

# The 2014 Report of the <br> Committee on the Status of Women in the Economics Profession 

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The American Economic Association (AEA) created the Committee on the Status of Women in the Economics Profession (CSWEP) and charged it to monitor the status of women in the profession and to undertake professional activities to improve this status. In addition to surveying all U.S. economics departments for its annual statistical report, CSWEP sponsors six competitive-entry paper sessions at the annual AEA Meeting, publishes a thrice-yearly newsletter (chock full of articles and information for those at the beginning of their career), and celebrates the research accomplishments of young female economists by awarding the Elaine Bennett Research Prize and the exceptional mentoring and promotion of women's careers by conferring the Carolyn Shaw Bell Award. CSWEP also conducts a variety of formal and informal mentoring activities, most notably the Mentoring Breakfasts during the AEA Meeting and the CeMENT National and Regional Mentoring Workshops, both of which are consistently oversubscribed.

Before recounting CSWEP activities, it is worth noting that there are likely many spillovers from CSWEP's endeavors that are impossible to list or quantify. CSWEP activities raise awareness among men and women of the challenges that are unique to women's careers and that can be addressed with many types of actions - from inclusive searches to informal mentoring activities. In addition, much of the information and advice freely disseminated by CSWEP can be of great value not only to female economists but to all economists, and especially to any junior economist, whether male or female and whether minority or not.

CSWEP Board members individually and collectively do the work of the Board. In gratitude, this report highlights their work by bolding their names as well as those of past Board members. Also bolded are the names of the many others who have advanced CSWEP's work, both male and female and from new acquaintances to long-time stalwart supporters.

Section I reports on new developments as well as ongoing CSWEP activities during the past year. These include: (1) restructuring the CSWEP Board, (2) five active mentoring programs, (3) prizes and awards, (4) CSWEP's activities at the annual meeting of the AEA as well as at the four regional meetings, (5) the CSWEP News, (6) the new CSWEP Liaison Network and (7) the possibility of CSWEP Chapters. Section II contains the statistical
report on the status of women in the economics profession, including an executive summary in II.A and the full analysis in II.B. Section III concludes with well-deserved acknowledgements.

## I. CSWEP Activities in 2014

## A. CSWEP Board Restructuring

As is evident in the above introduction, CSWEP activities are growing. In fact, CSWEP has outgrown its current structure. In recognition of this, and pending approval by the AEA Executive Committee, the CSWEP Chair has proposed to substitute two executive positions for two at-large positions on the Board. Both would be Associate Chairs, one serving as the Director of Mentoring and the other as the Director of the CSWEP Survey. This restructuring would increase both the efficiency, as well as the amount, of leadership attention to all CSWEP functions, enabling the committee to keep up with the demand for its activities.

## B. Mentoring Programs

As success breeds success, the effective mentoring of young women economists has become ever more central to CSWEP's mission. While mentoring and creating professional networks is an ongoing informal aspect of most every CSWEP activity, the CeMENT Mentoring Workshops hold center stage, and the new and expanding CSWEP Mentoring Breakfasts have already proved their worth.

Now held annually, the internationally recognized ${ }^{1}$ CeMENT (previously CCOFFE) Mentoring Workshops target either women in departments where research accomplishments carry a heavy weight in promotion (the National Workshops) or women in departments where teaching receives more weight (the Regional Workshops). In addition to the vital direct benefits of these workshops, participants typically emerge with a network of peers and senior mentors. Many of these networks are still going strong years after the workshop concludes. The success of these workshops has been rigorously documented, ${ }^{2}$ and they are now funded by the AEA on an ongoing basis.

This section reports on the National and Regional Mentoring Workshops as well as the growing annual Mentoring Breakfasts and other mentoring activities.

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## 1. CeMENT National Mentoring Workshop

Funded by the AEA and internationally known for providing young women economists with know-how and networks that boost their careers, CSWEP's National Mentoring Workshops target junior women facing research expectations commensurate with U.S. departments with Ph.D. programs in economics. Going back to the first CCOFFE workshop in 1998 and morphing into the CeMENT National Mentoring Workshops (in 2004, 06, 08, $10,12,14$, with the next one following the January 2015 AEA Meeting), these national workshops have been consistently and seriously oversubscribed.

In response, in January 2014 the Executive Committee of the AEA approved moving the CeMENT National workshops from a biennial to an annual frequency, effectively doubling their capacity. Funding was provided from 2015 through 2018. ${ }^{3}$ Importantly, the Executive Committee also provided for continued funding for the ongoing scientific evaluation of their effectiveness.

Led by CeMENT Director Kosali Simon of Indiana University, the upcoming 2015 workshop will serve 40 participants joined by 16 mentors and several special guests as well as observers from other organizations. As usual, both dedicated team sessions and presentations will cover topics that include research, grants, getting published, efficient and effective teaching, networking, tenure and work-life balance. The Boston Federal Reserve has graciously agreed to host the kick-off dinner. As before, all of the professional development materials provided to participants are available to all on the CSWEP Web site. ${ }^{4}$

For this upcoming workshop CSWEP received 110 applications for the 40 participant seats, on par with prior years when the workshop was held biennially. ${ }^{5}$ In response, next year priority will be given to qualified applicants who were randomized out of the 2015 or earlier workshops. We had anticipated that in steady state doubling this workshop's frequency would pretty well close the gap between qualified junior economists wanting to participate and available slots. This has not (yet) happened. In part this may be a temporary bulge in demand on the part of those who were randomized out in previous years. In part it may be due to better publicity. The 2016 numbers will help to sort this out.

It is hard, however, not to see this as yet more evidence of unmet demands for mentoring, underscoring the need to grapple with the big picture. The recent CSWEP proposal to restructure its Board speaks to this need. If adopted by the AEA Executive Committee, the new Associate Chair and Director of Mentoring, would be tasked, inter alia, with accessing the big picture and determining how best to move forward.

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## 2. Regional CeMENT Mentoring Workshop

Patterned after the National Workshops but targeted to junior women at institutions where teaching bears a relatively heavy weight in tenure decisions, the so-called "Regional" CeMENT Mentoring Workshops draw participants without regard to geographic location. ${ }^{6}$ At the April 2014 meeting of the of the Executive Committee of the AEA, members approved funding of the CeMENT Regional Workshop in 2015 and 2017 that will put its size on par with that of the National Workshop (40 participants).

The term of Director Ann Owen of Hamilton College covers the 2013 and 2015 workshops with the upcoming "Regional" to be held November 19 - 21, immediately preceding the 2015 annual Southern Economic Association Meeting.

## 3. Mentoring Breakfasts: Further Expansion for Juniors and an Experiment for Mid-

 Career EconomistsThe 2013 AEA meeting saw CSWEP's inaugural Mentoring Breakfast for Junior Economists. Conceived by Board members Terra McKinnish and Linda Goldberg as a stand-in for the then-biennial CeMENT National Mentoring Workshop during its "off year," this informal meet and greet event brought together senior economist mentors (predominately senior women) and both male and female junior economist participants (primarily faculty 6 years or less post-Ph.D. and graduate students on the job market). The first 120 junior applicants were admitted and met with 40 senior mentors. They gathered at tables to sort themselves by topic: research, grants, publishing, teaching, promotion and tenure, networking, job search, and work-life balance. Some conversations went on long after the two-hour session ended. Juniors as well as mentors expressed their appreciation.

So successful was this initial experimental breakfast that for 2014 Board members Linda Goldberg and Bevin Ashenmiller added a second breakfast. Despite wintry weather limiting travel, the 2014 breakfasts were attended by 180 juniors plus 60 senior mentors. This year will see a repeat of two Mentoring Breakfasts for Junior Economists, this time organized by Board members Bevin Ashenmiller, Ragan Petrie and Anne Winkler. In all, 65 senior economists will mentor 180 junior economists, a figure that includes an increased demand from junior faculty, post-docs and non-academics as well as from male economists. The latter indicated that their male colleagues who have previously attended spoke highly of the breakfasts' efficacy.

Provoked by the success of the junior mentoring breakfasts, numbers of senior economists, including earlier graduates of CeMENT workshops, expressed their desire for a parallel event to address concerns relevant to mid-career women. In response, sandwiched in between the two breakfasts for juniors, the 2015 meetings will see the inaugural Peer Mentoring Breakfast for Mid-Career Economists on Sunday, January 4, 2015. Open to academics and non-academics, this event will provide a forum for female economists to

[^2]explore Career Transitions for Mid-Career Women Economists. Participants are expected to be associate or full-rank tenured academics or non-academics 10 or more years beyond the Ph.D.

The mid-career breakfast will break into an 8:00-9:00AM session and a 9:00-10:00AM session, both with opening remarks from Adriana Kugler, Vice-Provost for Faculty and Professor at the McCourt School of Public Policy, Georgetown University. ${ }^{7}$ The 60 registered participants can then join themed tables for discussions on career transitions from associate to full professor; from tenured professor to administrative roles and back; between academic and non-academic institutions; and from academic or non-academic economist to policy or other leadership positions. If this Peer Mentoring Breakfast for MidCareer Economists proves its worth, CSWEP will consider expanding the event to a half- or full-day workshop at the 2016 AEA Meeting. ${ }^{8}$

## 4. Haworth Mentoring Committee

Named in honor of the singular contributions of the late Joan Haworth, a long-time stalwart CSWEP supporter, this new standing committee makes recommendations regarding one-off applications to cosponsor professional development events and also administers the Haworth Fund given by Joan Haworth. That fund, upon satisfactory application, can be used to augment campus visits of external speakers to include mentoring activities. This year Bevin Ashenmiller and Amalia Miller constituted the committee and recommended funding extended visits of Kosali Simon (Indiana University) and Hilary W. Hoynes (University of California, Berkeley) to the University of San Francisco and Montana State, respectively, for the purpose of mentoring. The Committee may also recommend minor supplementary funding to cosponsor one-off events in support of CSWEP's mission with other groups (see section G below).

## 5. AEA Summer Economics Fellows Program

Begun 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 senior economists mentor the fellows who, in turn, work on their own research and have a valuable opportunity to present it.

The AEA Summer Economics Fellows Program had another banner year. Drawing from 43 applicants, 2014 saw the placements of 11 fellows (into 13 fellowships), of which four were from underrepresented minority groups - the most minority fellows ever placed. The number of sponsors hiring summer fellows increased from seven to 12 , and the program picked up a new sponsor, with fellows immersed in research environments at the Urban

[^3]Institute, the Federal Reserve Board and Reserve Banks in Atlanta, Boston, Chicago, Cleveland, Dallas, Kansas City, Minnesota, New York, Richmond and St. Louis. ${ }^{9}$

In the works are efforts to again increase the number of successful minority applicants and to solicit applications from graduate students earlier and more aggressively in an effort to increase the applicant pool for 2015.

## C. Bennett Prize and Bell Award

Presentations of the Bennett Prize and Bell Award will open the 2015 CSWEP Business Meeting and Luncheon on January 3 during the AEA Meeting in Boston, and all are welcome to join the celebration.

Awarded biennially since 1998, the Elaine Bennett Research Prize recognizes and honors outstanding research in any field of economics by a woman at the beginning of her career. The 2014 prize goes to Emi Nakamura, Associate Professor of Business and Economics at Columbia University for her significant contributions to macroeconomics and related fields. Her research, which combines a powerful command of theory with detailed analyses of micro-level data, has made important contributions to the study of price rigidity, measures of disaster risks and of long-run risks, exchange rate pass-through, fiscal multipliers, and monetary non-neutrality. The press release is available online, to be followed by an interview with Professor Nakamura in the Spring/Summer 2015 CSWEP News. ${ }^{10}$

Given annually, and also 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 2014 award goes to Hilary W. Hoynes, Professor of Economics and Public Policy and Haas Distinguished Chair in Economic Disparities in the Richard \& Rhoda Goldman School of Public Policy at the University of California, Berkeley. Professor Hoynes works at the intersection of public and labor economics and is best known for her work on poverty. Economists from every walk of the profession, male and female, current and former students, colleagues and coauthors describe her as an "equal opportunity mentor" whose deep engagement in daily academic work models the professional behaviors that spurred their own professional growth and success. The press release is available online. ${ }^{11}$ We expect to publish an interview with Professor Hoynes in the Spring/Summer 2015 CSWEP News.

[^4]Sincere thanks are due to those who nominated and wrote letters in support of all of the highly competitive candidates for these awards as well as to the hard-working selection committees. ${ }^{12}$

## D. CSWEP's Presence at Annual Association Meetings

## 1. The 2014 American Economic Association Meeting

Critical to CSWEP's mission, CSWEP sponsors six highly competitive paper sessions at the annual AEA meeting. Last year (2014) saw three gender sessions, organized by Kevin Lang and Susan Averett, as well as three econometrics sessions, organized by Serena Ng and Petra Todd. These committees then selected eight papers published as two pseudosessions in the May 2014 Papers \& Proceedings of the American Economic Review.

The highly competitive submissions process encourages quality research, particularly in the area of gender-related topics. More generally, women consistently report that these sessions put their research before a profession-wide audience and are instrumental in their success as economists. It is worth noting that even with liberal requirements (i.e., papers in the non-gender session must be authored by at least one junior female, while papers in the gender session may be authored by a junior male) in 2015 these sessions still account for a disproportionate share of women on the AEA program.

Additional CSWEP activities (hospitality suite, mentoring breakfasts, business meeting and award presentations) at the 2014 AEA Meeting are reported elsewhere in this document.

## 2. Four 2014 Regional Economic Association Meetings

CSWEP maintains a strong presence at all four of the Regional Economic Association Meetings, offering up to 16 professional development panels and paper sessions. Additionally, following a model developed by Anne Winkler (CSWEP Board Midwestern Representative), in lieu of an evening reception, CSWEP now hosts a networking meal. The events are well attended by men as well as women and provide an informal opportunity for the CSWEP representative and development panelists to network and to mentor one-onone.

2014 kicked off with the Eastern Economic Association Meetings (March, Boston, MA) at which Amalia Miller (CSWEP Board Eastern Representative) organized seven paper sessions and a networking breakfast. The sessions included papers and prepared discussions by female Ph.D. students and junior faculty as well as senior faculty covering a range of topics in the area of applied microeconomics related to health, career-family

[^5]conflict, and public policy issues in the U.S. and developing countries. The networking breakfast also drew a diverse group of economists, ranging from a pair of undergraduate economics majors to senior female faculty members who are leaders in the Association and the profession. Conversations were lively, and many new connections were formed among participants.

The Midwest Economic Association Meeting quickly followed (March, Evanston, IL) with Anne Winkler organizing two panels with her traditional networking lunch sandwiched in between. "Advice for Job Seekers" featured panelists from a variety of work environments, including the Federal Reserve, policy institutes, and teaching and research in liberal arts institutions and branch campuses of public universities. Panelists in the "Academic Careers" session explored issues such as children and the tenure clock, being proactive, facing administrative overload and moving up the academic ladder. All three events were well received by diverse audiences.

For the Western Economic Association International Meetings (June, Denver, CO) Bevin Ashenmiller (CSWEP Board Western Representative) put together panelists from government, academia and private industry for two highly successful panels, "Using Government Data" and "Jobs for Economists: A Panel on the Pros and Cons of Government, Academic, Research and Private Sector Jobs." She also organized a networking breakfast and three paper sessions on the topics of "Environmental Economics," "Investments in Children" and "Caregiving and Investment Choices for Older Americans."

Finally, for the Southern Economic Association Meeting (November, Atlanta, GA), Ragan Petrie (CSWEP Board Southern Representative) organized "CSWEP Monday at the Southerns." This full day of CSWEP events began with a joint presentation with Gary Hoover of CSMGEP, "The Status of Women and Minorities in the Economics Profession." A paper session, "Women and Development," a networking lunch and a professional development panel, "Research Publishing Challenges and Strategies," followed. When several panelists had to pull out at the last minute, Jon Hamilton (University of Florida) and Julie Hotchkiss (Federal Reserve Bank of Atlanta) came forward to help, joining original panelist Bill Neilson (University of Tennessee). Despite the last-minute panel change, the session was very successful, with animated discussion between panelists and participants.

All of these panels, receptions and paper sessions drew appreciative audiences and well served the missions of CSWEP and the AEA more generally.

## E. CSWEP News: 2014 Features Interest Students and Faculty

Under the able direction of oversight editor Madeline Zavodny ${ }^{13}$ and the graphic design expertise of Leda Black, CSWEP published three issues in 2014. ${ }^{14}$ In a long-standing

[^6]tradition, each issue features a theme chosen and introduced by a guest editor who, in turn, enlists several authors to write the featured articles. The quality of these features is consistently high, and many go on to be long-lived career resources for junior economists. ${ }^{15}$ On behalf of the CSWEP Board, the Chair (who is the official editor but does almost none of the work) extends a warm thanks to all these contributors.

## 1. Getting Research Done in Departments without Ph.D. Programs

Board member Anne E. Winkler of the University of Missouri-St. Louis guest edited the Winter 2014 issue featuring articles on "Getting Research Done in Departments without Ph.D. Programs." Authors from a variety of institutions and at varying career stages contributed their expertise: Catalina Ameudo-Dorantes, San Diego State University, How I Get Research Done: A View from a Public Master's Program; Christina Peters, Metropolitan State University of Denver, Getting Research Done at a Teaching-Intensive University: Advice from a Recently Tenured Associate Professor; Lonnie Golden, Penn State University, Abington College, Four Steps to Getting Research Done at an Institution without Graduate Programs; and Susan L. Averett, Lafayette College, Tips on How to be a Productive Scholar at a Liberal Arts College. While targeted to economists working in departments with heavy teaching and service constraints, this feature section brims with tips and strategies applicable to most anyone seeking research productivity in an academic setting.

## 2. Getting into and Finishing a Ph.D. Program

The feature in the Summer 2014 issue proffers advice to undergraduates on "Getting into and Finishing a Ph.D. Program." Guest edited by Board member Serena Ng of Columbia University, this feature followed up on the Summer 2013 feature on the lack of women in the undergraduate economics major. ${ }^{16}$ Authors John Bound, University of Michigan; Susan Elmes, Columbia University; and Wendy A. Stock, Montana State University, cover every aspect - from whether a Ph.D. is right for you, to preparing for, selecting and applying to Ph.D. programs, to succeeding in your program and what to expect upon graduation. The feature is capped by contributions from anonymous Ph.D. students that capture salient highs and lows of life as a Ph.D. student.

## 3. Navigating the Job Market 2.0

Guest edited by Board member Cecilia Conrad, MacArthur Foundation, the Fall 2014 CSWEP News presented "Navigating the Job Market 2.0," an annotated, updated list of advice and resources for the job market candidate. This feature followed in the CSWEP tradition of highlighting some topics given minimal attention in other guides. Along with

[^7]Conrad, authors Wendy A. Stock and Anne E. Winkler offer advice to new Ph.D.s on the job market including the importance of the cover letter and how to assess a campus's commitment to gender equity. It is capped with resources on topics such as applying to teaching focused institutions and preparing the diversity statement now required by some schools.

Plans are underway to make the professional development features of these and past issues of CSWEP News more easily accessible online. CSWEP is also working with the AEA to streamline the subscription process and anticipates having a new subscription interface in place by early-2015. Special thanks go to Michael Albert, Jenna Kutz and Susan B. Houston of the AEA staff.

## F. New CSWEP Liaison Network

In an effort to increase awareness among economists about the work of CSWEP, to expand the distribution of CSWEP opportunities and to streamline the yearly collection of departmental gender data for the CSWEP survey, the CSWEP Board created the CSWEP Liaison Network. The goal is to have one 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. To date over 130 liaisons have signed up, with plans to double this number in 2015. The liaison's role is to: (1) insure their department's timely response to the annual CSWEP Survey, thereby decentralizing the burden of reigning in responses for recalcitrant departments; (2) forward the CSWEP News three times yearly to the target audience in their department and encourage individuals to subscribe directly; and (3) generally work to making CSWEP opportunities well known both informally and formally by forwarding occasional emails to students and colleagues. ${ }^{17}$

## G. CSWEP Chapters?

In response to several requests to form CSWEP chapters, in 2014 CSWEP adopted a policy that would govern chapters in order to align them with CSWEP's mission and AEA policies (see the 2013 Annual Report). ${ }^{18}$ After "reading the rules" only one group, "University of Washington Women in Economics," continues to work on becoming a chapter.

Other groups preferred to have CSWEP cosponsor with them particular ad hoc one-off events consistent with CSWEP's mission, with CSWEP contributing minor supplemental funding. For example, as detailed in last year's report CSWEP provided supplemental funds (paired with a grant from the Haworth Fund and also with direct support of the host institution, Indiana University) to defray the travel expenses of multiple mentors to a preconference junior mentoring workshop at the Meeting of the Midwest Econometrics Group. CSWEP also provided minor funding to cosponsor a Speed Mentoring event organized by

[^8]"DC-Women in the Economics Profession." As of now CSWEP has regularized the process, with applications going through the newly constituted Haworth committee and with corresponding announcements of this opportunity in the CSWEP News. The Haworth Committee also administers the Haworth Fund (Section B. 4 above).

This report now turns to quantifying the current status of women in the economics profession with an eye toward understanding how we got here.

## II. Status of Women in the Economics Profession

## A. Women's Status in the Economics Profession: Executive 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 department and found that women represented $7.6 \%$ of new Ph.D.s, $8.8 \%$ of assistant, $3.7 \%$ of associate and $2.4 \%$ of full professors. Much has changed. This year marks the $43^{\text {rd }}$ survey year. At doctoral institutions, women have about quadrupled their representation amongst new Ph.D.s to $32.9 \%$, more than tripled their representation amongst assistant professors to almost $30 \%$, increased their representation at the associate level more than six fold to $23.5 \%$ and increased their representation at the full professor level five-fold to $12.1 \%$. This report presents the results of the 2014 survey, with emphasis on changes over the last 18 years and on the progress of cohorts of new Ph.D.s as they progressed through the academic ranks.

This section describes the survey, summarizes the main results, and concludes. Subsequent sections provide more detailed results.

## 1. The CSWEP Annual Surveys, 1972-2014

In fall 2014 CSWEP surveyed 124 doctoral departments and 125 non-doctoral departments. ${ }^{19}$ Of these, all 124 doctoral and 106 non-doctoral departments responded, yielding response rates of $100 \%$ and $86 \%$, respectively. CSWEP also harvested faculty data from the Web for an additional 11 non-doctoral departments. 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 six departments in research universities that offer a Master's degree but not a Ph.D. degree program in economics. As detailed in last year's report, because some of these departments do not comfortably fit under the terminology, "liberal arts," that was used in earlier reports, this report will henceforth refer to this pool as "nondoctoral" departments.

Before proceeding, it is worth noting that while the observations below catch the main features of various trends in the representation of women, they abstract from serial

[^9]changes in the composition of the sample and of respondents. ${ }^{20}$

## 2. Summary of 2014 Results

This overview begins with an oft-neglected group, teaching faculty outside of the tenure track. These faculty typically hold multiyear rolling contracts and carry titles such as adjunct, instructor, lecturer, visitor or professor of the practice. As seen in Table 1, in doctoral departments, the representation of women in these positions runs high, currently standing at 39.8\%, exceeding that not just of assistant professors but even that of new Ph.D.s by almost seven percentage points. In 2014 the share of non-tenure track women was over two and one half times their share of all tenure track positions combined (15.4\%), and this disparity is greater still in the top 20 departments.

With regard to doctoral departments, with one exception, broadly speaking the last 18 years show some growth in the representation of women at each level of the academic hierarchy. The exception is the representation of women amongst first year Ph.D. students. For nearly two decades this has hovered around 33\%. As noted in the 2006 Annual Report and reinforced by Goldin (CSWEP Newsletter, Spring/Summer 2013), given that the share of baccalaureates going to women is rising, this constant $33 \%$ means that the fraction of women baccalaureates pursing a Ph.D. in economics is actually falling.

Two proverbial truths continue to hold: (i) At every level of the academic hierarchy, from entering Ph.D. student to full professor, women have been and remain a minority. (ii) Moreover, within the tenure track, from new Ph.D. to full professor, the higher the rank, the lower the representation of women. In 2014 new doctorates were $32.9 \%$ female, falling to $29.5 \%$ for assistant professors, to $23.1 \%$ for tenured associate professors and to $12.1 \%$ for full professors. This pattern has been characterized as the "leaky pipeline."

Because the growth in women's representation has differed across ranks, the gaps in representation between adjacent ranks have changed. Thus, following some convergence between women's representation at the associate level to that at the assistant level around the turn of the century, convergence seems to have ceased, with a 6 to 7 -percentage point difference stubbornly persisting to the present. In addition, this implies that the gap between women's representation at the full and associate levels has increased considerably over the last 18 years. It is worth noting that the latter is not necessarily an unwanted development. It is the result of relatively good growth in women's representation at the associate level as compared to the full level, where women's representation changes only slowly as the stock of full professors at any given time reflects something like a 25-year history of promotions from associate to full.

[^10]Turning to a comparison of non-doctoral with doctoral departments, at every level in the tenure track, women's representation in non-doctoral departments runs higher - roughly 10 percentage points higher - than in doctoral departments (see Figures 1 and 2). Similar to the trend in doctoral departments, women's representation at the assistant professor level has mildly trended up and at the full level somewhat more so. Deserving of attention, the non-doctoral departments do not share the strong upward trend at the associate level exhibited by doctoral departments. For non-doctoral departments for the past 12 years the trend for women's representation at the associate level is, if anything, down.

One consequence of this last fact is that for the non-doctoral departments, during the last 12 years, while the leak in the pipeline between associate and full professor has shown some tendency to lessen, that between assistant and associate has grown.

A further comparison of non-doctoral programs to a trifurcation of doctoral programs by rank shows that for all tenure track ranks combined, the representation of women declines as the emphasis on research increases, averaging $41.4 \%$ for non-tenure track teaching positions in non-doctoral departments, $39.8 \%$ of non-tenure track teaching positions in doctoral departments, $32.4 \%$ of all tenure track positions in non-doctoral departments, $15.4 \%$ in all doctoral departments, $14.1 \%$ in the top-20 departments and $13.0 \%$ in the top 10 departments. This represents a remarkable decline in women's representation as departmental research intensity increases.

With regard to the advance of cohorts of academics through the ranks, this report presents a simple lock-step model of these advances. With a maximum of 41 years of data on each rank we can track the gender composition of some relatively young cohorts from entering graduate school though the Ph.D. and of other older cohorts from receipt of the degree though the assistant and associate professor ranks. Unfortunately, these data do not suffice to analyze the advance of cohorts from associate to full professor. The analysis indicates that if recent trends continue, then 2001 marks the advent of policies in Ph.D. programs that maintain women's representation from matriculation through graduation. In addition, the cohort analysis indicates little in the way of a serious loss of women relative to men as cohorts advanced from earning the degree to becoming assistant professors.

In contrast, the data show a significant and persistent loss of women relative to men in the transition from assistant to tenured associate professor. Of 26 cohorts of new Ph.D.s (1974 - 1999), fully 23 saw a drop in the representation of women. ${ }^{21}$ The drop was usually greater than 5 percentage points and shows no obvious improvement over time. ${ }^{22}$ This result strongly corroborates the findings in earlier studies and draws attention to the paramount importance of the tenure decision in women's advance, a characteristic of the

[^11]economics profession but not shared by other analytical disciplines such as physics and mathematics.

## 3. Summary 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 points to two critical junctures: the failure to grow of the representation of women at the intake; and, relative to men, the subsequent poorer chance of advancing from untenured assistant to tenured associate professor. With regard to the first, in the face of the growing representation of women at the baccalaureate level, the stagnation of the share of women in entering Ph.D. classes means that entering Ph.D. students represent a declining fraction of new baccalaureate women. This latter decline is no doubt rooted in the analogous decline in the fraction of women undergraduates who major in economics and may in part stem from the way we teach economics at the undergraduate level, as stressed by Goldin (CSWEP Newsletter, Spring/Summer, 2013). This is an issue for both doctoral and non-doctoral departments.

With regard to the second juncture, the advancement of women from untenured assistant to tenured associate professor is no doubt intertwined and jointly determined with familyrelated decisions. Moreover, with rational expectations these decisions, in turn, feed back to the decision to major in economics and to enter a Ph.D. program in the first place. Here, the institutional setting and expected institutional setting (length of the tenure clock, gender-neutral family leave, on-site child care and so forth) can play significant roles.

Finally, it is worth recognizing the high representation of women in non-tenure-track teaching jobs and that the CSWEP data do not cover placement into these jobs, contracts, durations in such jobs or exits therefrom. The data also do not cover non-academic jobs.

In closing out this summary, it is worth noting that the 43 years of CSWEP data on the evolution of faculty composition at the department level are unique in the social sciences and beyond. It is time to document and maintain these data in a way that meets professional standards, to put in place a system for maintenance for future years and to make the descriptive statistics at group levels (e.g., doctoral, non-doctoral and others) available online. It is important to start now, before too many more of the early creators of the database pass from the profession. The recent CSWEP proposal to restructure its Board speaks to this need. If adopted by the AEA Executive Committee, the new Associate Chair and Director of the Survey, would be tasked, inter alia, with accessing the big picture and determining how best to move forward.

## B. Women's Status in the Economics Profession: The Full Findings

## 1. Doctoral Departments, 1997-2014

Before analyzing the women's representation at various ranks in the tenure track, it is worth noting their representation outside of these ranks, that is, amongst non-tenure track faculty. These are typically teaching faculty who hold multiyear rolling contracts and carry
titles such as adjunct, instructor, lecturer, visitor or professor of the practice. As show in Table 1, for the universe of doctoral departments in 2013, women's representation amongst non-tenure track faculty averaged almost twice that in the tenure track. As of Fall 2014, women constituted $39.8 \%$ of non-tenure track teaching faculty but only 15.4\% of tenure track faculty.

Turning to the tenure track, for the universe of doctoral departments, Table 1 and Figure 1 summarize women's representation for years at each level of the academic hierarchy, from first year Ph.D. students to new Ph.D. and then the assistant, associate and full professor. With the exception of entering Ph.D. students, broadly speaking the last 18 years show some growth in the representation of women at each level of the hierarchy. Focusing on the gaps between levels this so-called "pipeline" representation of women in the stock of economists at each rank (from first-year Ph.D. students to tenured full professor) emphasizes the decline or "leaks" in the representation of women with increased in rank. Table 1 and Figure 1 document two well-known relationships: (i) at every level in the academic hierarchy, women have been and remain a minority, and (ii) the higher the rank, the lower is the representation of women. ${ }^{23}$ This latter fact has been described as the "leaky pipeline." After first examining the trends in representation at the various ranks, we will see how the size of these leaks has changed over time.

Table 1 and Figure 1 show varied levels of growth in women's representation across ranks. For example, the first row of Table 1, as well as the blue line with squares in Figure 1, trace the share of first-year Ph.D. students who are women over the most recent 18 years. As can be seen, the representation of women grew at different rates for different ranks. Despite two notable peaks ( $38.8 \%$ in 2000 and $35 \%$ in 2008) and one notable trough ( $29.3 \%$ in 2012), (a) the share of n-year Ph.D. students who are women hovered around $33 \%$ with no obvious trend. As former AEA President Goldin would likely note, since the share of baccalaureates going to women is rising, this constant $33 \%$ means that the fraction of women baccalaureates pursing a Ph.D. in economics is actually shrinking (CSWEP Newsletter, Spring/Summer 2013). Within the tenure ranks, growth in the share of women has been (b) lowest at the assistant professor rank, (c) highest at the new Ph.D. and associate professor levels and (d) in between at full rank. ${ }^{24}$

Turning from trends in the various levels to trends in the differences in the levels (the size of the "leaks"), we first compare the representation of women in the untenured assistant and tenured associate ranks. Earlier Reports ${ }^{25}$ showed a drop hovering close to 11 percentage points in the five years preceding 1997, the earliest year shown in Table 1 and Figure 1. Hence, we can compare the differences between the assistant and associate levels

[^12]in the eight years preceding 2000 to the 15 years beginning with 2000 and ending with 2014. The earlier differences (1992-1999) hovered around 11.6 percentage points whereas the drop in the representation of women from the assistant to the associate levels in the 15 later years averaged just over 6 percentage points with no trend. Thus, while there was a definite drop in the difference around the turn of the century, for the last 15 years there has been no further convergence in women's representation at the associate level to women's representation at the assistant level; an average difference of just over 6 percentage points stubbornly persists through 2014. ${ }^{26}$

Moving up one rung, we access the trend in the drop in women's representation between the associate and full levels. As a result of the considerably slower gain in women's representation at the full as compared to the associate level noted above, the gap in women's representation between the associate and full levels has increased. In percentage points it went from 6.9 in 1997 to 11.4 in 2014, averaging over 10 percentage points over the most recent 18 years. ${ }^{27}$ This divergence could go on for a number of years as women become better represented in younger cohorts and thus in the associate professor rank, but when promoted have a small impact on the share of women at the full professor rank, a rank which contains disproportionately older, more male cohorts and where composition changes only slowly.

## 2. Non-Doctoral Departments, 2003-2014

As noted above, in Fall 2014, CSWEP surveyed 125 non-doctoral economics departments. Figure 2 shows the representation of women amongst seniors in the major and amongst faculty in tenure track ranks for non-doctoral departments over the last 12 years. Over the first six years, representations at the assistant and associate levels track each other closely, but a noticeable gap characterizes the last six. In contrast, the gap in representation between the associate and full levels began at over 20 percentage points, declined fairly steadily to about 7 percentage points as of 2011 but has since widened to about 15 .

Table 6 details the responses for 2014 showing that for the tenure-track faculty as a whole $32.4 \%$ were women. A comparison of Figures 1 and 2 with Tables 1 and 6 shows that representation of women amongst seniors in the major ran about three percentage points higher in non-doctoral departments than in doctoral departments. Conversely, the representation amongst faculty in the tenure ranks is more than ten percentage points higher in non-doctoral departments as compared to doctoral departments.

In sum, over the 12 years for which we have data, in sharp contrast to doctoral departments, for non-doctoral departments the leak in the pipeline between associate and full professor

[^13]shows some tendency to have lessened while that between assistant and associate seems to have grown.

## 3. Cohorts of Academics and Their Advances Up the Ranks

The above picture of the general fall in women's representation with increase in rank (the leaky pipeline) tells us where we have been and where we are now - it does not tell us how we got here or where improvement is most critical. ${ }^{28}$ Past studies have found that, conditioning on years since degree and other observables, as compared to men, women in economics have a lower probability of attaining tenure, take longer to attain tenure and have a lower probability of being promoted to full. ${ }^{29}$ To see how the annual CSWEP survey results fit with these past results, we turn to tracking the progress of academic cohorts over time.

## 3a. Up the Academic Ladder: A Lock-Step Model

In order to track the progress of academic cohorts over time we employ a bare-bones model of lock-step progression through the ranks. At each step some men and some women are lost. The focus is on whether a disproportionate share of women is lost. Assume that movements through the ranks for those who survived occurred as follows: five years elapsed from matriculation through earning the Ph.D., assistant professors were in rank for seven years and then were either promoted to associate or left the tenure track (within the universe of doctoral departments) and associate professors were in rank for seven years and then were either promoted to full or left the tenure track (within the universe of doctoral departments). In addition, assume that relative to men, women in later cohorts had at least as good a chance at advancement as women in earlier cohorts. Under these assumptions we can track the representation of women in a cohort that entered a Ph.D. program in year $t$ by looking at degree recipients in $t+5$, assistant professors in $t+5+7$ (by which time no assistant professors remain from cohorts older than the $t^{\text {th }}$ ) and associate professors in t+5+7+7 (by which time no associate professors remain from cohorts older than the $t^{\text {th }}$ ).

Turning to deviations of the model from reality, some assistant professors get promoted in years four through six while others extend their tenure clocks by taking leaves or making lateral moves from one doctoral department to another. As we exclude tenured assistant professors, the seven-year approximation for assistant professors is likely reasonable. More troublesome is the assumption of seven years in rank for associate professors. While some get promoted earlier and others somewhat later, the real issue is small numbers of tenured associate professors in rank essentially until retirement. An overrepresentation of

[^14]men in this anomalous group would drag down the percentage of female associate professors, a caveat to bear in mind. ${ }^{30}$ However, because the size of this anomalous group changes very slowly over time, an overrepresentation of men would have little impact on serial changes in the percentage of females at the associate level.

Using this lock-step model, we create synthetic cohorts and graph their progress from new Ph.D. students, to obtaining the degree, to becoming seventh-year assistant professors and then to becoming seventh-year associate professors. In every graph we use all of the available data, which necessarily means that we observe fewer transitions for younger cohorts. The extreme case is the transition to full professor. Unfortunately, even CSWEP's 40-year time series of departmental data is insufficient to present a meaningful number of cohort transitions to full professor.

## 3b. Up the Academic Ladder: Results for Economists

## i. The Ph.D. Program: From Matriculation to Graduation

Figure 3 plots the percentage of women in cohorts of first year Ph.D. classes (blue with squares) and in their graduating class five years later (red with circles). ${ }^{31}$ If these plots were coterminous, for each cohort of entering graduate students, the representation of women relative to men would not then have changed between matriculation and graduation. Observe that the four oldest cohorts (matriculated 1997-2000) experienced a drop in the representation of women between entry and graduation from their Ph.D. programs (red line below blue). In contrast, the younger cohorts (matriculated 20012008) experienced no such decline. If this result continues to hold for the 2009 and subsequent cohorts of first-year Ph.D. students, then 2001 marks the advent of policies in Ph.D. programs that maintain women's representation from matriculation through graduation.

## ii. The Tenure Track: From the Ph.D. to Assistant and to Associate

While the data on first-year Ph.D. students only go back to 1997, the data for graduating Ph.D.s goes back to 1974. Hence, Figure 4 graphs the representation of women in 41 cohorts of new Ph.D.s at graduation (red with circles), when cohort survivors became seventh-year assistant professors (green with diamonds) and when continuing survivors became seventh-year associate professors (purple with triangles). ${ }^{32}$ Thus, for example, the circle, diamond and triangle above 2000 depict the fall in the percentage of women in the 2000 cohort of new Ph.D.s as survivors advanced from obtaining the Ph.D. (circle) to seventh-year assistant professors (diamond) and then to seventh-year associate professors (triangle). If these three points were coincident, there would have been no drop in women's representation as this 2000 cohort of new Ph.D.s advanced through the ranks.

[^15]As manifested in the truncations in the graphs, cohorts who received their Ph.D. in 2008 or later are too young to have been seventh-year assistant professors by 2014. Hence, Figure 4 depicts the representation of women in 34 cohorts as they progressed from new Ph.D.s to seventh-year assistant professors. For the oldest cohorts (Ph.D.s dated 1974-1992), women's representation most often rose between Ph.D. receipt (red) and the last year as assistant professor (purple). Among the 15 more recent cohorts (1993-2007), several experienced noticeable drops. But overall these two lines track each other reasonably well. For the observable 34 cohorts, these data reveal no worrisome drop in the representation of women in their transition from new Ph.D. to assistant professor.

Turning to the transition from assistant to tenured associate professor, the picture is less rosy. Cohorts that received their Ph.D.s in 2001 or later are still too young to have been seventh-year associate professors by 2014. Thus, Figure 4 depicts this transition for 27 cohorts of new Ph.D.s graduating 1974-2000. Fully 24 of these cohorts saw a drop in the representation of women. ${ }^{33}$ The drop was most often greater than 5 percentage points and shows no obvious improvement over time. ${ }^{34}$ This cohort analysis likely provides the best available evidence on the extent to which in economics women fall off of the academic ladder at the point where they would become tenured associates. The evidence shows a sizable and persistent fall in women's representation in the transition from assistant to tenured associate professor. It is worth noting that failure to climb at tenure time is not found in other analytical disciplines such as physics and mathematics.

Turning from the advance of cohorts through the ranks, we return to the analysis of stocks of academic economists, this time breaking out the data on top departments and also recording the job placements of new Ph.D.s in the job market last year.

## 4. Departments by Type: Top-10, Top-20 and All Doctoral Departments

Tables 2 and 3 break out the survey results for the doctoral programs ranked as top-10 and top-20. ${ }^{35}$ As seen by comparing Tables 1 and 2, at each rank in the tenure track and at each stage in the Ph.D. program, the average representation of women in top-20 departments is lower than for all doctoral departments. Moreover for all tenure track ranks combined, the representation of women declines as the emphasis on research increases, in 2014 averaging

[^16]Of special note are the data for non-tenure track, rolling-contract teaching positions. For the top-20 departments, women's representation in non-tenure track jobs was well over two and a half times as high as their representation in tenure track jobs (Table 2 shows $39.3 / 14.1=2.78>2.5$ ). This ratio is about the same as for all doctoral departments (Table 1 shows $39.8 / 15.4=2.58$ ).

Going back to 1997, Table 3 gives placements of Ph.D. students from the top 10 and the top 11-20 departments. The number of placements outside of the U.S. about tripled. Note that the number of women in any category tends to be small. With this warning, the reader is invited to interpret these data.

## 5. Placements of New Ph.D.s

Table 4 shows the types of jobs obtained by new Ph.D.s in the 2013-14-job market. The first column shows that of the 46 women in the job market from top-10 departments, $78.3 \%$ took a job in the U.S. Of those who took a job in the U.S., $55.6 \%$ landed jobs in doctoral departments and $5.6 \%$ in non-doctoral departments. The remaining 13.9\%, 5.6\% and $19.4 \%$ went to non-faculty jobs, the public sector and private sectors, respectively. As shown in the second to last line, virtually all graduates of top-20 departments found a job. Success in the market was also high for other doctoral departments, with no job found by $6.6 \%$ of women and no job found $4.5 \%$ of men.

Focusing on U.S.-based jobs, as line 2 shows, on average, and for women and men, the higher the rank of the department granting the Ph.D., the more likely the first job was in a doctoral department. With regard to gender disparities in placements into doctoral departments, a single year of data provides no reliable evidence. Indeed, looking over these same gender comparisons in this and in the previous four CSWEP Reports, for departments ranked 21 and below the male new Ph.D.s were slightly more likely to place into doctoral departments than their female counterparts. However, in the analogous comparisons for both top-10 and 11-20 ranked departments, about half of such comparisons show a male bias and the other half show a female bias. The caveat here is that the CSWEP data on placements of new Ph.D.s into doctoral departments likely includes placements into nontenure track teaching positions and in these women are overrepresented.

Turning to other types of placements, as lines four and five show, the representation of women among new Ph.D.s landing in the public as opposed to the private sector varies with departmental rank. With regard to foreign placements, overall, those who take jobs outside the U.S. (and especially women) tend to take academic jobs. In 2012 and earlier, regardless of the rank of her graduate school, a woman was more likely to take a job in the U.S. than her male counterpart. Last year the pattern reversed as female graduates from departments ranked 11-20 were four percentage points more likely than their male counterparts to take jobs outside of the U.S., and in 2014 this gap grew to 6.6 percentage points. This pattern, as well as others exhibited by the data on foreign placements, is nonetheless difficult to interpret. As incomes and the quality of economics departments in
foreign countries rise, so too may the representation of women both amongst foreign students in U.S. graduate schools and amongst new doctorates obtaining jobs in foreign countries. However, with no data in the CSWEP survey on the prevalence of foreign students, much less their countries of origin, meaningful interpretations of gender differences in foreign placements are simply not possible.

On the whole the evidence from the 2014 Survey indicates that our profession is doing well, finding jobs for nearly $96 \%$ of its new Ph.D.s. However, except for placements by the top-10 departments, in 2014 women graduates were more likely than men to find their first job in a department without a doctoral program

## 6. 2014 Survey Details

Tables 5 and 6 contain more details from the 2014 surveys of doctoral and non-doctoral departments, respectively. This is the fifth year that CSWEP has asked departments to report their numbers of male and female senior economics majors. Here we simply note that for doctoral departments the combined total of seniors in the major for all departments responding to the 2013 CSWEP survey was 17,748 , of which $32 \%$ were women. In 2014 these numbers were 18,478 and $32.6 \%$, respectively. This shows no growth in the percent of females and, as the share of women in the undergraduate population continues to grow, a continuing decline in the share of women undergraduates who major in economics (see Goldin, CSWEP Newsletter, Spring/Summer 2013).

## III. Board Rotations and Acknowledgements

Having completed her second term on CSWEP's Board (her first term was some years ago) Cecilia Conrad will rotate off in January 2015. Cecilia made outstanding contributions to CSWEP's work. Especially missed will be her cheery "I can do that" and her knowledge of how academic institutions work.

Thanks are also due to new Board members Ragan Petrie (our new Southern Representative) and Kosali Simon (our new CeMENT Director). Both have already assumed important committee roles. Starting second terms on the Board are Kevin Lang, Serena Ng, Petra Todd and Anne Winkler, all with contributions too long to list. Finally, plaudits for advancing CSWEP's mission to Linda Goldberg and Madeline Zavodny, in their second terms, and Bevin Ashenmiller and Amalia Miller in their first terms.

The quality of the ideas that bubble up from this Board, as well as the willingness of Board members to make the ideas work, is remarkable. Contributions of individual members were noted above in Section I of this report, but it is impossible to report anything close to all of them. All Board members enthusiastically advance the mission of CSWEP and it is my privilege and pleasure to work with them.

Special thanks go to Jennifer Socey, my Administrative Assistant. She has embraced the mission of CSWEP, using her skills as organizer, writer, editor, communicator and webexpert to handle everything from the mundane to substantive initiatives. She has made my
role as chair possible and enjoyable. I also thank Daniel Osuna Gomez, a Duke University MA student, who graciously produced the figures and tables for the 2014 statistical report.

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

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

In 2014 n=124 responding departments of 124 surveyed


Note: T and U indicate tenured and untenured, respectively.

Figure 2: The Pipeline for Departments without Doctoral Programs: Percent of Students and Faculty who are Women In 2014 n = 117 (106 responding departments + 11 Web-harvested of 125 surveyed)


Figure 3. Lock-Step Model: The Percentage of Women in the 18 Cohorts of First-year Ph.D. Students When They Matriculated, for 13 of these When They Graduated, and for 6 of these When They Became Last-Year-in-Rank Assistant Professors


Figure 4. Lock-Step Model: The Percentage of Women in 41 Cohorts When They Received Their Ph.D.s, for 34 of These When They Became Last-Year-in-Rank Assistant Professors and for 27 of These When They Became Last Year-in-Rank Associate Professors


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

|  | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1st yr students | 31.3\% | 32.2\% | 35.6\% | 38.8\% | 31.9\% | 33.9\% | 34.0\% | 33.9\% | 31.9\% | 31.0\% | 32.7\% | 35.0\% | 33.5\% | 32.1\% | 32.4\% | 29.3\% | 32.7\% | 31.4\% |
| ABD | 26.8\% | 28.2\% | 33.0\% | 32.3\% | 30.2\% | 30.6\% | 32.7\% | 33.1\% | 33.9\% | 33.6\% | 32.7\% | 33.7\% | 33.5\% | 34.2\% | 34.3\% | 32.5\% | 31.9\% | 32.0\% |
| New Ph.D. | 25.0\% | 29.9\% | 34.2\% | 28.0\% | 29.4\% | 27.2\% | 29.8\% | 27.9\% | 31.1\% | 32.7\% | 34.5\% | 34.8\% | 32.9\% | 33.3\% | 34.7\% | 32.5\% | 35.0\% | 32.9\% |
| Asst Prof (U) | 26.0\% | 25.9\% | 27.8\% | 21.4\% | 22.5\% | 23.2\% | 26.1\% | 26.3\% | 29.4\% | 28.6\% | 27.5\% | 28.8\% | 28.4\% | 27.8\% | 28.7\% | 28.2\% | 27.8\% | 29.5\% |
| Assoc Prof (U) | 11.1\% | 15.9\% | 27.3\% | 17.2\% | 10.0\% | 17.2\% | 24.0\% | 11.6\% | 31.2\% | 24.6\% | 20.0\% | 29.2\% | 25.0\% | 34.1\% | 30.8\% | 40.0\% | 25.9\% | 23.1\% |
| Assoc Prof ( $T$ ) | 13.4\% | 14.0\% | 15.1\% | 16.2\% | 15.3\% | 17.0\% | 19.9\% | 21.2\% | 19.2\% | 24.1\% | 21.0\% | 21.5\% | 21.8\% | 21.8\% | 21.9\% | 21.6\% | 24.5\% | 23.5\% |
| Full Prof ( $T$ ) | 6.5\% | 6.1\% | 6.5\% | 7.4\% | 5.8\% | 8.9\% | 9.4\% | 8.4\% | 7.7\% | 8.3\% | 7.9\% | 8.8\% | 9.7\% | 10.7\% | 12.8\% | 11.6\% | 12.0\% | 12.1\% |
| All Tenured/ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Tenure Track Other (Non- | 13.4\% | 11.9\% | missing | missing | 15.2\% | 15.2\% | 15.5\% | 15.0\% | 16.1\% | 16.3\% | 15.5\% | 16.9\% | 16.9\% | 17.5\% | 19.0\% | 18.9\% | 18.6\% | 15.4\% |
| tenure Track) | 50.8\% | 31.8\% | missing | missing | 32.3\% | 38.4\% | 32.7\% | 32.3\% | 39.6\% | 34.4\% | 40.5\% | 33.5\% | 36.1\% | 33.0\% | 34.1\% | 39.5\% | 36.1\% | 39.8\% |
| N departments | 120 | 118 | 120 | 120 | 120 | 120 | 128 | 122 | 122 | 124 | 124 | 123 | 119 | 121 | 122 | 122 | 124 | 124 |

Table 2. The Pipeline for Top 10 and Top 20 Departments: Percent and Numbers of Faculty and Students Who Are Women


Notes: For each category, the table gives women as a percentage of women plus men. For the five-year intervals, simple averages are reported. Due to missing data, the columns for the 1997-2001 interval report averages over 1997, 1998 and 2001. The assistant, associate and full ranks all include both tenured and untenured Before 2014, the categories "Undergraduate Senior Mayors (AY ending in yr listed)" and "Undergraduate Economics Majors Graduated in Previous Academic Year (2013-14, including Summer 2014)" were aggregated; and the categories "Other (Non-tenure Track)" and "All Other (Full time instructor)" were also aggregated.

Table 3. Percent Women in Job Placements of New Ph.D.s from the Top-10 and Top-20 Economics Departments, 1997-2014

|  | Top 10 |  |  |  |  |  | Top 20 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Doctoral Departments | 1997-2001 | 2002-2006 | 2007-2011 | 2012 | 2013 | 2014 | 1997-2001 | 2002-2006 | 2007-2011 | 2012 | 2013 | 2014 |
| U.S. Based Job Obtained |  |  |  |  |  |  |  |  |  |  |  |  |
| Percent | 25.6\% | 24.8\% | 25.2\% | 28.5\% | 33.8\% | 25.0\% | 25.9\% | 21.9\% | 32.7\% | 27.6\% | 30.9\% | 26.9\% |
| Number | 22.0 | 37.0 | 32.3 | 41.0 | 45.0 | 36.0 | 41.0 | 59.0 | 59.8 | 59.0 | 79.0 | 66.0 |
| Doctoral Departments |  |  |  |  |  |  |  |  |  |  |  |  |
| Percent | 15.9\% | 30.3\% | 25.3\% | 26.4\% | 24.4\% | 25.3\% | 17.6\% | 25.6\% | 27.2\% | 28.2\% | 28.5\% | 24.6\% |
| Number | 14.5 | 27.0 | 19.0 | 23.0 | 22.0 | 20.0 | 22.0 | 38.0 | 32.5 | 35.0 | 35.0 | 29.0 |
| Academic Other |  |  |  |  |  |  |  |  |  |  |  |  |
| Percent | 38.9\% | 42.1\% | 41.9\% | 50.0\% | 66.7\% | 22.2\% | 44.4\% | 30.7\% | 26.0\% | 25.0\% | 50.0\% | 37.0\% |
| Number | 3.5 | 3.0 | 2.2 | 3.0 | 4.0 | 2.0 | 8.0 | 7.0 | 5.5 | 3.0 | 8.0 | 10.0 |
| Non Faculty, Any Academic Department |  |  |  |  |  |  |  |  |  |  |  |  |
| Percent |  |  |  |  | 66.7\% | 31.3\% |  |  |  |  | 35.3\% | 34.8\% |
| Number |  |  |  |  | 4.0 | 5.0 |  |  |  |  | 6.0 | 8.0 |
| Public Sector |  |  |  |  |  |  |  |  |  |  |  |  |
| Percent | 22.9\% | 26.2\% | 28.1\% | 36.8\% | 30.4\% | 16.7\% | 30.1\% | 27.3\% | 30.5\% | 24.4\% | 28.0\% | 20.7\% |
| Number | 4.0 | 2.0 | 7.2 | 7.0 | 7.0 | 2.0 | 11.0 | 14.0 | 12.7 | 10.0 | 14.0 | 6.0 |
| Private Sector |  |  |  |  |  |  |  |  |  |  |  |  |
| Percent | 40.3\% | 20.4\% | 26.4\% | 25.0\% | 26.7\% | 25.0\% | 37.9\% | 31.3\% | 30.1\% | 24.4\% | 32.0\% | 27.1\% |
| Number | 9.5 | 5.8 | 8.2 | 8.0 | 8.0 | 7.0 | 12.5 | 12.8 | 13.5 | 11.0 | 16.0 | 13.0 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| Foreign Based Job Obtained |  |  |  |  |  |  |  |  |  |  |  |  |
| Percent | 15.9\% | 26.1\% | 21.3\% | 22.0\% | 27.7\% | 25.6\% | 17.9\% | 17.2\% | 24.0\% | 21.4\% | 33.3\% | 26.3\% |
| Number | 3.5 | 9.0 | 9.5 | 9.0 | 13.0 | 10.0 | 7.0 | 17.0 | 23.7 | 18.0 | 37.0 | 21.0 |
| Academic |  |  |  |  |  |  |  |  |  |  |  |  |
| Percent | 60.0\% | 27.0\% | 20.4\% | 19.4\% | 25.8\% | 31.0\% | 20.0\% | 18.2\% | 23.0\% | 13.3\% | 32.1\% | 32.2\% |
| Number | 1.5 | 7.0 | 6.7 | 6.0 | 8.0 | 9.0 | 3.5 | 12.0 | 15.8 | 8.0 | 25.0 | 19.0 |
| Nonacademic |  |  |  |  |  |  |  |  |  |  |  |  |
| Percent | 5.9\% | 16.0\% | 26.9\% | 30.0\% | 25.8\% | 10.0\% | 6.3\% | 11.5\% | 28.8\% | 41.7\% | 36.4\% | 9.5\% |
| Number | 1.5 | 2.0 | 2.8 | 3.0 | 5.0 | 1.0 | 2.5 | 4.0 | 7.8 | 10.0 | 12.0 | 2.0 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| No Job Obtained |  |  |  |  |  |  |  |  |  |  |  |  |
| Percent | 29.2\% | 22.6\% | 33.3\% | 0.0\% | 0.0\% | 0.0\% | 32.3\% | 33.3\% | 21.9\% | 16.7\% | 0.0\% | 0.0\% |
| Number | 7.0 | 1.0 | 0.2 | 0.0 | 0.0 | 0.0 | 10.5 | 4.0 | 1.2 | 1.0 | 0.0 | 0.0 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| Total On the Job Market |  |  |  |  |  |  |  |  |  |  |  |  |
| Percent | 20.6\% | 31.1\% | 26.3\% | 26.6\% | 28.4\% | 25.1\% | 21.9\% | 31.7\% | 28.8\% | 25.7\% | 31.6\% | 26.7\% |
| Number | 32.5 | 59.0 | 46.2 | 50.0 | 58.0 | 46.0 | 69.0 | 100.0 | 90.3 | 78.0 | 116.0 | 87.0 |

Notes: The $(2,6)$ cell shows that among Ph.D.s from top-10 departments in the $2013-14$ job market, 20 women placed in U.S.-based doctoral departments and these women accounted for $25.3 \%$ of such placements. For five year intervals, simple averages are reported.

Table 4. Employment Shares by Gender and Department Rank for New Ph.D.s in the 2013-14 Job Market

|  | Top 10 |  | Top 11-20 |  | All Others |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Women | Men | Women | Men | Women | Men |
| U.S. based job <br> (Share of all individuals by gender) | 78.3\% | 78.8\% | 73.2\% | 69.6\% | 68.6\% | 64.1\% |
| Doctoral Departments | 55.6\% | 54.6\% | 30.0\% | 42.3\% | 17.5\% | 29.3\% |
| Academic, Other | 5.6\% | 6.5\% | 26.7\% | 14.1\% | 27.1\% | 26.3\% |
| Non Faculty Job | 13.9\% | 10.2\% | 10.0\% | 5.6\% | 11.4\% | 13.3\% |
| Public Sector | 5.6\% | 9.3\% | 13.3\% | 18.3\% | 10.8\% | 13.3\% |
| Private Sector | 19.4\% | 19.4\% | 20.0\% | 19.7\% | 33.1\% | 17.8\% |
| Foreign job obtained |  |  |  |  |  |  |
| (Share of all individuals by gender) | 21.7\% | 21.2\% | 26.8\% | 29.4\% | 24.8\% | 31.4\% |
| Academic | 90.0\% | 69.0\% | 90.9\% | 66.7\% | 71.7\% | 66.7\% |
| Nonacademic | 10.0\% | 31.0\% | 9.1\% | 33.3\% | 28.3\% | 33.3\% |
| No job found |  |  |  |  |  |  |
| (Share of all individuals by gender) | 0.0\% | 0.0\% | 0.0\% | 1.0\% | 6.6\% | 4.5\% |
| Total Number of individuals | 46 | 137 | 41 | 102 | 242 | 421 |
|  | 100.0\% | 100.0\% | 100.0\% | 100.0\% | 100.0\% | 100.0\% |

Table 5. The Current Gender Composition of Faculty and Students: Economics Departments with Doctoral Pr

|  | Women | Men | Percent Female |
| :---: | :---: | :---: | :---: |
| Faculty Composition (Fall 2014) |  |  |  |
| Assistant Professor | 224 | 551 | 28.9\% |
| Untenured | 213 | 509 | 29.5\% |
| Tenured | 11 | 42 | 20.8\% |
| Associate Professor | 149 | 486 | 23.5\% |
| Untenured | 6 | 20 | 23.1\% |
| Tenured | 143 | 466 | 23.5\% |
| Full Professor | 187 | 1364.5 | 12.1\% |
| Untenured | 1 | 10 | 9.1\% |
| Tenured | 186 | 1354.5 | 12.1\% |
| All tenured/tenure track | 560 | 2401.5 | 18.9\% |
| Other (non-tenure track) | 165 | 250 | 39.8\% |
| All Other (Full Time) | 55 | 111 | 33.1\% |
| All faculty | 780 | 2762.5 | 22.0\% |
| Students and Job Market |  |  |  |
| Students |  |  |  |
| Undergraduate senior majors (2014-15 AY) | 6019 | 12459 | 32.6\% |
| Undergraduate Economics Majors Recently Graduated | 6326 | 12690 | 33.3\% |
| First-year Ph.D. students (Fall 2014) | 493 | 1075 | 31.4\% |
| ABD students (Fall 2014) | 1318 | 2800 | 32.0\% |
| Ph.D. granted (2013-2014 Academic Year) | 356 | 727 | 32.9\% |
| Job Market (2013-2014 Academic Year) |  |  |  |
| U.S. based job | 232 | 449 | 34.1\% |
| Doctoral Departments | 58 | 168 | 25.7\% |
| Academic, Other | 55 | 88 | 38.5\% |
| Non Faculty | 27 | 51 | 34.6\% |
| Public Sector | 24 | 59 | 28.9\% |
| Private Sector | 68 | 83 | 45.0\% |
| Foreign job obtained | 81 | 191 | 29.8\% |
| Academic | 62 | 128 | 32.6\% |
| Nonacademic | 19 | 63 | 23.2\% |
| No job Found | 16 | 20 | 44.4\% |
| Number on job market | 329 | 660 | 33.3\% |
| Total Number of Departments | 124 of 124 Surveyed |  |  |

Table 6. Gender Composition of Faculty and Students: Economics Departments without Doctoral Programs

|  | Women | Men | \% Female |
| :---: | :---: | :---: | :---: |
| Faculty Composition |  |  |  |
| Assistant Professor | 131 | 171 | 43.4\% |
| Untenured | 124 | 163 | 43.2\% |
| Tenured | 7 | 8 | 46.7\% |
| Associate Professor | 110 | 189 | 36.8\% |
| Untenured | 4 | 13 | 23.5\% |
| Tenured | 106 | 176 | 37.6\% |
| Full Professor | 108.5 | 370 | 22.7\% |
| Untenured | 8 | 16 | 33.3\% |
| Tenured | 100.5 | 354 | 22.1\% |
| All tenured/tenure track | 349.5 | 730 | 32.4\% |
| Other (non-tenure track) | 61 | 86.17 | 41.4\% |
| All Other (full time) | 25 | 64 | 28.1\% |
| All faculty | 435.5 | 880.17 | 33.1\% |
| Student Information (2013-2014 Academic Year) |  |  |  |
| Undergraduate Seniors Expecting to Graduate (2014-2015) | 1943 | 3637 | 34.8\% |
| Undergraduate Economics Majors Graduated in Previous Year (2013-2014) | 1941 | 3494 | 35.7\% |
| Completed Masters | 61 | 92 | 39.9\% |
| N Departments |  | 117 |  |


[^0]:    ${ }^{1}$ Using CeMENT as a model, the American Philosophical Association and the Royal Economic Society's Women's Committee have both run successful mentoring workshops; WiNE (the European Economic Association's women's group) and economists in China, Japan and South Korea are working on similar workshops.
    ${ }^{2}$ Based on random assignment to participation and tracking the subsequent careers of both participants and those who were randomized out of participation, a rigorous evaluation showed that "CeMENT increased toptier publications, the total number of publications, and the total number of successful federal grants in treated women relative to controls." Blau et al., "Can Mentoring Help Female Assistant Professors? Interim Results from a Randomized Trial" (American Economic Review, May 2010: 352). Future research will track these women over their tenure clocks and beyond.

[^1]:    ${ }^{3}$ Capacity aside, the annual frequency better enables junior women to time their participation in the context of pressing tenure clocks.
    ${ }^{4}$ http://www.aeaweb.org/committees/CSWEP/mentoring/reading.php.
    ${ }^{5}$ For example, in 2012 and 2014, applicants numbered 133 and 108, respectively.

[^2]:    ${ }^{6}$ Currently a misnomer, the word "Regional" is a holdover from 1998, the year this workshop was first offered at each of the four regional association meetings. For practical reasons this workshop is now normally offered only just before the start of the Southern Economic Association Meeting, the largest of the four regional association meetings.

[^3]:    ${ }^{7}$ http://explore.georgetown.edu/people/ak659/?PageTemplateID=364.
    ${ }^{8}$ Former Board member and CeMENT Director and Professor of Economics at the University of Kansas Donna Ginther has drafted a proposal for this.

[^4]:    ${ }^{9}$ Gratitude to the 2014 committee for screening and matching: Daniel Newlon from the AEA (Chair), whose efforts have undergirded this program from the get go in 2006, CSWEP Board member Cecilia Conrad, CSMGEP Board member Gustavo Suarez and Lucia Foster of the Center for Economic Studies at the U.S. Bureau of the Census. More information on the AEA Fellows Program is available at http://www.aeaweb.org/committees/cswep/summerfellows/history.php.
    ${ }^{10}$ https://www.aeaweb.org/committees/cswep/PDFs/2014bennett-prize emi-nakamura.pdf
    ${ }^{11}$ https://www.aeaweb.org/committees/cswep/PDFs/2014Bell-Award Hilary-Hoynes.pdf

[^5]:    ${ }^{12}$ Many thanks to the 2014 Bell committee: Board member Linda Goldberg (Chair) and previous Bell recipients Fran Blau (2001) and Sharon Oster (2011); and also to the 2014 Bennett committee: Board members Petra Todd (Chair) and Serena Ng and former Bennett winner Monika Piazzesi (2006). For holding to high standards and spotlighting the extraordinary accomplishments of women in economics, we owe an enormous debt to the each committee member on both of these committees. While they must remain anonymous, this debt extends with equal weight to all those who did the hard work of nominating the entire highly-competitive field of candidates for each award as well as to all those who wrote the thoughtful, detailed letters in support of each candidacy.

[^6]:    ${ }^{13}$ The contributions of Madeline Zavodny cannot be overstated. Organizer par excellence, she helps guest editors match with a topic and generally facilitates their work, she makes sure that each issue covers the appropriate materials, writes up missing pieces, makes continued improvements, oversees all of those boxes of announcements, coordinates with the Chair's administrative assistant and drags the column "From the

[^7]:    Chair" from its author. She is also a selfless, lightning-quick copy editor and we are all in her debt. Last but not least among her endless list of tasks, Jennifer Socey, CSWEP administrative assistant, formats the Newsletter, makes innovative suggestions and does substantial editing. She also puts up with the flow of last-minute changes from the Chair, coordinates with the printer and sees to distribution.
    ${ }^{14}$ Current and past issues of the CSWEP News are archived:
    http://www.aeaweb.org/committees/cswep/newsletters.php. For a free digital email subscription, visit http://cswep.org and click "Subscribe."
    ${ }^{15}$ The feature articles have provided the bulk of professional development materials for the binder for CeMENT workshop participants, now online at:
    http://www.aeaweb.org/committees/CSWEP/mentoring/reading.php.
    ${ }^{16}$ https://www.aeaweb.org/committees/cswep/newsletters/CSWEP nsltr SprSum 2013.pdf.

[^8]:    ${ }^{17}$ For example, the flyer Do You Know About CSWEP?
    (https://www.aeaweb.org/committees/cswep/PDFs/CSWEP-Informational-Flyer.pdf)_sketches some of the opportunities provided by CSWEP, knowledge of which still seem to circulate mainly by word of mouth.
    18 https://www.aeaweb.org/committees/cswep/annual reports.php.

[^9]:    ${ }^{19}$ The 2014 survey pool for doctoral departments remained the same as in 2013 . However, last year of the 146 non-doctoral departments surveyed, 21 turned out to be composed mainly of business faculty and were therefore omitted from the 2014 survey of non-doctoral departments.

[^10]:    ${ }^{20}$ For example, for reasons given in note 19 , the data for 2012 and earlier would overstate the representation of women in economics departments if, as compared to economics departments, business departments tended to have a higher representation. In addition, the response rates and composition of responding departments changed from year to year.

[^11]:    ${ }^{21}$ Under our lock-step assumptions, the 1999 Ph.D. cohort became seventh-year associate professors in 2013 (= $1999+14$ ).
    ${ }^{22}$ While a proper adjustment for a presumed overrepresentation of older men with extended years in rank as associate professor would reduce the size of the drop, this adjustment would grow smaller over time. Thus, it seems unlikely to account for the persistence of this gap.

[^12]:    ${ }^{23}$ At every stage subsequent to attaining the Ph.D., the percentage of women declines: roughly over the last six years, over 5.5 percentage points between new Ph.D.s and assistant professors, about 6.5 percentage points between assistant professors and tenured associates, and over 11 percentage points between tenured associates and full. The sizes of these declines have been remarkably stable over time.
    ${ }^{24}$ Simple comparisons of 2014 to 1997 show that over these 18 years, women's share of first-year Ph.D. students, new Ph.D.s, assistant professors, tenured associates and full professors grew 0.1, 7.9, 3.5, 10.1 and 5.6 percentage points, respectively.
    ${ }^{25}$ E.g., Joan Haworth, "2002 Report on the Status of Women in the Economics Profession."

[^13]:    ${ }^{26}$ In 2013, due to a sizable uptick ( 2.9 percentage points) in representation at the associate level and a downtick at the assistant level, this 2013 gap was only 3.3 percentage points $(=2.9-(-0.4))$. Only future years can reveal if 2013 began the reversal of a persistent gap or recorded a transient narrowing. The 2014 suggest the latter.
    ${ }^{27}$ However tempting, the futility of focusing on short-term trends is illustrated by the years 2006 to 2012. In that interval the percent of associate professors who are women was flat while the corresponding percent of full professors was rising. Consequently the gap narrowed from the all-time recorded high of 15.8 percentage points in 2006 to 10.0 in 2012. As of 2012, one might have thought the gap was closing.

[^14]:    ${ }^{28}$ One could isolate earlier sentences and mistakenly interpret some as showing our profession is doing well and others as it is doing poorly with regard to advancing the representation of women. This highlights the difficulty of assigning meaningful interpretations to differences in a characteristic (percent female) of two stocks (associate and full professors) when the two stocks are comprised of individuals from different cohorts.
    ${ }^{29}$ Donna Ginther and Shulamit Kahn, "Women in Economics: Moving Up or Falling Off the Academic Career Ladder?" Journal of Economic Perspectives, Summer 2004; and Donna Ginther and Shulamit Kahn, "Academc Women's Careers in the Social Sciences in The Economics of Economists, Alessandro Lanteri and Jack Vromen, eds. Cambridge: Cambridge University Press, 2014.

[^15]:    ${ }^{30}$ This problem cannot be solved except with more information on the distribution of time in rank or micro data. Arbitrarily increasing the assumed time in rank of associate professors to, say, 10 years would not work because something like 30-year lags would be required. For this we do not have the data.
    ${ }^{31}$ CSWEP first collected data on entering Ph.D. classes in 1997. In the model graduate students who enrolled in 2008 graduated in 2013 and so 2008 is the last cohort we can observe.
    ${ }^{32}$ Because these data go back to the first CSWEP survey in 1974, Figure 3 permits a considerably longer look back than was the case in Figure 2.

[^16]:    ${ }^{33}$ Under our lock-step assumptions, the 2000 Ph.D. cohort became seventh-year associate professors in 2014 ( $=2000+14$ ).
    ${ }^{34}$ While a proper adjustment for a presumed overrepresentation of older men with extended years in rank as associate professor would reduce the size of the drop, this adjustment would grow smaller over time. Thus, if anything, over time this effect would reduce the size of these drops in representation.
    ${ }^{35}$ The motive for using the top 20 rather than those ranked 11-20 is to have more individuals in the cells. The rankings are the 2013 rankings from US News and World Report as at the time of this writing the 2014 rankings had not yet been released. Due to a three-way tie for $19^{\text {th }}$, for the purposes of this report, there are 21 departments in the "top 20 ." The top 10 are Harvard University, Massachusetts Institute of Technology, Princeton University, University of Chicago, Stanford University, University of California-Berkeley, Northwestern University, Yale University, University of Pennsylvania and Columbia University. The next 11 are New York University, University of Minnesota-Twin Cities, University of Michigan-Ann Arbor, University of Wisconsin-Madison, California Institute of Technology, University of California-Los Angeles, University of California-San Diego and Cornell University at $18^{\text {th }}$ with Brown University, Carnegie Mellon University (Tepper) and Duke University all tied for $19^{\text {th }}$.

