

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

## I. Introduction

The Committee on the Status of Women in the Economics Profession (CSWEP) has served women economists by promoting their careers and monitoring their progress through the profession since its founding as a standing committee of the American Economic Association (AEA) in 1971. Our regular activities are myriad: 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 Association: Papers and Proceedings* and reprinted in the CSWEP Annual Report. CSWEP organizes mentoring programs that serve several hundred economists annually. These include the CeMENT Mentoring Workshops for junior women, which have been shown in randomized control trial studies to improve outcomes. CSWEP offers one CeMENT program designed for faculty in PhD-granting institutions or research-oriented nonacademic positions and another for faculty in non-PhD-granting institutions. At the annual AEA/Allied Social Science Associations (ASSA) Meetings, we typically also host three Mentoring Breakfasts as well as a variety of career development roundtables and panels. These were held virtually in 2021. We also typically host career development panels and mentoring events at the meetings of each of the four regional economic associations. These were a mix of virtual and in person in 2021.

CSWEP provides professional opportunities to junior women through competitive entry paper sessions at both the Annual AEA/ASSA Meetings and 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, adjusted for leaves). CSWEP disseminates information on women in economics, professional opportunities, and career development through both the CSWEP website and the *CSWEP News* (which successfully moved from three annual issues to four in 2020). The *CSWEP News* articles provide valuable career development advice for both men and women, and subscriptions have grown to over 3,400. Our website provides and tracks resources for women economists and for economists who seek to create a more inclusive profession.

During 2021, we continued many initiatives launched in 2020 as well as some new initiatives. First, we hosted several career development webinars, including our extremely popular "Fireside Chats with Journal Editors" series, launched in 2020. Following last year's new mentoring event for graduate students, we hosted two graduate student mentoring events. The first, organized by Marika Cabral and Maya Rossin-Slater, was held virtually and attended by 120 women and nonbinary graduate student participants and 35 volunteer mentors. This focused on graduate students pursuing health economics. The second, organized by Jen Doleac, Danila Serra, Javaeria Qureshi, and Catherine Maclean, was held in person in Houston in association with the Southern Economic Association meetings. This session was attended by 35 graduate student mentees and 14 mentors.

In addition to continuing our long-standing initiatives and the initiatives that we launched in 2020, we also undertook new initiatives in 2021. We launched a new virtual networking initiative, organized by Kasey Buckles, Econopalooza. At Econopalooza, we hosted 12 individual meetings of economists divided by field over the course of 3 days. Roughly 220 junior economists and

60 senior economists participated in this event. We also organized a virtual coaching event in which career coach Jill Hinson led a workshop entitled *Thriving in Times of Uncertainty*. About 40 economists attended.

The centerpiece of this Annual Report of CSWEP's activities is the summary of the 2021 Annual Survey in Section IV. The CSWEP data are available to individual researchers via the Inter-university Consortium for Political and Social Research (ICPSR).

Section II reports on the administration of CSWEP. Section III describes CSWEP activities. Associate Chair Margaret Levenstein of the University of Michigan directed the 2021 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 acknowledgements of many who have contributed to CSWEP's mission. Appendix A lists the 2021 board members.

## II. CSWEP Administration

### A. CSWEP Office

Judy Chevalier of Yale University is in her third and final year as CSWEP chair. In September 2018, CSWEP began a new model of administration. CSWEP coordinates with the AEA's Nashville office to house CSWEP's committee coordinator, rather than at the home institution of the chair, as had been done previously. This improved communication between CSWEP and the AEA administration will ease future leadership transitions. In the summer of 2019, the committee coordinator for CSWEP undertook a similar role assisting the Committee on the Status of Minority Groups (CSMGEP). The committee coordinator's time is divided between CSWEP duties, CSMGEP duties, and occasional tasks as needed for the Association. Rebekah Loftis assumed this role in December 2019. Each year, we have made some system improvements. For example, previously, the coordinator worked with the Pittsburgh office to build a common intake form for applicants to our CeMENT mentoring programs. This year, the coordinator worked with the Pittsburgh office to design an intake form for economists interested in being a mentor for those programs. Submissions for volunteer mentors to CeMENT

took place via this intake form for both our doctoral and nondoctoral programs this year.

A central goal of the staffing reorganization was to facilitate smoother and more efficient chair transitions. We look forward to a smooth chair transition this year when Anusha Chari of the University of North Carolina at Chapel Hill steps in as chair. Similarly, a central goal of establishing the submission portals for CeMENT was to facilitate smoother and more efficient transitions of the CeMENT program directors. Martha Bailey plans to step down as CeMENT program director following the 2022 program.

### 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 members of the profession both inside and outside of academia. Our main communications tools are our subscriber email list, our Twitter account, our website, our webinars, and our newsletters.

Our subscriber list remains our primary form of communication. In order to receive communications from CSWEP, members of the profession must send an email to [info@cswep.org](mailto:info@cswep.org). We currently have nearly 3,500 subscribers. A subset of our subscribers are CSWEP liaisons. The CSWEP Liaison Network (created in 2014) recruits an individual at each institution who is willing to ensure that their department completes our annual survey and who is willing to distribute CSWEP newsletters, announcements, and professional development opportunities to potentially interested individuals. Our goal had been to recruit a tenured faculty liaison in every department of economics, including, where appropriate, economics groups in business, public policy, and environmental schools. In 2019, we began an effort to establish a CSWEP liaison in every branch of government that employs PhD economists as well as within each of the major foundations that conduct economic research.

This year, we worked with the AEA office to improve our website and make it easier to navigate. We have also made a substantial effort to improve the professional development resources available on our website. For example, we keep a list of conferences, workshops, and events focused on mentoring or professional development. We have resources for job seekers, resources for

chairs looking to hire diverse talent, etc. This organization of resources can be found at <https://www.aeaweb.org/about-aea/committees/cswep/programs/resources>. Our website also archives recordings of our webinar series.

Our Twitter account, @AEACSWEP, was launched in 2017, and we have been tweeting prize announcements, calls for papers, and information about our board members since that time. Our Twitter account has been instrumental in building awareness of our webinar series and advertising our mentoring opportunities. We also use our Twitter account to flag non-CSWEP professional development resources of interest to our followers and point our followers to the larger set of resources available on our webpage. Our Twitter followers total 6,758 as of this writing, more than double our total 2 years ago.

### III. CSWEP Activities in 2021

#### A. CSWEP and AEA Initiatives on Equity, Diversity, and Professional Climate

The CSWEP Board continues to support AEA efforts on equity, diversity, and professional climate. Board member Petra Moser from New York University serves on the committee to design and award the departmental diversity awards. CSWEP Chair Chevalier also serves on the AEA's outreach committee. Our board continues to stand ready to assist the Executive Committee and Officers in diversity and inclusion efforts that the AEA may launch.

#### B. Mentoring Programs

The effective mentoring of women economists is central to CSWEP's mission. Clearly, our CeMENT Mentoring Workshops are a crucial part of this endeavor. The CSWEP Mentoring Breakfasts at the AEA/ASSA meetings (virtual this year), our mentoring events at five regional economic association meetings, our graduate student mentoring workshops, and our new Econopalooza initiative are all important components of our mentoring work. CSWEP also participates in coordinating the AEA Summer Fellows Program, which provides mentoring and research support for PhD students and junior faculty.

*CeMENT Mentoring Workshop for Faculty in Doctoral Programs and CeMENT Mentoring*

*Workshop for Faculty in Nondoctoral Programs.*—Our CeMENT Mentoring Workshops are the cornerstone of CSWEP's mentoring efforts. This workshop has been demonstrated to be effective in helping junior scholars earn tenure in a randomized controlled trial study.<sup>1</sup>

Responding to the enormous demand for our mentoring workshops, CSWEP increased the number of mentees accommodated in both our workshop for faculty in doctoral programs as well as our workshop for faculty in nondoctoral programs. In early 2020, we also received permission from the Executive Committee to increase the frequency of our workshop devoted to faculty in nondoctoral programs from every other year to every year. Both programs were held virtually in 2021 and are scheduled to be held immediately following the AEA meetings in January 2022.

The 2021 CeMENT Mentoring Workshop for Faculty in Doctoral Programs was held after the virtual ASSA meetings from January 6–8, 2021. The program was organized and directed by Martha Bailey, University of California, Los Angeles. The workshop consisted of large group discussions on career development topics and small group sessions pairing mentors with four to five junior economists with similar research interests. One unique feature of the CeMENT workshops is the small group sessions. The small group sessions allowed each junior participant to receive detailed feedback on a working paper from the other members of their small group. The basis of the small-group discussions was the research papers, CVs, and research statements provided by junior participants. Preparation for these sessions is intensive for both the mentors and the mentees. We received 165 applications from junior economists; 55 junior economists participated in the workshop and were matched with 24 senior mentors.<sup>2</sup>

<sup>1</sup>See Blau, Francine D., Janet M. Currie, Rachel T.A. Croson, and Donna K. Ginther. 2010. "Can Mentoring Help Female Assistant Professors? Interim Results from a Randomized Trial." *American Economic Review* 100 (2): 348–52. And see Ginther, Donna K., Janet M. Currie, Francine D. Blau, and Rachel T.A. Croson. "Can Mentoring Help Female Assistant Professors? Evaluation by Randomized Trial." Unpublished.

<sup>2</sup>We are grateful to the faculty mentors for the workshop for faculty in doctoral programs: Lori Beaman (Northwestern), Pascaline Dupas (Stanford), Sarah Jacobson (Williams), Katrina Jessoe (California, Davis), Muriel Niederle (Stanford), Lise Vesterlund (Pittsburgh), Marika

Based on informal and formal feedback we received, the workshop was a great success. Based on the exit survey, the average junior participant rating of the workshop was 6.63 (on a scale of 1–7 where 1 is “not at all helpful” and 7 is “extremely helpful”). The average mentor rating of the workshop was 6.65. Junior participants rated the group sessions at 6.56, “Getting Published” rated 6.47, breakout discussions rated 5.94, the teaching panel rated 6.14, the networking panel rated 6.35, “Managing Service” rated 6.22, “Getting Tenure” rated 6.56, “Recharging and Sustaining Yourself” rated 6.08, “NSF Discussion” rated 6.09, and “Keynes Writing Discussion” rated 5.72

The CeMENT workshop for faculty at institutions that do not offer a PhD in Economics was held online from January 5–7, 2021. Forty-eight junior faculty and 12 senior mentors attended the workshop organized by Jessica Holmes of Middlebury College.<sup>3</sup> This was the first time that this workshop was held two years in a row and the first time it was held over Zoom.

The workshop is designed to assist faculty who are at institutions that place emphasis on both research and undergraduate teaching. Participants at the 2021 workshop received advice about publishing, grant writing, teaching, creating an inclusive classroom, networking, the tenure process, goal setting, and achieving a work/life balance. Small group sessions allowed each participant to receive detailed feedback on research papers. Overall, the workshop was rated

as extremely helpful, with a mean overall rating of 6.7 out of 7 (1 being “not at all helpful” and 7 being “extremely helpful”). Many participants commented on the support they received and the usefulness of the network that they started at the workshop. Below are some quotes from the participants:

*This was an absolutely wonderful experience. I am so appreciative of Jessica, Rebekah, and all of the mentors. I have almost a full ten pages of notes from the workshop and I know that a ton of time went in behind the scenes and during the event to provide such a gold mine of information. This was the exact mental reset I needed, particularly in the midst of the pandemic. I now have concrete goals established for the semester, a small group for accountability and encouragement going forward, and reinforcement that everyone faces challenges/disappointments in their journey towards tenure. I believe I heard that the workshop will be offered every year going forward, which is great news for junior female economists.*

*I hope this workshop continues on a regular basis. This is an incredible resource for tenure-track faculty. The workshop provided the space to learn tips and strategies to succeed AND to broaden our network (an important resource in itself). Thank you for organizing this and constructing such amazing and incredibly useful sessions!*

*Thank you so much for your hard work in putting this together! I feel very lucky to have had the opportunity to benefit from so much combined knowledge and to meet so many great women in econ.*

*I loved everything about the workshop! The support we all got is truly invaluable. Thank you so much!!*

*This workshop was outstanding, and I will be recommending it to many other junior women!*

*Just wish the program were larger so that more women could participate! Thank you for this amazing experience. It has been*

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Cabral (Texas at Austin), Leemore Dafny (Harvard), Laura Alfaro (Harvard), Ina Simonovska (California, Davis), Ying Fan (Michigan), Ginger Jin (Maryland), Alessandra Voena (Stanford), Sara Reber (California, Los Angeles), Anusha Chari (North Carolina at Chapel Hill), April Franco (Toronto), Ivana Komunjer (Georgetown), Rosa Matzkin (California, Los Angeles), Liz Cascio (Dartmouth), Emily Owens (California, Irvine), Marina Halac (Yale), Kareen Rozen (Brown), Anat Admati (Stanford), and Michelle Lowry (Drexel).

<sup>3</sup>We are grateful to the following faculty mentors for their valuable insights and contributions: Amy Damon (Macalester), Teresa Harrison (Drexel), Pinar Keskin (Wellesley), Kathy Kiel (Holy Cross), Jenn Mellor (William and Mary), Lucie Schmidt (Williams), Gina Shamshak (Goucher), Katherine Smith (US Naval Academy), Sara Solnick (Vermont), Leslie Stratton (Virginia Commonwealth), Kirsten Wandschneider (Occidental), and Marketa Wolfe (Skidmore). The following guest speakers added additional valuable insights: Jenn Pate (Loyola Marymount), Amanda Bayer (Swarthmore), Nancy Lutz (NSF), Korin Davis (Washington Center for Equitable Growth), and Leana Chatrath (Russell Sage Foundation).

*wonderful in many ways. I appreciate all the work by all involved to make this happen.*

For the 2022 virtual workshops, Martha Bailey of UCLA will continue in her direction of the program for faculty in PhD-granting institutions (and for researchers outside academia with similar research expectations). Jessica Holmes of Middlebury College will continue her directorship of the program for faculty from institutions that do not grant PhDs. In 2021, we announced that the 2022 workshop would be virtual; we made this announcement prior to receiving applications. The 2021 applications for the 2022 workshop represent the first time in recent years that we have seen a substantial drop-off in applications. We received 62 applications for the program for faculty in PhD-granting institutions and 30 applications for the program for faculty in non-PhD-granting institutions. We informally received feedback that junior faculty were very reluctant to participate virtually (despite the high ratings from the 2021 session) due to general fatigue regarding virtual events. We also informally received the feedback that the late timing of the program (following later-than-typical meetings) made the workshop impossible for economists who had to return to teaching obligations.

*Mentoring Breakfasts for Junior Economists.*—In place of our typical mentoring breakfasts, CSWEP held a virtual mentoring event for junior economists during the AEA meetings. This was organized by Sandy Black of Columbia University and our Associate Chair for Mentoring, Sebnem Kalemlı-Ozcan of the University of Maryland. Approximately 200 junior economists participated across the 2 breakfasts. Senior mentors staffed topical tables (research/publishing, teaching, tenure/promotion, nonacademic careers/grant writing, work/life balance, job market, networking, and getting involved in policy), and junior participants rotated between the virtual tables at 20-minute intervals based on their own interests. In a postevent survey of participants, the median rating was 87 out of 100.

*Peer Mentoring Breakfast for Midcareer Economists.*—In place of our typical Midcareer

Mentoring Breakfast, CSWEP held a virtual mentoring event for midcareer economists during the AEA meetings. This was organized by Petra Moser of New York University at the 2021 ASSA meetings. Approximately 40 midcareer women attended the event with senior mentors. The breakfast was devoted to informal discussion at virtual tables using Remo. Each table consisted of four to six midcareer participants and one to two senior mentors who moderated the discussions about promotion to full professor, whether to accept administrative roles, managing research time, work/life balance, career transitions, and negotiating with department and university administrators.

*AEA Summer Economics Fellows Program.*—Begun in 2006 with funding 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. The sponsoring institutions are largely government agencies. Many fellows have reported this experience as a career-changing event.

Dan Newlon directs the summer fellows program. Our committee coordinator manages incoming applications. Two members of our board (Karen Pence and Shahina Amin) were a part of the committee to assess applicants.<sup>4</sup> This was an exceptionally good year for the AEA Economics Summer Fellows Program, despite a pandemic-related freeze on hiring by some of the government agencies that have in the past

<sup>4</sup>Many thanks to the 2021 committee for screening and matching fellows to sponsors: Daniel Newlon from the AEA (chair), CSWEP board member Karen Pence of the Board of Governors of the Federal Reserve System, Shahina Amin of the University of Northern Iowa, Ivan Vidangos of the Board of Governors of the Federal Reserve System, Ebonya Washington of Yale University, and Lucia Foster of the Center for Economic Studies at the US Bureau of the Census. More information on the AEA Fellows Program is available at <https://www.aeaweb.org/about-aea/committees/summer-fellows-program>.

hired fellows. Seventeen fellows were hired in 2021, a substantial increase from the 14 hired last year. Of these, five were from disadvantaged minority groups (one woman postdoc and four women graduate students). And the hiring was spread across 12 different sponsors.

The number of applications dropped from 230 to 105 applications, but 105 is still a relatively high number of applications over the history of the program. And the overall success rate for applicants rose from 6 percent last year to 16 percent. The number of minority applications dropped slightly from 19 to 17, and the success rate for minority applications increased from 21 percent to 35 percent.

The hiring was spread across 12 different sponsors, an increase from the 8 sponsors that hired fellows last year. One fellow was hired by a new sponsor, the Washington Center for Equitable Growth. The rest were hired by the Federal Reserve Board and by Federal Reserve Banks in Atlanta, Chicago, Dallas, Kansas City, Minnesota, New York, Philadelphia, Richmond, and St. Louis.

*Workshop for Graduate Students.*—The first workshop, organized by Marika Cabral and Maya Rossin-Slater, was held virtually on September 17, 2021. In health economics and health policy fields, a successful research career is often dependent on access to restricted administrative datasets (e.g., insurance claims data), the ability to raise grant funding, interdisciplinary collaborations, and the ability to publish in interdisciplinary outlets. Thus, the challenges faced by underrepresented groups in the profession are compounded because these benefits and skills tend to be disseminated through networks and the “hidden curriculum.” The goal of this workshop was to begin to lower these barriers. Given the virtual nature of the workshop and the willingness of volunteer mentors, we were able to accept all 120 women and nonbinary graduate student participants who applied. There were 35 volunteer mentors.

Jen Doleac, Danila Serra, Javaeria Qureshi, and Catherine Maclean organized and hosted an in-person workshop in Houston in association with the Southern Economic Association meetings. This workshop was held on November 17, 2021. Participants were organized into small groups based on shared research interests, and each group was matched with two mentors.

Mentors were women/nonbinary economists in early stages of their careers—assistant and associate professors in economics and other departments, as well as those employed outside academia (e.g., research think tanks, government positions). The workshop focused on a variety of issues, including generating research ideas, finding advisors, collaboration and coauthorship, finding opportunities to present research and get feedback, networking, and work/life balance. We accepted 43 mentees out of the overall 81 applicants. Thirty-five mentees ultimately attended and were paired with 14 mentors.

*Econopalooza.*—From June 15 to 17, CSWEP held an event to promote networking entitled “Econopalooza.” The event, organized by board member Kasey Buckles, consisted of 12 field-specific sessions featuring breakout rooms, each breakout group led by a senior facilitator. Each junior researcher was asked to prepare a one-minute “elevator pitch” to introduce themselves and their research. The goal of the event was to provide a low-time-commitment opportunity for individuals to meet other people in their field. As we wrote in the instructions, “the event will be a success if it facilitates any new connections, for example: (1) one person in your group follows up with another about an idea or data after the event, (2) one person adds another person to a seminar invitation list, (3) one person thinks of another person when organizing a session to submit to a conference, (4) one person in your group seeks out another at a subsequent in-person or virtual conference break to talk about work.” Overall, we had 60 senior facilitators participate and 220 junior participants. We solicited feedback from both the senior facilitators and the junior participants. When asked if this virtual event should continue even after in-person events resume, 80 percent of respondents replied that it should continue.

*Professional Development Webinars.*—In June 2020, CSWEP launched our first webinar. In the subsequent 18 months, we have hosted roughly 3000 people at our webinar events. Our 2021 webinars are summarized below.

After the 2021 AEA meetings, CSWEP cohosted with CSMGEP a panel discussion entitled “Helping Graduate Students Get into Economics Graduate School.” Organized by

Dick Startz, the panelists consisted of John List, University of Chicago; James Peoples, University of Wisconsin-Milwaukee; Nancy Rose, MIT; Danila Serra, Texas A&M; and Dick Startz, University of California-Santa Barbara. Overall, 228 people attended the webinar. We plan to host another, similar event on January 28, 2022, cosponsored again with CSMGEP, the Committee on Economic Education, and also the Committee on the Status of LGBTQ+ Individuals in the Economics Profession.

In 2021, we also continued our successful “Fireside Chats with Journal Editors” series, organized by CSWEP board member and incoming chair Anusha Chari. Following up on our 2020 interviews with the editors of the *American Economic Review*, *American Economic Review: Insights*, and *American Economic Journal: Economic Policy*, we hosted interviews with the AEA data editor, the social science editor of *Science*, and the editors of the *American Economic Journal: Macroeconomics*, *American Economic Journal: Microeconomics*, *American Economic Journal: Applied Economics*, *Journal of Financial Economics*, *Journal of Finance*, and *Review of Financial Studies*. All in all, 2,366 people attended our fireside chat webinar series from a diverse set of institutions.

In 2021, we also hosted a webinar entitled “Disparities in Economics Seminars: Research and Responses.” Organized by CSWEP chair Judy Chevalier, the event featured four speakers who had conducted research on seminars, representation, and seminar behavior in economics and finance. This webinar was attended by 275 people.

Finally, in 2021, we hosted a workshop discussion event with career coach Jill Hinson entitled “Thriving in Times of Uncertainty: A Workshop on Building Resilience.” This event arose out of interest from our members. This event had a capped participation and was designed as an interactive workshop in which participants strategized as to how to navigate the current challenges. Forty people attended.

#### C. Awards

*Carolyn Shaw Bell Award.*—Dr. Joyce P. Jacobsen, President of Hobart and William Smith Colleges, is the recipient of the 2021 Carolyn Shaw Bell Award. Professor Jacobsen is the first woman to serve as the president

of Hobart and William Smith Colleges. Dr. Jacobsen is an important scholar of labor economics and the economics of gender. Her textbook *The Economics of Gender* has become the standard in the field. In addition to her scholarship, Professor Jacobsen is an award-winning teacher, a generous citizen of the profession, an exceptional advisor and mentor, and a respected and skillful academic leader. The award was presented at the 2022 virtual AEA meetings.

#### D. CSWEP’s Presence at the Annual Association Meetings and Regional Economic Association Meetings

*The 2021 American Economic Association Meeting.*—In addition to mentoring activities, the presentation of the Annual Report, and the presentation of awards, CSWEP sponsored seven competitive-entry paper sessions at the virtual AEA/ASSA Meetings. For the 2021 meetings, Shahina Amin of the University of Iowa, Petra Todd of the University of Pennsylvania, and Lise Vesterlund of the University of Pittsburgh organized four sessions in the economics of gender, including one on gender in the economics profession. Petra Moser of New York University and Antoinette Schoar of the MIT Sloan School of Management organized two sessions on innovation and entrepreneurship. Jonathan Guryan of Northwestern University and Jesse Rothstein of University of California, Berkeley, organized one session on Inequality. These committees selected seven papers for publication in three pseudosessions in the *AEA Papers and Proceedings*. 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 woman.

The submission process for these sessions is highly competitive—there were 95 abstract submissions for the 2021 sessions. Women consistently report that these sessions, which put their research before a wide audience, are professionally valuable.

*Five 2021 Regional Economic Association Meetings.*—CSWEP maintains a strong presence at all four of the regional economic association meetings and, through our Washington, DC, representative, intends to have a presence at the annual conference of the Association for Public Policy Analysis and Management. Our

prepandemic practice was to host a networking breakfast or lunch as well as paper sessions and career development panels at the regional meetings. These events are typically well attended by people of all genders and provide an informal opportunity for CSWEP representatives and senior women to network and mentor one on one. We are grateful to the regional representatives who organize and host CSWEP's presence at the regionals.

Due to the pandemic, the Forty-Seventh Annual Eastern Economic Conference was held virtually from February 25 to 28, 2021. CSWEP Eastern Representative Terry-Ann Craigie organized three paper sessions and two career development panel sessions and hosted a virtual cocktail hour. The paper sessions consisted of high-quality papers on gender, health, and development. Despite the virtual format, CSWEP presentations elicited vibrant discussions and useful feedback from all attendees.

In addition to the paper sessions, CSWEP organized two career development panel sessions on "Navigating the Publication Process in Economics" and "Demystifying Tenure and Promotion in the Academy." The panelists for these events were women highly esteemed in their fields. Attendees all lauded these career development panels as providing helpful information for navigating publishing, tenure, and promotion in the academy.

The CSWEP breakfast usually held at the Easterns was replaced with a virtual cocktail hour. We used breakout rooms to discuss various topics, such as tenure and promotion, research, teaching, and work/life balance. The virtual cocktail hour was well attended and brought a sense of community to the virtual format of the conference.

The Midwest Economic Association Conference was held virtually in March 2021. CSWEP sessions were on Friday, March 26, 2021. CSWEP Midwestern representative Shahina Amin organized two career development panels and a virtual mentoring "breakfast." The first session topic was "Advice for Job Seekers"; there were four great speakers who covered academic and nonacademic jobs—Evan Buntrock from Amazon, Frances Lee from Loyola University, Ruoyun Mao from Grinnell College, and Shahnaz Parsaeian from the University of Kansas. The second session topic was "Academic Challenges and Opportunities";

four panelists discussed research, teaching, and service during COVID-19 era. The panelists were Jill S. Harris from the US Air Force Academy, Debra Israel from Indiana State University, Georgia Kosmopoulou from the University of Oklahoma, and Anne Villamil from the University of Iowa. Both sessions were lively and well attended. The virtual mentoring "breakfast" for junior faculty in nondoctoral programs was capped at 15 people and featured lively discussion.

For the Western Economic Association International Meetings (June 27–July 1, 2021), Catalina Amuedo-Dorantes (CSWEP Board Western Representative) organized two virtual paper sessions—one featured five research papers focused on immigration ("Immigrants and Immigration Policy") and a second featuring five researchers' work on issues related to women and labor markets during the COVID-19 pandemic ("Gender, Social Networks, Labor Markets and COVID-19"). All sessions were well attended, offering junior researchers an opportunity to present their work, get valuable feedback on their work, and meet other academics and researchers through the online platform. Despite its virtual nature, all sessions ran smoothly, and everyone was pleased and happy to have the opportunity to share this work and talk with other academics.

CSWEP Washington, DC, representative Stephanie Aaronson organized two sessions for the Association for Public Policy Analysis and Management (APPAM). The APPAM was originally scheduled for fall 2021 but has been postponed to spring 2022. CSWEP will host two panels: one employment and training panel titled "Economic Recovery from the Coronavirus Pandemic" and one social equity and race panel titled "Equitable Data/Advancing Racial Equity and Support for Underserved Communities." Each panel will feature the research from women in the academic and policy communities, including junior and minority scholars as presenters and discussants.

In addition to the forthcoming plans for APPAM, the CSWEP Washington, DC, group (DCSWEP) held 1 virtual networking event attended by 47 women economists in nonacademic jobs around the country. In December 2021, DCSWEP and the Brookings Institution cohosted an in-person networking event at the Brookings offices.



The Southern Economic Association Meeting in Houston in November 2021 was the only regional meeting to meet in person. As already discussed, Southern Representative Jen Doleac coorganized a mentoring session for graduate students the day before the meeting. Jen Doleac also organized three research sessions (two on crime, one on education) and two professional development sessions (“Welcome to #EconTwitter” and “Strategies to Increase Gender Diversity in Economics”). CSWEP also hosted a coffee break each day of the meeting to facilitate networking among women in the profession. The events at the Southern Economic Association all received positive feedback from those in attendance.

#### E. *CSWEP News: 2021 Focus and Features*

Under the able direction of *CSWEP News* Oversight Editor Kate Silz-Carson of the US Air Force Academy, and with the graphic design expertise of Leda Black, CSWEP published four newsletter issues in 2021.

The first issue of the year contains the CSWEP annual report and an interview with the CSWEP prize winners. The other three issues of the year each feature 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. The CSWEP Board extends our thanks to the authors and other contributors.

*Issue 2: Alternative Career Paths in Economics, DC Economists.*—This *Focus* section, organized by Gray Kimbrough of the Society of Government Economists, continues the theme of highlighting economists across sectors. It grows out of a session that Gray Kimbrough organized at the Society of Government Economists in 2020. In the session, Washington, DC–area economists with interests in policy described their jobs and career paths. In the *Focus* section, some of the original panel participants, plus others, wrote pieces describing their career paths, the nature of the hiring process at their workplace, and the nature of work at their workplace. The *Focus* section featured economists from academia, a policy organization, and several government agencies.

*Issue 3: The Status of Women in the Economics Profession around the World.*—Karen Pence of the Federal Reserve Board coedited an excellent *Focus* section in which international women leaders in economics presented recent surveys measuring the status of women in economics in Canada, Australia and New Zealand, and the United Kingdom. As reported in the *Focus* section, colleagues in Canada launched a climate survey patterned after the AEA survey. Many of the findings reported in the *Focus* section articles echo findings in our annual CSWEP survey and the AEA climate survey.

*Issue 4: Finding \$\$\$ for Your Research.*—Our Southern Representative, Jen Doleac, hosted a series of panels at the Southern Economic Association meetings in 2020 on the topic of obtaining research funding. In this *Focus* section, she interviewed funders and economists who have been successful in getting funding. As noted in Jen Doleac’s excellent introduction, obtaining funding is an important element of the “hidden curriculum.” Website instructions of how to apply are not explicit in explaining the role of program officers. Often, it is not easy to tell if a proposed project would fit at all in the purview of the funder’s interests. The interviews presented in this *Focus* are extraordinary in providing a window into this process and how it varies across funder organizations.

CSWEP wishes to extend our thanks to all those who took the time to write contributions to newsletters during 2021. Professional development features of these and past issues of *CSWEP News* are now more easily accessible at CSWEP.org, where one can find them archived by year as well as by target audience and topic.

## IV. Status of Women in the Economics Profession<sup>5</sup>

### A. *Women’s Status in the Economics Profession: Summary*

This report presents the results of the 2021 CSWEP survey of US economics departments. It compares the top-ranked economics

<sup>5</sup>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.

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	2016	2017	2018	2019	2020	2021
<i>Faculty</i>										
Full professor										
Percent	6.7	6.4	7.7	10.1	12.9	12.6	14.0	14.3	14.7	15.5
Number	93.7	94.9	122.7	160.8	204.0	193.0	221.0	229.0	234.0	250.0
Associate professor										
Percent	13.4	15.5	20.2	22.4	25.2	23.5	26.0	26.1	27.2	28.1
Number	74.5	85.4	113.6	136.0	173.5	157.0	174.0	184.0	190.5	196.0
Assistant professor										
Percent	23.6	24.4	27.9	28.3	27.9	28.5	28.5	30.2	31.4	32.6
Number	137.2	146.6	199.7	223.8	233.0	246.5	237.0	248.0	255.0	274.5
All tenure track (subtotal)										
Percent	12.1	12.4	15.2	17.4	19.6	19.5	20.5	21.1	21.9	22.9
Number	305.4	326.9	436.0	520.7	610.5	596.5	632.0	661.0	679.5	720.5
All non-tenure track										
Percent	33.2	30.8	33.2	34.4	35.1	34.9	36.9	37.9	39.3	40.1
Number	39.2	91.0	150.7	209.0	311.0	325.0	234.0	285.3	263.0	298.0
All faculty										
Percent	13.0	14.2	17.7	20.3	23.1	23.1	23.3	24.4	25.0	26.2
Number	344.7	418.0	586.7	729.6	921.5	921.5	866.0	946.3	942.5	1018.5
<i>PhD students</i>										
PhD granted										
Percent	24.7	30.0	32.1	33.9	31.0	32.7	31.9	32.4	34.8	32.8
Number	214.0	265.9	326.1	367.1	372.0	359.0	368.0	349.0	378.0	359.0
ABD										
Percent	27.4	30.7	33.9	33.9	31.7	33.0	32.6	32.9	32.6	34.9
Number	647.2	850.4	1,219.8	1,317.7	1,430.0	1,469.0	1,477.0	1,457.0	1,464.5	1,610.0
First year										
Percent	29.9	33.2	33.5	32.9	33.4	32.5	33.0	34.7	35.5	38.4
Number	445.4	518.2	568.4	557.6	517.0	498.0	474.0	542.0	452.0	483.0
<i>Undergraduate economics majors graduated</i>										
Percent	32.0	32.1	31.6	30.5	32.9	34.0	34.1	33.4	34.9	34.7
Number	2,498	3,281	5,114	5,785	7,577	7,894	8,225	8,336	9,202	8,316
<i>Undergraduate senior majors</i>										
Percent	—	—	—	30.7	34.1	34.5	35.9	33.9	34.7	34.4
Number	—	—	—	7,589	7,534	7,774	8,417	8,356	8,084	7,989

Notes: Entry and exit change the population universe. Any known PhD programs are considered members of the population. Any nonrespondents 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.

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 the 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 in the entry of women into the economics profession. The share of women entering PhD programs has

increased each of the last three years, reaching 38.4 percent in 2021, the highest ever (Table 1). 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 32.8 percent. The overall share of women in the faculty of PhD-granting economics departments has increased each year since 2017, reaching 26.2 percent, its highest level ever, in 2021 (Table 1). At every level of the professoriate, the female share is higher in 2021 than at any

point in the past. Another sign of progress is that again in 2021, 12 top 20 departments have first year classes that are at least 35 percent female (Table 7). The number of top 20 departments with incoming classes with less than 25 percent women has declined from 9 in 2017 and 2018 to 3 in 2021. Note that despite this progress, there are still more women in non-tenure track positions (298) in PhD-granting economics departments than either full (250) or associate (196) professors (Table 1).

The share of women among undergraduate economics majors at these same schools has increased (from 32.1 percent in 1998 to 34.7 percent in 2021) but is still well below parity and does not approach the 55 percent share of women in the undergraduate population.<sup>6</sup>

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. 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 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 for nearly two decades. The small but positive changes in the last three years suggest that improvement in the representation of women in the economics profession is possible. Continuing commitment at the department and discipline level to make the field inclusive and equitable are critical to continuing this

progress so that the field is more representative of the people it studies

### B. *The CSWEP Annual Surveys, 1972–2021*

In fall 2021, CSWEP surveyed 127 doctoral departments and 124 nondoctoral departments. This report analyzes the responses provided by 127 doctoral and 109 nondoctoral departments.<sup>7</sup> The nondoctoral 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.

### C. *2021 Survey Results*

In 2021, the share of tenure-track faculty in PhD-granting economics departments who are women reached an all-time high at 22.9 percent (Table 1). The shares of women at each level of the professoriate—assistant, associate, and full—reached all-time highs (Figure 1). 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. Similarly, the share of women in the entering PhD class, which had stagnated over the previous two decades, increased in each of the last three years. Even with the progress

<sup>6</sup>According to the National Center for Science and Engineering Statistics Report on Women, Minorities, and Persons with Disabilities in Science and Engineering, 55 percent of full-time undergraduates are female. (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: National Science Foundation. <https://www.nsf.gov/statistics/wmpd>.)

<sup>7</sup>We handle missing data as follows. We impute responses for missing items or nonresponding departments. In years when nonresponders 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 Scott and the American Economic Association for sharing the UAQ data with us.

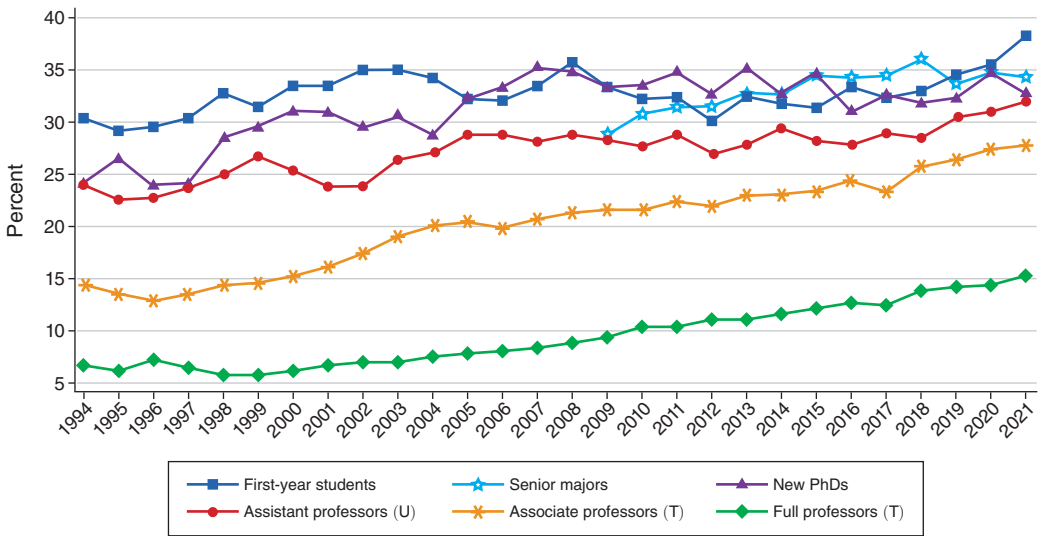


FIGURE 1. PIPELINE FOR DEPARTMENTS WITH DOCTORAL PROGRAMS: PERCENT OF DOCTORAL STUDENTS AND FACULTY WHO ARE WOMEN, 1994–2021

of the last three years, women make up barely 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 (Table 1): there is still a long way to creating an equitable and inclusive economics profession.

Turning to the 21 economics departments that make up the “top 20” and produce the vast majority of faculty who teach in PhD-granting departments, we see both hopeful and concerning news in 2021 (Tables 2a and 2b). The number of female tenure-track faculty fell in both top 10 and top 20 departments last year. Perhaps most disturbing, the number and share of female assistant professors fell. There are 19 female assistant professors in top 10 departments, below the average for the 1990s. Women make up a smaller share of assistant professors in top departments than they did in the beginning of the twenty-first century. On the other hand, the share of women in the entering PhD classes in both top 10 and top 20 departments increased last year and in every year for the last 3 years. In 2021, women make up 36.2 percent of new students in top 10 departments, the highest fraction ever.

Turning to an examination of nondoctoral departments, we see a similarly mixed, but

somewhat more positive, pattern (Figure 2 and Table 3).<sup>8</sup> The share of faculty who are women is higher than in PhD-granting departments, at every level of the professoriate, and has increased from around 30 percent in the early 2000s to 37.5 percent in 2021. The female share of both assistant and associate professors is above 40 percent. Both doctoral and nondoctoral programs rely on women to teach, with women making up 40.1 percent of all non-tenure track faculty in the former and 37.1 percent in the latter (Tables 1 and 3).

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 2021, new doctorates were 32.8 percent female, falling to 32.6 percent for assistant professors, 28.1 percent for tenured associate professors, and 15.5 percent for full professors. This pattern has been characterized as a “leaky

<sup>8</sup>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 master’s degrees. Figure 2 and Table 3 use a consistent panel of departments over time.

TABLE 2A—THE PIPELINE FOR TOP DEPARTMENTS: PERCENT AND NUMBERS OF FACULTY AND STUDENTS WHO ARE WOMEN

	Top-10 schools									
	1994– 1997	1998– 2002	2003– 2007	2008– 2012	2016	2017	2018	2019	2020	2021
<i>Faculty</i>										
Full professor										
Percent	4.7	7.1	8.3	8.9	9.2	9.1	10.7	12.2	12.5	12.7
Number	10.8	17.8	21.5	25.8	26.0	27.0	33.0	39.0	39.0	34.0
Associate professor										
Percent	12.5	21.1	16.4	22.5	28.9	30.8	26.3	21.2	22.2	31.2
Number	4.5	6.1	4.8	7.7	13.0	12.0	10.0	7.0	8.0	10.0
Assistant professor										
Percent	20.4	18.0	22.7	23.1	18.0	20.2	17.9	19.8	22.4	21.1
Number	20.8	19.0	23.7	23.0	18.0	22.0	17.0	19.0	22.0	19.0
All tenure track (subtotal)										
Percent	9.9	11.1	12.7	13.3	13.3	13.7	13.6	14.5	15.5	16.2
Number	36.0	42.9	50.0	56.5	57.0	61.0	60.0	65.0	69.0	63.0
All non-tenure track										
Percent	34.7	31.4	40.0	35.9	39.3	33.3	34.4	35.7	34.2	32.9
Number	5.3	7.6	15.2	20.0	35.0	29.0	22.0	30.3	25.0	24.0
All faculty										
Percent	10.8	12.3	15.1	15.8	17.8	16.9	16.2	17.9	18.1	18.8
Number	41.3	50.5	65.2	76.5	92.0	90.0	82.0	95.3	94.0	87.0
<i>PhD students</i>										
PhD granted										
Percent	24.6	24.8	28.6	26.7	26.4	28.4	23.6	29.9	23.6	23.6
Number	51.3	51.0	57.0	54.0	58.0	57.0	49.0	64.0	49.0	49.0
ABD										
Percent	22.9	24.4	28.0	26.1	25.4	24.6	26.9	25.2	24.7	27.0
Number	134.8	184.0	240.2	218.8	247.0	221.0	264.0	234.0	233.0	265.0
First year										
Percent	24.5	28.1	26.3	24.4	29.8	25.8	26.1	32.1	32.6	36.2
Number	69.3	72.5	66.8	61.0	68.0	66.0	59.0	71.0	71.0	68.0
<i>Undergraduate economics majors graduated</i>										
Percent	31.1	34.1	35.7	35.5	36.0	39.6	36.3	37.1	36.5	40.7
Number	372	668	777	744	907	990	866	965	944	1,051
<i>Undergraduate senior majors</i>										
Percent	—	—	—	38.7	36.6	38.3	38.9	37.1	37.7	38.8
Number	—	—	—	967	924	984	959	1,014	1,023	1,066

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.

pipeline.” Our reliance on this leaky pipeline for incremental 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 lockstep 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 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

TABLE 2B—THE PIPELINE FOR TOP DEPARTMENTS: PERCENT AND NUMBERS OF FACULTY AND STUDENTS WHO ARE WOMEN

	Top-20 schools									
	1994– 1997	1998– 2002	2003– 2007	2008– 2012	2016	2017	2018	2019	2020	2021
<i>Faculty</i>										
Full professor										
Percent	4.3	6.4	7.7	8.8	11.3	10.2	11.6	12.7	13.1	13.4
Number	17.3	29.5	36.5	42.8	58.0	53.0	62.0	69.0	72.0	69.0
Associate professor										
Percent	11.9	17.1	16.3	22.5	20.2	20.6	20.6	16.8	16.4	21.2
Number	9.8	11.6	10.1	19.9	22.0	20.0	20.0	16.0	15.0	19.0
Assistant professor										
Percent	18.0	18.2	24.5	22.9	21.2	20.7	21.5	22.3	25.0	22.7
Number	31.8	35.3	50.6	49.4	44.0	43.0	45.0	43.0	50.0	48.0
All tenure track (subtotal)										
Percent	9.0	10.6	13.1	14.1	14.9	14.0	15.1	15.4	16.3	16.7
Number	58.8	76.4	97.2	112.1	124.0	116.0	127.0	128.0	137.0	136.0
All non-tenure track										
Percent	37.3	32.3	41.5	34.3	39.3	38.2	32.5	39.0	40.4	39.5
Number	11.5	16.7	30.2	46.5	70.0	72.0	48.0	75.3	70.5	73.0
All faculty										
Percent	10.2	12.0	15.6	17.0	19.2	18.5	17.7	19.8	20.4	20.9
Number	70.3	93.1	127.4	158.6	194.0	188.0	175.0	203.3	207.5	209.0
<i>PhD students</i>										
PhD granted										
Percent	25.0	24.9	29.5	28.2	26.2	26.9	25.3	32.0	27.7	26.3
Number	84.3	84.1	102.1	100.6	112.0	98.0	98.0	123.0	103.0	94.0
ABD										
Percent	23.4	26.2	29.9	28.2	26.7	27.0	27.3	25.9	26.9	31.6
Number	218.9	297.4	407.1	401.5	451.0	444.0	447.0	396.0	439.0	521.0
First year										
Percent	25.8	29.3	28.4	27.6	29.5	26.0	29.9	32.5	34.4	35.3
Number	124.1	142.5	135.4	129.2	130.0	116.0	126.0	167.0	128.0	129.0
<i>Undergraduate economics majors graduated</i>										
Percent	32.2	33.9	35.5	35.5	37.3	38.8	37.0	36.9	37.6	41.2
Number	866	1,362	1,906	1,943	2,502	2,512	2,431	2,324	2,385	2,430
<i>Undergraduate senior majors</i>										
Percent	—	—	—	36.1	37.9	37.8	38.6	37.7	38.1	37.8
Number	—	—	—	2,326	2,601	2,602	2,699	2,590	2,522	2,626

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.

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). The progress of the last three years is also evident here, as the green line representing assistant professors has converged to the red line of graduate students to the point that they are now almost equal. The estimated leakage of associate professors was also smaller in the last three years (note the convergence of the green and purple lines for the graduating classes of 2005 and 2006).

Figure 5 shows the trend for women undergraduate senior majors over time. The female share of undergraduate majors seems have been flat, at around 35 percent, since 2015. The share female fell in 2021, driven by declines in undergrads in PhD-granting departments, despite increases in women undergrads in non-PhD departments.

Tables 4, 5, and 6 provide snapshots of the job market experiences of women from different types of PhD programs. Women made up 25.1 percent of job candidates from the top 20 schools last year (Table 4) and almost 35.4 percent of

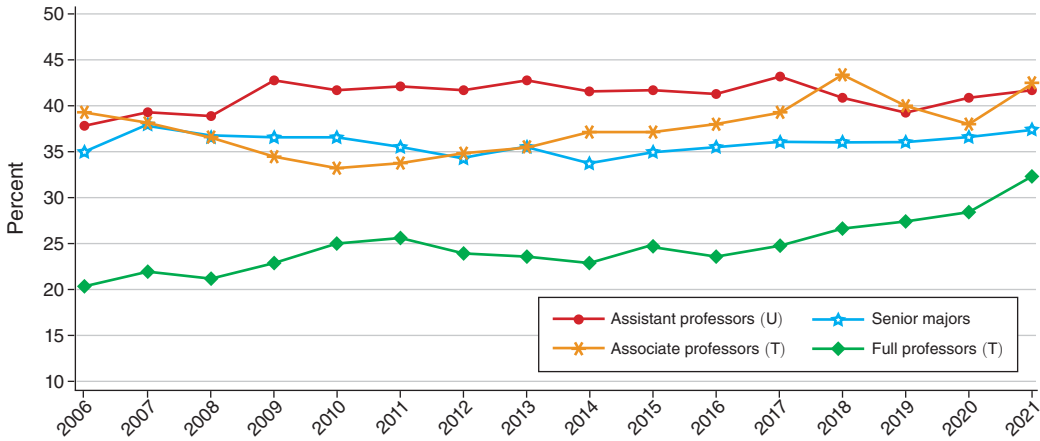


FIGURE 2. PIPELINE FOR DEPARTMENTS WITHOUT DOCTORAL PROGRAMS: PERCENT OF STUDENTS AND FACULTY WHO ARE WOMEN, 2006–2021

TABLE 3—PERCENT AND NUMBER OF WOMEN FACULTY AND STUDENTS: ECONOMICS DEPARTMENTS WITHOUT DOCTORAL PROGRAMS

	2006	2008	2010	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
<i>Faculty</i>													
<i>Full professor</i>													
Percent	20.1	20.8	24.5	23.7	23.4	23.3	23.6	23.4	24.7	27.2	27.7	27.8	32.4
Number	78.1	91.1	114.2	111.6	106.0	105.5	107.0	102.5	111.5	125.5	128.2	127.3	149.2
<i>Associate professor</i>													
Percent	37.8	35.2	32.0	33.7	35.4	35.7	37.1	37.9	39.6	43.7	40.4	38.7	41.5
Number	90.0	91.7	89.0	89.7	89.2	93.7	94.8	94.1	102.8	116.5	115.5	107.0	128.1
<i>Assistant professor</i>													
Percent	38.1	39.1	40.2	40.2	40.5	41.9	42.4	41.0	42.8	40.4	39.7	40.9	40.9
Number	87.7	101.2	113.4	117.4	109.1	115.3	126.2	125.6	132.0	133.2	138.2	146.7	139.2
<i>All tenure track (subtotal)</i>													
Percent	29.8	29.7	30.9	31.0	31.2	31.8	32.6	32.5	34.0	35.5	34.8	34.9	37.5
Number	255.8	283.9	316.5	318.7	304.3	314.5	328.0	322.2	346.3	375.2	381.8	381.0	416.6
<i>All non-tenure track</i>													
Percent	34.6	36.9	36.6	31.4	34.3	33.8	34.4	34.2	31.5	26.3	32.9	25.5	37.1
Number	83.0	98.4	95.2	102.7	66.3	86.0	129.5	114.7	94.8	51.2	84.0	52.3	115.0
<i>All faculty</i>													
Percent	30.9	31.2	32.0	31.1	31.7	32.2	33.1	32.9	33.4	34.0	34.5	33.4	37.4
Number	338.8	382.3	411.7	421.4	370.5	400.5	457.5	436.8	441.2	426.3	465.8	433.3	531.6
<i>Students</i>													
<i>Undergraduate economics majors granted</i>													
Percent	34.1	33.6	35.4	33.6	34.6	35.1	33.0	35.4	35.4	34.8	35.1	36.7	36.0
Number	1,381.2	1,568.5	1,679.8	1,527.2	1,510.0	1,985.6	2,034.9	2,313.0	2,188.3	2,299.5	2,237.8	2,240.7	2,144.1
<i>Undergraduate senior majors</i>													
Percent	35.0	36.4	36.3	34.1	35.6	33.7	35.1	35.7	36.1	35.7	35.9	36.6	37.4
Number	1,491.0	1,731.6	1,876.1	1,763.6	1,701.9	1,814.3	2,148.2	2,284.4	2,304.2	2,266.3	2,269.0	2,315.7	2,424.5
<i>MA students graduated</i>													
Percent	31.9	33.0	37.4	36.9	34.7	39.9	38.0	36.2	40.3	35.3	33.8	38.0	36.7
Number	19.0	76.7	91.1	62.9	46.0	68.5	60.0	44.5	52.0	25.0	67.5	41.0	33.0
<i>MA students expected to graduate</i>													
Percent	NA	NA	NA	NA	NA	38.4	34.0	43.5	35.2	36.3	34.0	36.1	39.9
Number	NA	NA	NA	NA	NA	60.8	45.3	42.3	58.0	50.0	78.0	37.0	63.0
<i>Number respondents</i>													
Number	105	106	107	107	108	108	108	109	109	109	109	106	117

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.

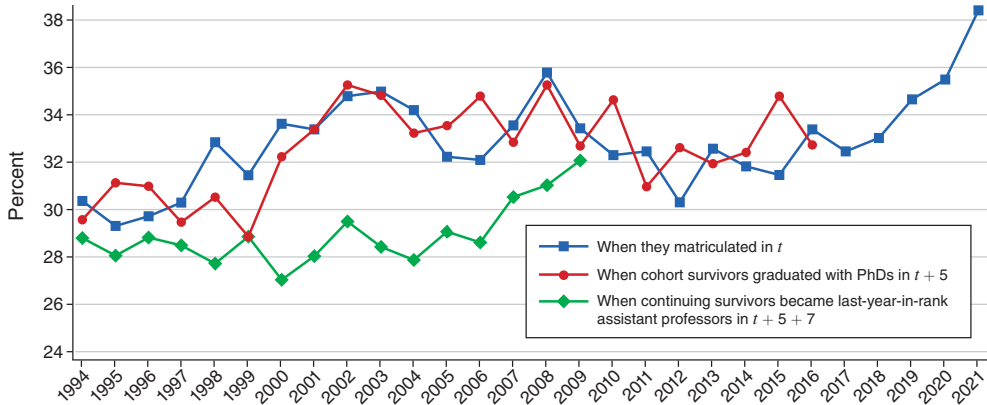


FIGURE 3. LOCKSTEP MODEL: PERCENTAGE OF WOMEN BY ENTERING PHD COHORTS: MATRICULATION, GRADUATION, AND ENTRY INTO FIRST-YEAR ASSISTANT PROFESSORSHIP

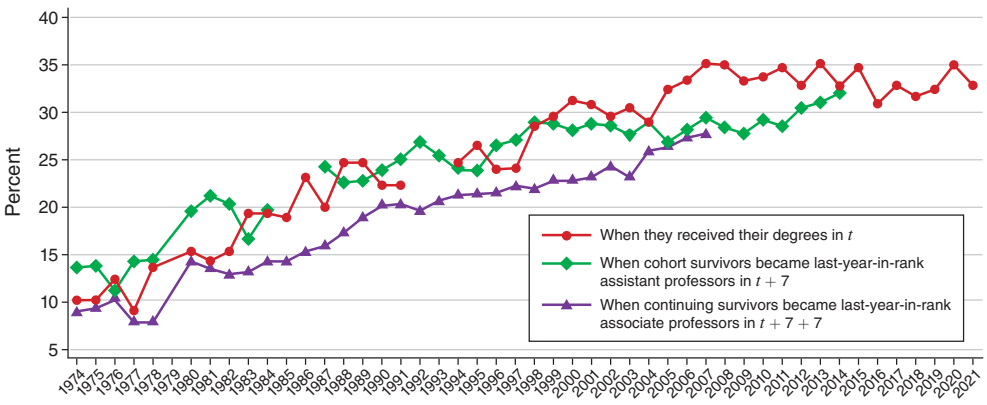


FIGURE 4. LOCKSTEP MODEL: PERCENTAGE OF WOMEN BY RECEIVING PHD COHORT: GRADUATION, LAST-YEAR-IN-RANK ASSISTANT PROFESSORSHIP, AND LAST-YEAR-IN-RANK ASSOCIATE PROFESSORS

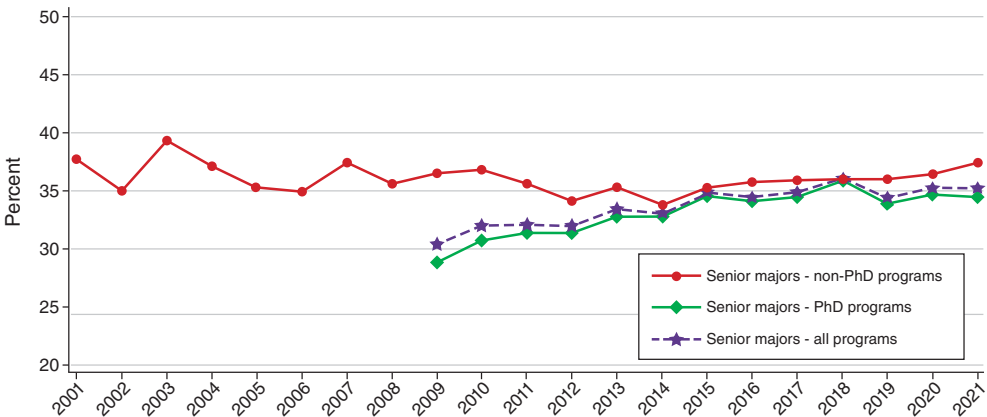


FIGURE 5. UNDERGRADUATE SENIOR ECONOMICS MAJORS

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



TABLE 4—PERCENT AND NUMBER OF WOMEN IN JOB PLACEMENTS OF NEW PHDs FROM THE TOP ECONOMICS DEPARTMENTS

	Top 10						Top 20					
	1994–1997	2013–2017	2018	2019	2020	2021	1994–1997	2013–2017	2018	2019	2020	2021
<i>US-based, all types</i>												
Percent	24.9	27.7	20.7	37.7	25.9	24.7	26.7	28.3	23.8	35.6	28.8	26.9
Number	35.8	38.2	31.0	52.0	42.0	38.0	58.9	71.0	64.0	88.0	78.0	67.0
<i>Faculty, PhD-granting department</i>												
Percent	22.1	28.0	17.6	42.6	23.0	27.5	24.0	27.3	20.2	40.9	24.4	30.8
Number	16.0	19.4	13.0	29.0	14.0	11.0	27.0	29.4	22.0	38.0	22.0	16.0
<i>Faculty, non-PhD-granting department</i>												
Percent	42.1	34.4	14.3	0.0	20.0	100.0	41.8	33.0	14.3	28.6	10.0	80.0
Number	6.8	2.0	1.0	0.0	1.0	2.0	8.8	6.0	1.0	4.0	1.0	4.0
<i>Nonfaculty, any academic department</i>												
Percent	NA	35.4	26.7	28.6	33.3	33.3	NA	28.9	28.6	19.2	34.8	34.5
Number	NA	3.4	4.0	2.0	5.0	6.0	NA	6.0	8.0	5.0	8.0	10.0
<i>Public sector</i>												
Percent	24.1	27.2	10.0	36.4	32.3	12.0	28.3	26.4	23.1	37.5	32.7	16.7
Number	6.5	4.6	1.0	8.0	10.0	3.0	12.3	9.8	9.0	15.0	16.0	9.0
<i>Private sector</i>												
Percent	22.4	25.7	27.3	34.2	24.0	23.2	25.2	29.7	27.9	35.1	31.3	25.7
Number	6.5	8.8	12.0	13.0	12.0	16.0	10.9	19.8	24.0	26.0	31.0	28.0
<i>Foreign-based, all types</i>												
Percent	17.8	20.2	27.7	24.2	25.9	16.7	17.8	23.4	26.0	28.8	25.4	20.0
Number	5.8	8.4	13.0	15.0	15.0	11.0	10.8	47.0	58.0	34.0	29.0	23.0
<i>Academic</i>												
Percent	24.5	23.1	27.3	25.0	28.3	27.8	19.8	25.2	26.7	32.2	27.3	25.4
Number	5.3	6.8	9.0	11.0	15.0	10.0	8.5	13.6	20.0	28.0	27.0	17.0
<i>Nonacademic</i>												
Percent	6.1	11.6	28.6	22.2	0.0	3.3	13.2	17.6	26.7	19.4	13.3	12.5
Number	0.5	1.6	4.0	4.0	0.0	1.0	2.3	4.8	8.0	6.0	2.0	6.0
<i>Unknown placement</i>												
Percent	NA	NA	83.3	100.0	50.0	0.0	NA	NA	33.3	33.3	50.0	100.0
Number	NA	NA	1.7	1.0	1.0	0.0	NA	NA	2.0	1.0	1.0	1.0
<i>No placement</i>												
Percent	19.6	6.7	50.0	0.0	0.0	100.0	18.5	25.7	50.0	33.3	16.7	50.0
Number	6.5	0.2	1.0	0.0	0.0	1.0	9.0	0.8	2.0	2.0	1.0	1.0
<i>Total on the market</i>												
Percent	23.3	25.9	23.2	33.3	26.0	22.6	24.1	27.4	25.0	33.4	27.7	25.1
Number	48.0	46.8	46.7	68.0	58.0	50.0	78.6	93.8	96.0	125.0	109.0	92.0

all PhD students on the market (Table 5). Table 6 presents placement data slightly differently, showing where last year's job market candidates placed by the rank of the originating department. The most striking change in placement patterns is the growing number of students from top-ranked departments who are taking jobs in the private sector. This seems to be equally true of new female and male economists.

#### 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

TABLE 5—PERCENT AND NUMBER OF WOMEN IN JOB PLACEMENTS OF NEW PHDs FROM ALL OTHER ECONOMICS DEPARTMENTS

	All other schools									
	1994–1997	1998–2002	2003–2007	2008–2012	2013–2017	2018	2019	2020	2021	
<i>US-based, all types</i>										
Percent	29.4	33.3	35.6	38.7	37.6	36.9	34.6	36.3	37.2	
Number	90.7	119.4	169.3	209.7	170.9	174.0	159.0	140.3	165.2	
Faculty, PhD-granting department										
Percent	31.3	30.5	31.8	36.8	33.3	39.0	36.9	36.0	40.4	
Number	27.9	32.7	50.9	65.7	36.5	30.0	31.0	25.1	29.5	
Faculty, non-PhD-granting department										
Percent	29.1	35.6	40.9	38.8	38.6	35.7	35.7	40.3	45.6	
Number	29.4	33.1	57.4	62.3	48.8	50.0	41.0	29.0	41.7	
Nonfaculty, any academic department										
Percent	NA	NA	NA	NA	30.8	41.4	33.8	30.9	32.6	
Number	NA	NA	NA	NA	15.4	29.0	22.0	17.0	29.0	
Public sector										
Percent	30.9	35.6	36.4	36.9	35.5	28.0	31.1	31.9	38.5	
Number	18.9	26.8	28.6	37.1	22.5	14.0	19.0	23.0	25.0	
Private sector										
Percent	24.9	32.7	33.6	44.0	45.3	37.8	34.1	39.3	31.7	
Number	14.4	26.8	32.4	44.6	47.7	51.0	46.0	46.1	40.0	
<i>Foreign-based, all types</i>										
Percent	17.8	27.2	26.3	30.3	31.9	29.6	24.1	35.8	30.0	
Number	23.8	29.9	42.3	69.2	57.7	66.0	41.0	66.1	51.0	
Academic										
Percent	21.2	30.6	29.8	32.5	34.7	30.6	25.4	34.6	29.9	
Number	17.6	18.5	26.7	44.1	42.7	49.0	32.0	46.1	35.0	
Nonacademic										
Percent	12.3	23.0	21.9	26.9	25.9	27.0	20.5	38.8	30.2	
Number	6.2	11.4	15.7	25.0	15.0	17.0	9.0	20.0	16.0	
<i>Unknown placement</i>										
Percent	NA	NA	NA	NA	NA	8.0	7.7	58.3	35.3	
Number	NA	NA	NA	NA	NA	2.0	1.0	7.0	18.0	
<i>No placement</i>										
Percent	21.7	25.9	35.0	37.2	42.7	53.7	35.9	30.1	38.7	
Number	21.1	13.5	19.4	35.6	15.3	51.0	14.0	17.3	12.0	
<i>Total on the market</i>										
Percent	25.1	31.2	33.4	36.3	36.3	36.0	31.5	36.0	35.4	
Number	135.5	162.8	231.1	314.4	243.9	293.0	215.0	230.6	246.2	

undergraduate level, the share of women does not approach parity, and it has not been increasing. Women are overrepresented in non-tenure-track teaching jobs. Over a third of the 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. 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 have made 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 ICPSR and will be updated annually.

JUDY CHEVALIER, *Chair*

TABLE 6—NEW PhD JOB PLACEMENT BY GENDER AND GRADUATING DEPARTMENT RANK, CURRENT YEAR

2020–2021	Top 10		Top 11–20		All others	
	Women	Men	Women	Men	Women	Men
US-based, all types (share of all individuals by gender)	76.0	67.8	69.0	63.5	67.1	61.8
Faculty, PhD-granting department	28.9	25.0	17.2	10.6	17.9	15.7
Faculty, non-PhD-granting department	5.3	0.0	6.9	1.5	25.2	17.9
Nonfaculty, any academic department	15.8	10.3	13.8	10.6	17.6	21.6
Public sector	7.9	19.0	20.7	34.8	15.1	14.1
Private sector	42.1	45.7	41.4	42.4	24.2	30.7
Foreign-based, all types (share of all individuals by gender)	22.0	32.2	28.6	35.6	20.7	26.6
Academic	90.9	47.3	58.3	64.9	68.6	68.9
Nonacademic	9.1	52.7	41.7	35.1	31.4	31.1
Unknown placement (share of all individuals by gender)	0.0	0.0	2.4	0.0	7.3	7.4
No placement (share of all individuals by gender)	2.0	0.0	0.0	1.0	4.9	4.2
Total on the market	50	171	42	104	246	448

TABLE 7—DISTRIBUTION OF TOP 20 DEPARTMENTS BY FEMALE SHARE OF FIRST-YEAR PhD CLASS, 2017–2021

	2017	2018	2019	2020	2021
Share of women in first-year PhD class					
40 percent or above	2	7	9	7	6
35–39 percent	1	0	0	5	6
30–34 percent	8	2	5	3	5
25–29 percent	1	3	5	1	1
20–24 percent	3	3	0	4	2
Below 20 percent	6	6	2	1	1

*Notes:* 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 sizes of different programs. Twenty-one departments make up the “Top 20.”

APPENDIX FIGURES AND TABLES ON DATA QUALITY AND REPORTING

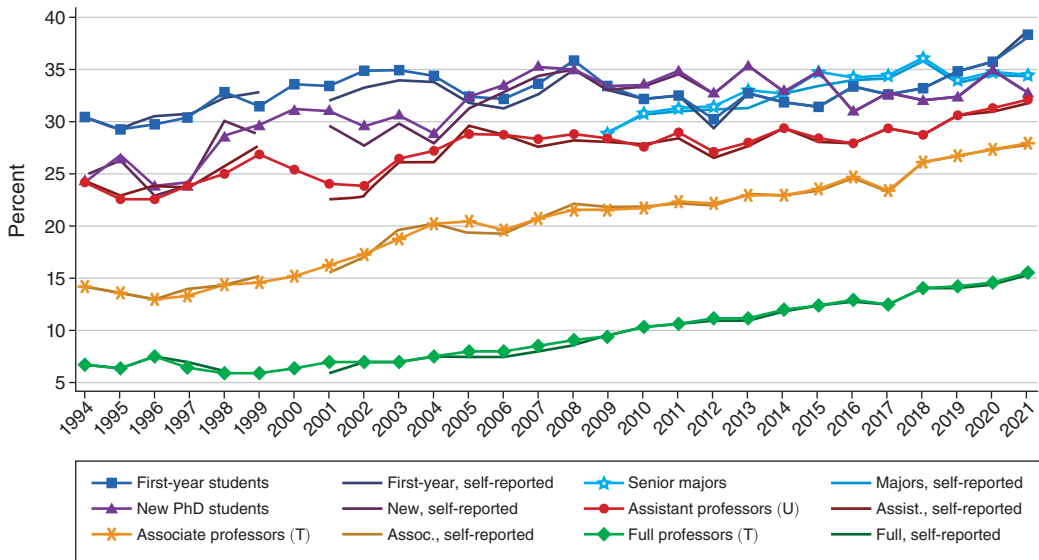


FIGURE 6. COMPARISON OF SELF-REPORTED AND IMPUTED DATA FROM FIGURE 1

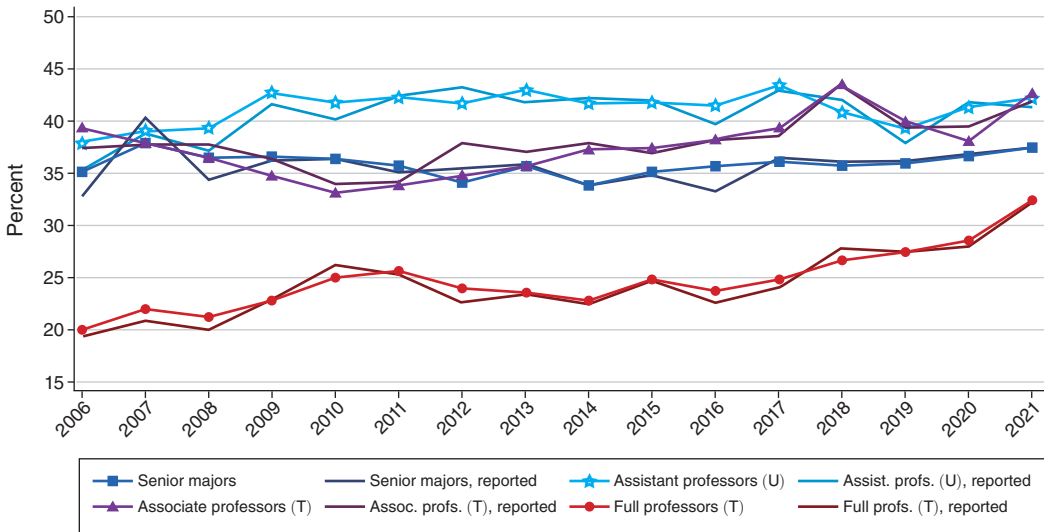


FIGURE 6A. COMPARISON OF SELF-REPORTED AND IMPUTED DATA FROM FIGURE 2

TABLE 8—NUMBER OF ECONOMICS DEPARTMENTS IN THE CSWEP SURVEY BY YEAR AND TYPE OF PROGRAM

	Year of survey																				
	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021			
<i>With doctoral programs</i>																					
Number responded CSWEP	98	91	93	100	109	120	122	122	117	122	124	125	126	127	127	127	125	127			
Number of programs (UAQ or CSWEP)	106	100	110	108	119	123	124	123	121	125	126	127	126	127	127	127	125	127			
Number of programs (analysis)	123	123	124	124	124	124	126	126	126	127	127	127	126	127	127	127	127	127			
<i>Without doctoral programs</i>																					
Number responded CSWEP	57	61	64	61	62	59	72	78	58	96	100	99	83	102	100	95	91	106			
Number of programs (UAQ or CSWEP)	75	74	78	81	90	91	87	91	83	103	104	105	100	108	104	102	91	106			
Number of programs (analysis)	101	105	105	105	106	106	107	107	107	108	108	108	109	109	109	109	106	109			

*Note:* Any nonrespondents are imputed, with UAQ if they responded to that survey and then with linear interpolation for any remaining nonresponding years.

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