Nancy Gordon, Co-editor
(202)226-2669

Daniel Newlon, Co-editor
(202)621-6227

Jill Bury, Assistant Editor
(202)226-2671

IN THIS ISSUE:

Annual Report -- 2
Helen Frances Page Bates: The First American
Woman Ph.D. in Economics -- 9

Women in Top-Tier Economics Departments -- 10

A CSWEP/NSF Research Agenda on Women Economists -- 12

Selection of the CSWEP Board -- 13

Biographical Sketch of a CSWEP Board Member -- 14

CSWEP Activities at the Eastern and Midwest Meetings -- 15

Other Upcoming Meetings -- 16

The Inter-University Consortium for Political and Social Research -- 16

Research Funding -- 19

Calls for Papers -- 20

Summary of CSWEP-Organized Sessions at the SEA Meeting -- 21

Summary of CSWEP-Organized Sessions at the 1990 AEA Meeting -- 24

Recent Publications of Interest -- 30

News and Notes -- 30

Job Openings -- 31

Membership Information -- 35

WELCOME TO THE NEWEST CSWEP BOARD MEMBER
Ethel B. Jones, Auburn University
The Committee on the Status of Women in the Economics Profession (CSWEP) has been charged by the American Economic Association (AEA) with monitoring the position of women in the profession and undertaking activities to improve it. This report examines the advancement of women economists in academia, compares this progress with what might be expected, and describes the Committee's activities during the past year.

Are Women Economists As Likely As Men To Be Hired And Promoted?

The proportion of assistant professors who are women has been rising as one would expect based on the growing proportion of Ph.D.'s in economics awarded to women, but their progress into the ranks of associate and full professor appears to be lagging somewhat. This conclusion is based primarily on data about graduate economics departments (defined as those that award Ph.D.'s) that responded to the AEA's Universal Academic Questionnaire (UAQ) between 1974 and 1989.1

Two parallel analyses of full-time faculty were conducted for this report: One used data from 150 graduate economics departments that responded to the questionnaire in any year, while the other examined the 43 departments that responded in almost every year.2 Because of the similarity in results, only the analysis for the larger sample of departments is reported here.

The proportion of assistant professors and of associate professors who were women approximately tripled between 1974 and 1989 -- rising from 8 percent to 20 percent and from 3 percent to 9 percent, respectively (see Figure 1).3 In contrast, the proportion of full professors who were women grew from about 2 percent in the late 1970s to about 3 percent in the late 1980s. Because about one-half of all tenure-track and tenured economics faculty at departments in the sample were full professors, the proportion of all faculty who were women was about 9 percent in 1989, which represented a doubling of the proportion from the 1970s.

Differences in the employment of women faculty by different types of institutions have not been dramatic. Women assistant professors of economics were somewhat more likely to be employed by public institutions in the 1980s than men, while there was little difference between public and private institutions for associate or full professors (see Figure 2). When departments are ranked by the scholarly quality of their faculty, it appears that women assistant professors might have been

1. The Committee thanks Eric Guille, Jodi Korb, Charles Scott, Arantza Ugidos, Jackie Vander Brug, and Bruce Vavrichek for their contributions to this report.

2. In both cases, departments of agricultural economics were excluded. The 43 departments are those that did not respond in at most two consecutive years.

3. In this analysis, the proportion who are women is always of the comparable group of faculty—in this case, it is the percent of faculty with the same rank who are women.
FIGURE 1. PROPORTION OF FACULTY IN GRADUATE DEPARTMENTS WHO ARE WOMEN, BY RANK: 1974-1989

NOTE: Graduate departments are those that award Ph.D.’s.

FIGURE 2. PROPORTION OF FACULTY IN GRADUATE DEPARTMENTS WHO ARE WOMEN, BY RANK AND TYPE OF INSTITUTION: 1974-89

NOTE: Graduate departments are those that award Ph.D.’s.
employed by lower-quality schools relatively more often than men during the 1980s; whereas, there was little difference for associate or full professors, as shown in Figure 3.

How does the progress of women through the academic ranks compare with what would be expected if hiring and promotion decisions were unaffected by gender? Figure 4 shows that the proportion of newly hired assistant professors who were women has risen as expected -- it resembled the proportion of new recipients of Ph.D.'s in economics who were women, at least until late in the 1980s.

The proportion of newly hired or newly promoted associate (and full) professors who were women has also been rising, as shown in Figure 5, but assessing this growth is more difficult because, a priori, it is not clear what the standard of comparison should be. To deal with this problem, actual data were compared with the results of a simple model that simulates the promotion process in academia. The assumptions underlying the model were determined by data about the flow of faculty into each rank (that is, newly hired individuals and those promoted from the lower rank) and about the flow out of each rank (that is, faculty who left the department and those who were promoted into the next rank). In particular, the model assumes that, on average, full professors remain in a department for 20 years; that promotion to full professor is decided, on average, seven years after promotion to associate professor; that promotion to associate professor is decided, on average, five years after being hired as an assistant professor; and that women are hired as assistant professors in the same proportion as they receive newly awarded Ph.D.'s in economics. In addition, the model assumes that the distribution of talent and motivation is the same for female economists as for male economists and, hence, that the probability of an individual being promoted is not related to gender.

Figure 6 compares the implications of the model with what actually happened. The proportion of assistant professors who were women increased as the model projects over the 1974-1989 period, with the actual proportion exceeding the projected one in the first half of the period and falling

4. The scholarly quality of economics departments was based on data for 93 graduate economics departments reported in: National Research Council, An Assessment of Research-Doctorate Programs in the United States: Social and Behavioral Sciences (Washington, D.C.: National Academy Press, 1982). The data examined here included 88 of those departments; the remaining 62 departments (of the 150 on which this report is based) that were not included in the National Research Council's study were excluded from the calculations for Figure 3.

5. Data on newly awarded Ph.D.'s in economics are reported in: National Science Foundation, Science and Engineering Doctorates: 1960-1989. They are based on all graduate departments in the United States.

6. For each year, the percentage of faculty in each of these categories was averaged over the departments that responded in that year. Because these percentages were reasonably stable over the 1974-1989 period, the sixteen-year averages were used in the simulation model.

7. In 1975, for example, the model assumes that the proportion of faculty leaving the rank of full professor who were women depended on the proportion of doctoral recipients who were women in 1943 (that is, 32 years earlier because these faculty, on average, spent 20 years as full professors and took 12 years to reach that rank after being hired as assistant professors). Because actual data on doctoral recipiency were not available for years prior to 1960, the model assumes that the proportion awarded to women was 4 percent in each earlier year -- about the same as in the early 1960s. This assumption is conservative -- that is, it tends to lower the projected proportion of full professors who are women -- because doctoral recipiency in the early years affects only the simulated outflow of women full professors.

4 - Winter 1991
FIGURE 3. PROPORTION OF FACULTY IN GRADUATE DEPARTMENTS WHO ARE WOMEN, BY RANK AND QUALITY OF DEPARTMENT: 1974-1989


NOTES: Graduate departments are those that award Ph.D.'s. Of the 150 departments examined in this report, 88 were included in the study of quality conducted by the National Research Council (NRC). The top half of them make up the higher-quality category shown here. The 62 departments not examined in the NRC study are not included in either category.

FIGURE 4: PROPORTION OF NEWLY HIRED ASSISTANT PROFESSORS IN GRADUATE DEPARTMENTS, AND PROPORTION OF NEWLY AWARDED PH.D.'S IN ECONOMICS, WHO ARE WOMEN: 1974-1989


NOTE: See notes to Figure 3.
FIGURE 5. PROPORTION OF NEW ASSOCIATE AND FULL PROFESSORS IN GRADUATE DEPARTMENTS WHO ARE WOMEN: 1974-1989


NOTE: Graduate departments are those that award Ph.D.'s.

New associate (full) professors are those who were just promoted to the rank of associate (full) professor or who were newly hired as associate (full) professors.

FIGURE 6. ACTUAL AND SIMULATED PROPORTION OF FACULTY IN GRADUATE DEPARTMENTS WHO ARE WOMEN, BY RANK: 1974-1989


NOTE: Graduate departments are those that award Ph.D.'s.
below for much of the second half. In contrast, the actual proportions of associate professors and full professors who were women have been below the levels projected by the model in most years and consistently below since 1982.

These results can be seen as both discouraging and encouraging. Unfortunately, they support the belief that women's progress to the ranks of associate and full professor has been slower than it should have been. More positively, though, they indicate that any shortfall -- especially in the proportion of full professors who are women -- is considerably less than might be assumed based on the much faster growth in the proportion of assistant professors who are women. In other words, that simple comparison neglects the fact that, on average, it takes more than a decade to advance from assistant to full professor.

What might we conclude about the future? On the one hand, the rising proportion of assistant professors of economics who are women indicates that there is a growing pool of women to be promoted to associate and full professor. On the other hand, if women assistant professors are disproportionately located at lower-quality departments, growth in the proportion of associate and full professors who are women may be limited at the better schools. Moreover, the actual increase in the proportion of full professors who are women over the next decade will be largely constrained by what has already happened for associate professors. Yet, the actual proportion of associate professors who are women has been noticeably below the simulated proportion since 1982. Thus, the gap between the actual and the simulated proportion of full professors who are women is likely to grow in coming years. While future research may be able to shed some light on why these patterns persist, expanding women's participation in the economics profession may also require examining the interpersonal dynamics within graduate programs and departments.

The Committee's Recent Activities

CSWEP pursued several activities in 1990 designed to help women advance in the economics profession. As part of its ongoing efforts to expand the participation of women economists on the program of the AEA's annual meetings, the Board organized six sessions for 1990 -- three on gender-related topics and three on technology and productivity. In addition, each person asked by the President-elect to organize an invited-paper session was sent a list of experienced women economists who specialize in the same fields as the organizer. These reminders of possible participants have been associated with greater participation of women. As well, to facilitate networking at the annual meeting among economists who support CSWEP's goals, CSWEP sponsored a hospitality suite and a reception followed its business meeting.

Another major activity was publishing three issues of the CSWEP Newsletter, the contents of which are designed primarily to help young economists advance. Each issue contains information about sources of research funding and calls for papers, as well as articles on topics such as the annual job market and tips on writing publishable articles. In response to many requests for copies of articles

from earlier issues, the Board also reprinted selected articles in a fourth issue of the Newsletter that is available free to dues-paying members or for $8.

Updating and expanding the entries in the Roster of Women Economists absorbed a considerable amount of the Board's resources. The Roster contains information about women economists, including their employers, educational backgrounds, fields of specialization, and publications. It is used by employers searching for job candidates and by organizations seeking members of advisory committees and the like. The entire Roster, or selected portions of it, are available in computer-readable form or as mailing labels. In addition, the Roster appears in a printed volume every other year. The Board also continued its recent practice of informing advertisers in Job Openings for Economists and the CSWEP Newsletter about the Roster and how to use it.

Finally, the Board thanks Joan Haworth, the Committee's Membership Secretary, and her staff for their many contributions -- maintaining the Roster, updating it using the AEA's membership directory, preparing special mailings, and creating customized listings from the Roster, to name just a few. The Board is also grateful to three members whose terms expire this year. Shulamit Kahn organized many sessions and coordinated information about the availability of child care for several annual meetings of the AEA. She has also agreed to continue participating in an ongoing CSWEP-sponsored research project comparing the career paths of female and male economists. Kathryn Morrison and Barbara Newell each co-edited an issue of the Newsletter and helped with projects to expand use of the Roster. The Board also thanks Jill Bury, who continues to contribute a great deal, including doing an outstanding job producing the Newsletter.

Nancy M. Gordon
Chair

More Sylvia by Nicole Hollander

8 - Winter 1991
HELEN FRANCES PAGE BATES: THE FIRST AMERICAN WOMAN
PH.D. IN ECONOMICS

Helen Frances Page Bates was born in 1860, received her Ph.D. in 1896, and died in 1933
by Claire Holton Hammond

This article continues a series on women who have made notable contributions to economics. As noted by Hammond in her paper referenced below, the three American women to obtain Ph.D.'s in political economy before 1900 continued, after earning their degrees, to research and publish, but they never acquired permanent academic jobs, and not surprisingly, their influence on the profession was minimal. Yet their importance to us for their pioneering role is indeed notable. Please send suggestions and information about other women who might be included in this series to M.H. Wooders at the address on the front page of this newsletter. Thank you.

Helen Frances Page Bates was the first American woman to earn her Ph.D. in Economics. Born in 1860, she attended Wellesley College graduating with a bachelor's degree in 1883. She married in 1887 and, after her husband's death in 1893, she enrolled in the Ph.D. program in economics at the University of Wisconsin.

The University of Wisconsin opened in 1848. It began to accept women in 1863 and gave women full status as students in 1874. Before 1890 there was no department of economics and only one part-time professor who taught political economy. In 1892, the School of Economics, Political Science, and History opened with Richard Ely as its director. Helen Bates was one of two graduate students in economics at the new school in its second year of operation. She entered the university as a University Scholar and in 1894-1895 was a Fellow in Economics, jointly teaching "Elements of Economics Science" with Professor William Scott. In 1896, she finished her dissertation on state activities in industry in the Australian colonies and, in 1898, published an article based on it in the Annals of the American Academy of Political and Social Science.

Bates left Wisconsin in 1896 to teach economics in a temporary position at Rockford College. By 1898, she was back at Wisconsin as an Honorary Fellow in Economics and taking two pedagogy courses. Her return to Wisconsin to take post-graduate pedagogy courses indicates that Bates wanted an academic job. If her plight was typical of women with doctoral degrees at that time, no permanent academic job would have been open to her. Instead, as did other early women economists, she went into settlement work -- at Hull House in Chicago, Goodrich House in Cleveland, the Philadelphia College Settlement, the Minneapolis Unit House, and the Association of Collegiate Alumnae Settlement in Albany, New York. From 1904 to 1906, Bates was the sociological librarian for the New York State Library and then became the head librarian for the Charities Organization Society and the Russell Sage Foundation. In 1914 at the age of 54, she became librarian in the Department of Economics at the University of California in Berkeley. She remained in that position until her retirement due to illness at 71 in 1931. Helen Bates died in Berkeley in 1933.

1. The other two were Hannah Robie Sewall (Ph.D. 1898, University of Minnesota) and Sara Scovill Whittelsey (Ph.D. 1898, Yale University).

2. A more complete description of the career of Helen Bates can be found in "Women and the Professionalization of Economics" by Claire Holton Hammond, Wake Forest University Working Paper 90.2 and paper for the Southern Economic Association meeting, November 1990.
WOMEN IN TOP-TIER ECONOMICS DEPARTMENTS
by
Ivy E. Broder

The staff of the Economics Program at the National Science Foundation (NSF) has long been concerned about the small number of proposals it receives from women. Dan Newlon previously reported on the percentages of applications for NSF grants, and of successful NSF grants, from men and women. Essentially, the success rates do not differ much between men and women, but the percentage of submissions from women is much lower.\(^1\)

Because most of the grant proposals are submitted from about 30 institutions (those considered to be in the top three tiers according to the AEA's ranking of graduate programs in economics), we decided to collect information about the faculty from these departments. In this way, we could identify the women and involve them in the grant process by sending them proposals to review, encouraging submissions from them, finding potential panel members, and providing information about different NSF programs. During the summer of 1989, a student intern telephoned the departments and asked them to send us lists of faculty members. What we found was extremely disappointing in terms of the number (and percentage) of women on the faculty at the top institutions, but the situation there was not much worse than at a larger sample of 150 schools.\(^2\)

The proportions of female faculty at departments in tiers one through three were 6.1 percent, 7.8 percent, and 7.2 percent, respectively, compared with 8.6 percent at the sample of 150 departments. Similarly, the proportion of full professors who are women at departments in the top three tiers was 1.9 percent, 4.3 percent, and 2.5 percent, respectively, compared with 2.8 percent at the sample of 150 departments.

Summarized below are the results of the survey of departments based on data from the 1988-1989 academic year, although some movements that occurred during the 1990 academic year are reflected. For each tier, the departments are listed, along with the (last) names of women faculty and the number of faculty who are women relative to the total faculty size. A star indicates full professor status. Only economics departments were surveyed. When information was provided on the faculty in related departments (such as the Sloan School of Management at MIT), names of those women are listed after the information from the department. Professors emeriti are handled in the same way. Please accept our apologies if we have omitted you from the list or if we were unaware of a change in your affiliation.

Tier One

Chicago: Stokey\(^*\) (1/35). Emeriti: Reid, Bowman
Harvard: Case, Collins, Goldin\(^*\), Krishna, Schor, Sicular, Spier (7/51)
MIT: Friedlander\(^*\), Shepard (2/23). Related: Lynch, Rose
Princeton: Paxson (1/39)
Stanford: Anderson (1/37)
Yale: Lutz, Matzkin (2/45)

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1. See Fall 1989 CSWEP Newsletter.
2. See CSWEP's Annual Report at the beginning of this issue.

10 - Winter 1991
Tier Two

Berkeley: Adelman*, Brown, Hall, Romer, Tyson* (5/42)
Columbia: Altshuler, Chichilnisky*, Desai*, Elmes, Morgan, Mosser (6/36)
Minnesota: Altug (1/24)
Northwestern: Blank, Vishwanath (2/32)
Penn: Allen* (1/51)
Rochester: Baxter (1/25)
UCLA: Cameron, Currie, Neelin, Ozler (4/40)
Wisconsin: Lyall*, Voos, Wolfe* (3/43)

Tier Three

Brown: Bertocchi, Muurinen (2/25)
Cal-Tech: Rush (1/12)
Cornell: Wissink (1/28)
Duke: Krueger*, McElroy* (2/27)
Hopkins: 0/16. Related: Davis
Maryland: Abraham, Cropper, Succar (3/35)
Michigan State: Amsler, Cookingham, Jianakoplos, Pecchenino, Schreft (5/45)
NYU: Durbin, Brown (2/31)
North Carolina: Hagiwara, Rapaport, Tauchen, Willis (4/30)
UC-San Diego: Kaminsky, Ramey (2/43)
University of Washington: Lundberg, Thorton* (2/44). Related: Madden
Virginia: Greenslade, Flavin (2/29)
VPI: Craig, Eckel, Hardman (3/26)

More Sylvia by Nicole Hollander

Winter 1991 - 11
A CSWEP/NSF RESEARCH AGENDA ON WOMEN ECONOMISTS
by Shulamit Kahn, Boston University
and
Daniel Newlon, National Science Foundation

The National Science Foundation's Economics Program and CSWEP share an interest in the participation of women in economics. The purpose of this article is to help translate this interest into a concrete research agenda of unanswered or inadequately answered questions about the advancement of women in economics. This list of questions is by no means exhaustive; it is a first step toward a more comprehensive CSWEP/NSF research agenda.

We would encourage anyone familiar with research on the advancement of women in economics to contact Dr. Daniel Newlon, the Director of NSF's Economics Program at 202-357-9674 and BITNET address dnewlon@NSF or, for CSWEP, Dean Elizabeth Hoffman at the University of Arizona, Department of Economics, Tucson, AZ 85721. CSWEP would like to act as a clearinghouse for work done on the status of women economists. This information could also help shape NSF initiatives to provide more research opportunities for women scientists.

The initial research agenda includes the following questions:

1. What are the gender differences by educational cohort concerning the quality of schools attended, length of time required to finish degrees, fields of study within economics, financial support received, or probabilities of obtaining a Ph.D.?

2. What are the gender differences in career profiles in industry, government, and academia of post-Ph.D. male and female economists and are these differences disappearing or growing larger?

3. In academia, within each rank or position, how do women economists fare in comparison with men? On average, how long does it take women to reach a certain rank compared with men? Do they start at the same rank? Are there gender differences in administrative tasks required in academic positions? Do women change jobs more often than men? How do measures of success, such as publication records and teaching evaluations, compare? Do any subtle obstacles make it more difficult for women to reach the top? If so, what are they?

4. What is known about non-Ph.D. economists, who form a large proportion of the profession? Are data available to compare their career paths with those of economists with Ph.D.'s?

5. What factors are related to gender differences in educational experience or in post-Ph.D. career profiles? To what extent do the differences in outcomes reflect differential opportunities versus differing personal choices. What institutional reforms would significantly speed up the advancement of women in economics?
Members of the CSWEP Board are appointed by the President of the American Economic Association based on nominations submitted by the Chair on behalf of current incumbents of the Board. The twelve members serve staggered three-year terms, which leads to an average of four new members each year. Board members are sought who have a strong interest in the status of women economists and who are sufficiently senior that their work for CSWEP will not have a negative impact on their careers. In addition, the Board seeks members with a range of research interests, from many geographic areas, and who may represent various regional economic associations or other groups important to women economists. Achieving gender and racial diversity is also a goal.

In the past, these criteria have resulted in a Board which is diverse and relatively heterogeneous except for a common interest in the status of women and a common willingness to assist in CSWEP’s task of monitoring and improving the position of women in the profession. The remainder of this article describes the reasons for these criteria.

The first criterion used in selecting individuals for nomination is a strong interest in the status of women economists. This interest is required both because of the purpose of the organization and because membership on the Board requires a serious commitment of time and energy. CSWEP has a working Board, whose members regularly take on a wide variety of tasks, from organizing sessions, to editing the CSWEP Newsletter. It is these voluntary commitments that allow CSWEP to function.

This commitment of time and energy is also the reason for the second criterion -- women who have tenure or are reasonably senior in their profession are most likely to have their careers moving in ways that allow them to free resources for service to the rest of the profession. It is our intent to avoid the error of selecting people with interest and enthusiasm at a time when their careers can ill afford focusing on other, more altruistic endeavors.

Women’s research spans all fields within economics, most of which are not directly concerned with research on women. Thus, CSWEP has attempted to maintain a balance among the disciplinary fields represented on the Board in order to develop and promote agendas that are appropriate for the entire group of women economists and to help counteract field stereotyping within our profession. While any particular board may not reflect complete diversity, a changing mix of research orientations has been represented on the Board over the years.

Because women economists in the American Economic Association are scattered throughout this country, Canada, and other nations, the Board has attempted to maintain sufficient geographic diversity that the interests of any one area are not dominant. To recognize that geographic diversity and the constituencies of the regional economics associations, the Board created the concept of Regional Representatives. Members who have a regional assignment assist in promoting the activities of the women in their region and in providing input to the Board about their constituencies' agendas. At times, these suggestions have resulted in particular regional activities being promoted by the national Board. In other instances, ideas from regional groups have served as a springboard for developing new programs at the national level.
These criteria have led to the selection of a diverse group of individuals whose agenda for women economists is dynamic and ambitious. It is the Board's desire to maintain a broad range of contacts and to be alert to new ideas and new constituencies, because they are necessary to fulfilling the mandate of the AEA when constituting the Committee. The Board is always interested in suggestions for potential Board members. Please send them to Nancy Gordon at the address on the back page of the Newsletter.

BIOGRAPHICAL SKETCHES OF SOME CSWEP BOARD MEMBERS (continued)

Barbara Newell

My economics career reflects an individual caught between generations. I was a token female in graduate school at the University of Wisconsin. Nepotism rules at the University of Illinois kept me moving between employers -- the Department of Economics and the Bureau of Economics and Business Research -- and then I was hired with great apprehension as the first woman in the department of Economics of the Krannert Business School at Purdue. I was married, worked part-time, and assumed that I would raise a suburban family of four. With the death of my husband and changing times, I turned my efforts to a wide array of academic administrative posts, which included the design of the University of Michigan's affirmative action program, one of the first university programs for women in the country. As president of Wellesley, I had the good fortune of giving institutional support to Carolyn Bell as she worked to established CSWEP. It is a pleasure to see how this institution has matured.

My stint as U.S. Ambassador to UNESCO found me deeply involved in the relationship between economic development and education and it was this aspect of my tasks in Florida that particularly intrigued me when I became the first woman to head any state higher education system in the U.S. as Chancellor of the State of Florida's University system.

Today I am teaching in that Florida system as a Regents Professor of Economics at Florida State University.
CSWEP AT THE EASTERN ECONOMIC ASSOCIATION MEETING
Pittsburgh, Pennsylvania, March 16, 1991

The CSWEP organized session will be held on March 16, in the Westin William Penn Hotel, Room J Oakmont, from 3:45 to 5:15 pm. A reception (with complimentary hors d'oeuvres and a cash bar) will follow in the Three Rivers Room from 5:15 to 6:15 pm.

Session 149: Gender Related Issues
Chair: June O'Neill, Baruch College

Papers: Harriet Orcutt Duleep (U.S. Commission on Civil Rights) and Seth Sanders (University of Chicago), "The Decision to Work by Married Immigrant Women: Evidence from Asian Women."

Marlene Kim (University of Wisconsin-Milwaukee), "Gender Bias in Compensation--The California Case."

Jane Kolodinsky and Roberta Walsh (University of Vermont), "Income, Prices and Well-Being: A Comparison of Younger and Older Female Headed Households."

Discussants: Arnold Katz, University of Pittsburgh -- Duleep and Sanders
James Cunningham, U.S. Commission on Civil Rights -- Kim
Katherine Terrell, University of Pittsburgh -- Kolodinsky and Walsh

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CSWEP AT THE MIDWEST ECONOMIC ASSOCIATION MEETING
Adam Mark Hotel
St. Louis, Missouri, April 4-6, 1991
Program Change

Influence of Demographic Characteristics on Economic Outcomes
Chair: Karen Holden, University of Wisconsin-Madison

Papers: Francine Blau (University of Illinois at Champaign-Urbana), "Fertility of Immigrant Women: Evidence from High Fertility Source Countries."

Mary B. Hampton and John S. Heywood (University of Wisconsin-Milwaukee), "Racial and Gender Differences in the Economic Advantages of Physician Board Certification."

Helen Jensen (Iowa State University), "The Contribution of Women and Household Members to the Economy in Rural Areas."

Discussants: Susan Feigenbaum, University of Missouri-St. Louis
Anne Winkler, University of Missouri-St. Louis
OTHER UPCOMING MEETINGS

The Thirty-Second International Atlantic Economic Conference will be held in Washington, DC, October 3-6, 1991. Contact: John M. Virgo, Atlantic Economic Conference, Southern Illinois University at Edwardsville, Campus Box 1101, Edwardsville, IL 62026-1101; telephone (618)692-2291, FAX (618)692-3400.

The second annual Advanced Computing and Information Technologies for the Social Sciences conference will be held April 8-10, 1991, at the University of Georgia. Sponsors are the University of Georgia, Oak Ridge National Laboratory, and the Bureau of the Census in cooperation with the Social Science Computing Association. Contact: Dr. Ronald Anderson, Department of Sociology, University of Minnesota; telephone (612)624-9554.

The 66th Annual Conference of the Western Economic Association will be held in Seattle, WA., from June 29 to July 3, 1991, at the Seattle Sheraton Hotel and Towers.

THE INTER-UNIVERSITY CONSORTIUM FOR POLITICAL AND SOCIAL RESEARCH

by

Carolyn L. Geda

The Inter-university Consortium for Political and Social Research (ICPSR) is one of the oldest and largest cooperative academic organizations in the world. Founded almost thirty years ago by social scientists, the ICPSR serves as a repository and dissemination service for computer-readable data for research in the social and behavioral sciences, as well as a source of training in basic and advanced techniques of quantitative social analysis. ICPSR provides facilities and services for an international community of scholars that no one college or university could offer independently. The headquarters and central staff are located in the Institute for Social Research at the University of Michigan.

ICPSR was established in 1962 as a partnership with 21 universities in the United States. By 1991, membership in ICPSR has expanded to over 350 institutions located in 15 countries throughout the world. Scholars from countries around the world are able to share common data resources, to interact and study together in the ICPSR training programs, and to use a common set of technical aids. The purpose of the ICPSR is to maximize the availability and use of social science resources and to minimize the inconvenience and cost of teaching and studying economic, social, and historical phenomena.

Member institutions pay an annual fee that entitles faculty, staff, and students to acquire the full range of services provided by ICPSR. This structure encourages use of the research support facilities of ICPSR by shifting the financial responsibility for developing and maintaining resources form individual scholars to their institutions. The annual fees also provide a relatively stable and predictable financial base, thereby allowing ICPSR to engage in long-range development and planning and to subsidize core operating costs. In addition, most development of computer technology and archival expansion, and a major portion of the Summer Training Program, are
supported by grants from foundations and the federal government, funds from the University of Michigan, and charges for services to nonmembers and extraordinary services to members.

Each affiliated institution is represented by one person, locally designated and formally called the "Official Representative;" they are usually faculty members or professional data managers. The Official Representative serves as the liaison between the member institution and the ICPSR staff by coordinating access to ICPSR resources and representing the member institution at ICPSR meetings. The members also elect a Council of ten members (which will increase to twelve members by 1994).

The Council is the executive committee of the ICPSR. It oversees administrative, budgetary, and organizational policies and procedures. Through the years, the Council has been composed of leading scholars from many areas of social inquiry. However, the broadening content of the Archive and the expanding disciplinary relevance of ICPSR mean that guidance is required from a large and diverse set of experts in many fields of social science. Therefore, the Council's work is supplemented by a set of advisory committees, each of which is chaired by a member of the Council. The advisory committees guide ICPSR in defining areas for possible special projects, establishing priorities for the acquisition and processing of data, recommending expansion and revision of the curriculum of the Summer Program, and accommodating changes in computer technology. Recently an Advisory Committee of Economics, chaired by Professor Ronald G. Ehrenberg, of Cornell University, has been constituted. A larger "correspondent committee" is in the process of being constituted. One of the major objectives of the committee is to increase the acquisition of economic data collections by the ICPSR Archive.

The Archive acquires, processes and distributes computer-readable data on social phenomena occurring in over 130 countries. Nearly 30,000 discrete data files pertaining to most social science disciplines are currently on deposit including such major data collections as: U.S. Census of Population and Housing from 1790 to the present; Panel Study of Income Dynamics; National Longitudinal Surveys of Labor Market Experience; Surveys of Consumer Attitudes and Behavior; Survey of Income and Program Participation (SIPP); World Debt Tables; World Tables of Economic and Social Indicators; Direction of Trade; County Business Patterns; and Cost of Living/Consumer Expenditure surveys. New data are frequently acquired -- about 1,000 new files are added each year. A major acquisition beginning in 1991 will be the 1990 Census data as the files become available from the U.S. Bureau of the Census.

Data are obtained from various sources including scholars, government agencies, and private agencies and organizations. These resources represent an investment of millions of dollars and enormous amounts of time and talent by the individuals who produced them prior to their being contributed to ICPSR. Once scholars contribute the data from their research to ICPSR, these same materials are made available to others.

Establishing the Advisory Committee of Economists to ICPSR represents a concerted effort to acquire data relevant to the research of economists. Scholars interested in depositing their data with ICPSR may transmit the data on magnetic tape or diskettes. Data transmitted on magnetic tape should be written on nine-track tapes; 6250, 1600 or 800 b.p.i.; odd parity; blocked (block size must be under 32,767); no label or IBM standard labels; and EBCDIC or ASCII mode. Since difficulty is frequently experienced with SPSS and SAS system files, if the data are in one of these formats, raw data files and control cards should be supplied to ICPSR. IBM/PC or IBM/PC

Winter 1991 - 17
compatible diskettes (5.26 inch or 3.5 inch) or Macintosh (3.5 inch) diskettes are also accepted. Media specification forms, available from ICPSR, should be completed to assure that the data can be retrieved.

Documentation for the data collection should be provided to ICPSR, preferably in computer-readable form but "hard copy" is acceptable. If the documentation is computer-readable, the file should be written on the magnetic tape or diskette in ASCII. Critical information that needs to be provided to ICPSR includes: a descriptive title for the data collection; persons responsible for the data collection; sponsoring or funding agency and grant number; time span covered by the data; purpose and scope of the data; sample design and methodology if relevant; source of the data (if derived from another data collection); primary publications resulting from the data; a description of each variable; a description of each code value for each variable (if relevant); and the location for each variable. An inventory for data contributors is available from ICPSR which should be completed for each data collection. Information provided in the inventory will be used to describe the data in ICPSR literature.

Membership in ICPSR is not a prerequisite for access to the data resources. However, virtually all of the data resources are available to individuals at ICPSR member institutions without charge, while individuals who are not so affiliated must pay a fee for the analogous services. All requests for data from individuals at member institutions should be made through the Official Representative. Requests for data from individuals at nonmember institutions should be addressed to the Director, Technical Services, ICPSR, P.O. Box 1248, Ann Arbor, MI 48106.

The Summer Training Program offers a comprehensive, integrated program of studies in research design, statistics, data analysis, and social methodology. In general, emphasis is focused on courses and subjects that are not normally an integral part of the curricula of member institutions, often because of their highly specialized nature.

The Summer Training Program consists of two four-week sessions, with instruction organized in lecture, seminar, and workshop formats. In addition, the curriculum includes special workshops that provide participants with an opportunity to examine the impact of various methodologies on specific substantive issues. Examples of some of the course offerings are: Logit and Log-linear Models; LISREL Models; Time Series Analysis; Game Theory and Rational Choice Modeling; Network Analysis; Dynamic and Longitudinal Analysis; Linear Models; Scaling and Dimensional Analysis; Maximum Likelihood and Statistical Inference; and Regression Diagnostics. The Program now includes over thirty courses and is attended each summer by more than 400 graduate students and more senior scholars representing 150 colleges and universities.

For more information about the ICPSR or to deposit data with the ICPSR, contact: Carolyn L. Geda, ICPSR, P.O. Box 1248, Ann Arbor, MI 48106; telephone: (313)764-2570; FAX: (313)764-8041; BITNET: USERSKR7@UMICHUM.
The National Women's Studies Association (NWSA) is pleased to announce its 1991 scholarship and award offerings. All awards, fellowships, and scholarships are intended to expand the boundaries and possibilities of women's studies scholarship and are available to people of all ages whose qualifications are compatible with the requirements of each award. Inquiries or requests for applications should be directed to: NWSA, University of Maryland, College Park, MD 20742-1325; telephone (301)405-5573.

The Rockefeller Foundation Humanities Fellowships Program 1991-1992 at the State University of New York at Buffalo provides in-residence postdoctoral research fellowships in the Department of African American Studies and the Department of American Studies, including Native American Studies, Puerto Rican Studies, U.S. Studies, and Women's Studies. Contact: Ms. Lynn Taylor, Program Coordinator, Rockefeller Humanities Fellowships, 732 Clemens Hall, SUNY-Buffalo, Buffalo, NY 14260; telephone (716)636-3792 or FAX (716)636-3888.


Council for International Exchange of Scholars, 3007 Tilden Street, NW, Suite 5M, Box NEWS, Washington, DC 20008-3009; telephone (202)686-7877 announces the following:

Fulbright Scholar Awards for U.S. Faculty and Professionals. The Fulbright Scholar Program for 1992-1993 includes some 1,000 grants for research, combined research and lecturing, or university lecturing. Opportunities range from two months to a full academic year. Virtually all disciplines and subfields participate. Basic eligibility requirements are U.S. citizenship and a Ph.D. or comparable professional qualifications; language skills are needed for some countries. Application deadline is June 15 for Australasia, South Asia, most of Latin America, and the U.S.S.R.; the deadline is August 1 for Africa, Asia, Europe, the Middle East, Canada, and lecturing awards in the Caribbean, Mexico, and Venezuela. Contact the Council at the above address.

1992-1993 Advanced Research Fellowships in India. The Indo-U.S. Subcommission on Education and Culture is offering twelve long-term (6-10 months) and nine short-term (2-3 months) awards for research in India. Applicants must be U.S. citizens and hold a Ph.D. or comparable professional qualifications. Applications deadline is June 15, 1991. Contact the Indo-America Fellowship Program at the above address.

1992-1993 Fulbright Chairs in Western Europe - Economics. Among the ten chairs in Western Europe announced for the 1992-1993 academic year are six that are of particular interest for those in the field of Economics. These awards carry enhanced benefits and are viewed as among the most prestigious appointments in the Fulbright Program worldwide. Candidates must be U.S. citizens and have a prominent record of scholarly accomplishment. Submission deadline is June 1, 1991. For more information contact: Dr. Richard Pettit or Katie Tremper, telephone: (202)686-6240.
CALLS FOR PAPERS

CSWEP will again organize two sessions at the Southern Economic Association Meeting to be held in Nashville, TN, November 24-26, 1991. The topics are currently open. Those who wish to present a paper are encouraged to send abstracts and preliminary drafts by March 31, 1991, to: Ethel B. Jones, Department of Economics, College of Business, 107 Thach Hall, Auburn University, AL 36849-5242. Proposals for entire sessions are also welcome.


The Twelfth Annual Meeting of The Middle East Economic Association (MEEA) will be held in New Orleans, LA, January 2-5, 1992, in conjunction with the annual meeting of the Allied Social Science Association. If you would like to present a paper, you must send a one-page abstract to: Sohrab Behad, Executive Secretary, MEEA, Department of Economics, Denison University, Granville, Ohio 43023 by April 30, 1991. If you would like to serve as a chair or discussant at the meeting, please let me know by this date also.

APPAM (Association for Public Policy Analysis and Management) has issued a call for papers and panels. The 13th annual meeting will be held at the Hyatt Regency-Bethesda, Bethesda, Maryland on October 24-26, 1991. Four types of proposals are possible: individual papers, panels, workshops, and roundtables. All proposals should be submitted no later than March 22, 1991 to: Martin A. Levin, APPAM Program Chair, Gordon Public Policy Center, Brandeis University, 126 Sachar Building, Waltham, MA 02254-9110. Decisions will be announced by June 1; papers are due by September 26.


The Nineteenth Annual Telecommunications Policy Research Conference (TPRC) will hold its annual meeting in Solomons, MD, September 28-30, 1991. The TPRC is a forum for dialogue between scholars and decisionmakers concerning issues in telecommunications research and policy. Send abstracts for current research papers on theoretical and/or empirical topics in the fields of economics, law, engineering, and public policy by April 1, 1991, to Conference Coordinator, TPRC, Inc., P.O. Box 19203, Washington, DC 20036. The TPRC is also offering cash prizes for the best graduate student papers in these fields. Student papers must be submitted by June 3, 1991. Contact the TPRC at the above address for further information on the student competition.
CSWEP wishes to thank Shawna Grosskopf of Southern Illinois University, who hosted the well attended CSWEP reception and Marianne A. Ferber of the University of Illinois, who chaired the business meeting. In addition, Diana Strassman of Rice University organized the panel discussion, "The Economics Question of Feminism," which was chaired by the incoming President of the Southern Economic Association, Charles Clotfelter of Duke University. Devra L. Golbe organized and chaired the session on "Issues in Corporate Finance." Summaries of these sessions follow.

The Economics Question in Feminism
by Kathryn Anderson

In "Gender and Economic Ideology," Julie Nelson started by noting that the discipline of economics is masculine in approach and ideology. The economic man ("homo economicus") is the principal agent in all economic models; he is fully formed, has fully developed preferences, is not dependent on or affected by the environment, and prices are his necessary forms of communication. In short, he is autonomous and rational. The focus of economic research has also been on logic and rationality. A good research paper relies on rules of logic, mathematics, formal presentation of assumptions and models, and solid econometric analysis. This approach to research fits the "homo economicus" model.

What would a more feminine approach to economics be, and what are the costs of ignoring this different way of thinking? Feminine economics would recognize important social and cognitive constructs and their influences on behavior. Responsibility and dependence are ideas that are important to understanding how individuals and families function, but these concepts are ignored in economics. We need to recognize that human beings are individuals but are also members of groups, and group interaction shapes behavior. The dangers of the hard, precise, logical approach of modern economics are that it leads to inflexibility, rigidity, and narrowness.

In "Redefining the Research Agenda in the 1990's: A Feminist Perspective," Paulette Olsen observed that feminist theory is about and for women. It is not a specific form of inquiry, but a political and ethical agenda. It takes many forms -- from concrete struggles to overcome oppression of women in their daily lives to exposing the power of androcentric science. One goal is to eradicate oppression through struggle. For example, sexual harassment was largely overlooked by the law until the 1980s. Three modern feminist struggles have helped women gain recognition: the suffrage movement; the 1960s women's movement; and today, on university campuses, the increase in women's studies programs, women's books and feminist critique, and dissertations on women's issues.

Why has there been such change in the acceptance of feminist ideas? Olsen gives two reasons. First, more women have gained access to male-dominated professions. Second, among women, there has been an increase in recognition and respect for differences among women. In particular, the feminist movement has taken on a global dimension. By the 1980s, all women were joined in the global expansion of the feminist vision. International conferences on women and development generated a dialogue about commonalities and diversities in the daily lives of women in less
developed countries. Through this dialogue, respect and recognition of differences among women resulted in a common political agenda for women. Women in development serve as the reference point because the majority of women in the world are poor and are the major providers of fuel, water, child care, and care of the sick and old. The key strategy is the empowerment of women.

Olsen believes that our role as theoretical economists in this movement is limited unless we restructure our models to give women a more central role in the analyses. As educators and advisors, we can assist in the social change and expose strategies of domination at the household, state, national, and international levels. We can work to redirect funding to democratic projects directed by women.

In "Sex in the Classroom," Marianne Ferber notes that, although the position of women economists in academia has improved somewhat, more progress is needed. For example, there has been only a slight decrease in occupational segregation -- in economics, women are 20 percent of all Ph.D.s, which is a much smaller percentage of women than in the other social sciences. In addition, women still encounter some barriers in academia. Male students are more likely to get to know male faculty members well, while female students are more likely to get to know female faculty members. Yet in economics, there are too few female faculty members with whom women can interact. The use of "male words" and of positive examples involving men (in textbooks, for example) and negative references to women ("dumb blonds") are still too common. Books on poverty issues too often fail to emphasize the feminization of poverty. An increase in feminist ideology in our models with less focus on rationality would add much to the understanding of how families work; we also need to recognize in our models the influence of tradition and culture.

In "Rethinking Class and Social Stratification: Toward a Coherent Feminist Economics," Ann Jennings and William Waller discuss the relationship between gender and class inequality from an historical perspective. Beginning in the 19th century, class became an economic rather than a political categorization. Economic activity was the center of social life, and economic success meant more consumption. The family and the state were means to economic ends and the economic component of an activity defined its social value. Within this system, an economic/family dualism developed. Domestic roles were assigned secondary importance because they were not directly associated with the center of economic activity. Therefore, women, with primary roles in the home, were assigned lower status than working men.

According to Jennings and Waller, Marxist and neoclassical attempts to examine inequality have been inadequate in explaining gender differences. The Marxist model denies social importance to women's activities in the home and cannot explain women's continuing social disadvantage over time. The neoclassical model focuses on inequality resulting from personal choice when some understanding of the unequal distribution of power is needed to explain gender differences. The authors conclude that gender and class are conceptual aspects of a single process. Gender is important in determining class, and class affects the gender roles that are assigned.

**Issues in Corporate Finance**

by Devra L. Golbe

This session consisted of four works-in-progress on the general topic of corporate finance. The discussants Thomas Abbott (Rutgers), Ralph Sanders (Tulane), and Richard Cook (University of
Colorado at Denver) provided the authors with very useful suggestions for revision and extensions of their work.

In "Institutional Ownership of Equity: Effects on Stock Market Liquidity and Corporate Long-Term Investment," Jonathan Jones, Ken Lehn, and Harold Mulherin investigated the effect of increasing institutional participation in the stock market. Has such participation in fact reduced liquidity? Has the reputed myopia of institutional portfolio managers induced similar myopia in the investment decisions of corporate managers? While their preliminary results do not account for simultaneity problems, their initial results answer "no" to both questions.

"Patterns of Corporate Restructuring, 1955-1987" described preliminary analysis of a large micro-data set on mergers assembled by Margaret Blair, Sarah Lane, and Martha Schary. This consistent, transactions-level data set will permit investigation of merger patterns by target and acquirer industry and type of transaction. In addition, the financial terms of the transactions can be examined.

"Takeovers and Managerial Incentives for Insider and Informed Trading," by Devra Golbe and Mary Schranz, presented a theoretical model of the incentives of a bidding firm manager to engage in informed trading before announcement of a takeover attempt or to allow others to do so. They show that these incentives are related to the manager's stake in the firm and to the way various forms of informed trading affect the probability of takeover success.

Finally, in "Bid-Ask Spreads and the Information Content of Earnings and Dividend Announcements," Richard Cook examined the response of the bid-ask spread to marginal variations in information asymmetry. He argued that dividend and earnings announcements should reduce information asymmetry and, in turn, reduce bid-ask spreads. Preliminary empirical results suggest that, in fact, the spread is not very sensitive to announcements.
Women in Economics was lively and well-attended. The three presentations were by Ivy E. Broder (National Science Foundation and American University), Rebecca Blank (Northwestern University), and Nachum Sicherman (Rutgers University), who presented a paper jointly authored with June O’Neill (Baruch College). The discussants were Arlene Holen (Federal Mine Safety and Health Review Commission), Claudia Goldin (Harvard University), and Marvin Kosters (American Enterprise Institute).

Broder and O’Neill-Sicherman examined new evidence on the gender wage gap in economics, while Blank investigated single-blind versus double-blind reviewing in economics journals, based on a randomized experiment recently conducted at the American Economic Review. Some of the key findings of Blank’s study were that acceptance rates are lower and referee reports are more critical under a double-blind system; that authors at middle-ranked institutions as well as foreign authors and those from nonacademic institutions have lower acceptance rates under blind reviewing; that there is little evidence that double-blind reviewing would boost the acceptance rates for female economists; and that papers with female authors do worse under either reviewing scheme, even controlling for other important factors. "[I]t essentially says that women do worse, even when the referee doesn’t know that they are women.”

Goldin judged that the Blank paper will have the greatest effect on policy of any paper presented at the AEA meeting, although Blank herself does not explicitly advocate changes in reviewing procedures based on her analysis. Gordon remarked that CSWEP’s position has been to favor double-blind reviewing, based on considerations of fairness, no matter what specific effects on acceptance rates for men and women were found by Blank. Kosters praised Blank’s paper for overall interest and quality of analysis. He noted that both the Broder and the O’Neill-Sicherman studies were based on relatively narrow samples, raising questions of selectivity. Holen called for more attention in the future to hypothesis-testing rather than descriptions of the gender wage gap, with the major contenders for explanatory factors being discrimination, lower work aspirations, and lower quality or productivity that could be the result of past affirmative action. The latter explanation, she noted, is suggested by Blank’s findings.

Mobility, Wages, and Gender

by Lisa M. Lynch

Three papers were presented in this session: "The Role of Off-the-Job versus On-the Job Training for the Mobility of Women Workers," by Lisa M. Lynch (M.I.T.), "The Recent Rise in Female Self-Employment," by Theresa Devine (Pennsylvania State University), and "Retirement in the Dual Worker Family," by Constance Rhind (Congressional Budget Office). Insightful comments were given by the discussants Kathryn Shaw and Edward Montgomery.

The paper by Lynch uses data from the youth cohort of the National Longitudinal Survey to examine how company-provided training (on-the-job) and training received from "for-profit"
proprietary institutions (off-the-job) affects the probability of young men and women leaving an employer. She finds that on-the-job training increases the probability of remaining with an employer, while off-the-job training increases the probability of leaving, with both effects stronger for women than for men. Devine uses data from the Current Population Survey to examine the increase in self-employment in the U.S. This increase seems to be concentrated among married women 35-54 years of age who are working full-time, full-year and living with their spouses. There has also been an increase in the number of female college graduates working in incorporated businesses who are self-employed. Unfortunately, self-employed women are more than twice as likely to have negative earnings as self-employed men. Rhind examines data from the Social Security Administration's Retirement History Study to estimate the effect of having a retired spouse on the retirement decisions of a working spouse. She finds that a spouse's health, the time since the spouse's retirement, and the worker's age are important determinants of the probability of retirement for both men and women. For husbands, the wife's pension eligibility is also important, while for women their spouse's imputed wage is significant.

Gender and Productivity
by Francine D. Blau

Solomon Polachek's paper examined the trends in relative wage growth of women over the 1970s and 1980s. While the gender wage gap has narrowed by 11 percent since 1980, there was barely any narrowing over the 1970s. As Polachek notes, this is somewhat paradoxical in that female work behavior rose more dramatically in the 1970s than in the 1980s. Polachek attributes this result, in part, to the fact that less-experienced female labor-market entrants of the 1970s adversely affected the growth in women's human capital. With fewer new entrants in the 1980s, women's human capital rose, resulting in greater overall wage gains. He finds that when controls for experience are incorporated, relative wage gains are similar in the two periods.

Joni Hersch's paper considered the impact of time spent on housework on the labor market outcomes of women and men. Hersch finds that women's wages, but not men's, are reduced by time spent on housework. She notes that the inverse relationship for women may be due to a direct effect of housework on market effort, as well as the possibility that household roles affect demand for working conditions and thereby wages as a compensating differential. A further possibility is that women who have demonstrated that family life is a priority are placed on a so-called "mommy track" with reduced work responsibilities and promotion prospects.

John Mullahy and Jody Sindelar begin by noting that significant gender differences in labor market behavior are now well established. Differences in prevalence rates of alcoholism by gender are also substantial, and there is building medical evidence that suggests potentially important male-female differences in metabolic and other physiological responses to alcohol. Their paper studied the structure of gender differences in labor market responses to alcohol using a relatively new data source that allows such comparisons in a large community-based sample. They find that alcoholism typically has negative effects on both labor force participation and income in their sample. The effects vary across the life cycle and by gender, however, and their estimated significance depends critically on what variables one controls for and whether one is examining participation or income.
SUMMARIES OF CSWEP-ORGANIZED SESSIONS ON SCIENCE, TECHNOLOGY, AND PRODUCTIVITY AT THE 1990 AEA MEETING

Empirical Analyses of R&D and Productivity Growth
by Bronwyn Hall

Professor Bronwyn H. Hall (University of California-Berkeley) chaired this session; Lisa Lynch (MIT) and Edwin Mansfield (of the University of Pennsylvania) were the discussants.

In "Unions and Productivity in the Public Sector: The Case of Solid Waste Collection," Linda Edwards and Betsy Field-Hendry (Queens College, CUNY) addressed the question of whether public sector unions improve productivity in the solid waste collection industry using the standard Cobb-Douglas production function framework and data on one hundred cities in the United States in 1974. An interesting feature of the analysis is the attempt to control for the fact that unionization may be endogenous in the productivity equation, in the sense that unobserved factors that affect productivity may also affect the probability of becoming unionized.

The results indicate that this may indeed be the case, and that some of the union-nonunion productivity differential is accounted for by the propensity of high-productivity cities to become unionized. For several sets of estimates, the unionized communities have productivity about 50 percent higher than nonunionized ones, but the differential is only around 20 percent if endogeneity is controlled for.

In "Asymmetric Information, Taxes, and Investment in R&D," Janet Tillinger (Texas A&M University) described joint work with Winston T. Shearon of the same institution. They applied insights from the recent wave of research on the effects of liquidity constraints on investment to the problem of investment in R&D and its potential for stimulation by tax incentives. They argue that firms which face essentially no cost disadvantage associated with using external finance (those with q ratios of approximately unity) will be more responsive to a marginal R&D credit. Those with q > 1 (growth firms) and q < 1 (mature firms) will tend to favor internal finance because of information problems and will be relatively unresponsive to marginal tax incentives.

They test this hypothesis using Compustat data on 400 firms from 1981 through 1988, and confirm that the R&D-to-assets ratio is about twice as responsive to the availability (but not the level) of an R&D tax credit for firms in the middle 30 percent of the q distribution as for the firms in the tails of the distribution. The cash flow effects of the credit (which are measured by its dollar amount) disappear after the Tax Reform Act of 1986, possibly because of the elimination of the differential tax treatment of capital gains. They also explore the relationship between dividend signalling and subsequent R&D investment for the three groups of firms. In the oral presentation, Tillinger also gave a cost-benefit analysis of the R&D tax credit, which suggested that the credit increased R&D for the firms with q approximately equal to unity by about 15 percent to 20 percent, but only by about 10 percent for the other firms.

In "The Determinants of Investment in New Technology: New Diggings in Bituminous Coal," Sarah J. Lane (Boston University) uses a logistic diffusion model with variable rate and ceiling coefficients to explore the determinants of adoption of continuous mining machinery in underground bituminous coal mining across states from 1955 to 1974. The results highlight the importance of vertical integration in accelerating the rate of adoption of the new technology. This outcome can be

26 - Winter 1991
attributed to factors such as the importance of a long-term stable contractual arrangement for the sale of output when investing in specific assets. The average mine size and the level of wages also have a positive influence on the rate of adoption.

Allowing the adoption ceiling to vary as a function of mine characteristics in the state and macroeconomic variables greatly improves the fit of the model to the data. The average estimated ceiling is around 40 percent rather than 100 percent, and is most strongly related to the importance of mechanical mining machines, which are in some sense substitutes for continuous mining machinery. This latter fact suggests that a simultaneous adoption/disinvestment model may be appropriate here.

In "Investment in Capital Assets and Economic Performance: The U.S. Chemicals and Primary Metals Industries in Transition," Catherine J. Morrison (NBER) explored the determinants of and linkages among investment in different assets, markup behavior, and productivity. A unique feature of the paper is that general capital investments are distinguished from investments in high-tech or innovative capital such as office and communications equipment, and technical and scientific apparatus. Investment patterns and their association with economic performance are investigated for the two industries using a structural model and annual data at the industry level from 1966 through 1986.

The results suggest that investment rates in primary metals have been too high in general (relative to the estimated marginal shadow value of capital in that industry), but insufficient for office and communications equipment. Investment in all but scientific equipment has been too low for chemical firms. As a result, productivity growth has been overstated in the chemical industry and understated in the metals industry, partly because of the associated trends in capacity utilization.

Theoretical IO With Applications to R&D
by Elizabeth Hoffman

In "Choosing R&D Projects: An Informational Approach," Beth Allen (University of Pennsylvania) develops a new theoretical approach to the study of R&D. Most theoretical research in R&D focuses on either a single R&D project, which might be pursued by several firms simultaneously in a patent race, or some aggregate measure of R&D expenditures. In Allen's paper, R&D is modelled as information acquisition. Each project is represented by a probability of achieving some answer, which can be either a solution or a counterexample, and a description of the knowledge to be acquired. Different projects can be substitutes, complements, or unrelated to one another. One project dominates another if it yields superior information, but much R&D research is actually either complementary or nonredundant. One importance of this new approach is that it changes the welfare implications of a patent race. If all firms race for the same information, then patent races lead to overinvestment in R&D. However, if different firms undertake different projects, if intermediate discoveries by one firm change the way other firms conduct future research, or if there are important spillover effects, then apparent duplication of research may not actually result in waste.

Tara Vishwanath (Northwestern University) complimented Allen on providing a fresh approach to R&D research. She too was concerned that the emphasis on patent races tends to obscure the diversity of R&D research projects among firms and the opportunities for complementarity and
joint ventures. She also discussed possible applications and extensions of Allen's model. There were a number of questions and comments from the audience. There was some concern that the model did not distinguish between successful and unsuccessful R&D in the traditional sense. Success could be a counterexample in her model. The audience was also interested in how her model might change empirical research in R&D.

The model developed in "Diversification by Regulated Monopolies and Incentives for Cost-Reducing R&D," by Karen Palmer (Resources for the Future) challenges regulatory restrictions on a regulated firm's diversifying into unregulated markets. Palmer finds that, if a regulator can accurately observe production costs at the time of a rate review, and there exist economies of scope between production for the regulated and unregulated markets, allowing a regulated firm to diversify increases its incentive to invest in process innovations. This result occurs because the firm can achieve some profit from cost reduction in the unregulated market, even if the regulator forces the firm to pass the cost savings on to consumers in the regulated market. Palmer uses a three-period model to develop and illustrate these results. The firm decides whether or not to diversify and how much to invest in period 1. Any cost reductions occur in period 2 and the regulated price may be adjusted in period 3.

Paula-Ann Cech (Northwestern University) was particularly interested in the results of the model, as they are consistent with results of her own experimental study of diversification by a regulated monopolist. The audience questioned whether the results might not be driven by the specification of the model. Palmer answered by discussing extensions, outlined in her dissertation, which do not substantially change the results.

In "Protecting Early Innovators: Should Second Generation Products be Patentable?" Susanne Scotchmer (University of California-Berkeley) addresses the important policy question of whether allowing or disallowing patenting of applications or improvements of already patented technologies affects investment in innovation. She argues first that patentability of second-generation products confers bargaining power on the producers of those products. Such producers may then be able to extract profits from the holders of the first-generation products, reducing the incentive to invest in the first-generation R&D. However, denying patentability does not reduce the incentive to invest in second-generation R&D, as long as mechanisms exist for developing ex-ante efficient licensing contracts between first- and second-generation firms. In particular, an exclusive license for the second-generation firm to use the first-generation technology for its application or improvement provides the incentive for investment in profitable second-generation technology. Appropriate contracts can also be developed with more than one second-generation firm. Ester Gal-Or (University of Pittsburgh) emphasized the importance of contracting between first- and second-generation firms in Scotchmer's model and related the paper to her own work on contracting.

**Patent Races and Technology Transfer**

by Debra J. Aron

In "R&D Competition for Production Innovation: An Endless Race," Reiko Aoki (SUNY-Stonybrook) analyzes three increasingly complex models of strategic investment in R&D in a duopoly setting. The focus of the paper is on industry evolution and the likelihood of a firm ultimately dropping out of the race. In the most complicated model, the possibility of overtaking the leader makes the follower willing to invest even when the lead is large; but when the lead is
large, the leader's incentives to invest are low. Thus, Aoki finds the surprising result that the continuation value of the game for the follower may not be monotone in the size of the lead. A small lead may be worse for the follower than a large one, since a small lead encourages the leader to take a more aggressive R&D strategy. Beth Allen (University of Pennsylvania) viewed the paper as an attempt to endogenize industry dynamics, beyond entry and exit, by explicitly modeling R&D technology, and enthusiastically supported the line of research.

**Marie Thursby** (Purdue University) spoke about her joint work with **Richard Jensen** (University of Kentucky): "Patent Race, Product Standards, and International Competition." They model an R&D race in which firms in different countries may compete to produce different but substitute products. The model is designed to address the question of whether it is optimal for a government to impose compatibility standards (that would prohibit one of the potential products from being sold domestically) before products are actually developed. In order to represent the facts of the current debate about High Definition Television (HDTV), it is assumed that one of the products, if developed, would be superior to the other, and that the foreign firm is ahead in the production of the superior product. In the absence of compatibility standards, the authors show that, if the foreign rival's advantage is large enough, the unique subgame perfect equilibrium in pure strategies is for the rival immediately to begin R&D in the substitute product. Thus, there is parallel R&D in equilibrium. The welfare effect in the domestic market is ambiguous. Domestic consumers lose because they are precluded from consuming the foreign product, but domestic firms gain from their monopoly power. Katherine Rockett (Northwestern University) applauded the topic as important and interesting, and suggested ways that the paper might be extended. For example, because the compatibility standard acts as a prohibitive tariff in the model, a more explicit treatment of the welfare implications of tariffs and subsidies would be an important addition.

In "North-South Technology Transfers in the Context of International Returns to Scale," **Beth Anne Tercek** (Notre Dame College of Ohio) asked: When will it be in the interest of developed nations to subsidize the transfer of technology to underdeveloped nations? A model is presented in which production of sophisticated products is characterized by international increasing returns to scale. It is shown that, if the initial situation is free-trade, the developed nation would require a lump sum payment in order to be willing to make the transfer. However, if the transfer not only permits the less developed nation to engage in sophisticated manufacturing but also sufficiently increases its productivity in agriculture, both countries will gain from the transfer. In this case, no subsidy would be necessary for the technology transfer to be mutually beneficial for both nations.

Paul Romer (University of California-Berkeley) welcomed the emphasis in all three papers on more elaborate and structured descriptions of technology and less focus on equilibrium concepts.

Regarding Tercek's paper, he argued that the redistributive effects that a technology transfer would have within the less developed nation are at least as important as the effects on the terms of trade between the two countries. In fact, the former may be what limits trade between countries, if technology transfer would work against the elite in the poorer countries.

* * * *
PUBLICATIONS OF INTEREST

Available from The National Science Foundation a Guide to Programs, Fiscal Year 1991. To receive a free copy, write to: Forms and Publications, National Science Foundation, Washington, DC 20550.

The Journal Women's Studies Quarterly for Fall/Winter 1990 contains a special section on Women's Studies in Economics, edited by Barbara R. Bergmann of American University. It features the reading lists from courses given on women's economic issues in eight colleges and universities and articles on covering women's economics issues in undergraduate courses and on sexism in economics. Single copies can be obtained for $10 by writing to: The Feminist Press, City University of New York, 311 East 94th Street, New York, NY 10128; telephone (212)360-5790.

* * * *

NEWS AND NOTES

Congratulations!

Francine D. Blau of the University of Illinois is the President-elect of the Midwest Economics Association.

Myrna H. Wooders of the University of Toronto has been awarded a Humboldt Forschungspreis fur auslandische Geistewissenschaftler, a research prize for non-German scientists in the humanities or social sciences. This award, previously given to Murray Kemp and Janos Kornai, recognizes contributions to research and is designed to facilitate relationships between German researchers and those in other countries.

* * * *

The Brookings Institution is now open to publishing manuscripts written by authors who are not Brookings employees. They are looking for analytical studies of important policy issues that are written for the informed public, policymakers, and the academic community. For further information contact: Robert L. Faherty, Director of Publications, The Brookings Institution, 1775 Massachusetts Avenue, NW, Washington, DC 20036-2188; telephone: (202)797-6000.

* * * *

Jean Shackelford is preparing a sourcebook of organizations, programs, agencies, publications, and other key sources in Gender and Economics. It will also include biographical profiles of key individuals in the field and detailed descriptions of organizations, foundations, research centers, associations, governmental efforts, and university programs dealing with economic issues that are gender-related.

If you are acquainted with one of these groups or are engaged in research on gender and economics, she would appreciate your letting her know, so she can send you a questionnaire. Write or call: Jean Shackelford, Department of Economics, Bucknell University, Lewisburg, PA 17837 (717)524-1476

30 - Winter 1991
JOB OPENINGS

For academic positions, the information is usually presented in the following order: University and person to contact; level of position (such as associate or visiting professor); specialization; whether the position is tenure-track/tenured or not; whether a Ph.D. is required; and deadline for applications. NA means that the information is not available.

Editors' Note: You may notice some vacancy announcements whose deadlines have recently passed. They are included intentionally because deadlines are often extended and such announcements can provide information about the general state of the job market. There is no charge for advertising in the Newsletter.

ACADEMIC

Boston University, Department of Economics, Boston, MA 02215; assistant and senior; microeconomics, macroeconomics, economic history, development, econometrics, international, industrial organization; yes; yes; January 15, 1991 or until filled. Tenure track applicants contact: Michael Riordan, 270 Bay State Road; senior applicants write to Russell Cooper, at the same address.

Brandeis University, Bigel Institute for Health Policy, Christine Bishop, Director, Finance and Reimbursement Group, Heller Graduate School, Waltham, MA 02254-9110; senior research associate; health services research; no; yes; until filled.

Brown University, Herschel Grossman, Search Committee, Department of Economics, Providence, RI 02912; assistant/associate; macroeconomics or international; yes; yes for assistant or by September 1991; December 1990.

California State University, Economics Recruiting Committee, Aubrey W. Bonnett, Dean, School of Social and Behavioral Sciences, 5500 University Parkway, San Bernardino, CA 92407-2397; associate/professor; open; na; yes; January 1, 1991.

Cerritos Community College District, Personnel Services, 1110 Alondra Boulevard, Norwalk, CA 90650; two instructors; mathematics; yes; MA; February 8, 1991.

Cornell University, Chair, Labor Economics Search Committee, Department of Labor Economics, New York State School Industrial and Labor Relations, Ithaca, NY 14853; labor economics, public finance, welfare, health and education; yes; yes by September 1991; until filled.

Cornell University, Chair, Department of Agricultural Economics; 102 Warren Hall, Ithaca, NY 14853-7801; assistant/associate; international trade for agricultural commodities, with a policy emphasis; na; na; January 15, 1991.

Cornell University, Harry C. Katz, Chair, Search Committee, 293 Ives Hall, NYSSILIR, Ithaca, NY 14851-0952; assistant/associate/full; collective bargaining; yes; yes; until filled. One position may be located in New York City.

Earlham College, Gil Klose, Department of Economics, Richmond, IN 47374; temporary for one 10-week term fall 1991; general economics/European economic history; na; yes or ABD; until filled.

San Francisco State University, C. Daniel Vencill, Chair, Hiring Committee, Department of Economics, 1600 Holloway Avenue, San Francisco, CA 94132; assistant/associate; macro and micro
theory, quantitative methods, international finance, financial theory, industrial organization, economics of health, economics of discrimination; yes; yes; December 1, 1990.

San Jose State University, James F. Willis, Chairman, Department of Economics, San Jose, CA 95192-0114.

- lecturer (full-time temporary); principles of economics and own area of specialization; preferred; February 21, 1991.
- assistant; monetary theory and policy; na; yes; February 1, 1991.

Southern Illinois University at Carbondale, Chair, Search Committee, Center for the Study of Crime, Delinquency and Corrections, Carbondale, IL 62901-4504; director and professor/associate; criminal justice or related field; na; yes; February 16, 1991 or until filled.

State University of New York at Stony Brook, Michael Hurd, Department of Economics, Stony Brook, NY 11794-4384; open; econometrics, microeconomic theory, international economics, macroeconomics, public finance, economic development; yes; by September 1991; until filled.

SUNY College of Technology, Director of Personnel, Canton, NY 13617; instructor/assistant; introductory economic theory; yes; no; until filled.

Syracuse University, James Follain, Chair, Department of Economics, 202 Maxwell Hall, Syracuse, NY 13244-1090

- associate/full, to play a major role in research and curriculum development in international economics; na; na; until filled.
- micro theorist or an econometrician; yes; na; until filled.
- one or more one-year temporary positions; labor economists and applied microeconomists or econometricians; na; na; until filled.

University of Connecticut, Stephen M. Miller, Head, Department of Economics U-63, Storrs, CT 06269-1063.

- open; African-American studies; yes; yes for assistant or by September 1991; until filled.
- assistant; general economics; yes; yes or by September 1991; until filled. Position is at Hartford Regional campus.

University of Hartford, Jane Horvath, Chair, Economics Search Committee, College of Basic Studies, 200 Bloomfield Avenue, West Hartford, CT 06117; assistant; principles sequence; yes; yes; screening begin February 1991.

University of Maine at Farmington, Albert R. Mitchell, Chairman, Department of Social Sciences and Business, 112 Main Street, Farmington, ME 04938; assistant; lower and upper level business and economics courses; preference to candidates with upper-level quantitative and computer application skills; yes; na; February 15, 1991.
University of Minnesota, Hubert H. Humphrey Institute of Public Affairs, Humphrey Center, 301 19th Avenue South, Minneapolis, Minnesota 55455.

- Morris Kleiner, Search Committee Chair; assistant professor in urban and regional development; yes; one or more of the following: urban and regional community and/or economic development; urban and regional growth and change; urban and public finance; and land use and infrastructure planning; yes; yes or equivalent; February 1991.

- Burt Sundquist, Search Committee Chair, associate professor of science, technology and environmental policy; yes; yes; March 1, 1991.

- James Vaupel, Search Committee Chair, assistant professor of population analysis and policy; yes; yes; February 1, 1991.

- Barbara Lukermann, Search Committee Chair, c/o Personnel Office, Minnesota Extension Service, 260 Coffey Hall, St. Paul, MN 55108; assistant professor and SEA grant extension specialist; transportation and environmental policy; na; yes; February 1, 1991.

- John Bryson, Search Committee Chair; assistant professor of public and non-profit management; yes; yes; February 1, 1991.

University of South Florida, Don Bellante, Recruiting Committee, Department of Economics, Tampa, FL 33620-5500; open; econometrics; yes; yes; until filled.

University of Southern California, Richard Easterlin, Chair, Recruitment Committee, Department of Economics, Los Angeles, CA 90089-0253; professor, international economics; assistant, general economics; chair of department; yes; yes; until filled.

University of Utah, John Barton, Search Committee Chair, Family & Consumer Studies, 228 AEB, Salt Lake City, UT 84112; assistant/associate; family studies/ethnic studies; yes; yes; April 15, 1991 or until filled.

Washington University, Recruitment Chair, Department of Economics, Washington University, Campus Box 1208, 1 Brookings Drive, St. Louis, MO 63130-4899. Deadline was November 15, 1990.

- assistant; microeconomics with a strong mathematical background with expertise in game theory and mathematical economics; na; yes by Fall 1991.

- open; economic history; strong background in microeconomic theory, quantitative methods, and an interest in political economy, na; na.

Western Washington University, Thomas T. Read, Chairman, Department of Mathematics, Bellingham, WA 98225-9063; until February 1, 1991.

- tenure-track and visiting; discrete mathematics, modeling, optimization, statistics; yes; until filled.

- open; mathematics education; yes; na; until filled.
NONACADEMIC


- Analyst in human resource policy for the Human Resources and Community Development Division; applicant must have a Ph.D. in economics or equivalent experience and background in analyzing Aid to Families with Dependent Children, Food Stamps, and other income assistance programs. Position requires strong analytical, statistical, and writing skills. Refer to Announcement #92-02.

- Analyst in the Projections Unit of the Budget Analysis Division; applicant will help to develop and analyze CBO's five-year projections of outlays and of the deficit; applicant should have a bachelor's or master's degree in economics or public policy; the ability to communicate and work well with others; good writing skills and familiarity with major budget issues. Refer to Announcement #91-05.

- Environmental economist for the Natural Resources and Commerce Division; a Ph.D. in economics is preferred; experience in conducting quantitative analyses of environmental programs and policies is highly desirable. Refer to Announcement #91-04.

Resources for the Future, National Center for Food and Agricultural Policy. Fellow/Senior Fellow for Agriculture, Environment and Food Safety Programs; requires Ph.D. plus 3 to 8 years experience in applied microeconomics, agricultural, resources or environmental economics; experience in quantitative analysis; 2-3 year appointment. Send resume to Katherine Reichelderfer, Box AEFS, 1616 P Street, NW, Washington, DC 20036 by March 15, 1991.

United Food and Commercial Workers International Union, Leslie Nutty, Director, Research Office, 1775 K Street, NW, Washington, DC 20006; research associate; assignments consist of analytical support for the union's wide-ranging organizing and collective bargaining activities, with emphasis on firm- and industry-specific applied microeconomics; graduate degree required with strong quantitative skills.

HELP!

All readers are invited to send notes, articles, and information for possible inclusion in the Newsletter. Please also send news about yourself and others; job moves, promotions, awards, books, and changes in family composition are all of interest to your friends and colleagues. For those who would like to make contributions, we publish three issue each year -- Winter, Spring, and Fall. Our schedule is;

<table>
<thead>
<tr>
<th>Copy Deadline</th>
<th>Mailing Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Winter Issue</td>
<td>January 10</td>
</tr>
<tr>
<td>Spring Issue</td>
<td>April 10</td>
</tr>
<tr>
<td>Fall Issue</td>
<td>September 10</td>
</tr>
</tbody>
</table>

34 - Winter 1991
CSWEP
The Committee on the Status of Women in the Economics Profession

SPECIAL OFFER FOR DUES PAYING MEMBERS OF CSWEP!!

CSWEP has prepared a Special Reprint Issue of the Newsletter that contains reprints of ten articles designed to help women economists advance in the profession. To receive a copy, check the box on the form below and enclose it with your check. (If you've already paid your 1990-1991 dues, just request a copy from the address given below.)

* * * * *

CSWEP depends on all of its dues-paying members to continue its activities. In addition to publishing the Newsletter, we maintain a Roster of women economists that is used by members, employers, organizations establishing advisory groups, and the like. We also organize sessions at meetings of the AEA and the regional economics associations and publish an annual report on the status of women in the profession.

If you have not paid your dues for the current membership year (July 1, 1990 - June 30, 1991), we urge you to do so.

If you have, please pass this newsletter on to a student, friend, or colleague and tell them about our work.

Thank you!

__________________________________________________________

NOTICE: STUDENTS DO NOT HAVE TO PAY MEMBERSHIP DUES!!!
JUST SEND IN THIS APPLICATION

To become a dues-paying member of CSWEP and receive our Newsletter and Roster, send this application, with a check for $20 made out to CSWEP to:

CSWEP, c/o Dr. Joan Haworth
4901 Tower Court, Tallahassee, FL 32303

NAME ______________________________________________________

MAILING ADDRESS ____________________________________________

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Check here if currently a student _______ Institution _______

Check here if you wish a copy of the Special Reprint Issue _______

Winter 1991 - 35
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<table>
<thead>
<tr>
<th>Category</th>
<th>Name</th>
<th>Address</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Policy Matters</td>
<td>Nancy M. Gordon</td>
<td>Congressional Budget Office, U.S. Congress, Washington, DC 20515</td>
</tr>
<tr>
<td>Items for Newsletter</td>
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</tr>
<tr>
<td>Dues, Change of Address, Roster</td>
<td>Joan Haworth</td>
<td>Economic Research Services, 4901 Tower Court, Tallahassee, FL 32303</td>
</tr>
<tr>
<td>CSWEP East</td>
<td>June O'Neill</td>
<td>Baruch College, Box 348A, 17 Lexington Avenue, New York, NY 10010</td>
</tr>
<tr>
<td>CSWEP South</td>
<td>Ethel B. Jones</td>
<td>Dept. of Economics, Auburn University, AL 36849-5242</td>
</tr>
<tr>
<td>CSWEP West</td>
<td>Shelly Lundberg</td>
<td>Department of Economics, University of Washington, Seattle, WA 98195</td>
</tr>
<tr>
<td>CSWEP Mid-West</td>
<td>Barbara Wolfe</td>
<td>Department of Economics, University of Wisconsin, Madison, WI 57306</td>
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**AEA/CSWEP**

c/o Nancy M. Gordon
Congressional Budget Office
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