ten paper sessions and a networking breakfast. One session highlighted research on experiential learning in an economics curriculum, and others spanned a wide range of topics, including macroeconomics, economic history, health policy and behaviors, child outcomes, and the economics of gender. The networking breakfast was well attended and many conversations extended beyond the allotted time.

The Midwest Economic Association Meeting quickly followed at the end of March

in Cincinnati, OH. Anne Winkler (CSWEP Board Midwest Representative) organized two panel discussions, one titled "Panel Discussion: Advice for Job Seekers," and another titled "Panel Discussion on Academic Careers." The attendance was 30 people at "Job Seekers" and 15 at "Advice for Academics." Seventy individuals participated at the networking lunch that was held between the two sessions.

For the Western Economic Association International Meeting (June 25 to June 29, San Diego, CA), Catalina Amuedo-Dorantes (CSWEP Board Western Representative) organized a hospitality breakfast and media training session jointly with Francisca Antman (CSMGEP Representative). The event, which was very well attended, included a presentation and discussion of issues surrounding effective media management. The media training session was followed by two paper sessions.

Finally, at the Southern Economic Association Meeting (November, Tampa, FL), Ragan Petrie (CSWEP Board Southern Representative) organized four CSWEP events. There were two (very popular) professional development panels: "Advice for Job Seekers and Early Career" and "Talking to the Media." A joint CSWEP/CSMGEP panel session "Women and Minorities in the Economics Profession—Status, Perspectives and Intervention," was followed by a professional networking lunch.

E. CSWEP News: 2017 Focus and Features

Under the able direction of *CSWEP News* Oversight Editor Kate Silz-Carson and with the graphic design expertise of Leda Black, CSWEP published three newsletter issues in 2017.⁶ Each issue features a *Focus* section of articles with a theme chosen and introduced by a guest editor who solicits the featured articles. The quality of these *Focus* articles is consistently high, with many proving to be enduring career resources for junior economists.⁷ The CSWEP Board extends our thanks to all these contributors.

⁶Current and past issues of the *CSWEP News* are archived at <http://www.aeaweb.org/committees/cswep/newsletters.php>. For a free digital email subscription, visit <http://cswep.org> and click "Subscribe."

⁷The feature articles have provided the bulk of professional development materials for the binder for CeMENT

Managing your Service and Administrative Workload at Mid-Career.—Coedited by board member Terra McKinnish, this issue draws on the collective wisdom of three senior women who have spoken at our mid-career breakfasts as well as senior mentors from the CeMENT workshops to provide women with strategies for managing their professional lives at mid-career. Laura Argys (University of Colorado, Denver) provides an article full of practical advice as a “reformed volunteer.” Adriana Kugler (Georgetown University) draws on her extensive prior experiences as a Vice Provost at Georgetown and Chief Economist at the Department of Labor to discuss the “art of making your own choices.” Donna Ginther (University of Kansas) weighs in with advice on time management and managing research and administrative staff. In addition, a variety of CeMENT mentors contribute concrete language and strategies for “saying no” to service and administrative requests that have a tendency to overwhelm women at the mid-career point.

Recruiting and Mentoring Diverse Economists.—During the 2017 ASSA meetings, CSWEP and CSMGEP cohosted a panel on Best Practices in Recruiting and Mentoring Diverse Economists, and the 100 or so audience members came away energized and informed. The event generated so much interest that CSWEP decided to devote the second issue of the 2017 CSWEP News to the topic, and the panelists generously agreed to write up their remarks. Coedited by guest editor Amanda Bayer (Swarthmore College), the contributors offer advice to department chairs and other economists who are recruiting, evaluating, training, and serving as colleagues to women and members of underrepresented groups. Terra McKinnish (University of Colorado at Boulder), CSWEP’s Director of Mentoring, reflects on some of the causes of the disparities in outcomes for those in underrepresented groups and suggests direct remedies. David Wilcox (Federal Reserve Board of Governors) reviews why the Federal Reserve is “deeply concerned” about the lack of diversity in economics and discusses some of the steps it is taking to address the problem. Marie

Mora (University of Texas Rio Grande Valley), director of CSMGEP’s mentoring program, discusses concrete actions that she and others take to recruit and mentor inclusively, as well as programs that her university has implemented to increase diversity among the faculty. Finally, Rhonda Vonshay Sharpe (Women’s Institute for Science, Equity and Race) issues a challenge to all of us to do better.

Working with a Research Group and Coauthors.—Coedited by board member Ragan Petrie (Texas A & M University), this issue provides a variety of perspectives on how to best work with coauthors and research teams so that the collaborations are efficient and productive. Anya Samek (University of Southern California) discusses working with and mentoring student research teams. She includes valuable advice on how to effectively include undergraduate research assistants on a team. Julian Jamison (World Bank) provides insight and guidance on how to work with project partners in academia, business, government, and the nonprofit sector. A. Abigail Payne (University of Melbourne) offers perspectives on junior-senior collaborations, how to manage working with coauthors, the value of communication, and how to move partnerships to successful outcomes.

In addition to the FOCUS issues summarized above, this year’s issues of the newsletter included interviews with 2016 Bell Award winner Cecilia Rouse (Princeton University), conducted by Lisa Barrow (Federal Reserve Bank of Chicago) and 2016 Elaine Bennett Research Prize Winner Marina Halac (Columbia University), conducted by Glenn Hubbard (Columbia University). CSWEP wishes to extend its thanks to all those who took the time to write contributions to newsletters during 2017.

Professional development features of these and past issues of *CSWEP News* are now more easily accessible at CSWEP.org, where you can find them archived by year as well as by target audience and topic.⁸

workshop participants, now online at <http://www.aeaweb.org/committees/CSWEP/mentoring/reading.php>.

⁸ <https://www.aeaweb.org/committees/cswep/newsletters.php>, <https://www.aeaweb.org/committees/cswep/newsletters-audience.php> and <https://www.aeaweb.org/committees/cswep/newsletters-topics.php>.

IV. Status of Women in the Economics Profession⁹

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

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 percent of new PhDs, and 8.8 percent of assistant, 3.7 percent of associate, and 2.4 percent of full professors. Much has changed. At doctoral-granting institutions, women have more than tripled their representation among new PhDs to 32.9 percent, tripled their representation among assistant professors to 28.8 percent, increased their representation at the associate level more than six fold to 23.0 percent, and increased their representation at the full professor level more than five-fold to 13.9 percent (Table 1). This report presents the results of the 2017 survey, with emphasis on changes over the last few years, including entry of women into PhD programs and the progress of cohorts of new PhDs as they progress through the academic ranks.

B. The CSWEP Annual Surveys, 1972–2017

In fall 2017, CSWEP surveyed 126 doctoral departments and 125 non-doctoral departments. This preliminary report includes the responses from all 126 doctoral and 113 non-doctoral departments. The department-level data from earlier years of the survey have been harmonized and cleaned, as part of an effort to improve our stewardship of these panel data.¹⁰ Because

⁹Margaret Levenstein is CSWEP Associate Chair and Survey Director. We gratefully acknowledge the assistance of Aneesa Buageila and Ann M. Rodgers in the administration and analysis of the survey.

¹⁰For some earlier years, data on non-responders were harvested from the web; that harvested data is not distinguishable from self-responses by departments themselves. For the analysis of PhD-granting departments, we now handle missing data as follows. We impute responses for any missing items or missing departments. In years when non-responders to the CSWEP survey did respond to the AEA's Universal Academic Questionnaire (UAQ), we have used UAQ data to impute the missing responses. When the department responded to neither CSWEP nor UAQ, we use linear interpolation from survey responses in other years.

of these changes, as well as minor differences in coding and computation, there are slight differences between the estimates reported here and those in previous years.

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 continue to harmonize and document the departmental-level data from the 1970s to the current period to improve our analysis of long-run trends in the profession. As a result of this work, we have produced department-level longitudinal reports for all responding PhD departments; these reports are shared with department chairs and CSWEP liaisons on an annual basis.

C. 2017 Survey Results

With regard to doctoral departments, the representation of women at each level of the academic hierarchy is higher than in the 1970s. However, the share of women in new cohorts of students and assistant professors has been flat for the last decade. Thus even while women are less likely to be promoted at each career stage, the share of senior faculty who are female has continued to increase because of the increased entry of women into economics in the last quarter of the twentieth-century. Between 1993 and 2005, the proportion of assistant professors who are women increased slightly, from 24.2 percent to 28.9 percent. There has been no increase in the female share of assistant professors in PhD granting departments since 2005; in 2017 it was 28.8 percent (Table 1). Similarly, the representation of women among first year PhD students increased to 30.4 percent in 1993, reached 35 percent in 2002 and 2003, but was only 32.3 percent in 2017. The average share of women in first year PhD classes is 32.6 percent, a slight decline from the previous decade (33.4). This has been the case despite an increase in the

Figure 5 presents a comparison between the self-reported (only) and that with missing data imputed. The differences between the two are very small. We are very grateful to Charles E. Scott and the American Economic Association for sharing the UAQ data with us.

TABLE 1—THE PIPELINE FOR DEPARTMENTS WITH DOCTORAL PROGRAMS:
PERCENT OF DOCTORAL STUDENTS AND FACULTY WHO ARE WOMEN

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
<i>All PhD-granting departments</i>										
First-year PhD students	35.8	33.7	32.3	32.5	30.4	32.7	31.8	31.6	33.4	32.3
Registered PhD thesis writers (ABD)	34.1	33.9	34.2	34.5	32.7	32.1	32.2	31.7	31.7	33.0
Number of PhDs granted	34.9	33.3	33.6	34.8	32.9	35.4	32.7	34.8	31.0	32.9
Assistant professors (U)	29.6	28.6	27.7	29.1	28.8	27.9	29.5	28.4	28.3	28.8
Associate professors (U)	24.9	25.0	33.3	34.8	38.4	27.1	25.9	29.2	32.8	26.1
Associate professors (T)	21.8	21.5	21.5	21.7	21.7	24.0	23.0	23.4	25.6	23.0
Full professors (T)	8.5	9.6	10.5	12.4	11.4	11.9	12.1	12.3	13.1	13.9
All tenure track	16.8	16.8	17.5	19.0	19.0	18.5	18.9	19.0	20.1	20.1
Non-tenure track faculty	32.4	34.8	33.0	33.0	38.5	35.2	39.6	34.8	35.3	36.1
Number of departments	125	125	127	127	127	127	127	127	126	126

Notes: Entry and exit change the population universe. Any known PhD programs are considered members of the population. Any non-respondents are imputed first with UAQ and then with linear interpolation. T and U indicate tenured and untenured, respectively.

share of baccalaureates going to women. The increased entry of women into economics during the late twentieth century has led to increasing representation of women in more senior ranks, with women now making up almost a quarter of tenured associate professors and almost 14 percent of full professors. However, stagnation at the entry level is now leading to stagnation at the associate level. After showing increasing shares of women at the associate level in the 1990s and early 2000s, the share of women at the associate level has been flat for the last several years.

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 2017 new doctorates were 32.9 percent female, falling to 28.8 percent for assistant professors, to 23.0 percent for tenured associate professors, and to 13.9 percent for full professors. This pattern has been characterized as the “leaky pipeline.” Our reliance on this leaky pipeline for gradual progress in women’s representation in the profession depends on continued growth in entry, which no longer appears to be forthcoming. Figures 1 and 2 show the proportion of senior economics majors who are female in PhD and non-PhD granting departments, respectively. There appears to be a slightly positive trend in the PhD granting departments, and a declining trend in the non-PhD granting departments, with

both now at about 35 percent female. Note that this is lower than the share of women in either math or the physical sciences.¹¹ Despite the increasing proportion of undergraduates who are female, economics is not converging to parity.

Turning to an examination of non-doctoral departments, Figure 2 shows a similar pattern. There were increases in the share of women at the full professor level during the first decade of the twenty-first century, but the share is flat since 2010. Similarly, assistant professors increased and then leveled off. The share of female associate professors in non-doctoral departments has been flat for the entire period. The share of undergraduates has, if anything, declined. When one compares doctoral and non-doctoral departments, women’s representation in non-doctoral departments is higher at every level—over 10 percentage points higher—than in doctoral departments (compare Tables 5 and 6). Both doctoral and non-doctoral programs rely on women to teach, with women making up over 40 percent of full-time non-tenure track faculty in the former and 38.3 percent in non-doctoral departments.

A further comparison by rank shows that the representation of women declines as the emphasis on research increases with 33.8 percent of all tenure track positions in non-doctoral

¹¹NSF: *Who earns bachelor’s degrees in science and engineering?* (<https://www.nsf.gov/nsb/sci/edTool/data/college-14.html>) reports over 40 percent of math and physical science undergraduate degrees went to women.

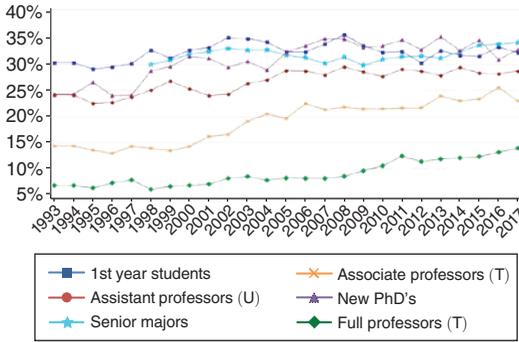


FIGURE 1. PIPELINE FOR DEPARTMENTS WITH DOCTORAL PROGRAMS: PERCENT OF DOCTORAL STUDENTS AND FACULTY WHO ARE WOMEN, 1993–2017

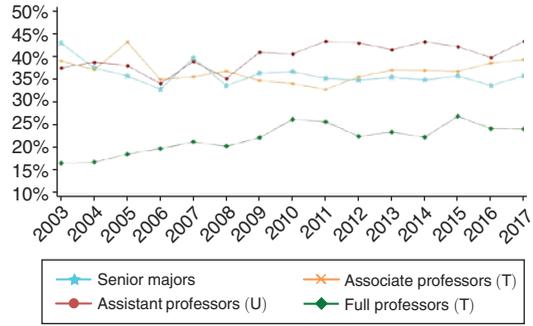


FIGURE 2. THE PIPELINE FOR DEPARTMENTS WITHOUT DOCTORAL PROGRAMS: PERCENT OF STUDENTS AND FACULTY WHO ARE WOMEN, 2003–2017

departments held by women, 20.1 percent in all doctoral departments, 16.3 percent in the top 20 departments, and 13.7 percent in the top 10 departments (Tables 2, 5, and 6). This represents a remarkable decline in women’s representation as departmental research intensity increases. This also undermines efforts to change this trend, as it is the most research-intensive departments that train most future economists.

With regard to the advance of cohorts of academics through the ranks, this report presents a simple lock-step model of these advances (Figures 3 and 4). With a maximum of 43 years of data on each rank we can track the gender composition of some relatively young cohorts from entering graduate school though the PhD and of other older cohorts from receipt of the degree though the assistant and associate professor ranks. Unfortunately, these data do not let us analyze the advance of cohorts of new PhDs all the way from associate to full professor. Over the last decade, the proportion of women receiving their PhDs has been almost exactly the same as the proportion of women entering PhD programs six years prior (Figure 3). There is evidence of attrition from graduate school into academia, however, as women’s share of assistant professors is considerably smaller than their share of new PhDs (Figure 3).

The female share of the entering class of students in PhD programs overall has been flat over the last 20 years (Figure 1 and Table 7). For all PhD programs, the female share was slightly higher between 2002 and 2011, but the average over the last five years has fallen (Table 7). For the Top 20 programs, the share has been flat or

even slightly declining since 2002. The entering class this year in the top 20 schools was less than one-quarter female, below the average for the last two decades. Within the Top 20, there is considerable variation in the share of females in the first-year PhD class across the 21 schools (Table 8). Half of Top 20 departments have student bodies that are over 75 percent male and over a fourth of Top 20 departments are over 80 percent male. Note that while we are not breaking out the Top 10, to protect the confidentiality of individual school data, the pattern is not different between the Top 10 and the schools ranked 11–20.

D. Conclusions

Past intakes and subsequent advancements of women and men determine the contemporaneous distribution of men and women on the academic economists’ ladder. This report is depressingly similar to those of previous years. *There has been no progress in the representation of women at either juncture, entering the economics profession or advancing from untenured assistant to tenured associate professor.* If anything, we see stagnation or decline in women entering economics at both the undergraduate and graduate level.

With regard to the second juncture, while *the advancement of women from untenured assistant to tenured associate professor* is no doubt intertwined and jointly determined with family-related decisions, this is true as well of other disciplines, so cannot explain the relative

TABLE 2—THE PIPELINE FOR THE TOP DEPARTMENTS:
PERCENT AND NUMBER OF FACULTY AND STUDENTS WHO ARE WOMEN (*By school rank*)

Doctoral departments	Top-10						Top-20					
	1993–1996	1997–2001	2002–2006	2007–2011	2012–2016	2017	1993–1996	1997–2001	2002–2006	2007–2011	2012–2016	2017
<i>Faculty (Fall of year listed)</i>												
Assistant professor												
Percent	20.8	18.7	20.8	24.5	19.2	20.2	19.2	17.7	23.5	23.7	20.5	20.7
Number	20.9	19.7	22.1	23.4	18.0	22.0	33.2	33.5	46.8	50.4	41.8	43.0
Associate professor												
Percent	12.3	18.5	17.3	19.9	25.0	30.8	11.1	15.1	16.8	20.7	20.3	20.6
Number	4.2	5.6	5.0	7.2	8.4	12.0	9.2	10.9	9.8	18.6	18.8	20.0
Full professor												
Percent	4.5	6.8	8.2	9.0	9.5	9.1	4.1	6.3	8.1	9.5	9.9	13.8
Number	10.3	16.1	21.2	25.2	27.0	27.0	16.3	27.2	38.1	45.8	49.4	72.0
Subtotal												
Percent	9.8	11.1	12.3	13.6	12.9	13.7	9.0	10.3	13.0	14.6	13.8	16.3
Number	35.3	41.3	48.3	55.8	53.4	61.0	58.6	71.5	94.7	114.8	110.0	135.0
Other (non-tenure track)												
Percent	33.2	30.4	39.1	37.5	39.2	36.1	35.3	33.1	41.3	34.3	40.4	39.7
Number	4.5	7.4	13.4	19.4	19.2	22.0	10.5	15.7	26.4	43.9	45.2	56.0
All other (full-time instructor)												
Percent	NA	NA	NA	NA	35.8	26.9	NA	NA	NA	NA	37.6	33.7
Number	NA	NA	NA	NA	10.3	7.0	NA	NA	NA	NA	19.5	16.0
All faculty												
Percent	10.6	12.2	14.4	16.0	16.7	16.9	10.1	11.7	15.3	17.3	18.0	20.4
Number	39.8	48.7	61.7	75.2	80.8	90.0	69.1	87.2	121.1	158.7	170.8	207.0
<i>PhD students</i>												
First year (fall of year listed)												
Percent	20.6	29.3	25.7	26.0	25.5	25.8	23.7	28.7	28.9	28.1	27.5	26.0
Number	56.8	76.3	66.8	64.0	61.0	66.0	111.7	138.2	138.7	132.6	122.0	116.0
ABD (fall of year listed)												
Percent	22.9	23.6	28.1	26.4	26.2	24.6	23.4	25.4	29.8	28.1	27.4	27.0
Number	134.8	170.4	240.2	221.0	230.2	221.0	211.9	280.7	398.2	396.1	425.4	444.0
PhD granted (AY ending in year listed)												
Percent	25.7	24.1	27.9	26.8	27.5	28.4	25.8	24.7	28.3	28.9	28.9	26.9
Number	50.5	49.5	57.2	52.8	57.2	57.0	83.5	83.5	97.9	101.8	109.4	98.0
<i>Undergraduate senior majors (AY ending in year listed)</i>												
Percent	NA	36.8	38.6	37.7	36.2	39.0	NA	34.5	36.9	35.4	37.4	38.1
Number	NA	473.1	643.2	775.7	742.4	841.0	NA	949.7	1,526.4	1,891.6	1,966.6	1,994.0
<i>Undergraduate economics majors graduated (in previous AY listed)</i>												
Percent	NA	35.2	37.5	36.3	37.5	40.7	NA	33.3	35.7	35.1	37.6	39.2
Number	NA	467.6	626.6	610.6	842.9	924.0	NA	905.3	1,500.7	1,705.1	2,301.0	2,446.0

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

lack of progress for women in economics.¹² Policy choices by institutions (e.g., length of the tenure clock, family leave, on-site child care and so forth) and departments (e.g., inclusiveness, mentoring, office space, teaching assignments, and so forth) can play significant roles in revers-

ing these trends and allowing women to flourish—and allowing the economics profession and society as a whole to benefit from continuing contributions from female scholars.

Finally, it is worth recognizing *the high representation of women in non-tenure-track teaching jobs*. Almost a third of the full-time female faculty in Top 20 economics departments are in non-tenure track teaching positions. This may play a role in shaping how undergraduate women view the economics profession.

¹²Bayer, Amanda, and Cecilia Elena Rouse. 2016. "Diversity in the Economics Profession: A New Attack on an Old Problem." *Journal of Economic Perspectives* 30 (4): 221–42.

TABLE 3—PERCENT WOMEN IN JOB PLACEMENTS OF NEW PHDs FROM THE TOP ECONOMICS DEPARTMENTS, 1993–2017

Doctoral departments	Top-10						Top-20					
	1993–1996	1997–2001	2002–2006	2007–2011	2012–2016	2017	1993–1996	1997–2001	2002–2006	2007–2011	2012–2016	2017
<i>US-based job obtained</i>												
Percent	25.8	28.9	29.4	27.0	27.6	27.7	28.2	28.0	31.5	30.0	28.5	26.1
Number	35.6	38.6	44.1	37.6	38.6	33.0	60.0	58.6	76.7	70.7	70.0	62.0
Doctoral departments												
Percent	24.9	24.2	29.2	25.5	26.5	31.2	27.9	24.6	30.7	27.8	27.5	26.4
Number	17.0	17.5	25.6	19.4	20.0	15.0	30.3	27.5	41.7	35.2	31.4	23.0
Academic other												
Percent	38.0	50.1	31.5	34.1	39.4	0.0	40.6	49.0	34.3	43.5	34.1	12.5
Number	5.5	6.2	2.9	2.7	2.2	0.0	8.0	7.4	7.3	7.7	6.2	1.0
Non-faculty, any academic department												
Percent	NA	NA	NA	NA	41.4	11.1	NA	NA	NA	NA	32.3	15.2
Number	NA	NA	NA	NA	3.8	2.0	NA	NA	NA	NA	6.3	5.0
Public sector												
Percent	25.0	28.7	29.4	30.3	25.3	46.2	26.8	28.3	32.7	31.2	26.0	31.8
Number	7.1	7.6	8.1	6.5	4.8	6.0	12.1	12.2	14.8	12.1	10.4	7.0
Private sector												
Percent	22.6	31.6	25.8	25.6	26.5	25.0	25.3	29.3	29.5	30.3	29.1	29.5
Number	6.0	7.3	7.5	9.0	8.6	10.0	9.6	11.5	12.9	15.7	17.0	26.0
<i>Foreign-based job obtained</i>												
Percent	19.1	13.7	22.3	22.6	21.8	12.2	18.9	19.2	21.4	25.0	25.1	19.2
Number	6.3	4.1	8.6	12.0	9.2	5.0	11.5	11.0	16.6	26.9	22.6	15.0
Academic												
Percent	26.1	13.4	23.8	23.2	23.5	15.6	21.2	19.6	23.1	24.7	25.4	18.0
Number	5.8	3.1	6.7	9.0	7.0	5.0	9.0	8.3	12.3	18.5	16.2	11.0
Non-academic												
Percent	6.2	15.1	19.2	20.6	17.6	0.0	13.3	17.4	17.8	25.6	24.2	23.5
Number	0.5	1.0	1.9	3.0	2.2	0.0	2.5	2.7	4.3	8.4	6.4	4.0
<i>No job obtained</i>												
Percent	16.3	32.3	12.4	0.0	6.7	0.0	15.2	32.8	25.7	20.9	28.6	0.0
Number	3.3	5.2	1.0	0.0	0.2	0.0	5.3	7.0	4.1	1.4	1.0	0.0
<i>Total on the job market</i>												
Percent	23.5	26.8	27.5	25.4	26.1	23.6	24.8	26.5	29.2	28.3	27.6	24.1
Number	45.2	48.0	53.7	49.6	48.0	38.0	76.8	76.6	97.3	99.0	93.6	77.0

Notes: The (2,6) cell shows that among PhDs from top-10 departments in the 2017 job market, 15 women placed in US-based doctoral departments and these women accounted for 31.2 percent of such placements. For five-year intervals, simple averages are reported.

CSWEP's 45 years of data on the evolution of faculty composition at the department level are unique in the social sciences and beyond. We are pleased to report efforts to document, harmonize, and make these data available to the research community. We now make department-level longitudinal data available to individual departments so that they have this information to determine appropriate steps to achieve gender equity in their student and faculty populations. 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

V. Board Rotations and Acknowledgments

Terra McKinnish will be ending her term as the inaugural Associate Chair for Mentoring in January, and will be replaced by Sebnem Kalemli-Ozcan. Terra created this position as part of a major reorganization of CSWEP leadership, and we are deeply indebted to her for the energy and good judgment with which she has built up our mentoring program. Anne

TABLE 4—PLACEMENT OF NEW PHDs BY GENDER AND DEPARTMENT RANK FOR NEW PHDs IN THE 2016–2017 JOB MARKET

	Top-10		Top-11–20		All others	
	Women	Men	Women	Men	Women	Men
US-based job (share of all individuals by gender)	86.8	69.9	74.4	75.6	72.4	68.9
An academic job in a PhD-granting institution	45.5	38.4	27.6	34.4	30.2	24.5
An academic job in a non-PhD-granting institution	0.0	0.0	3.4	7.8	25.1	25.8
A non-faculty job in any academic department	6.1	18.6	10.3	13.3	7.8	14.1
A public sector job	18.2	8.1	3.4	8.9	12.3	13.1
A private sector job	30.3	34.9	55.2	35.6	24.6	22.5
Foreign job obtained (share of all individuals by gender)	13.2	29.3	25.6	22.7	22.4	27.2
A non-US academic job	100.0	75.0	60.0	85.2	62.0	61.3
A non-US non-academic job	0.0	25.0	40.0	14.8	38.0	38.7
No job found (share of all individuals by gender)	0.0	0.8	0.0	1.7	5.3	3.9
Total number of individuals	38	123	39	119	247	433

Notes: This table is the same as Table 4 in previous years. We have just changed the title.

Winkler will be completing a second term on the CSWEP Board as Midwestern Representative. In addition to a broad slate of Board activities, Anne has developed a program of networking and professional development events at the MEA meetings that she will be turning over to the new Midwestern Rep, Shahina Amin. Petra Todd is also completing an active second term as an At-Large Board member, and we will be welcoming Sandy Black to replace her. CSWEP is very grateful to the outgoing Board members for their generous contributions to CSWEP's mission, and welcomes our new members.

Amber Pipa continues to provide administrative and moral support to all of us, and is information central for all CSWEP activities. We couldn't do any of this without her organizational skills, hard work, and memory.

CSWEP is fully funded by the American Economic Association. Recent funding increases have made the expansion of CSWEP's services possible and the transition to UCSB a smooth one, and for this we are grateful. Very special thanks are due to the AEA Secretary-Treasurer, Peter Rousseau, for his support and counsel and to his excellent staff: Barbara H. Fiser, Gwyn Loftis, and Susan B. Houston as well as Michael P. Albert, Jenna Farabaugh, Linda Hardin, and Julia Merry.

Finally, the Committee is indebted to the Economics Department of the University of California, Santa Barbara for the administrative support of CSWEP's activities, office space, IT support, computer equipment, office supplies, and substantial additional resources.

SHELLY LUNDBERG, *Chair*

TABLE 5—THE CURRENT GENDER COMPOSITION OF FACULTY AND STUDENTS:
ECONOMICS DEPARTMENTS WITH DOCTORAL PROGRAMS

	Number		Percent	
	Women	Men	Women	Men
<i>Faculty composition (Fall 2017)</i>				
Assistant professor	241	603	28.6	71.4
Untenured	216	535	28.8	71.2
Tenured	25	78	24.3	75.7
Associate professor	154	509	23.2	76.8
Untenured	12	34	26.1	73.9
Tenured	142	475	23.0	77.0
Full professor	213	1,310	14.0	86.0
Untenured	5	26	16.1	83.9
Tenured	208	1,284	13.9	86.1
All tenure track	608	2,422	20.1	79.9
Full-time non-tenure track faculty	177	258	40.7	59.3
Part-time non-tenure track faculty	107	244	30.5	69.5
All other full-time instructors	36	92	28.2	71.8
All faculty	928	3,015	23.5	76.5
<i>Students and job market</i>				
<i>Students</i>				
Undergraduate senior economics majors expected to graduate this academic year	7,113	13,642	34.3	65.7
Undergraduate economics majors graduated in previous academic year	7,748	14,972	34.1	65.9
First-year PhD students	492	1,031	32.3	67.7
Registered PhD thesis writers (ABD)	1,469	2,984	33.0	67.0
Number of PhDs granted	361	735	32.9	67.1
<i>Job market (2016–2017 academic year)</i>				
US-based job	241	474	33.7	66.3
An academic job in a PhD-granting institution	77	137	36.0	64.0
An academic job in a non-PhD-granting institution	46	84	35.4	64.6
A non-faculty job in any academic department	19	70	21.3	78.7
A public sector job	29	54	34.9	65.1
A private sector job	70	129	35.2	64.8
Foreign job obtained	70	181	28.0	72.0
A non-US academic job	45	122	27.7	72.3
A non-US non-academic job	25	59	29.9	70.1
PhD students who searched but did not find a job	13	20	39.4	60.6
Number on job market	324	675	32.5	67.5

TABLE 6—GENDER COMPOSITION OF FACULTY AND STUDENTS: ECONOMICS DEPARTMENTS WITHOUT DOCTORAL PROGRAMS

	Number		Percent	
	Women	Men	Women	Men
<i>Faculty composition (Fall 2017)</i>				
Assistant professor	136	181	42.9	57.1
Untenured	124	162	43.4	56.6
Tenured	12	19	38.7	61.3
Associate professor	114	169	40.3	59.7
Untenured	9	7	56.3	43.8
Tenured	105	162	39.3	60.7
Full professor	116	366	24.1	75.9
Untenured	3	9	25.0	75.0
Tenured	113	357	24.1	75.9
All tenure track	366	716	33.8	66.2
Full-time non-tenure track faculty	46	74	38.3	61.7
Part-time non-tenure track faculty	42	90	31.5	68.5
All other full-time instructors	9	31	22.5	77.5
All faculty	463	911	33.7	66.3
<i>Student information (2016–2017 academic year)</i>				
Undergraduate senior economics majors expected to graduate this academic year	2,372	4,253	35.8	64.2
Undergraduate economics majors graduated in previous academic year	2,176	3,892	35.9	64.1
MA students expected to graduate this academic year	67	119	36.0	64.0
MA students graduated in previous academic year	48	67	41.7	58.3
Number of departments			113	

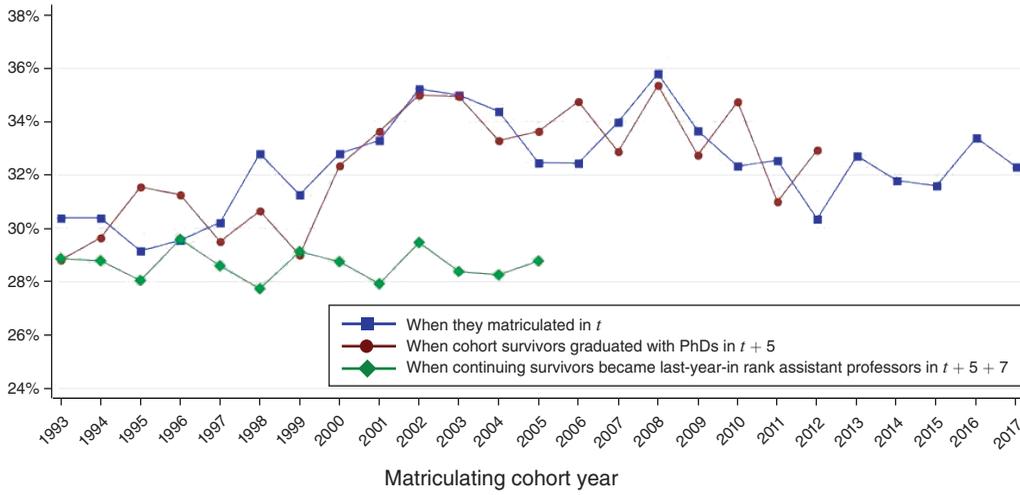


FIGURE 3. LOCK-STEP MODEL: PERCENTAGE OF WOMEN, BY ENTERING PHD COHORTS: MATRICULATION, GRADUATION, AND ENTRY INTO FIRST-YEAR ASSISTANT PROFESSORSHIP

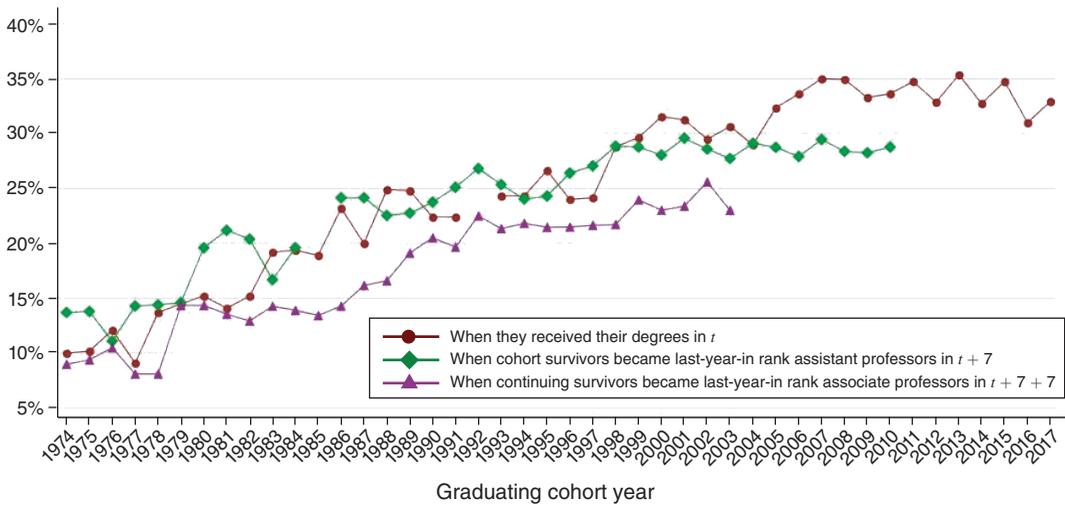


FIGURE 4. LOCK-STEP MODEL: PERCENTAGE OF WOMEN, BY RECEIVING PHD COHORT: GRADUATION, LAST YEAR-IN-RANK ASSISTANT PROFESSORSHIP, AND LAST YEAR-IN-RANK ASSOCIATE PROFESSORS

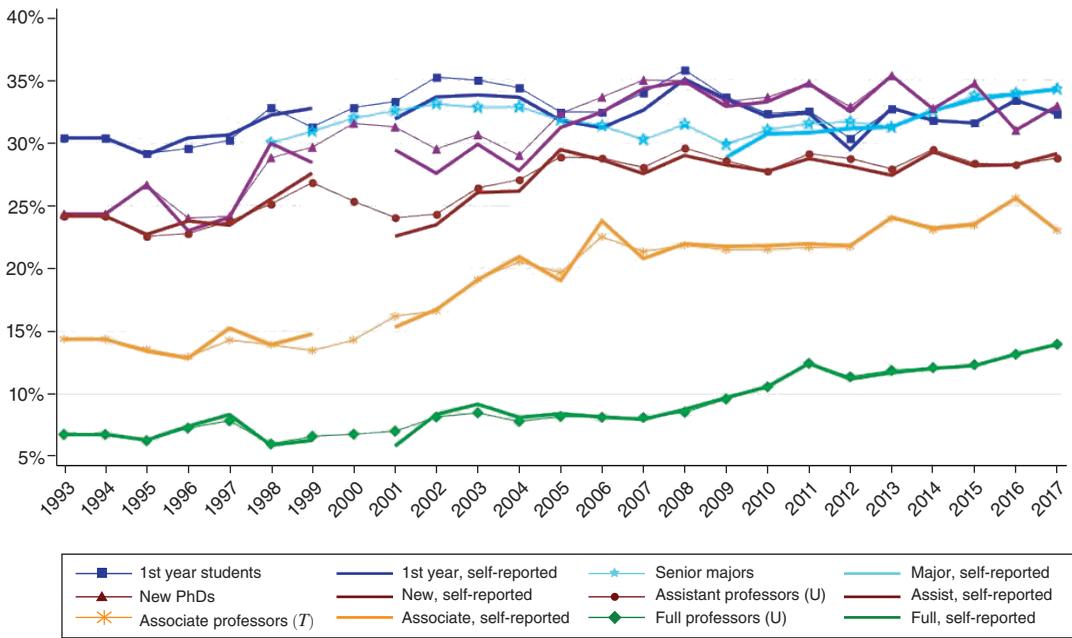


FIGURE 5. COMPARISON OF SELF-REPORTED AND IMPUTED DATA FROM FIGURE 1

TABLE 7—SHARE OF WOMEN IN FIRST-YEAR CLASS IN PhD PROGRAMS

	1993–1996	1997–2001	2002–2006	2007–2011	2012–2016	2017
All PhD programs	30.9	32.9	35.1	35.3	34.5	33.6
Top-20 programs	24.7	27.6	29.5	28.0	28.8	24.8

TABLE 8—DISTRIBUTION OF TOP-20 DEPARTMENTS BY FEMALE SHARE OF FIRST-YEAR PhD CLASS, 2013–2017

	Number of programs				
	2013	2014	2015	2016	2017
<i>Share of women in first-year PhD class</i>					
40 percent or above	6	2	3	6	2
35–39 percent	0	1	0	1	1
30–34 percent	1	5	2	2	8
25–29 percent	3	6	6	5	1
20–24 percent	9	2	6	3	3
Below 20 percent	2	5	4	4	6

Notes: This table classifies departments by the average share of women in their entering class over the period 2013–2017. This differs from the average share of women entering PhD programs, each year, because of differences in the size of various programs.

APPENDIX A
 DIRECTORY OF CSWEP BOARD MEMBERS (2017)

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