

THE 51%

Driving Growth through Women's Economic Participation



Edited by
DIANE WHITMORE SCHANZENBACH
and **RYAN NUNN**



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OCTOBER 2017

BROOKINGS

Acknowledgments

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The editors appreciate insightful comments from Jay Shambaugh as well as the outstanding work of The Hamilton Project staff on this book. Kriston McIntosh provided expert guidance on all aspects of production. Lauren Bauer, Audrey Breitwieser, and David Dreyer contributed substantially to the development of the book. Patrick Liu, Megan Mumford, Greg Nantz, and Becca Portman provided superb research assistance. We also gratefully acknowledge the contributions of Karna Malaviya, Carmel Steindam, Alison Hope, Brianna Harden, Vesna Asanovic, Anna Rotrosen, and Melanie Gilarsky.

The policy proposals included in this volume are proposals from the authors. As emphasized in The Hamilton Project's original strategy paper, the Project was designed in part to provide a forum for leading thinkers across the nation to put forward innovative and potentially important economic policy ideas that share the Project's broad goals of promoting economic growth, broad-based participation in growth, and economic security. The authors are invited to express their own ideas in policy papers, whether or not the Project's staff or advisory council agrees with the specific proposals. These policy papers are offered in that spirit.

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Foreword

The Hamilton Project has published this book of economic research and public policy proposals to get across one core idea: the U.S. economy will not operate at its full potential unless government and employers remove impediments to full participation by women in the labor market. The failure to address structural problems in labor markets, tax, and employment policy that women face does more than hold back their careers and aspirations for a better life. In fact, barriers to participation by women also act as brakes on the national economy, stifling the economy's ability to grow. The lives and fortunes of women in the workplace affect us all.

The evidence for these findings is strong. The evidence also speaks decisively for the proposals in this volume, backed by decades of research, which will allow labor markets to make the best use of women's skills, and permit women, families, and the broader economy to prosper as a result.

These proposals are an effort to accelerate progress that has already occurred in the last half of the twentieth century. As Ryan Nunn and Megan Mumford remind us, when educational and labor market opportunities opened up for women, "tens of millions of American women attained postsecondary degrees, entered the labor force, and earned wages that have grown over time." The economic value of this development is simply staggering. According to a report by the Council of Economic Advisers in 2015, the economy is \$2 trillion larger than it would have been had women's participation and their hours worked remained at their 1970s levels. Put another way, without the growing contributions of women to the labor force, the authors report that "national income per capita would have been at least 14 percent lower than it actually was."

With the fuller use of women's talents came greater labor market efficiency which, in turn, enhanced economic growth. However, sometime around the turn of the century, as Sandra Black, Diane Whitmore Schanzenbach, and Audrey Breitwieser write, growth in women's labor force participation reversed. By contrast to their counterparts in France, Canada, the United Kingdom, and Japan, American women have lost ground. Today, large gaps remain between men and women in the jobs they hold, the wages they earn, and their overall economic security.

We don't have all the answers to explain this recent trend. But we do know some of what limits American women's labor market opportunities. It is inflexible rules at many workplaces which require long hours and penalize the wages of women who must balance

demands at home. It is the failure of the United States to adopt national policies on paid leave for mothers following the birth of their children. It is the choice women are forced to make between child care and paid employment, or between child care and educational success.

It is the majority of workers who lack access to paid sick leave in order to deal with their own or a family member's health. These and other failures to address the conflicts between work and family impel many women to leave employment entirely. These problems are compounded when they become disabled, lose their spouses, and face economic insecurity late in life.

The U.S. economy does not have to function this way.

Instead, we can adopt evidence-based public policies that will provide better outcomes for women, make work pay, and help women restore control over their lives so they can meet their obligations and contribute to the economy amidst the conflicts of work and life. Public policy can do that. Making the optimal use of women's talents and drive must become an active and urgent concern for those with a stake in America's economic success.

Since its inception, The Hamilton Project has worked to understand and offer evidence-based solutions for precisely the types of challenges described in this volume. The Hamilton Project offers these ideas with confidence in the evidence behind them and in the efficacy of the approaches on which they are based. Reversing the decline in women's workforce participation is vital for economic growth. By acting to remove barriers to women's participation, we can realize stronger economic growth that will be more broadly shared by the American people.

ROGER C. ALTMAN

PENNY PRITZKER

ROBERT E. RUBIN

SECTION ONE

Women and the Modern American Economy

The Recent Decline in Women's Labor Force Participation

Sandra E. Black, *University of Texas at Austin and the Brookings Institution*

Diane Whitmore Schanzenbach, *The Hamilton Project, the Brookings Institution, and Northwestern University*

Audrey Breitwieser, *The Hamilton Project*

Abstract

While women's labor force participation has increased substantially in the U.S. over the second half of the 20th century, this growth has stagnated and reversed since 2000, with women's labor force participation falling by 3.5 percentage points. This pattern persists across women of varying races and ethnicities, educational backgrounds, ages, and marital statuses, and for women with and without children alike. Interestingly, this decline seems to be moving directly against the trends observed in other major OECD economies. In order to facilitate economic growth in the United States, policies should be directed toward enabling and encouraging women to participate in the labor force.

Introduction

Over the past half century, women have made substantial progress in the labor market. One place this is most visible is in the growth of women's labor force participation: between 1962 and 2000, women's labor force participation—defined as the percentage of women ages 16 and older either working or actively looking for work—increased dramatically, from 37 percent to 61 percent. This increase in women's labor force participation was enough to offset the declining labor force participation rate of men, which had been steadily falling for more than 60 years, so that overall labor force participation was actually increasing until 2000.

The economy has benefited greatly from this increase in labor force participation among women. Estimates suggest that the economy is \$2.0 trillion, or 13.5 percent, larger than it would have been had women's participation and hours worked remained at their 1970 levels. Women's income also accounts for the majority of the increases in family income since 1970 (Council of Economic Advisers [CEA] 2015).

However, beginning in 2000, the positive trends slowed and even reversed: women's participation fell from 60.7 percent in 2000 to 57.2 percent in 2016. While some aspects of the decline can be easily explained—younger women's (ages 16 to 24) increasing educational attainment means that they are less attached to the labor market—others are more puzzling. For instance, it is not clear why prime-age women (ages 25 to 54) are working less. Why has the progress stopped, and even reversed, among the women who we expect to be the most attached to the labor market? Research focusing on the 2000–7 period has highlighted the

importance of differential trends in employment and wages based on marital status and the presence of children (Moffitt 2012)—raising as many questions as it answers in terms of society’s expectations of the labor-market participation of women. Importantly, the United States appears to be an outlier in terms of women’s labor force participation; France, Canada, the United Kingdom, and Japan all continued to see positive growth in prime-age women’s labor force participation post-2000, with levels rising substantially above those in the United States. This divergence suggests a significant role for labor-market institutions.

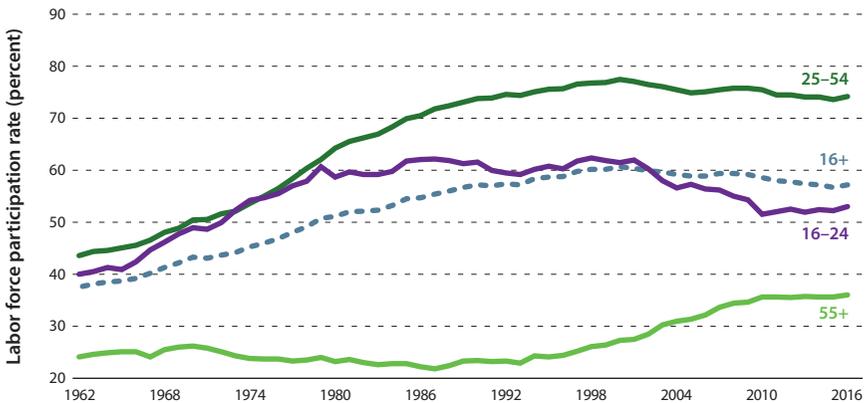
In a companion Hamilton Project paper by Ryan Nunn and Megan Mumford, the authors focus on trends in the gender pay gap over time, while this paper will examine the trends in women’s labor force participation, highlighting the progress women have made as well as the challenges they face.¹

Trends by Age Group

Figure 1 shows the overall pattern in women’s labor force participation over time. Among all women ages 16 and older, participation rates rose steadily from the early 1960s through the late 1990s, peaking at 61 percent in 2000 and declining by 3.5 percentage points since then. Investigating trends separately by age group is important, though, as trends in overall labor force participation can be misleading. For example, younger workers might reduce labor force participation because they are staying in school longer, developing additional skills that will lead to increased wages and other labor-market advantages in the future. Older workers might decide to retire earlier. Neither of these events would necessarily be cause for concern.

Participation among prime-age women (ages 25 to 54) is higher than for women overall, and increased steadily between 1962 and 2000, peaking at 78 percent before starting to

FIGURE 1.
Women’s Labor Force Participation, by Age Group



Source: Current Population Survey Annual Social and Economic Supplement 1962–2016.

Note: Sample includes women 16 and older.

retrench around 2000. Younger women (ages 16 to 24) followed a trend broadly similar to prime-age women, with a strong run-up in the 1960s and 1970s, steady participation rates in the 1980s and 1990s, but then an even sharper downturn starting in 2000.

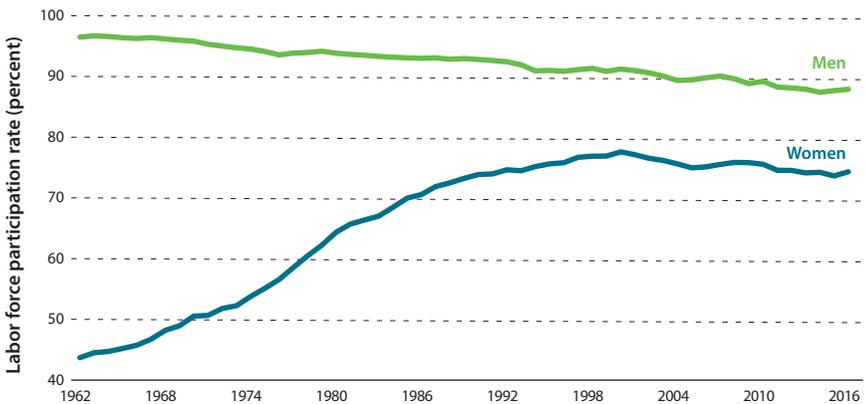
In contrast to the other age groups, women ages 55 and older generally did not increase their participation until much later. Participation was flat from the 1960s until the mid-1990s, when it turned upward. Unlike other age groups, participation among older women has not declined in recent years, although it is no longer increasing and has been essentially flat over the past decade.

Comparing Trends in Women's and Men's Labor Force Participation

Figure 2 shows trends in prime-age labor force participation by gender. These are a worker's peak earning years, when decisions to stay out of the labor market can be particularly costly for one's career. When we examine prime-age individuals, we see that men's labor force participation has been declining for decades. By contrast, until recently women's participation had increased sharply. Between 1962 and 2000 prime-age women's labor force participation increased from 43 percent to 78 percent—an increase of 35 percentage points, or over 75 percent.

Beginning in 2000, however, we see a stark change in the trajectory of women's labor force participation, with prime-age women's labor force participation beginning to decline. It now appears to be declining in parallel with prime-age men's labor force participation, albeit at a lower level. Between 2000 and 2016 prime-age women's labor force participation fell by 4.2 percent, from 78 percent to 74 percent. Over the same period, prime-age men's participation fell by 3.7 percent, from 91 to 88 percent. Interestingly, while men and women

FIGURE 2.
Prime-Age Labor Force Participation, by Gender



Source: Current Population Survey Annual Social and Economic Supplement 1962–2016.

Note: Prime age indicates ages 25 to 54.

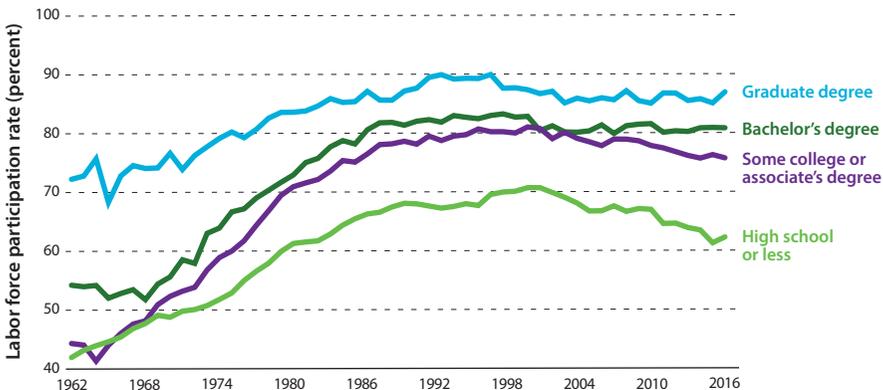
have seen similar declines in participation levels since 2000, very recently recently women have seen a larger percentage point increase than men. For example, between July 2015 and July 2017, prime-age women experienced an increase of 1.6 percentage points, while prime-age men have only experienced an increase of 0.3 percentage points.

What is most striking about the pattern in recent years is how similar the decline among prime-age women is to that among to prime-age men. Prior to 2000, women's labor force participation was moving in direct contrast to men's. Since 2000, however, women's progress on this dimension stopped, and women are now experiencing declines that parallel those of men.

Trends by Educational Attainment

When we sort prime-age women by educational attainment, as shown in figure 3, we see that, prior to 2000, women's labor force participation was increasing for all educational attainment categories. The least-educated women were participating at the lowest levels, and a gap in participation rates grew between women with a high school degree or less and those with some college, an associate's degree, or a bachelor's degree. Those with a graduate degree began with the highest labor force participation—72 percent in 1962—while women with a bachelor's degree had a labor force participation rate of 54 percent. Participation rates were similar for those with some college or an associate's degree and those with high school or less, at 44 and 42 percent, respectively. By 2000 the divergence was clear, with labor force participation rates of 87, 83, 81, and 71 percent for women with graduate degrees, bachelor's degrees, some college or an associate's degree, and a high school diploma or less, respectively.

FIGURE 3.
Prime-Age Women's Labor Force Participation, by Educational Attainment



Source: Current Population Survey Annual Social and Economic Supplement 1962–2016.

Note: Prime age indicates ages 25 to 54. Before 1992 "graduate degree" is defined as six years of college or more; after 1992 it is defined as a master's, professional, or doctorate degree. Prior to 1992, "bachelor's degree" is defined as 4 years of college.

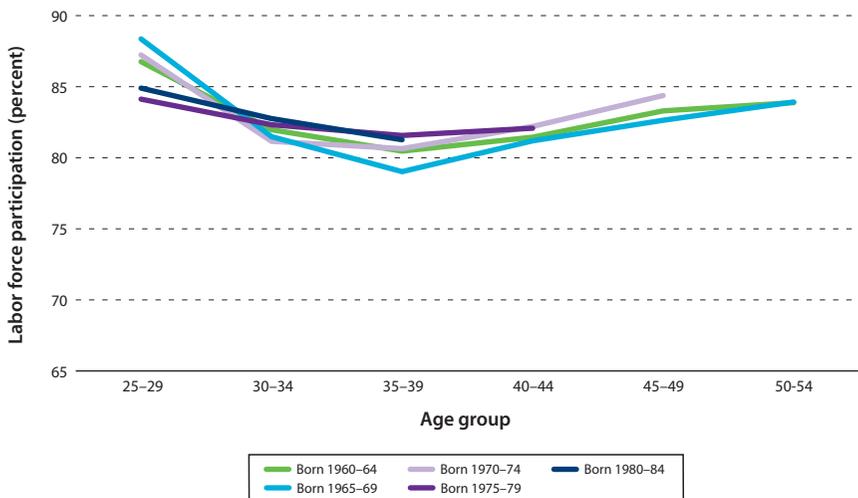
After 2000, we see that women of all education groups experienced a decline in participation—with the most notable decline for those with less education, including some college or less, and the least dramatic for those with a bachelor's degree or higher, similar to what we observe among prime-age men (CEA 2016). This recent decline among less-educated women has effectively wiped out their participation gains since the 1980s. Among those with a high school diploma or less, prime-age labor force participation fell from a peak of 71 percent in 2000 to 62 percent in 2016, a rate last seen by this group in 1983. Similarly, those with some college or no more than an associate's degree saw their participation rates fall from a peak of 81 percent in 2000 to 76 percent in 2016—a level last seen in 1986.

Women with a bachelor's degree have seen only a modest decline in their participation, from 83 percent at its peak in 2000 to 81 percent in 2016. Similarly, women with graduate degrees have seen a decrease of less than half a percentage point, from 87.5 to 87.1 percent during that time period.

When we examine labor force participation by birth cohort, some striking patterns emerge. Successive cohorts of college graduates are shown in figure 4. Younger cohorts seem to participate in the labor force less between ages 25 and 29, which can be explained partially by increasing graduate education (see appendix figure 1), but then participate at somewhat higher rates between ages 30 to 39. Otherwise, however, life-cycle patterns look relatively consistent across time, with participation of women at high rates early in their careers, dipping somewhat during mid career—presumably coinciding with child rearing—and

FIGURE 4.

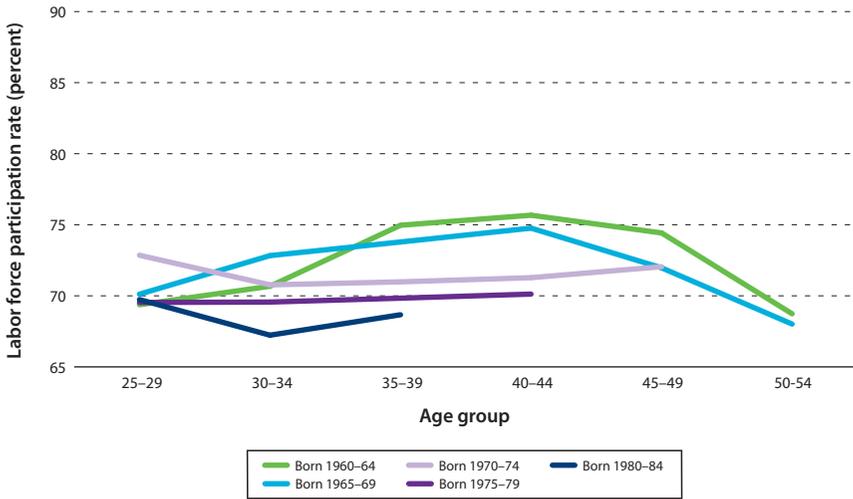
Labor Force Participation for Women with 4-Year College Degrees, by Birth Cohort and Age



Source: Authors' calculations based on Goldin and Mitchell (2017) via Current Population Survey Annual Social and Economic Supplement 1962–2016.

Note: Sample includes women ages 25–54. Sample is restricted to respondents who attained at least a bachelor's degree. Due to data limitations the last data point for the four most recent birth cohorts includes only the two earliest birth years.

FIGURE 5.
Labor Force Participation for Women without 4-Year College Degrees, by Birth Cohort and Age



Source: Authors' calculations based on Goldin and Mitchell (2017) via Current Population Survey Annual Social and Economic Supplement 1962–2016.

Note: Sample includes women ages 25–54. Sample is restricted to respondents who did not attain a bachelor's degree. Due to data limitations the last data point for the four most recent birth cohorts includes only the two earliest birth years.



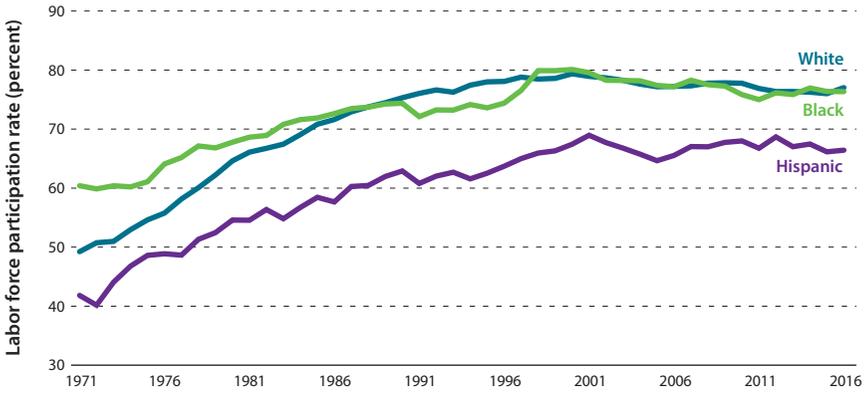
then increasing again later in their careers. This U-shaped dip is less pronounced among the most recent birth cohorts.

In contrast, labor force participation rates for women without a college degree have varied substantially across birth cohorts, as shown in figure 5. The overall level is always below that of college graduates, and the life-cycle pattern is different, generally with steady or higher participation rates between ages 30 to 44, in contrast to the dip seen among college graduates at these ages. Beginning with the cohort born in 1965–69, each successive cohort has participated less than the cohort before it at the same age. The reasons for the decline in participation among younger, lower-skill women are not well understood. These trends, however, suggest that the recent decline in participation among lower-skill women likely reflects slow, steady declines over time and not a sudden change around the year 2000, similar to patterns seen for men (CEA 2016).

Trends by Race and Ethnicity

The recent trends are similar among black (non-Hispanic), white (non-Hispanic), and Hispanic women, as shown in figure 6. Since the early 1970s, when data on Hispanic women are first available, women across these three groups have seen large increases in participation. At the beginning of the period, black women's participation was over 10 percentage points higher than white women's participation, and these rates converged over

FIGURE 6.
Prime-Age Women's Labor Force Participation, by Race and Ethnicity



Source: Current Population Survey Annual Social and Economic Supplement 1971–2016.

Note: Prime age indicates ages 25 to 54. Race/ethnicity categories are mutually exclusive. Variable indicating Hispanic origin began in 1971.



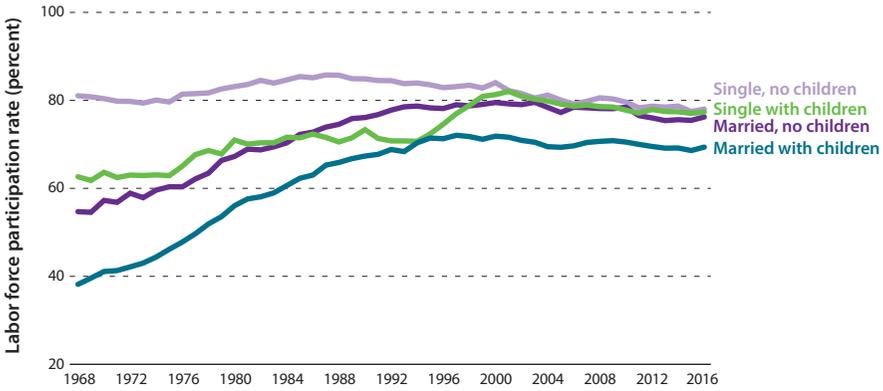
time. Labor force participation rates across these groups increased until around 1990, when participation for black and Hispanic women dipped and then quickly recovered. Since 2000, black and white women's participation has followed a nearly identical decline, from about 80 percent each at their peaks in 2000 to about 77 percent in 2016. Hispanic women's participation has declined in parallel, with rates that are about 10 percentage points lower than the two other groups.

Trends by Marital Status and Presence of Children

Juhn and Potter (2006) note that the increase in labor force participation among women beginning in the late 1960s until the end of the century was primarily driven by the increase in participation of married women. In 1969, among women ages 20 to 60, only 44 percent of all married women were participating in the labor market, while almost 75 percent of never married and 68 percent of widowed or divorced women were participating. By 1999 the labor force participation rates of these three categories of women had substantially converged, with married women participating at a rate of 72 percent, and never-married and widowed or divorced women each participating at rates of 79 percent.

Figure 7 displays participation rates for prime-age women by marital status and presence of children under age 18 in the household. Although all groups have experienced similar declines since 2000, the prior trends were somewhat different. While married women with children continue to participate at lower rates than single mothers and women without a child in the home, married women with children experienced the sharpest long-term increase in participation. In the late 1960s married mothers had participation rates about

FIGURE 7.
Prime-Age Women’s Labor Force Participation, by Marital Status and Presence of Children under Age 18



Source: Current Population Survey Annual Social and Economic Supplement 1968–2016.

Note: Prime age indicates ages 25 to 54. “Married” is defined by women who have a spouse in the household or not in the household. “Single” is defined as all other women, including divorced and widowed women. “With children” is defined as having at least one child in the household under the age of 18. “No children” is defined as having no children in the household under the age of 18.



25 percentage points lower than single mothers, 17 percentage points lower than married women without children, and 43 percentage points lower than single women without children; by 2016, these gaps were each less than 10 percentage points. Single mothers lost ground relative to married women without children from the mid-1980s through the mid-1990s, then experienced a sharp increase in participation. This coincides with an expansion of the Earned Income Tax Credit as well as the implementation of welfare reform in 1996 that introduced time limits and mandated work requirements. These factors, combined with a robust labor market, led to dramatic increases in the labor force participation of single women with children, and by 1999 their participation rate matched that of both single and married women without children.²

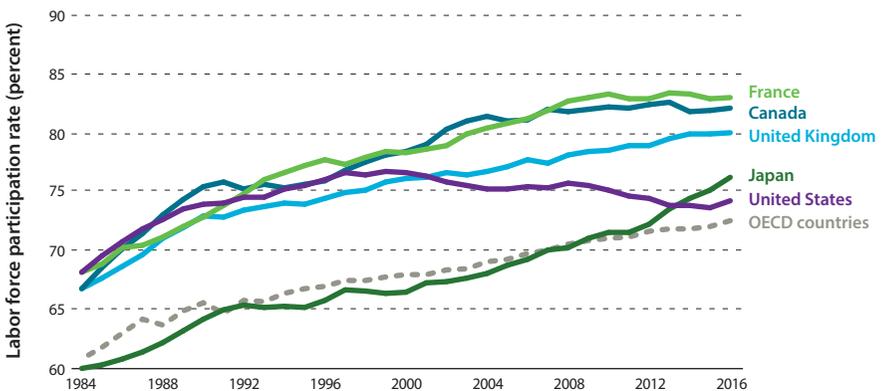
Although the paths upward differed by marital status and presence of children, the steady decline since 2000 has been quite similar across all categories of women.³ Note that this basic trend is not sensitive to the age of the youngest child in the family. While participation rates across these groups differ—mothers with a youngest child ages 0 to 5 have lower participation rates than those with a youngest child ages 6 to 13, and those with a youngest child ages 14 to 17 have the highest rates, the changes and time patterns are similar between married and single mothers for each child age group, suggesting a common force is at work. However, the relatively low participation rates of mothers of young children could potentially be increased with improvements to child care and employment policy.

Comparing Women's Labor Force Participation in Select OECD Countries

While historically the United States has been an international leader with one of the highest rates of women's labor force participation, it is no longer so, and currently the U.S. participation rate is near the OECD average. The reversal in the long-term upward trend in women's labor force participation in the United States does not appear in other countries. Figure 8 shows the patterns of prime-age women's labor force participation across a number of OECD countries. In 1984, the United States had one of the highest prime-age female labor-market participation rates of any OECD country. The OECD average labor force participation rate among prime-age women has risen steadily between 1984 and 2016, and, as shown in figure 8, France, Canada, the United Kingdom, and Japan have seen particularly strong gains over this period. In contrast, U.S. women diverged from the international trend in 2000. Strikingly, out of all OECD countries, the United States ranks second to last in percentage point growth in women's labor force participation since 2000. Appendix figure 2 shows that a higher share of women's employment in the United States is full time, compared with other OECD countries. The share of full-time work among women in the United States has trended up somewhat over time, indicating that the relative decline of U.S. women would be less pronounced if one examined hours worked rather than participation.

As shown in appendix figure 3, the United States is similarly an outlier in prime-age men's labor force participation. Many countries, and the OECD average, have seen declines in prime-age men's participation over the past 30 years. Men's participation in the United States followed a similar downward trend until 2007 but then sharply diverged downward at the onset of the Great Recession.

FIGURE 8.
Prime-Age Women's Labor Force Participation, Select OECD Countries



Source: OECD n.d.

Note: Prime age indicates ages 25 to 54. OECD published data varies slightly from authors' calculated labor force participation rate from the Current Population Survey Annual Social and Economic Supplement.

Potential Explanations

While there has been substantial research examining the underlying causes of the progress of women over this time period, much less attention has focused on the recent decline in women's labor force participation—with notable exceptions in Juhn and Potter (2006), Aaronson et al. (2015), and Moffitt (2012). When considering issues of labor force participation, normative statements require an understanding of the underlying causes of the patterns we observe. If, post-2000, prime-age women were choosing to stay home to care for their children more frequently than before, the implications of these decisions would be different from the implications if these women were choosing not to participate in the labor market as a result of poor labor-market opportunities, as appears to be the case for prime-age men (CEA 2016).

The fact that the United States has deviated so significantly from other OECD countries suggests a role for labor-market institutions or policy, as all OECD countries have faced the same forces of technological change and globalization. The United States is the only developed nation without paid maternity leave, and the United States lags far behind other nations in family-friendly policies.

Furthermore, the fact that women's labor force participation is now trending in parallel to that of men suggests that perhaps women are now responding to the same forces as men. Recent research by the Council of Economic Advisers (2016) argues for negative demand shocks for low-skilled workers in explaining declining prime-age labor force participation among men, and highlights the role of institutions in explaining across-country differences. Although the U.S. labor market is among the most flexible according to OECD metrics, it is also among the least supportive in terms of generosity of unemployment benefits and active labor-market policies, including job search assistance and training. Strengthening and expanding the unemployment insurance system and providing worker training, as well as public jobs programs, might help both women and men stay more attached to the labor market while they are in their prime working years. These policies, in addition to implementing paid family leave and expanded access to child care, would likely increase the labor force participation rate of prime-age women.

Conclusion

The last half century has witnessed tremendous increases in women's labor force participation. All women—across the age spectrum, by race and ethnicity, by marital status, by presence of children, and across education levels—participate at higher rates than they did in the 1960s. These shifts have added substantially to family incomes and to overall economic growth. Since 2000, though, this progress has slowed and even reversed, paralleling similar trends among men and contributing to an overall decline in labor force participation in the United States. Internationally, we are an outlier in this trend.

Although the many causes of prime-age female labor force participation are not well understood, some are likely to reflect broader labor market opportunities impacting both men and women—albeit perhaps exerting differential impacts by gender—while others reflect aspects that particularly influence women. For example, weak labor market demand for lower-skilled workers affects both women and men who are participating in this market, while differences in access to child care or access to paid family leave might disproportionately affect women—and among women, disproportionately those with children of different ages.

To address the troubling decline in women's labor force participation, then, both gendered and non-gendered responses are likely to be needed. In the policy proposals in this volume, authors propose a variety of policy options to promote women's labor force participation and overall economic well-being.

APPENDIX FIGURE 1.
Percent of Prime-Age Women with a Graduate Degree

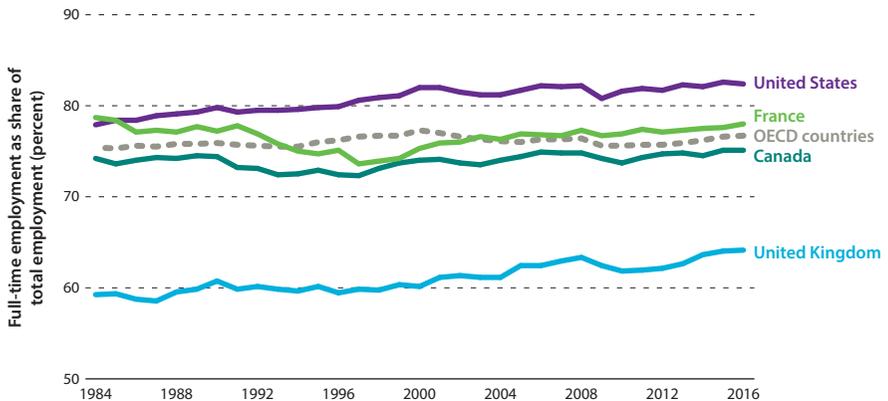


Source: Current Population Survey Annual Social and Economic Supplement 1964–2016.

Note: Prime age indicates ages 25 to 54. Before 1992 “graduate degree” is defined as six years of college or more; after 1992 it is defined as a master’s, professional, or doctorate degree.



APPENDIX FIGURE 2.
Full-time Employment as a Percentage of Total Employment among Women, Select OECD Countries



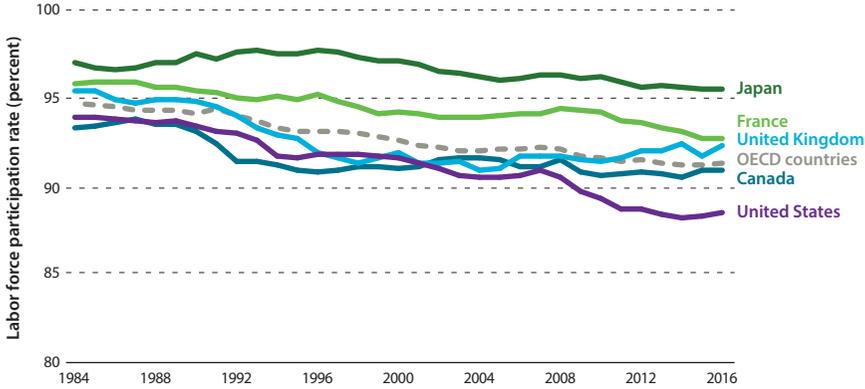
Source: OECD n.d.

Note: Sample includes women 15 and older, and excludes self-employed individuals. The OECD offers a common definition, rather than national definitions, across countries of full-time vs. part-time employment, which we use in this figure.



APPENDIX FIGURE 3.

Prime-Age Men’s Labor Force Participation, Select OECD Countries



Source: OECD n.d.

Note: Prime age indicates ages 25 to 54.



Endnotes

1. See Juhn and Potter (2006) for a comprehensive discussion of overall trends in labor force participation through 2004, and Aaronson et al. (2014) for a discussion of more-recent developments in overall labor force participation.
2. See Juhn and Potter (2006) for more discussion.
3. Moffitt (2012) finds that employment declines are sharper among unmarried women. The differences between our results and his are largely driven by his inclusion of women ages 16 to 24, who are overwhelmingly single, and our limiting the sample to prime-age women. Some of the difference also stems from the different time period covered, and the difference between employment-to-population ratios and labor force participation rates.

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The Incomplete Progress of Women in the Labor Market

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Abstract

The gap between wages of men and women has fallen over the past several decades, reflecting women's economic progress. Successive generations of women have obtained more education and received higher wages, entering a broader range of occupations that had previously been male-dominated. However, a significant gender wage gap remains. Occupational segregation, differences in academic specialization, difficulty in balancing work and household responsibilities, and wage discrimination—among many other factors—likely underlie much of the remaining gender wage gap.

Introduction

One of the most important economic developments of the twentieth century was the improvement in educational and labor market opportunities for women. As a result of this progress, tens of millions of American women attained postsecondary degrees, entered the labor force, and earned wages that have grown over time. The U.S. economy and household living standards have benefited tremendously from these improvements: 41 percent of a typical household's income is now generated by women (authors' calculations; Bureau of Labor Statistics [BLS] 2016).¹

However, women's labor market outcomes—and in particular their earnings—do not yet equal those of men, even though women's educational attainment has surpassed that of men. In this chapter we explore these trends, focusing especially on the earnings gap between men and women and the various factors that give rise to it. This analysis helps to provide important economic context for the policy proposals included in this volume.

Labor market progress for women in the United States has been undeniable. Growth in women's wages and hours worked has exceeded that of men's for the past forty years, although women's wages and hours started at much lower levels (authors' calculations; BLS 1979–2016). In this chapter, we document that growth over the 1979–2016 period. We also analyze women's educational attainment relative to men's, exploring both the overall growth and the different college majors that women and men have entered. These differences in specialization are paralleled by differences in occupations, which in turn are associated with some of the remaining shortfall in women's earnings relative to men's.

Regardless of how you measure it, there remains a large gap between men’s and women’s wages and hours worked. It is difficult to determine exactly which measure of the gap is most relevant to economic policy, however. The simplest measure—an unadjusted difference between the wages of men and women—reflects differences in a variety of factors, including discrimination outside and within the labor market, labor market experience, and occupation, among many others. By contrast, the adjusted male-female gap reflects the difference in wages that remains after adjustment for observable factors that vary across men and women, and is generally smaller than the unadjusted gap.

By either measure, the wage gap has declined. In 1979 the unadjusted and adjusted male–female hourly wage gaps were 44 percent and 32 percent, respectively. In 2016 the corresponding gaps had fallen to 16 percent and 15 percent.² Notably, the total impact of adjustments for observable differences—including occupation and education—has diminished, reflecting progress made by women entering higher-paying occupations and obtaining more education.

The United States is not alone in continuing to exhibit large differences in men’s and women’s labor market outcomes. For example, the gender wage gap in the United States has roughly mirrored that of the United Kingdom since the 1970s. Both countries fall in the middle of the pack of economies for which data are available, displaying larger gender gaps than some countries, including Australia, France, and Sweden, but smaller gaps than others, including Japan and South Korea (OECD 2017).

Women’s Hours and Hourly Wages Have Grown Quickly

As women’s labor force participation rose in the 1980s—a development described in this volume’s chapter by Black, Schanzenbach, and Breitwieser—women’s wages also grew. A combination of rising wages for women and falling wages for men cut the unadjusted median wage gap in half, from almost \$9 per hour (in inflation-adjusted 2016 dollars) in 1979 to more than \$4 per hour in 1995 (see figure 1). While changes in relevant worker

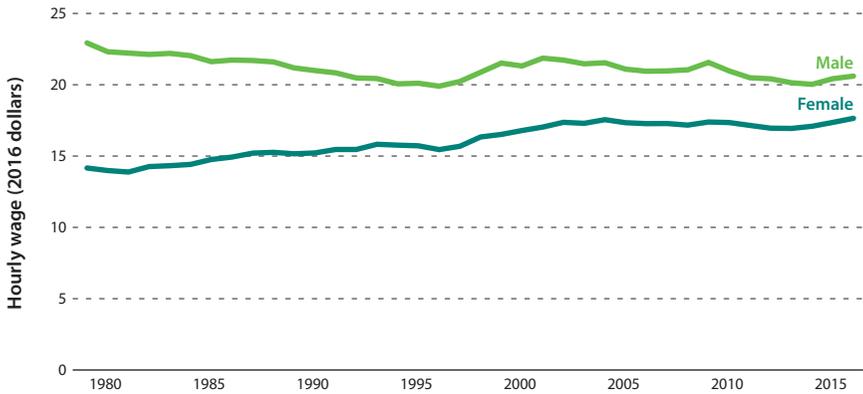
BOX 1.

Hourly Wages or Annual Earnings?

Throughout this chapter we generally focus on the hourly wages of men and women. Alternatively, we could examine annual earnings, or the product of average hourly wages, weeks worked, and hours worked per week. Because men tend to work more weeks in a year and more hours in a week than women, gaps in annual earnings are larger than gaps in hourly wages.

However, an important advantage of the hourly wage gap is that it is a direct comparison of how men and women are compensated when they do the same amount of work. This gap is particularly relevant to important time-allocation decisions that workers must make between activities like child care and paid employment.

FIGURE 1.
Median Real Hourly Wage of Prime-Age Men and Women,
1979–2016



Sources: Current Population Survey 1979–2016; authors' calculations.

Note: Prime-age indicates ages 25–54. Hourly wages are adjusted for inflation using the CPI-U-RS deflator.



characteristics (i.e., education and labor market experience) have been found to explain about one-third to one-half of the narrowing of the wage gap in the 1980s, a variety of other factors also contributed, including the decline in wages for low-skilled men (O'Neill and Polachek 1993).

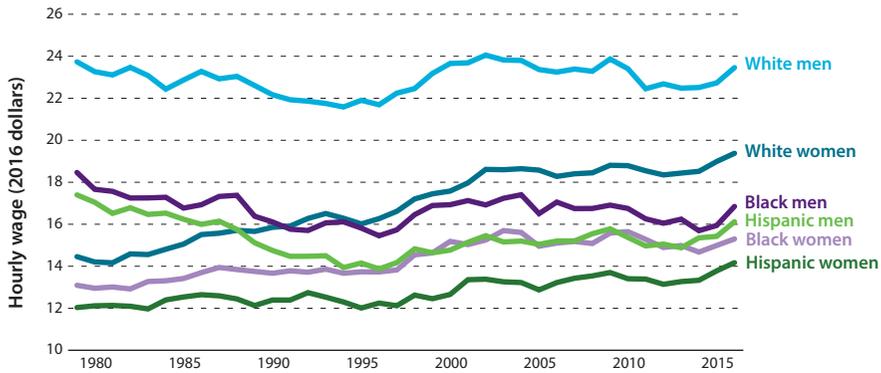
Figure 1 shows that this reduction in the hourly wage gap continued over the last two decades, bringing the 2016 gap to about \$3 per hour. Although the rise in women's wages accounted for much of the convergence, the decline in men's real wages—from about \$23 per hour in 1979 to around \$20 per hour in recent years—also contributed.

The gap between men and women in weekly hours worked has also declined, though less dramatically. From 1979 to 2016 prime-age employed men's average weekly hours declined from 42.8 to 42.1 as prime-age employed women's average weekly hours increased from 36.1 to 37.6 (authors' calculations; BLS 1979–2016).

Wage differences between men and women also vary considerably by race and ethnicity. Figure 2 shows that the wage gap narrowed between men and women of each race/ethnicity through at least the 1980s. Represented as a share of men's median wages, the gap between non-Hispanic white men and women in 2016 was 17 percent, whereas the gaps for non-Hispanic black and Hispanic men and women were smaller, at 9 percent and 12 percent, respectively. Differences in wages by race and ethnicity are now larger than gender gaps: notably, white women's median wages surpassed those of both Hispanic and black men by the 1990s.

FIGURE 2.

Median Real Hourly Wage of Prime-Age Men and Women, by Race and Ethnicity, 1979–2016



Source: Current Population Survey 1979–2016; authors' calculations.

Note: Prime-age indicates ages 25–54. Hourly wages are adjusted for inflation using the CPI-U-RS deflator. Racial and ethnic categories are mutually exclusive.



Recent Generations of Women Are Doing Better Than Their Predecessors

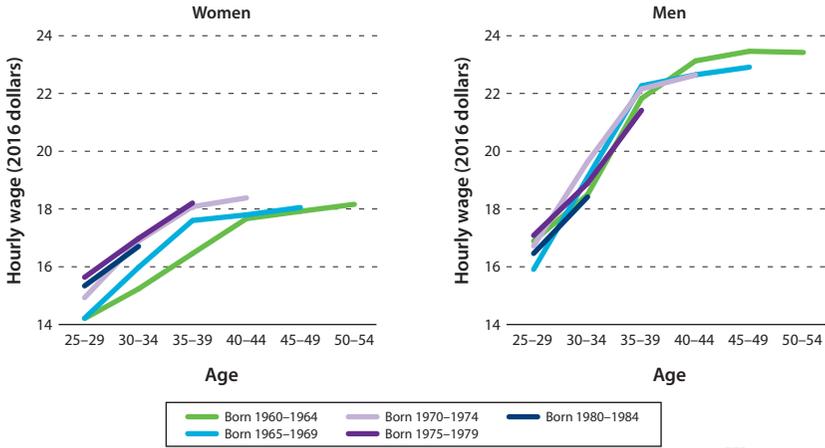
Much of the convergence in the wages of men and women happened as succeeding generations of women earned higher wages than their predecessors. By contrast, the wages of their male counterparts stagnated or declined, though the wages of the youngest men remain substantially higher than the wages of the youngest women.

To explore these developments, we examine the wages of individual cohorts of men or women as they age. Figure 3 shows that women born in the early 1980s earned higher wages early in their careers than did those born in the early 1960s. For example, women who were born in the early 1980s received median wages of \$17 per hour when they were ages 30 to 34, whereas women born in the early 1960s made only \$15 per hour when they were ages 30 to 34. This is a large improvement across generations, amounting to about \$4,000 in annual earnings for a full-time worker.

As seen in figure 3, over the course of their careers women of all generations experienced relatively slow wage growth: for example, those born in the early 1960s saw only a 28 percent wage increase from their late 20s through early 50s. To some extent, this slow growth might reflect increasing demands at home during a woman's life that shift women toward lower-wage but more-flexible jobs. Because many employers place a premium on an employee's ability to work long hours, women's hourly wages can be adversely affected by demands at home (Flabbi and Moro 2012; Goldin 2014a).

FIGURE 3.

Median Real Hourly Wage of Women and Men, by Age and Birth Cohort, 1979–2016



Source: Current Population Survey 1979–2016; authors' calculations.

Note: Hourly wages are adjusted for inflation using the CPI-U-RS deflator.



By contrast, the wages earned by later generations of men remained about the same as those of their predecessors, with the most recent cohort receiving a slightly lower median wage (\$18.40) in their early 30s than the cohort born in 1960–64 (\$18.48). However, when compared to women, men continue to enjoy both higher wage levels and faster wage growth during a career. As a result, the wage gap between men and women of all cohorts is greater for older workers than it is for younger workers.

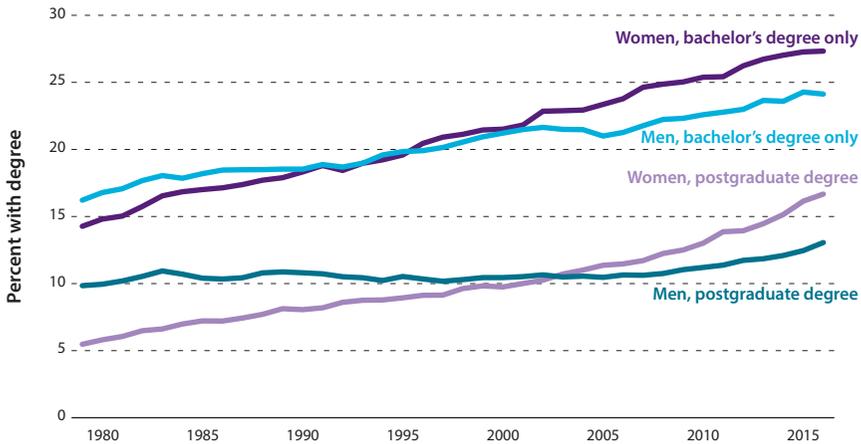
Stagnation in men’s wages is also apparent when the analysis is restricted to male college graduates (not shown). For female college graduates, wages have also remained roughly level across cohorts, indicating that wage gains across generations of women are associated largely with rising educational attainment.

Educational Attainment of Women Has Surpassed That of Men

Educational attainment is of crucial importance in determining wages for individual workers and accounting for variation in wages across groups. Throughout the period we examine, more education is associated with substantially higher wages. Even as average educational attainment rose, the wage advantage of workers with a college degree remained high (Hubbard 2011).

From 1979 to 2016 women’s educational attainment increased both over time and relative to men’s attainment. In fact, the education gap between men and women reversed for bachelor’s degrees in 1996 and for advanced degrees in 2003. Women now outperform men by about three percentage points in both bachelor’s degree and advanced degree attainment.

FIGURE 4.
**Educational Attainment of Prime-Age Women and Men,
 1979–2016**



Source: Current Population Survey 1979–2016; authors' calculations.

Note: Prime-age indicates ages 25–54.



These gains have powered much of the increase over time in women's wages. However, the gender gap remains considerable even after women have surpassed men in educational attainment, as shown in figures 1 and 4 (though it should be noted that the labor market impact of that educational overtaking may not yet have been fully observed).

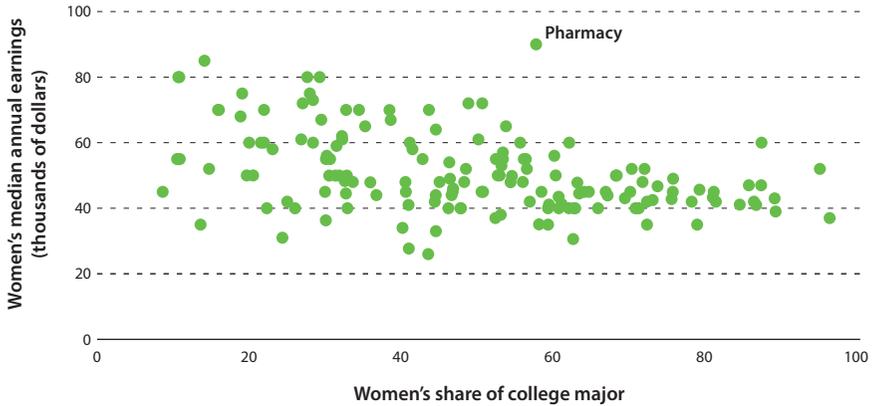
One possible contributor to the remaining wage gap is differences in the type of education women and men obtain. Put another way, are differing college majors driving some of the wage gap? Over time, women have shifted toward traditionally male college majors, resulting in a reduction in gender segregation by major between 1960 and 1980 (Blau and Kahn 2017). However, figure 5 shows that larger shares of women in a given college major continue to be associated with lower wages. One outlier in this relationship is the pharmacy major, where Goldin and Katz (2016) have found that technology and business practices support the availability of flexible part-time work.³

The Hourly Wage Gap Remains after Adjusting for Observable Worker Characteristics

Thus far, we have explored the unadjusted wage gap, which is the difference in men's and women's hourly wages before any adjustments are made for differences in variables such as educational attainment. However, this unadjusted wage gap might not be the appropriate measure for some questions. Often, some of the most urgent questions concern discrimination in the labor market. When investigating discrimination, researchers attempt to isolate wage differences between "comparable" male and female workers.

FIGURE 5.

Prime-Age Women's Median Annual Earnings and Share of Women in College Major



Source: American Community Survey 2015; authors' calculations.

Note: Prime-age indicates ages 25–54. Sample is restricted to employed respondents, and to majors with at least 25 male and female respondents.



Depending on what adjustments are made to make workers more comparable, estimates of wage gaps will differ.

Comparability is typically defined in terms of observable worker characteristics including age, education, and occupation. As an example, we might want to compare the difference in wages of similarly aged men and women with the same level of education. Without adjustments for age and education, among other factors, differences in men's and women's preferences—or discrimination outside the labor market, such as barriers to college majors that lead to high-paying jobs—could bias estimates of labor market discrimination. For instance, women of older generations were less likely than men to obtain a college degree (see figure 4), and could expect to earn lower wages even in the absence of labor market discrimination.

However, when adjusting for worker characteristics, there is a danger of controlling for too many variables (Angrist and Pischke 2009). For example, if labor market discrimination against women takes the form of barriers to particular high-paying occupations, then adjusting for occupation is inappropriate, because it implicitly assumes that all discrimination occurs within occupations.

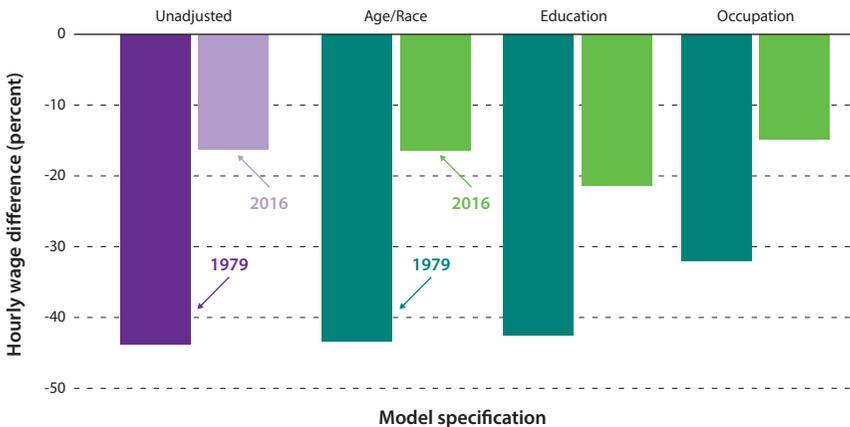
It is therefore not straightforward to obtain an appropriate comparison of women's and men's wages. In figure 6 we take the approach of showing a number of different measures of the wage gap—unadjusted and then adjusted by various factors—to explore the difference made by various assumptions. Estimates are provided for 1979 and 2016 to show how the wage gap has evolved over time.

Moving left to right, we begin with the unadjusted comparison of wages of prime-age employed men and women, which results in a wage gap of 16 percent for 2016, well below the 44 percent gap in 1979. Next, we adjust for age and race, but find that those factors do not much affect the gap in either year. To the right, an adjustment for educational attainment is made along with the previous adjustments. In 1979 the gap shrinks slightly, but in 2016 the gap actually grows. This indicates that women are now earning less than their educational attainment would suggest. Finally, we adjust for occupation, thus reducing the wage gap in both 1979 and 2016, and bringing the hourly gap to 15 percent in 2016. Notably, the difference made by adjusting for detailed occupation is larger in 1979 (when the gap falls by 10.5 percentage points) than in 2016 (when the gap falls by 6.5 percentage points), consistent with the evidence that occupations have become less segregated by gender over time (Cortes and Pan forthcoming).⁴

Another possibly relevant consideration is that women are more likely than men to work part time, which could affect hourly wages if firms impose a part-time penalty for workers whose availability is reduced (Goldin 2014a). Appendix figure 1 shows estimates of the wage gap using a sample restricted to full-time workers. This sample restriction reduces the wage gap slightly in both 1979 and 2016.

Given the potential impact of being a parent on women’s labor force participation, it is natural to ask whether the presence of children affects estimated wage gaps (Goldin 2014a). Because the labor market effects of children may depend on birth timing, marital status, and educational attainment—in addition to interacting with other family choices and outcomes—this is a particularly difficult question to answer. However, the presence of

FIGURE 6.
Unadjusted and Adjusted Hourly Wage Gaps between Prime-Age Men and Women, 1979 and 2016



Source: Current Population Survey 1979, 2016; authors’ calculations.

Note: Prime-age indicates ages 25–54. Model specifications are cumulative.

young children, particularly for married and high-skilled women, appears to magnify the gender wage gap (Barth, Kerr, and Olivetti 2017; Goldin et al. 2017).

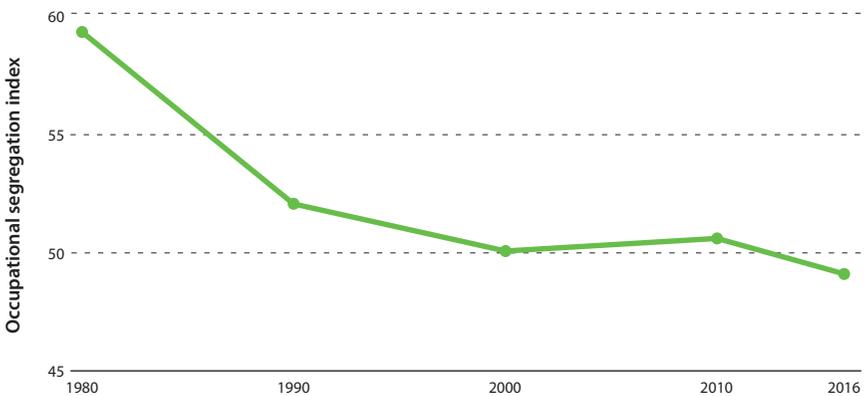
The Role of Occupations

Given the importance of workers' occupations for understanding the wage gap, we next explore the extent to which men and women sort into different occupations, as well as the variation in wages across occupations. Together, these two factors can shed light on the overall difference between men's and women's wages.

Occupational segregation is defined as the degree to which occupations skew male or female. We do not attempt to explain why the occupations skew the way they do, but simply describe how the occupations vary and how segregation has changed over time. This is relevant to the overall wage gap: when jobs that are male-dominated pay more than other jobs, the gender wage gap is higher.

Figure 7 shows that occupational segregation in the United States declined markedly in the 1980s and has since continued a generally downward trend, consistent with the findings in earlier work (Blau, Simpson, and Anderson 1998). Calculations that make use of even earlier data—for the 1900–50 period—find still higher levels of occupational segregation (Cortes and Pan forthcoming). As women joined the workforce and attained more education, they entered previously male-dominated occupations such as insurance adjustment, law, and sales. However, recent years have seen a slowing pace of occupational desegregation, limiting the narrowing of the gender wage gap that can occur through this channel.

FIGURE 7.
Prime-Age Occupational Segregation by Gender, 1980–2016



Source: Current Population Survey 1980–2016; authors' calculations.

Note: Prime-age indicates ages 25–54. We calculated the occupational segregation index using the Cortes and Pan (forthcoming) definition and harmonized 1990 occupation codes. The absolute value of differences between the percentages of male and female employees in an occupation are summed across occupations and divided in half.

FIGURE 8.

Prime-Age Women's Median Hourly Wage and Share of Occupation



Source: Current Population Survey 2016; authors' calculations.

Note: Prime-age indicates ages 25–54. Sample is restricted to respondents who attained at least a bachelor's degree and were employed in occupations with at least 25 male and female survey respondents with at least a bachelor's degree.



The decline in occupational segregation has been driven by women's increasing educational attainment as well as technological changes including automation that have reduced the importance of physical strength in the labor market (Goldin 2014b). Occupational segregation remains substantial, however. Preferences for job flexibility, differences in skills and personality traits and social norms can all affect which jobs men and women enter (Cortes and Pan forthcoming), in addition to more-direct discrimination within or outside the labor market.

Occupational segregation affects the wage gap if the fields women disproportionately enter are associated with lower wages. Figure 8 explores the relationship between women's wages and the share of an occupation that is female. Because graduates of a particular major often find jobs in widely differing occupations, the pattern revealed by figure 8 would not necessarily mimic the results of our college major analysis. However, as the share of an occupation that is female increases, we do observe a decrease in college-educated women's earnings. The figure also demonstrates that median wages vary considerably across occupations, such that pay is sometimes similar in occupations that feature very different gender ratios. For example, 88 percent of registered nurses are women and 25 percent of architects are women, but median hourly wages for women in both occupations are roughly \$30. Pharmacy again stands out as an occupation with a strong female presence and high hourly wage, at around \$48 per hour.⁵

Wage differences within and across occupations might be driven by disparate responsibilities outside work. Women spend more time than men on domestic activities; for example, in 2016 married mothers who were full-time employees reported spending

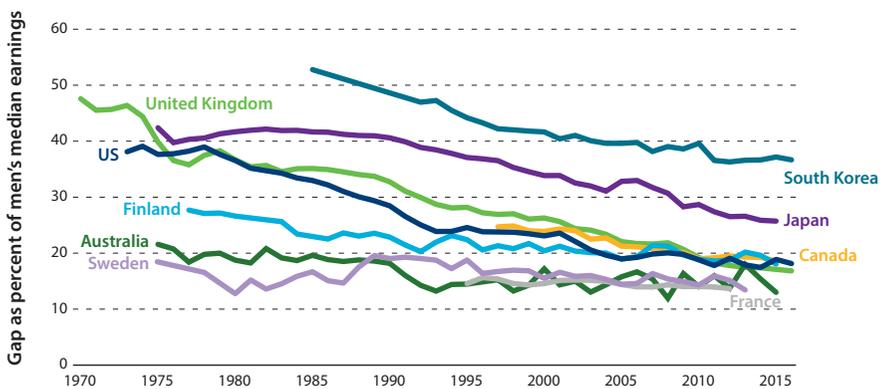
an average of 26 hours per week on domestic activities, while married fathers who were full-time employees reported spending only 17 hours per week.⁶ Housework is negatively associated with wages for both married and unmarried women (Blau and Kahn 2017; Hersch and Stratton 2002). Furthermore, women are more likely to perform daily household tasks such as meal preparation and cleanup that have a stronger association with lower wages than they are to spend time on intermittent tasks such as outdoor and maintenance activities, which can be postponed or contracted out (Hersch and Stratton 2002; Noonan 2001).

The U.S. Wage Gap Is Similar to That of Other Industrialized Countries

Finally, we place the U.S. wage gap in the context of other industrialized countries. The Organisation for Economic Co-operation and Development (OECD) has compiled earnings data beginning in 1970 from national agencies in order to examine the differences in the unadjusted earnings gap for men and women working full time (OECD 2017). Figure 9 shows that the earnings gap in the United States began the period at a high level relative to selected peer countries, but fell during the 1970s and 1980s and today stands near the middle of the international distribution.

Countries with particularly high wage gaps such as Japan and South Korea have also shown some reduction, but their levels remain relatively high. Conversely, Australia, Finland, and Sweden began with relatively small wage gaps and have experienced more-gradual narrowing.

FIGURE 9.
Earnings Gaps in Selected Countries, 1970–2016



Source: OECD 2017.

Note: Sample is restricted to full-time employees and the self-employed. Earnings are reported on a weekly basis for Australia, Canada, the United Kingdom, and the United States; on a monthly basis for Japan, South Korea, and Sweden; and on an annual basis for Finland and France. In addition to missing years shown at the beginning and end of some time series, data is not available and means were interpolated for the following years: 1986–1991 (South Korea), 1981 and 1985 (Finland), 1996 (Australia), 1976–77 and 1979 (Sweden).

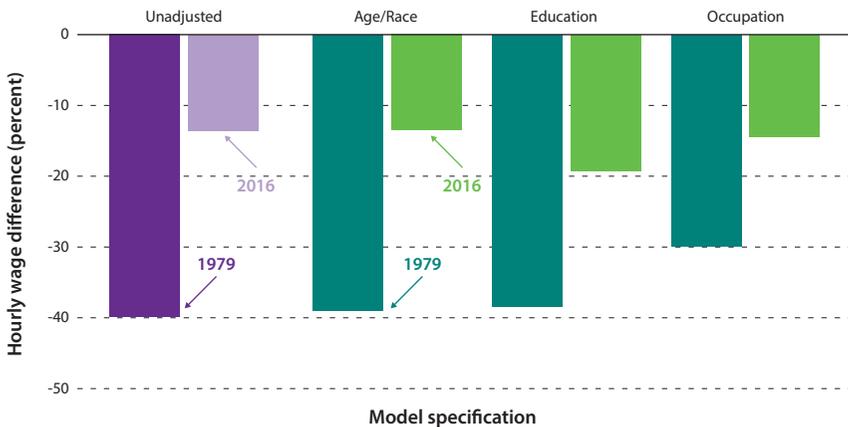
Conclusion

The gap between wages of men and women has fallen over the past several decades. Though some of the decline reflected an unwelcome fall in men’s wages, most of the reduction in the gap was due to rising wages for women. Successive generations of women have obtained more education and received higher wages throughout the life course, entering a broader range of occupations that had previously been male-dominated.

However, a significant wage gap remains, though it is not always straightforward to trace its origins or its responsiveness to potential policy reforms. Occupational segregation, differences in academic specialization, difficulty in balancing work and household responsibilities, and wage discrimination—among many other factors—likely underlie much of the remaining gender wage gap.

APPENDIX FIGURE 1.

Unadjusted and Adjusted Hourly Wage Gaps between Prime-Age Full-Time Men and Women, 1979 and 2016



Source: Current Population Survey 1979, 2016; authors’ calculations.

Note: Prime-age indicates ages 25–54. Model specifications are cumulative.

Endnotes

1. We classify households into quintiles of total earned income across prime-age respondents (25 to 54 years old), and observe the average share of earned income in the household that was generated by women for households in the middle earnings quintile.
2. Throughout this chapter we restrict our focus to prime-age workers (25 to 54 years old), unless otherwise specified. It is also important to note that gender gaps are considerably larger if one examines annual earnings, rather than hourly wages. See box 1 for a brief discussion.
3. In figure 5, we examine annual earnings rather than hourly wages because of different data available in the American Community Survey, which provides information on college major.
4. However, we should note that some other researchers have found an increasing role for occupational adjustments over time when using a different statistical approaches in different datasets (Blau and Kahn 2017).
5. When we do not restrict the sample to those with college degrees, the variation across occupations increases and we no longer observe an association between women's share in an occupation and median wages (not shown in figure 8).
6. Domestic activities include "household activities," "purchasing goods and services," and "caring for and helping household members" in the American Time Use Survey (BLS 2016b).

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SECTION TWO

Policies to Support Women from Career through Retirement

Women travel a difficult road to successful careers and stable retirements, a road cluttered with obstacles that discourage them from entering the workforce, or from reentering it after having a child. This section includes a set of policies that would support women of all ages by making work pay and by promoting economic security in retirement. Together, the proposed reforms would help to eliminate impediments to women's full participation in the labor market.

Bridget Ansel and Heather Boushey propose a series of reforms that would improve employment conditions for women. For example, paid family leave and protection from unpredictable work schedules would help women achieve a better balance between their work and family responsibilities. A new focus on pay transparency would combat wage discrimination, enhancing women's return to work and promoting a more efficient use of their labor.

Two proposals for tax reform would help make work pay for low-income and married women: Hilary Hoynes, Jesse Rothstein, and Krista Ruffini examine the strong evidence of positive labor market effects of the Earned Income Tax Credit, proposing a 10 percent across-the-board expansion. This would encourage employment and provide a much-needed raise to low-income families and single parents, many of whom are working women. Sara LaLumia proposes a complementary reform that would encourage employment among married women, who tend to face high marginal tax rates even when their own earnings are low. The proposal would implement a tax deduction equal to 15 percent of the second earner's wages, reducing the work disincentive that current tax policy generates for married women.

The final proposal in this section would construct a voluntary, budget-neutral insurance policy within Social Security to support the economic security of elderly women. Noting that economic insecurity among the elderly is concentrated among widowed and disabled women, Jason Brown and Karen Dynan propose to allow people who receive Social Security to opt for additional insurance that would confer enhanced benefits in the event of widowhood or disability.

Modernizing U.S. Labor Standards for 21st-Century Families

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Abstract

Women now make up almost half the U.S. workforce. Despite the central role women play in the U.S. economy, our labor laws and institutions do little to address the various ways in which women are held back at work. This not only hampers women's economic well-being, but also has implications for U.S. productivity, labor force participation, and economic growth. In this paper, we propose policies aimed at boosting women's economic outcomes: paid family leave, fair scheduling, and combatting wage discrimination. We show how enacting carefully designed policies in these categories will better address the challenges of today's labor force, enhance women's economic outcomes, and provide benefits for the national economy.

Introduction

The growing number of women in the U.S. workforce over the past 30 years has reshaped both traditional gender roles and the American economy. Since the late 1970s women have outnumbered men in U.S. college enrollment (National Center for Education Statistics 2016), allowing them to break into new occupations that had been dominated by men, and to make more-valuable contributions to the economy. Women's paid work boosted U.S. GDP by an estimated 11 percent between 1979 and 2013 (Appelbaum, Boushey, and Schmitt 2014). And as men's earnings fell by 9.5 percent over the past three decades, it was women's increased working hours that kept household income from declining in each income group (Boushey 2016; Boushey and Vaghul 2016; Glynn 2014). With women now making up close to half the nation's workforce, it is clear that their earnings are crucial for families' well-being and the nation's economic strength.

Despite the central role that women play in the U.S. economy today, federal policies and labor laws remain anchored in the past, hampering further progress. Most of the laws that govern labor standards, such as the Fair Labor Standards Act, were enacted as part of the New Deal in the 1930s. While these laws underpin employer and employee relationships, they are predicated on certain outdated premises: jobs are assumed to have predictable, standardized schedules and families are assumed to have a single breadwinner and a stay-at-home caregiver. The latter assumption is explicitly gendered, and is based on a view of

the idealized upper- or middle-class white family. In reality, many women in the United States, especially low-income and racial and ethnic minority women, have historically worked to support their families (Frye 2016; Landry 2000).

The limits of federal labor laws can be partly ascribed to the fact that they were enacted at a time when the U.S. labor movement was considerably stronger. Many important labor standards were therefore not directly codified through law, but rather negotiated across the bargaining table. From the New Deal through the early 1970s, unions grew to cover about one-third of the workforce and helped mitigate exploitative labor practices for some workers. But over the past 30 years, private sector labor unions have declined, and only about 7 percent of private sector workers are now covered by union contracts (Bureau of Labor Statistics [BLS] 2016a).

Today, the United States is left with labor laws and institutions that do little to address the various ways in which women are held back at work. Policy makers' failure to implement any sort of national paid leave policy forces workers to choose between the loss of wages—or even the loss of their jobs—and taking the time to care for a new child, their own health, or an ill family member. Working hours that are too long, unpredictable, or insufficient can create work–life conflicts that make it difficult to manage a paid job with other responsibilities. On top of work–life conflicts, women are often subject to wage discrimination, and a lack of pay transparency means that this issue often goes unaddressed.

Given the failure to address these issues, it is no wonder that women's economic progress has stalled by several measures, including labor force participation and the gender wage gap. Without policies that address work–life conflicts, many women stop working altogether. Unlike other developed countries, most of which have policies addressing these issues, the United States has seen a decline in women's labor force participation in recent years, especially for women in their 30s and 40s (Goldin and Mitchell 2017).

These labor market outcomes are not inevitable, but are to a large extent the product of deliberate policy choices. Amending U.S. labor laws can enhance women's economic outcomes, thus providing a boost to the national economy through increased productivity, greater labor force participation, and increased demand for goods and services. In this paper we propose design principles for three groups of policies—paid family leave, fair scheduling, and combatting wage discrimination—aimed at boosting women's outcomes.

The Challenge

Women continue to face a host of impediments to their full participation in the labor market. Many of these impediments have been studied over the course of decades, providing insight into their effects on women's employment and earnings as well as other consequences for families. We classify these challenges into three categories: caregiving responsibilities, burdensome scheduling practices, and wage discrimination.

CAREGIVING RESPONSIBILITIES

The United States is one of the only countries in the world without a national paid leave policy. Some U.S. workers are eligible for 12 weeks of unpaid leave through the Family and Medical Leave Act of 1993 upon the birth or adoption of a new child, serious illness,

or to care for a family member. But because of the law's eligibility requirements, only 60 percent of workers and about 20 percent of new mothers have access to legally mandated unpaid leave; those who are excluded from access are disproportionately lower income (Council of Economic Advisers 2014) and less educated (U.S. Department of Labor n.d.). Even those who are eligible for unpaid time off, however, often do not take it. A recent survey conducted by the Pew Research Center finds that one in six U.S. workers said they needed to take time off work in the past two years but were unable to do so, primarily for financial reasons (Horowitz et al. 2017).

Access to paid time off is even more limited. In 2016 only 14 percent of the private sector workforce and 4 percent of workers in the bottom tenth of the wage distribution received paid leave through their employer (BLS 2016b, table 32a). A larger fraction have some other access to paid time off: 38 percent of workers in the United States have access to temporary disability insurance to deal with a personal medical condition without losing pay, but most disability insurance does not cover the care of a family member (BLS 2016b, table 16a).

For many families, the birth of a child is associated with a significant decline in financial well-being (Stanczyk 2016). To cope, many families—especially low-income families—go into debt, put off paying their bills, or return to work too early, with negative consequences for mothers and children (Horowitz et al. 2017). Even if parents do not return to work right away, the fall in income around the time of the birth can harm children. Money matters for kids, especially young kids, even when controlling for other family parental characteristics (Sandstrom and Huerta 2013). Furthermore, in other economies, paid maternity leave has a profound effect both on children's long-term development and on their future productivity (Carneiro, Loken, and Salvanes 2015).

The Need for Comprehensive Paid Leave

Discussions of paid leave policy often focus on the needs of new parents, but parental leave is not the only valuable use of paid leave: others include dealing with a personal health problem, caring for a family member with a serious health condition, or addressing needs associated with a family member's military deployment. With an aging population and fewer stay-at-home caregivers, an increasing number of workers need time off to care for a family member or for self-care. In fact, those who take leave are more likely to do so for personal medical reasons or to care for a family member than to care for a newborn child (Horowitz et al. 2017).

Workers who are dealing with a personal or family illness face a unique set of challenges. Caring for an ailing family member often requires intermittent leave, taken in small time increments to, for example, take someone to the doctor or spend an afternoon providing care. While more research is needed to determine how differing lengths of family and medical leaves affect individual and economic outcomes, the limited evidence that does exist shows that giving workers some leave for nonparental factors can positively affect both health and labor market outcomes. For example, Earle, Ayanian, and Heymann (2006) observed nurses who had experienced a heart attack: those with paid leave were much more likely to return to work compared to those without this benefit. A study of paid leave in California found that giving workers some time off increases the likelihood that

workers—particularly low-income workers—will stay in the labor force following personal and family health events (Appelbaum and Milkman 2011).

Without a comprehensive paid leave program that covers all family care needs, families struggle to address work–life conflicts, and that struggle in turn generates social and economic costs. Half of workers who need leave, but do not have access to it, postpone or never receive critical medical treatment, which has costs for our health-care system as well (U.S. Department of Labor 2015). With the aging of the baby boomer population, a growing number of workers are providing care for an elderly relative. Of these caregivers, seven in ten have had to make work accommodations such as cutting back on hours (and therefore wages) or dropping out of the workforce altogether (Feinberg and Choula 2012).

Every worker at some point in their life will need to take time off work for family or health reasons, making this an issue that affects all workers. But women continue to take on the bulk of caregiving responsibilities for children and ill family members, making paid leave particularly consequential for women’s participation and success in the labor force.

Although paid leave is especially valuable for many women, its predominate usage by women can negatively affect pay equity. Policies targeted exclusively to women can lead employers to discriminate against young women—even those without children—if employers expect them to use maternity leave (Thomas 2016). In contrast, countries that have more gender-neutral paid leave programs (box 1) have made bigger strides toward closing the gender pay gap (World Economic Forum 2013). This is partially because men’s use of leave frees up women to engage in paid work.

BOX 1.

The Effects of Gender-Neutral Paid Leave

In Iceland fathers are given three months of nontransferable paternity leave following the birth of a child. This policy is intended to encourage men to take a more active caregiving role. An evaluation of the policy revealed that “the division of care between parents . . . has changed in the intended direction and that is mainly due to the law” (Arnalds, Eydal, and Gíslason 2013, 323). In addition, a positive association was discovered between the length of leave that men take and their involvement in care once the leave period is over (Arnalds, Eydal, and Gíslason 2013).

These outcomes aren’t specific to Iceland. Quebec’s paid paternity leave program had a “large and persistent impact on gender dynamics within households even years after the leave period ended,” with fathers taking on a larger share of domestic work and child care, allowing more time for women to participate in the labor market (Patnaik 2015).

BURDENSOME SCHEDULING PRACTICES

Long but irregular work schedules, as well as just-in-time scheduling practices, are a problem for a growing number of workers as they seek to balance work and life commitments. The Fair Labor Standards Act sought to check overwork, yet the failure to update the overtime salary threshold makes the law increasingly ineffective at curtailing long work hours for the vast majority of U.S. workers. While some workers are logging more time at work than ever before, others struggle to get enough work hours to make ends meet (Jacobs and Gerson 2004).

Both of these trends harm women's economic outcomes in particular and family incomes overall. In jobs that require long hours, workers might not be able to address conflicts between their outside and family commitments. On the other end of the spectrum, part-time jobs that do not provide enough hours can hurt women's ability to provide for their families, especially because workers are likely paid a lower hourly rate than they would be paid in a comparable full-time job. In addition, the rise in unpredictable and nonstandard work hours makes it more difficult to arrange child care or pursue the education necessary for upward mobility.

Overwork and the Overtime Threshold

Shifts in the way firms organize work over the past 40 years have generated highly demanding jobs characterized by long hours and little flexibility, at least within certain occupations. This trend has created disproportionate difficulties for women, leading them to scale back career aspirations or drop out of the labor force entirely. Stone and Lovejoy (2004) surveyed women who either quit or cut back on hours at their professional or managerial jobs. One-third of those who quit and nearly two-thirds of those who scaled back to part-time work cited long, inflexible hours as the reason (Stone and Hernandez 2013; Stone and Lovejoy 2004).

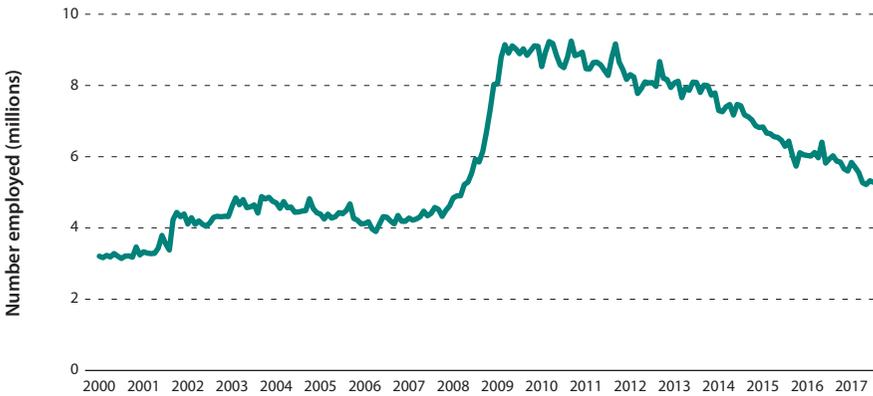
While some employers pay workers overtime when they ask them to work long hours, that number has dwindled over the past 40 years as the Fair Labor Standards Act's overtime threshold has declined in inflation-adjusted terms. Today, many salaried workers will not earn overtime pay unless they earn \$23,660 or less a year. This threshold, which is below the federal poverty level for a family of four, covers only 8 percent of salaried workers, leaving millions of employees without overtime protections.

Overwork has implications for pay equity, increasing the gender wage gap by about 10 percent (Cha and Weeden 2014). Harvard University economist Claudia Goldin cites long hours and the emphasis on office "facetime" as the "last chapter" in attaining gender equality (Goldin 2014).

Underwork and Unpredictable Schedules

While one segment of the working population is spending more time in paid employment, another is having trouble getting enough work to make ends meet. An estimated 5.2 million workers are currently working part time, as shown in figure 1, but are available for and would prefer full-time employment. Part-time jobs are most prevalent within the low-wage retail and hospitality industries and are disproportionately filled with Hispanic

FIGURE 1.
Number of People Employed Part-Time for Economic Reasons,
2000–17



Source: Current Population Survey 2000–17.

Note: Monthly values are seasonally adjusted.

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and African-American women. The schedules and hours for many of these jobs are also unpredictable, compounding the financial and emotional burdens that these workers face. Research shows that part-time workers often do not receive benefits and tend to have lower wages than their full-time counterparts, even if they are doing the same job (Golden 2015). A number of cities are considering policies to address this problem: for example, San Jose, California, recently implemented a law aimed at giving part-time workers access to more hours, but it is too soon to fully evaluate the law’s effect (GovDocs 2017).

A growing number of U.S. workers are grappling with unpredictable, constantly shifting schedules. Often aided by “just-in-time” scheduling software, many companies try to generate work schedules based on predictions of consumer demand. But in doing so, they may give their employees only a few days’ notice of their schedule for the coming week and require them to remain on call and wait to see if they are needed to work; if sales are slow, employers might send workers home without pay (Boushey and Ansel 2016b).

About 17 percent of workers nationally have unpredictable schedules (Golden 2015). While this is a problem for workers of all incomes, jobs with erratic schedules are more heavily concentrated among low-income workers, especially in the retail and service industries (Boushey and Ansel 2016b). See table 1 for information about irregular scheduling by occupation. Research also shows that women, especially women of color, tend to be most affected by these schedules.¹ In fact, more than one-third of female hourly workers in their prime childbearing years receive their schedules a week or less ahead of time (Economic Policy Institute 2017).

TABLE 1.

Share of U.S. Workers by Shift Type and Occupation, Pooled Years 2002, 2006, and 2010

	Irregular	Split/rotating	Regular
All (n=4,641)	10%	7%	83%
Type of occupation (share of total)			
Executive/admin/management (15%)	9	4	87
Professional specialty (19%)	11	5	84
Technicians (4%)	8	11	81
Sales occupations (11%)	15	10	75
Admin support (clerical) (13%)	4	5	91
Service occupations (16%)	10	14	76
Farming/precision production (11%)	8	3	89
Operators/laborers (11%)	10	9	81

Source: Golden 2015.

Unsurprisingly, schedules that are unpredictable wreak havoc on workers and their families. Earnings fluctuate week to week depending on how many hours employers assign to their employees, making it impossible for workers to predict whether they will earn enough to make ends meet. Unpredictable work schedules are associated with household financial insecurity, even after adjusting for hourly wages and overall income (Schneider and Harknett 2016). Scheduling instability has also been found to be a key driver of the rise of income volatility (Mitchell 2017).

Without the time and work predictability required to manage their nonwork commitments, women in particular sometimes have to limit their time engaging in paid work, which results in less income for the family. Some women drop out of the labor force altogether, contributing to a declining female labor force participation rate (Boushey and Ansel 2016a, 2016b). Constantly shifting schedules can also mean that workers are unable to get a second job or go back to school, jeopardizing their longer-term economic stability as well. These kinds of jobs are especially onerous for parents, who can find it difficult to find and keep reliable child care. It is no wonder that the stress from unpredictable schedules takes a physical toll: Schneider and Harknett also found that those with an unpredictable schedule were more likely to have poorer physical health and to suffer from “serious psychological distress” (Schneider and Harknett 2016, 13).

While some cities have begun passing legislation to limit unpredictable schedules, there is no federal law that prevents employers from requiring employees to work with little advanced notice.² That means, for most workers, that the cost of doing business is being pushed onto workers and their families.

WAGE DISCRIMINATION

Much of the disadvantage suffered by women in the labor market would be addressed by well-designed work–family policies such as paid family leave and fair scheduling. However, wage discrimination still plays an important role in driving the gender wage gap, and would likely continue to do so even after work–family challenges were met. After adjusting for factors like labor force experience, union status, race and ethnicity, and occupation, one recent study finds that 38 percent of the gender wage gap remains unexplained, suggesting that labor market discrimination plays an important role (Blau and Kahn 2017).

This means that even after accounting for observable differences between male and female workers, women still face pay disparities compared to men (Schneider and Gould 2016). In fact, almost 60 percent of women would earn more if they were paid the same as men with equivalent levels of education and work hours (Milli et al. 2017). Eliminating pay discrimination through a boost to women’s wages would help families and the economy alike: the number of children living in poverty with working mothers would be reduced by 2.5 million and GDP would be higher by \$512.6 billion in 2016, a 2.8 percent increase (Milli et al. 2017).

Gender wage discrimination has also been demonstrated in field experiments. Science professors who were given employment applications for a laboratory manager position that were identical except for one part—the candidate’s name was shown as either Jennifer or John—made an average starting salary offer to John of \$30,000 compared to Jennifer’s \$26,500 (Moss-Racusin et al. 2012).

Even a single instance of this kind of pay inequity can reduce workers’ wages throughout their careers. Wage negotiation later in women’s careers is unlikely to be of much help, given that women are disproportionately likely to experience negative consequences when they do negotiate, and are consequently unwilling to do so. Men, on average, negotiate higher salaries without negative effects (Bowles, Babcock, and Lai 2007).

The Persistent Impact of Salary History

Compounding the effects of discrimination is employer usage of salary history. Employers often evaluate candidates and make offers based on what they earned at previous jobs; half of all workers report that their current employer learned at least some of their wage history (Hall and Krueger 2012). To the extent that women and people of color are discriminated against early in their careers, this wage history information can allow past discrimination to follow workers throughout their careers. Because employers sometimes think that salary history is a means to evaluate a worker’s productivity, a previous salary that is too low—regardless of whether the low salary level was due to ability or discrimination—could deter employers from making a job offer (Barach and Horton 2017). On the other hand, salary disclosure requirements could also harm older workers who have been laid off or who took time out of the workforce because employers might view them as too expensive.

A number of state and local governments, including those of Massachusetts, New York, and Philadelphia, have responded by banning the employer practice of requiring workers to disclose salary information during the hiring process. While the full effects of these relatively recent bans have yet to be evaluated, the results of a recent field experiment suggest that they might confer benefits (Barach and Horton 2017). Employers who

could not see a job applicant's salary history responded by evaluating more applicants overall, asking more questions, and arranging more face-to-face interviews to evaluate an applicant's fit for the job. Employers without access to applicants' salary history also interviewed and hired workers with relatively lower past wages compared to employers who did have access to this information. Not having to disclose their previous salaries also gave applicants more bargaining power; these workers were able to secure higher pay compared to applicants who were required to divulge their pay history (Barach and Horton 2017). Without an applicant's salary history, employers must evaluate and make job offers based on an applicant's tangible skills and experience.

Pay Secrecy and Worker Bargaining Power

When wage discrimination occurs, many women are unaware of the problem due to formal or informal prohibitions of employee discussions about pay. The result is that employers may purposely or inadvertently pay their workers different amounts for the same kind of work. Bans of employee pay discussion appear to be effective at preventing workers from demanding higher pay and wage equality (see box 2). Even if an employee suspects pay inequity, it is difficult to prove pay discrimination without a disclosure or an employment discrimination charge (Rosenfeld and Denice 2015).

Pay secrecy remains common in many U.S. workplaces, and about half of all workers—and more than 60 percent of private sector workers—report that their workplace formally or informally bans workers from discussing their salaries (Institute for Women's Policy Research 2014). The widespread nature of pay secrecy is surprising given that, excluding supervisors and managers, it is illegal under the National Labor Relations Act (NLRA) to prohibit discussions of pay, even informally (Bierman and Gely 2004; Gely and Bierman 2003). However, most employees do not know that pay secrecy is illegal; because there

BOX 2.

Pay Secrecy, Wage Discrimination, and Lilly Ledbetter

Lilly Ledbetter was one of the few female supervisors for Goodyear Tire in Alabama when she worked for the company in the 1980s and 1990s. Ledbetter, who worked at Goodyear for almost two decades, was unaware that she earned less than the other 16 male supervisors because Goodyear prohibited employees from discussing pay. She realized that she was underpaid only after receiving an anonymous note (National Women's Law Center 2013). Her subsequent lawsuit and the action taken by Congress and signed into law by President Obama in January 2009 (The Lilly Ledbetter Fair Pay Act) extended the statute of limitations for filing an equal pay lawsuit. Previously, workers filing a pay discrimination complaint were required to do so within 180 days of the first time they are paid less than their peers. Obviously, this is impossible if employees do not know they are being discriminated against; the statute of limitations now resets with every new paycheck affected by the original discriminatory action. While this is a step in the right direction, the law does not directly address pay secrecy.

are few penalties for violating the NLRA, employers have little incentive to adhere to the law (Gely and Bierman 2003). Even if the penalties were stronger, the existing exclusion of managers and supervisors is a problem considering that women are underrepresented in these positions (Warner 2014). Had Lilly Ledbetter (see box 2) found out that she was underpaid through discussions with her male colleagues, she would have been violating her company's policy and could have been legally fired (due to her status as a supervisor).

By contrast, employer disclosures of pay information can level the playing field between employers and employees, and help reduce unjustifiable pay gaps. In a recent study of British workplaces, employees who report that their managers are “very good” at disclosing financial information and pay earn 8 to 12 percent more than those who report that their managers are “very poor” at sharing this kind of information (Rosenfeld and Denice 2015). In the United States, publishing the salaries of California public employees online compressed the pay of managers by 8 percent, suggesting that pay transparency helped expose and remedy difficult-to-rationalize differences in pay (Mas 2014). Other research shows that within-establishment pay disparities between men and women are smaller in gender-balanced unionized industries, in part because unions often have access to a company's financial information (Elvira and Saporta 2001).

Pay transparency is valuable in part because it motivates employers to create fair pay systems, while also allowing employees to monitor and speak up about discriminatory salary practices. It is also effective in adding legitimacy to workers' salary requests, and makes it difficult for employers to justify differing salaries for men and women doing equivalent work (Rosenfeld

BOX 3.

Pay Discrimination and the Equal Employment Opportunity Commission

U.S. employers with 100 or more employees are currently required to file an Employer Information Report EEO-1, or EEO-1 report, which provides a demographic breakdown of their workforce. The EEO-1 was updated in 2016 to require the separate reporting of pay data by sex, race, ethnicity, and job categories (U.S. Equal Employment Opportunity Commission [EEOC] n.d.). Beginning in the spring of 2018, businesses with 100 or more employees would be required to add salary information to their EEO-1 reporting. The Trump Administration, however, issued a “review and stay” of the rule in August 2017, meaning that businesses will not be required to report salary information. This serves as a substantial setback to efforts aimed at lessening pay inequality. The rule would have improved the EEOC's ability to investigate and address pay discrimination with individual employers and across industries and regions, encouraged employers to conduct voluntary pay audits, and provided some insight into the wage gap for employers that have not yet conducted pay audits. While the data gathered would have been limited and not made widely available to employees, it would serve as an important first step in the effort to better identify and end pay discrimination.

and Denice 2015). Salary transparency has an upside for employers as well, reducing worker distrust and boosting productivity. Pay transparency has been shown to help employees collaborate more productively—most likely because workers could more accurately judge their colleagues’ skill level by how much they were getting paid (Belogolovsky et al. 2016). In addition, workers who know their colleagues’ salaries could be motivated to work harder, boosting their output by 10 percent (Huet-Vaughn 2015). By contrast, pay secrecy can actually decrease performance because it takes “a toll on the ability of the firm to retain its best performers” (Belogolovsky and Bamberger 2014, 37).

A New Approach

In order to address the challenges posed by caregiving responsibilities, burdensome scheduling practices, and wage discrimination, we propose a number of reforms. The details of these proposed reforms are motivated in part by the evidence regarding their effects on women’s labor market outcomes; much of that evidence has been generated by the experiences of state and local communities.

PAID FAMILY LEAVE

Paid family leave benefits families and the overall economy (see, e.g., Baum and Ruhm 2013; Blau and Kahn 2013; Houser and Vartanian 2012; Rossin-Slater, Ruhm, and Waldfogel 2013). In light of the challenges facing workers who experience personal illness or caregiving demands—and given the importance of retaining those workers in the labor market—policies regarding paid leave must:

- Cover the range of family and medical needs that require time away from work;
- Be available to all workers, men and women equally;
- Provide adequate length of leave to address care needs; and
- Have a sufficiently high wage replacement rate to make a difference in people’s lives.

As federal policy makers consider their options, they can learn from the experiences of three states—California, New Jersey, and Rhode Island—that have enacted statewide paid leave programs. These states provide important lessons about how to create successful paid family leave policies at the national level.

Cover the range of family and medical needs that require time away from work

An effective paid family and medical leave proposal must cover all the major reasons people need time away from their work.

Family and medical leave is not exclusively about parental leave. As the population ages and women’s labor force participation increases, more workers need time off to address either their own illness or that of a family member. Excluding any of these reasons from a paid leave policy would miss an opportunity to support both families’ economic security and their labor force participation.

Be available to all workers, men and women equally

Paid leave should cover all workers regardless of employer identity or size, or the worker's full-time or part-time status. It should also use an inclusive definition of family.

An effective paid leave program should be available to all workers, including those who are self-employed and those who work for small businesses. Placing boundaries on the availability of mandated paid leave negatively affects the labor market opportunities available to employed caregivers and others who require leave.

Paid leave also should be gender neutral, following the example of the Family and Medical Leave Act in providing eligible men and women with the same amount of leave. A mother-only policy assumes that only women do caregiving—in fact, women are breadwinners in 40 percent of families and men are taking on a growing share of the caregiving and other domestic responsibilities at home (Wang, Parker, and Taylor 2013).

Provide adequate length of leave to address care needs

Paid leave should entail at least 12 weeks of leave, allowing families enough time to deal with a serious illness or to care for a new child.

Although 12 weeks falls short of the one year of parental care thought to ensure the best outcome for infants' development (and the six months of leave that is ideal for mothers' physical and mental health), it is more generous than the leave currently available, and will provide important benefits for parents and children alike (Schulte et al. 2017). It is also consistent with the level of generosity provided by states that have implemented paid leave programs, giving federal policy makers a better sense of how the proposal would work (National Conference of State Legislatures 2016). Furthermore, a 12-week leave allowance means that children born to two-parent families will have up to 24 weeks—or six months—of parental care if both parents use their full 12 weeks and schedule their leave periods sequentially.

Have a sufficiently high wage replacement rate to make a difference in people's lives

Wages should be replaced at a level sufficient to protect families at a time when household expenses rise.

A national paid leave program must replace enough of workers' wages to be economically meaningful and keep families afloat when they need time off for caregiving or for their own illness. It is important to provide a sufficient wage replacement rate considering that having a new child in the home, coping with a personal illness, or caring for a loved one often requires employees to cut back time spent at work during a period in which household expenses often rise.

Providing an economically meaningful replacement rate can also have benefits for businesses. A study of California's paid leave program found that employers in that state experienced greater worker retention following the enactment of paid leave, especially among those who employ low-income workers (Appelbaum and Milkman 2011; Horowitz et al. 2017).

Relatively generous wage replacement will also produce benefits in the form of reduced reliance on government benefits. In Rhode Island, where paid leave provides wage replacement between 55 percent and 66 percent, reduced use of government assistance was observed after paid leave was enacted (Houser and Vartanian 2012). Robust wage replacement plays an important role in realizing these benefits: Bernal and Fruttero (2008) found that, compared with unpaid leave, paid parental leave had a much bigger impact on long-term household incomes and labor participation for men and women alike.

National paid leave should therefore mimic New Jersey's 66 percent wage replacement, but with a cap that prevents benefits from being overly generous to high-income families. Wage replacement below this level would increase the likelihood that low-wage workers experience substantial economic hardship. This detail is consistent with Christopher Ruhm's Hamilton Project proposal. Ruhm recommends a replacement rate of 75 percent for low-wage workers, up to a ceiling of \$1,323 per week.

FAIR SCHEDULING

To ensure better economic outcomes for women, policies must address the way work and home lives are intertwined. Many individuals struggle to obtain enough work hours to make ends meet while also lacking the control over their schedules that would help them address their other obligations. Federal policy makers should ensure that workers can create boundaries between time for work and time for everything else by imposing fair scheduling. Policies to promote fair scheduling should:

- Require employers to bear costs associated with their last-minute decisions;
- Mitigate involuntary overwork and underwork; and
- Give workers the right to talk to their employer about flexible schedules without fear of reprisal.

Require employers to bear costs associated with their last-minute decisions

Employers should be required to provide advance notice of schedules, predictability pay for last-minute schedule changes, and reporting pay for shortened or on-call shifts to ensure that employees are able to balance their out-of-work responsibilities.

To address the unpredictable schedules faced by millions of workers, a national policy must ensure that workers have advance notice of their upcoming work schedule and relieve workers of the burden of last-minute scheduling changes when employers deem them necessary. This would be accomplished by requiring businesses to provide predictability pay when they alter a worker's schedule with less than seven days of notice. Workers would receive one hour of pay for each scheduling change made with less than seven days of notice. In addition, businesses would provide reporting pay in the form of two to four hours of wages when a shift is cancelled less than 24 hours in advance, as is required in San Francisco (American Legal Publishing n.d.) and Seattle (Municipal Code Corporation n.d.).

Mitigate involuntary overwork and underwork

The Fair Labor Standards Act's overtime income threshold should be raised to further deter employers from requiring their employees to work long hours. A complementary policy to address excessive employer reliance on part-time workers would be to require employers to offer additional work hours to qualified part-time employees before hiring new employees.

The Fair Labor Standards Act provides some protection against overwork, increasing the cost for employers when they require certain employees to work more than 40 hours a week. While the law was intended to cover all hourly employees and a large share of salaried employees—excluding only those with earnings above a threshold—that threshold has not been significantly updated since 1975. To start, legislators should update the earnings threshold to keep pace with inflation. Second, with more workers being categorized as exempt from the overtime rule, policy makers need to consider whether the current definitions fit the modern workplace and provide sufficient worker protections.³

The Obama administration updated these overtime policies in 2016, raising the overtime earnings threshold to \$47,476, just below the inflation-adjusted 1975 level. In November of 2016, however, a federal judge issued a temporary injunction blocking implementation of the reform. As of this writing, the Trump administration is not challenging this injunction.

Give workers the right to talk to their employer about flexible schedules without fear of reprisal

Workers should have the right to negotiate work schedules with their employers without fear of reprisal, and require that employers listen and act where possible.

Work schedules are an important concern for employees and their families, yet many U.S. workers are subject to disciplinary action or retaliation when asking for schedule changes. Union representation provides routes to engage in a conversation with employers about schedules, but with about 7 percent of private sector workers covered by a union contract, the large majority of workers need additional protection (BLS 2016a).

A right-to-request law establishes a process that gives employees the right to discuss their schedules or ask about scheduling flexibility without fear of negative consequences. Employees could ask to adjust their start or end times, switch a shift around, or even work remotely one day a week. Employers do not have to grant the request if it imposes undue hardship, but the right-to-request law requires that they have a compelling business reason for denying a request.

There is some evidence that this kind of policy improves labor market outcomes. Research on right-to-request laws in Australia, Germany, the Netherlands, New Zealand, and the United Kingdom shows that these policies are effective in limiting workers' work-life conflicts (Hegewisch and Gornick 2011; Lyness et al. 2012). These studies are not completely transferable to the United States, however, because these countries all have greater union coverage, which can help workers navigate a request process with their supervisor. In the United States most workers would have to learn about the law on their own and feel comfortable enough with their supervisor to take advantage of it. San Francisco and Vermont have recently passed and implemented right-to-request laws, but there is no research fully evaluating the effects of this legislation (Ludden 2014).

COMBATTING WAGE DISCRIMINATION

To ensure equal pay for women, policy must combat wage discrimination. Three principles that redefine the power of knowledge about pay should be front and center in this effort:

- Prohibit employers from inquiring about a worker's salary history during the interview and hiring process;
- Ensure workers have the right to discuss pay; and
- Require employers to adopt pay transparency practices.

Prohibit employers from inquiring about a worker's salary history during the interview and hiring process

Employers should be prohibited from asking about salary history during the interview or hiring process and relying on that information to set compensation.

Federal lawmakers should consider the example set by Massachusetts, and since followed by several cities and states, in passing a measure banning employers from asking about salary histories during the job application process (Cunningham 2017). The state and local policies prohibit employers from screening job applications based on salary history, relying on past compensation to set pay, and asking workers about their salary history, including benefits and other compensation. Employers can confirm a prospective employee's compensation history, but only after an employment offer and compensation terms have been negotiated and extended. (Cowley 2016; McGovern Tornone 2017; National Law Review 2017).⁴

Ensure workers have the right to discuss pay

Legislation should ban and create penalties sufficient to deter employers from retaliating against workers for discussing pay with their colleagues.

We propose that all workers, including managers and supervisors, be included in a blanket prohibition of employer retaliation. The federal Paycheck Fairness Act, introduced first in 1997 and again this year, includes a provision that protects workers who disclose their pay to their colleagues. While this bill has not passed, policy makers can look to other examples: the Obama administration's 2014 executive order that banned federal contractors from retaliating against employees and job applicants "because such employee or applicant has inquired about, discussed, or disclosed the compensation of the employee or applicant or another employee or applicant" (White House 2014). Certain states have also passed laws addressing pay secrecy, differing in terms of what employees are covered and in which instances. Some states, for example, exclude public sector workers or managers and supervisors. Other states cover all workers, but only if those employees have instigated unequal pay claims (Kim 2015).

Require firms to adopt pay transparency practices

Policy should incentivize employers to make disclosures of pay ranges and pay practices to employees and the government.

Prohibiting employer retaliation against workers who discuss pay is not sufficient. Underpaid workers must still talk to their colleagues and raise the issue with their supervisor. This is often unlikely due to the taboo against salary discussions (Bierman and Gely 2004; Colella et al. 2007). Policy makers should therefore encourage employers to make affirmative disclosures of pay ranges and pay practices to employees and the government.

Many legal scholars have called for this kind of pay transparency to be mandatory, with University of Maryland School of Law’s Deborah Thompson Eisenberg arguing for it on the grounds that pay discrimination is a “market failure caused by insufficient and asymmetric information about the value of work” (Eisenberg 2011, 951). Requiring companies to report pay information would be a further step toward ensuring that firms are properly valuing and rewarding employees, leading to a more efficient labor market (Eisenberg 2011).

Yet another approach has been proposed in Iceland, where recently introduced legislation would require employers to conduct audits on whether men and women are being paid fairly on a regular basis, and would impose fines on companies that do not take steps to ensure men and women are paid equally (Alderman 2017).

Questions and Concerns

1. Why support worker access to information (pay transparency) while restricting employer access to information (salary history)?

Workers are often at a substantial disadvantage when bargaining with employers. This is particularly true for low-wage workers, who often do not have access to attractive alternative employment options that would provide them with leverage. Information about coworker pay can help enhance the bargaining power of such workers. Moreover, workers who are paid less than peers who do similar work—many of whom are women—will derive additional benefits from pay transparency.

Similarly, information about a worker’s pay history provides employers with their own source of leverage, allowing them to fine-tune their wage offer to ensure worker acceptance at the lowest possible cost. As discussed earlier in the proposal, this magnifies the impact of early career wage inequality and compromises worker bargaining power.

2. Would employers—particularly those in industries where consumer demand is difficult to predict—be unduly burdened by advance notice requirements and predictability pay for last-minute schedule changes?

It is true that some employers, due to the nature of their business, find it useful to abruptly alter employee shifts in response to changing economic conditions. Our proposal recognizes this and does not seek to entirely eliminate last-minute scheduling changes. Rather, the proposal would reallocate some of the costs of such scheduling practices. In cases where these practices are sufficiently valuable to the employer, they would remain even after the proposal is implemented. Importantly, the proposal would relieve workers of some of the burden of last-minute scheduling.

Conclusion

The proposed federal policies detailed in this paper would go a long way toward improving outcomes for women and all workers, thereby boosting the economy as well. Importantly, the policies must contain provisions for strict enforcement. Many labor laws rely on workers themselves to report violations, and private lawsuits are much more common than government investigations. This bottom-up enforcement is often insufficient given that many workers have well-founded fears about retaliation and are not willing to participate (Alexander and Prasad 2014).

The Obama administration outlined an agenda to improve labor law enforcement, which included a top-down approach of reaching out to industries or regions in which violations frequently occur, improving deterrence in those sectors, and clarifying boundaries of employment responsibility. The administration also ramped up outreach efforts around compliance and workers' rights and increased the number of investigators. And the EEOC's finalized initiative to collect pay data by race and gender will allow the EEOC to determine whether there are certain pay patterns for an employer, industry, or geographic region and potentially reveal where there is the need for enhanced scrutiny (U.S. EEOC 2016). The Trump administration is paring back these efforts (Meier and Ivory 2017).

In addition to strong enforcement, publicity and outreach campaigns are vital to the success of the proposals detailed in this paper. Evidence from state and local policies suggests that large groups of the population are unaware of worker protections, reducing their effectiveness (Appelbaum and Milkman 2011). Ensuring that these policies reach those they are intended to benefit is essential to producing better outcomes.

Endnotes

1. Among black workers, who make up 11 percent of the retail labor force, only 6 percent are managers; among Latino workers, who make up 16 percent of the retail labor force, only 8 percent are managers. This reality means that a disproportionate number of these workers are employed in associate positions that are subject to poor schedules, wages, and benefits. See Ruetschlin and Asante-Muhammad (2015).
2. San Francisco, Seattle, and Emeryville, CA all have all passed legislation which penalizes employers for not giving sufficient notice, and many other local governments are considering similar policies. Lawmakers on the federal level are building off the example of these cities and in 2015, introduced the Schedules That Work Act which addresses both on-call scheduling and predictability. See Boushey and Ansel (2016b) and Warren (2015).
3. Last year, the Obama administration issued a rule requiring employers to pay time-and-a-half to their employees who worked more than 40 hours in a given week and earned less than \$47,476 a year. A week before it was scheduled to take effect, however, a federal judge blocked its implementation. Had the overtime rule been enacted it would have given a raise—or more time—to 4 million workers, and would disproportionately help women, and especially women of color. With the new administration preparing to issue its own overtime ruling, ensuring that the income threshold is high enough to cover a larger share of workers is crucial for all workers', but especially women's, economic security.
4. While the bans in New Orleans, New York State, and Pittsburgh apply only to public agencies, bans in Delaware, Massachusetts, New York City, Oregon, Philadelphia, and San Francisco apply to all employers.

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Making Work Pay Better Through an Expanded Earned Income Tax Credit

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Abstract

The Earned Income Tax Credit (EITC) is a refundable tax credit that promotes work. Research has shown that it also reduces poverty and improves health and education outcomes. The maximum credit for families with two or fewer children has remained flat in inflation-adjusted terms since 1996. Over the same period, earnings prospects have stagnated or diminished for many Americans, and prime-age employment rates have fallen. This paper proposes to build on the successes of the EITC with a ten percent across-the-board increase in the federal credit. This expansion would provide a meaningful offset to stagnating real wages, encourage more people to enter employment, lift approximately 600,000 individuals out of poverty, and improve health and education outcomes for millions of children.

Introduction

The Earned Income Tax Credit (EITC), a refundable tax credit available to low- and moderate-income households, is an antipoverty program that works. A large and growing body of evidence shows that this credit increases employment, reduces poverty and near-poverty, and improves health and education outcomes. This impressive record has supported repeated bipartisan expansions of the EITC under every presidential administration since its creation in 1975.

Over the past several decades, earnings prospects have stagnated or diminished for lower-skilled workers, and prime-age employment rates have fallen. As a result, an EITC program that was designed to, in President Bill Clinton's words, "make work pay," must carry a larger burden (Clinton 1996). But despite the strong evidence for the effectiveness of the EITC and recent bipartisan expansions, the maximum EITC has been frozen in inflation-adjusted terms for most families since 1996, so the 25 million EITC families with fewer than three children haven't seen a real increase in more than 20 years. Ending this freeze and expanding the credit would help families and children whose living standards have stagnated in recent decades.

An EITC expansion would have broad reach, increasing after-tax income for many low- and moderate-income families, particularly single parents and their children. Importantly, there is no reason to suspect the positive effects of the EITC are exhausted at the program's current size. Based on the experience of previous expansions, an increased credit would increase earnings and after-tax income, reduce poverty and near-poverty, and encourage

work, all of which are goals shared across the political spectrum.¹ In addition, an expanded credit could yield additional long-run benefits through improved health, education, and economic circumstances for low- and moderate-income families.

We propose to expand the credit by 10 percent. An expansion of this magnitude is comparable to the EITC add-ons already implemented in many states. It would meaningfully supplement stagnating wages faced by lower-income workers: for a worker with two children, the expansion would offset 86 percent of the decrease in real earnings for full-time, year-round minimum-wage workers since 2000. Our proposal directs resources to low- and moderate-income households by maintaining the credit's current structure. Essentially all of the additional benefits would go to families below 300 percent of poverty, and more than 600,000 individuals would be lifted out of poverty. Of course, the proposal could be scaled to be even larger.² Importantly, our proposed reform can be a stand-alone change, and does not require a larger tax overhaul. Given bipartisan support for the credit and the relatively modest size of the increase, this proposal might be easier to accomplish than a modification of the program's structure.

The Challenge

Over the past several decades, employment prospects have deteriorated for many Americans, but especially for low-skilled workers. Between 2000 and 2016, the fraction of individuals ages 25 to 54 working or looking for work has fallen more than 3.0 percentage points for men and 2.4 percentage points for women (Bureau of Labor Statistics [BLS] 2001–16). While this decline represents a continuation of trends in male labor force participation since the 1960s, it stands in stark contrast to the increases in female participation, including among single mothers, observed in the second half of the 20th century.

Perhaps contributing to the decline in participation rates, the earnings prospects of lower- and middle-income workers have stagnated in the past several decades. For the population as a whole, real median income increased only 2 percent between 2000 and 2015 (Bureau of Labor Statistics 2001–16). Workers with less education have fared particularly poorly: real median income for high school graduates declined by 15 percent for men and 5 percent for women between 2000 and 2016. Among workers with some college experience but no degree, real median incomes declined by 13 percent for men and 12 percent for women over this period. These patterns are part of a longer-term trend: median incomes for workers with less than a four-year college degree have stagnated since the 1980s (Autor 2014).

The cause of the deteriorating labor market outcomes for low- and middle-skilled workers is a topic of much academic debate. Likely contributors include weakened worker bargaining power, decreases in the real value of the minimum wage, globalization, weak aggregate productivity growth, and changes in labor demand caused by technological change (Autor 2014; Council of Economic Advisers 2016; Krueger 2017). Regardless of what caused this deterioration, however, it is increasingly difficult for workers in the bottom half of the earnings distribution to support their families. There is thus growing interest in supporting these families either by intervening in market outcomes directly (e.g., by raising the minimum wage or offering paid family leave policies) or by supplementing market earnings via the EITC, SNAP (Supplemental Nutrition Assistance Program, or food stamps), child-care and education subsidies, and other interventions.

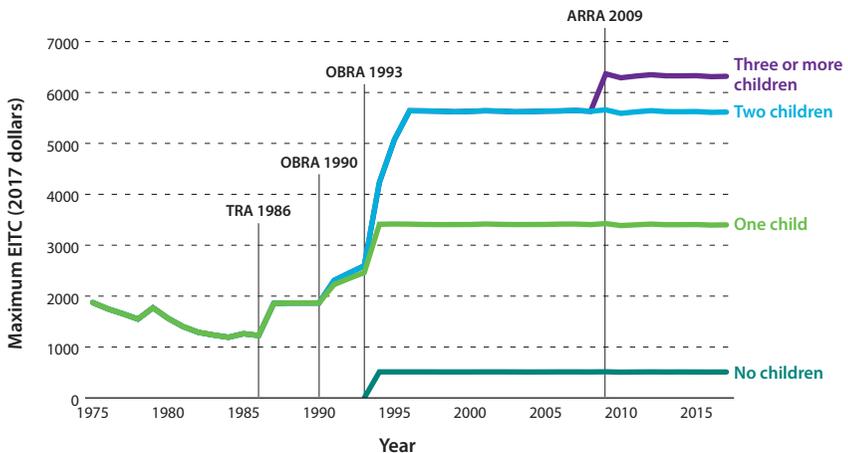
Background

The EITC was established in 1975 to increase the incentive for low-skill parents to work by offsetting the burden of payroll taxes and thus increasing their potential take-home pay. The credit was made permanent in 1978, and subsequently expanded in 1986, 1990, 1993, 2001, and 2009. Figure 1 shows the maximum credit following each reform for households with no children, one child, two children, and three or more children. As shown in the figure, the 1986 and 1990 reforms slightly increased the maximum credit. At that time, the EITC was limited to families with children and did not vary based on the number of children in the family. The 1993 reform introduced a small credit for workers without children and increased the credit for families with children, dramatically so for those with multiple children. Since those reforms were implemented, the maximum EITCs for families with zero, one, and two children have each remained unchanged in real terms, though families with three or more children saw an increase in 2009. In addition to these increases in maximum credits, the schedule relating family earnings to credit eligibility was made more generous for married couples in 2001 and 2009.

The cumulative effect of these changes has been to dramatically increase the reach of the credit. At the credit’s creation in 1975, about 6.2 million families received an average credit of about \$885 in 2014 dollars (Urban-Brookings Tax Policy Center 2015). By 2014, the EITC was a central part of the tax and transfer system, and 19 percent of all filers—about 28.5 million families—received an average of nearly \$2,400 (Internal Revenue Service [IRS] 2016). For households with children, receipt is even higher: 44 percent of these families receive some EITC payment (Hoynes and Rothstein 2017).

EITC expansions, along with other changes in the social safety net such as welfare reform, have modified the tax and transfer system to emphasize work. Refundable credits offset

FIGURE 1.
Maximum EITC by Family Structure, 1975–2017



Source: Urban-Brookings Tax Policy Center 2017.

Note: Legislation expanding the EITC as shown in the figure includes: the Tax Reform Act of 1986 (TRA 1986), the Omnibus Budget Reconciliation Acts of 1990 and 1993 (OBRA 1990 and OBRA 1993), and the American Recovery and Reinvestment Act of 2009 (ARRA 2009). Amounts adjusted for inflation with the CPI-U to 2017 dollars.

implicit marginal tax rates from the phaseout of other transfer programs, resulting in relatively low marginal tax rates for most low-income workers (Shapiro et al. 2016). Prior to the 1993 EITC expansion, a single mother earning the equivalent of the 2015 minimum wage, with two children, would keep less than half of those earnings if she moved from no work to full-time work (after accounting for the reduction in welfare and food stamps); in 2015, due to refundable tax credits, she would face a *negative* average tax rate—an income subsidy—of 34 percent (Hoynes and Stabile 2017). These refundable tax credits greatly increased the value of work for low-income individuals, particularly single mothers.

THE EITC EFFECTIVELY REDUCES POVERTY AND INCREASES EMPLOYMENT

Because the EITC reaches a maximum at relatively low income levels—the largest EITC credits generally go to families whose pre-EITC incomes are between 75 and 150 percent of the poverty line (Hoynes and Patel 2016)—the program is well-targeted to reducing the intensity and incidence of poverty and near-poverty. These antipoverty effects are best illustrated using the Census Bureau’s Supplemental Poverty Measure (SPM), a comprehensive measure of poverty that accounts for taxes and transfer payments. By this measure, the EITC lifted 6.5 million people, including 3.3 million children, out of poverty in 2015 (Center on Budget and Policy Priorities 2016). The EITC, along with the refundable component of the Child Tax Credit (a similar program that reaches higher into the income distribution), lifts more children out of poverty than any other federal program. For the entire population, only Social Security has a larger antipoverty effect (Renwick and Fox 2016).

The EITC is unlike most other antipoverty programs in that it is available only to families that work. Therefore, the credit increases family resources both by providing a tax credit and by encouraging individuals to enter the labor market. Indeed, a long literature provides robust evidence that the EITC succeeds in increasing employment, particularly among low-educated women and those workers with multiple children (Eissa and Hoynes 2011; Eissa and Liebman 1996; Hotz and Scholz 2003; Meyer and Rosenbaum 2001; and Nichols and Rothstein 2016, for reviews of the literature). Hoynes and Patel (2016) estimate that the EITC’s employment benefits magnify the above estimates of the program’s antipoverty effects, which do not account for employment changes, by up to 50 percent.

Alongside this work-promoting effect, economic theory predicts that the EITC could also lead some people—those who would have worked in any case—to cut their hours. However, there is little empirical evidence of this effect, particularly among single mothers (Chetty and Saez 2013; Eissa and Liebman 1996; Saez 2010).³ The only reductions in hours worked are found among married secondary earners, and in these couples the primary earners’ employment does not change (Eissa and Hoynes 2004). The decision *whether* to work, rather than *how much*, appears to be more important for EITC recipients.

Beyond their effect on labor supply, research also shows that EITC payments improve health outcomes. For example, Hoynes, Miller, and Simon (2015) find that low-educated mothers who receive an additional \$1,000 EITC during pregnancy are 2 to 3 percent less likely to have a low-birth-weight birth. This improvement does not arise through insurance coverage; rather, it is likely due to greater prenatal care and lower smoking rates during pregnancy. A long literature documents that birth weight is highly predictive of long-term economic and health outcomes into adulthood (Almond and Currie 2011; Currie 2011). In addition to

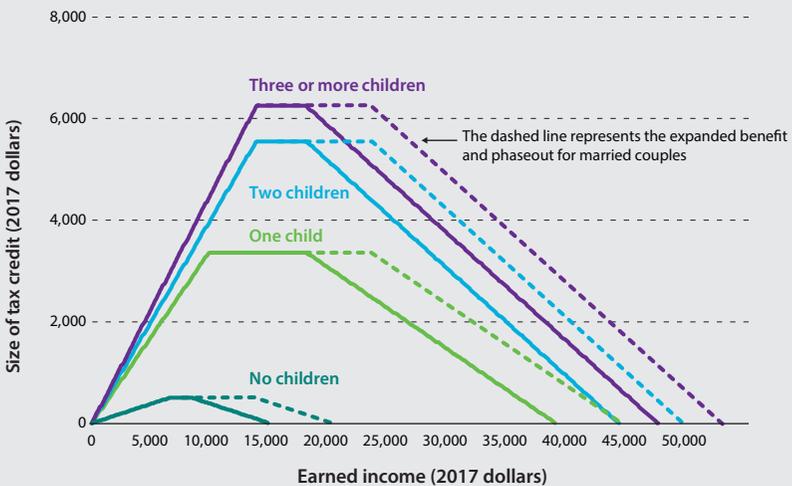
BOX 1.

The EITC Schedule

The EITC schedule has three regions, shown in box figure 1. The credit phases in from the first dollar of earned income to the first kink point, whose value ranges from \$6,670 in tax year 2017 for families without children to \$14,040 for families with multiple children. The phase-in rate depends on the number of children: families without children receive 7.65 cents of EITC credit per dollar earned, families with one child receive 34 cents, families with two children receive 40 cents, and families with three or more children receive 45 cents. From the first until the second kink point—\$8,340 in earned income for families without children and \$18,340 for families with children, plus an additional \$5,595 for married couples—families receive a flat maximum credit. The amount of the maximum credit also varies with the number of eligible children, ranging from \$510 for families with no children to \$6,318 for families with at least three children. For each dollar earned above the second kink point, the EITC is reduced by 7.65 cents for taxpayers without children, by 15.98 cents for families with one child, and by 21.06 cents for families with multiple children, until it is fully exhausted. Since the credit is refundable, families receive the full credit to which they are entitled, regardless of their tax liability. In 2013, 87 percent of total EITC benefits were received as tax refunds (IRS 2015).

BOX FIGURE 1.

EITC Schedule, Tax Year 2017



Source: Urban-Brookings Tax Policy Center 2017.

improving the health of children, Evans and Garthwaite (2014) find that greater EITC benefits also improve maternal health, both self-reported and as indicated by physical markers.

The EITC can also improve children’s educational outcomes. Among school-aged children, an additional \$1,000 in EITC payments leads to a 0.04 standard deviation increase in standardized test scores (Dahl and Lochner 2017). Since greater educational attainment translates to higher earnings in adulthood, schooling outcomes are a potentially powerful mechanism for the

BOX 2.

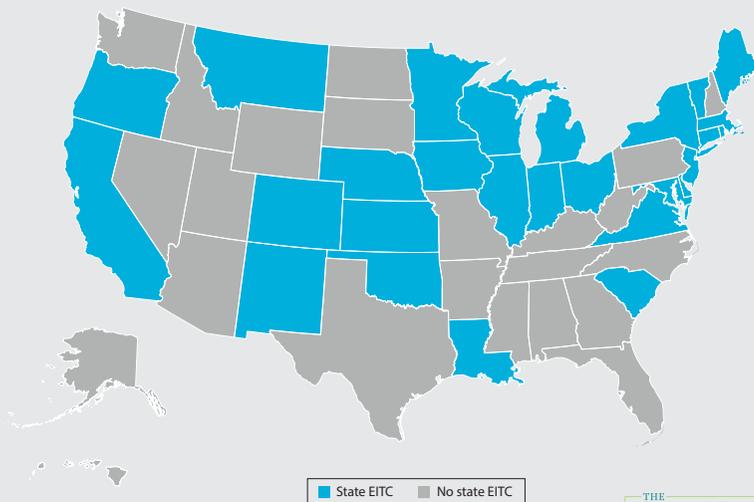
State EITCs

States have increasingly implemented their own earned income credits (box figure 2). Rhode Island was the first state to implement a state EITC in 1986; by 2017, 27 states plus the District of Columbia had credits. State credits are typically defined as a fraction of a family’s federal credit and vary in generosity from 3.5 percent in Louisiana to 45 percent for Wisconsin families with at least three children. While most state credits are refundable, similar to the federal credit, four states allow the state credit to count only against state tax liability.

To see how state credits augment the federal structure, consider the following example. Nebraska has a state EITC of 10 percent whereas Missouri does not have a state credit. A single mother earning \$20,000 with two children in Missouri would receive a \$5,572 EITC—the same as the federal credit—whereas her Nebraskan counterpart would receive \$6,129 ($\$5,572 + [10 \text{ percent of } \$5,572]$).

BOX FIGURE 2.

States with State EITCs, 2017



Source: Tax Credits for Workers and Their Families 2016

Note: Blue denotes states with a state credit.

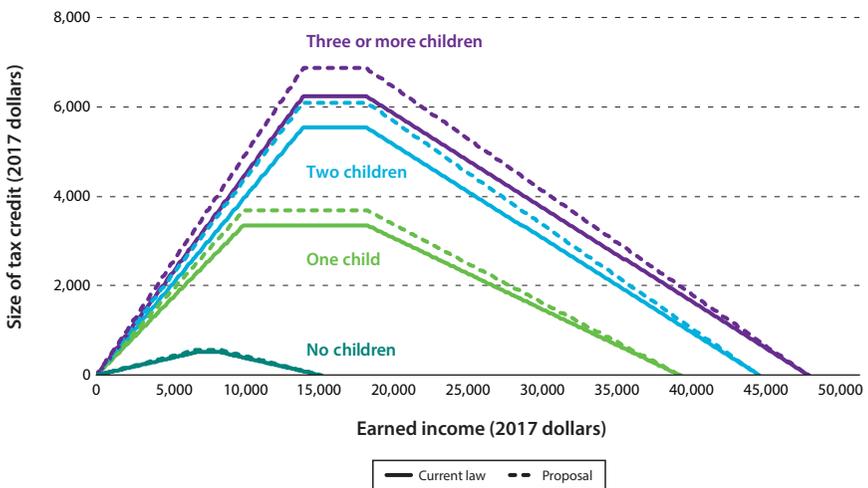
credit to have long-term benefits. Based on the overall association between test scores and adult earnings, a 0.04 standard deviation test score improvement translates into a 0.4 percent increase in earnings at age 28 (Chetty, Friedman, and Rockoff 2011). For older students, an additional \$1,000 EITC payment increases college enrollment by 0.5 percentage points (Manoli and Turner 2014; see also Bastian and Micheltore 2016; and Maxfield 2013).

Building on What Works

The EITC is a proven, pro-work, antipoverty program, and an expansion would be an improvement over the status quo. We propose a 10 percent across-the-board increase in the EITC. This would directly assist the 19 percent of all tax filers, and 44 percent of families with children, who currently receive the EITC (Hoynes and Rothstein 2017; IRS 2016). As shown in figure 2 and table 1, we would implement this increase by maintaining the current positions of each of the EITC kink points, but increasing the phase-in and phaseout rates by 10 percent. As a result, every current EITC recipient would receive a larger credit; those who do not currently receive the credit would not benefit absent changes in earnings.

The proposal leverages the existing targeting of the program. Table 2 shows it would increase the typical recipient family’s take-home pay by nearly \$250, with the largest average benefits going to families earning between \$10,000 and \$30,000 a year. For example, a single mother working full time, year-round at the federal minimum wage, with two children, would receive an additional \$560 under our proposal. This added income would make up for 86 percent of the decline in her real earnings since 2000. Since this proposal is a simple across-the-board expansion, policymakers could easily provide a larger offset to stagnating wages by implementing an even larger expansion.

FIGURE 2.
Current and Proposed EITC



Source: Urban-Brookings Tax Policy Center 2017; authors’ calculations.

Note: Figure displays credit amounts for single filers and heads of household.

TABLE 1.
EITC Schedule under Current Law and Proposal

EITC: Current Law and Proposed Reform, Tax Year 2017						
	Credit rate (percent)	Minimum income for maximum credit	Maximum credit	Phaseout rate (percent)	Phaseout range	
					Beginning income	Ending income
No children						
Current law	7.65	\$6,670	\$510	7.65	\$8,340	\$15,010
Proposal	8.42	\$6,670	\$561	8.41	\$8,340	\$15,010
1 child						
Current law	34	\$10,000	\$3,400	15.98	\$18,340	\$39,617
Proposal	37.4	\$10,000	\$3,740	17.58	\$18,340	\$39,617
2 children						
Current law	40	\$14,040	\$5,616	21.06	\$18,340	\$45,007
Proposal	44	\$14,040	\$6,177	23.17	\$18,340	\$45,007
3 or more children						
Current law	45	\$14,040	\$6,318	21.06	\$18,340	\$48,340
Proposal	49.5	\$14,040	\$6,949	23.17	\$18,340	\$48,340

Source: Urban-Brookings Tax Policy Center 2017; authors' calculations.

TABLE 2.
Distribution of Benefits, by Adjusted Gross Income

Adjusted gross income (thousands)	Number of tax units (thousands)	Tax filers with benefit (percent)	Tax filers without benefit (percent)	Share of total benefit (percent)	Average benefit for those with any benefit
< \$10	24,087	32	68	13	\$124
\$10–\$20	23,621	43	57	47	\$328
\$20–\$30	18,881	29	71	27	\$349
\$30–\$40	14,600	26	74	10	\$187
\$40–\$50	11,473	12	88	2	\$95
> \$50	55,946	0	100	0	\$27
All	148,607	19	81	100	\$246

Source: Authors' calculations based on IRS 2016 Table 1.1 and 2.5.

Note: Credit dollars adjusted for inflation with the CPI-U to 2017 dollars. Percent of tax filers with AGI greater than \$50,000 is 0.1 percent and was rounded to zero.

An across-the-board increase for current recipients would preserve the targeted nature of the current credit and enhance its antipoverty effects. The vast majority—97 percent—of the benefits would go to families living below 300 percent of the SPM poverty line. We estimate that this expansion would lift more than 600,000 people, including 300,000 children, above poverty as measured by the SPM. (Again, this does not account for positive employment

responses, which would further raise incomes.) For single and married families of all sizes, the benefits are concentrated among those with incomes between 100 and 150 percent of poverty. As with the current-law EITC, the shares of benefits going to very-low-income families (below 50 percent of poverty) and higher-income families (above 300 percent of poverty) are relatively small (Hoynes and Patel 2016).

Our proposed expansion maintains the EITC's existing structure, strengthening the incentives created by the EITC to move from non-work into employment. This feature of the EITC provides additional increases in income and reductions in poverty not captured in our analysis. Moreover, it makes expanding the EITC a particularly appealing policy in light of declining labor force participation rates among prime-aged workers.

No transfer program is without unintended consequences; however, those of the EITC are less of a concern than most. Where many programs induce potential recipients to exit the labor force, the EITC has an opposite, positive effect. Unintended consequences of the EITC come in the form of reduced (pretax) wages, which are bid down by increased competition among workers seeking jobs (Leigh 2010; Rothstein 2008, 2010).⁴ This effect is smaller than the EITC payment itself, so the credit increases recipients' total post-tax wage and income (Nichols and Rothstein 2016). Moreover, the evidence suggests that this effect is relatively small, and thus that the EITC is more efficient than other options for poverty relief.

The benefits of an EITC expansion extend beyond increased employment and immediate poverty reduction. For example, reducing the incidence of low-birth-weight infants reduces future medical costs and improves later-life outcomes (Almond and Currie 2011; Currie 2009). An increase in the EITC is also expected to improve student performance, which in turn increases college enrollment, educational attainment, and ultimately earnings in adulthood.

Experiences with state credits suggest that a 10 percent increase is a realistic expansion. Of the 27 states and the District of Columbia offering a state add-on EITC in 2017, the typical state credit was about 15 percent of the federal credit (box 2), and 20 of these jurisdictions provided a credit at least as large as the current proposal.⁵ Since most state credits are defined as a fraction of the federal credit, claimants living in states with add-ons would receive even larger total EITC (state plus federal) payments under our proposal. Using the example from box 2, a single mother with two children who earns \$20,000 a year currently receives a federal credit of \$5,572. Under our proposal, she would receive an additional \$557 for a total credit of \$6,129. If this mother lived in Missouri, which has a state credit of 10 percent, her total EITC (state plus federal) payment would be \$6,129 before our increase (\$5,572 in federal credit and \$557 from the state); under our proposal the payment would rise to \$6,741 (a \$557 increase in the federal credit and a \$55 increase in her state EITC payment).

Our proposed expansion would cost the Treasury approximately \$7.0 billion a year, or roughly 10 percent of current expenditures on the EITC. We view this cost as modest relative to the potential benefits. It is most attractive to obtain the needed funds from the highest earners, whose earnings and incomes have increased substantially over the past several decades (Piketty and Saez 2016). There are a number of ways to do this, including raising tax rates or using base-broadening measures such as limits on tax loopholes and deductions that benefit the highest-income families.

Questions and Concerns

1. Will this proposal benefit firms at the expense of workers?

Like any tax or subsidy, the extent to which the EITC is passed through to employers depends on the relative sensitivity of firms' hiring decisions and workers' labor supply to the wage (i.e., the relative elasticities of labor supply and labor demand). While the benefits of the EITC might be shared between workers and firms (Eissa and Nichols 2005; Leigh 2010; Rothstein 2008, 2010), coupling this proposal with a robust minimum wage will help ensure that most of the wage benefits accrue to workers.

2. Will a higher maximum credit and phaseout rate discourage work?

Economic theory predicts that individuals in the plateau and phaseout ranges will reduce their number of hours worked, while still engaging in the labor force. For most groups, however, there is no strong empirical support for this prediction. A long literature examining the labor supply of single mothers finds no reduction in hours worked among those already in the labor force. While some secondary earners in married couples could reduce their hours, findings from previous expansions suggest these reductions would be small (Eissa and Hoynes 2004).

3. How would the proposed expansion be financed?

The benefits of our proposed expansion are large relative to the costs to the Treasury and could be financed through a variety of means, including general revenues. A natural choice would be to finance the expansion through increased revenue from higher-income households. For example, this could be accomplished by limiting loopholes and deductions that disproportionately benefit the highest-income taxpayers.

Conclusion

The EITC is a proven antipoverty, pro-work program. Over the past 40 years, the credit has helped many single parents enter the labor force and has reduced poverty for millions of families and children. This proposal builds on these successes and offers the first real EITC increase in more than 20 years for single households with two or fewer children.

The benefits of this expansion would be broadly shared among lower-income families, with the overwhelming majority of benefits accruing to families below 300 percent of the poverty line. As with previous EITC expansions, this proposal also has an important antipoverty effect. We estimate it would lift more than 600,000 individuals out of poverty and improve health and education outcomes for millions of children. Nevertheless, while this expansion would help raise after-tax incomes for millions of families, it is not a panacea for stagnating wages and decreasing labor force participation. Other policies, many of which are discussed in this series, such as affordable child care and paid family leave, are complementary solutions to encourage labor force attachment and to increase incomes for working Americans.

Endnotes

1. For example, the 2017 *Economic Report of the President* states, “Labor force participation, particularly for many workers in their prime working years, has been declining for decades, a key challenge for the U.S. labor market in the years ahead. And while real wage growth has picked up in recent years, more work remains to reverse decades of limited income growth for many middle-class families” (Council of Economic Advisers 2017, 25). The House budget proposal for fiscal year 2017 measured success by “how many more Americans are getting a job, higher wages, and, when government must be involved, better outcomes” (U.S. House of Representatives 2017, 7).
2. Ours is not the first recent proposal to expand the EITC. Other proposals have advocated a relatively larger credit for either families with one child (Hoynes 2015) or childless workers (Office of Management and Budget 2014; Scholz 2007; U.S. House of Representatives 2014). Our proposal is rooted in the recognition that the current structure responds to real differences in needs between families with different numbers of children, and does not modify the relative generosity of the credit for different recipients.
3. Saez (2010) finds some evidence of bunching at the lowest earnings that qualify a family for the maximum credit, a result that is consistent with intensive margin responses. However, his analysis shows that this bunching occurs only among filers with self-employment income, for whom it might simply reflect reporting behavior rather than actual labor supply effects.
4. Whether this finding is cause for concern depends on policymakers’ priorities between increasing employment and incomes. On one hand, if employers receive part of the wage subsidy, the EITC increases labor demand and boosts overall employment. Policymakers concerned with depressed wages, particularly for those ineligible for the credit, should combine an EITC expansion with a minimum wage increase in order to set a floor on pretax wages (Lee and Saez 2012).
5. Wisconsin and California are included in this list. Wisconsin provides at least a 10 percent add-on for families with multiple children. Families with one child receive a 4 percent additional credit. California’s credit is available to families with income below approximately the beginning of the federal EITC schedule plateau.

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Tax Policies to Encourage Women's Labor Force Participation

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Abstract

The current tax treatment of married couples reduces wives' labor force participation and creates other inefficiencies. I propose a new second-earner deduction, equal to 15 percent of the earnings of a lower-earning spouse. The proposed deduction would raise the after-tax return to work for many wives, encouraging an increase in married women's labor supply, and would reduce marriage penalties on average.

Introduction

It is well known that women earn less than men. In the first quarter of 2017, median weekly before-tax earnings for women were 80.5 percent of median weekly earnings for men (Bureau of Labor Statistics [BLS] 2017).

It is less well known that the gap between women's earnings and men's earnings would be even larger if measured in after-tax terms instead of before-tax terms. Ordinarily, the progressive income tax system acts to mitigate differences in before-tax earnings. However, the tax treatment of married couples tends to raise the tax rate faced by the spouse who is the lower earner in a couple. This group of spouses, often referred to as secondary earners, is still predominantly female.¹ This gender difference in the after-tax return to working is likely more important than the before-tax difference for decisions about whether to work and for household well-being. In addition to causing an inefficient distortion in the labor supply decisions of men and women, the current tax treatment of married couples lowers married women's labor force participation and impedes their labor market progress relative to men. In this paper, I propose changes in the tax treatment of married couples that would address these problems by reducing the tax penalty incurred by many married women.

Policy makers have long grappled with the challenges of designing the best possible tax system for families. There is an inherent tension between three objectives policy makers might seek in taxing the family. The first objective is progressivity, or the levying of a higher tax on families with a greater ability to pay. The second objective is equal treatment of households with equal ability to pay. The operational definition of "ability to pay" has traditionally been taxable income, which excludes the value of any nonmarket home production (e.g., caring for the family's children or preparing meals for the household). The third objective is marriage neutrality, or the idea that the amount of tax a couple pays should not depend on the couple's marital status. In other words, the tax code should

avoid creating “marriage penalties,” in which members of a married couple pay more filing jointly than they would filing as two unmarried individuals. My primary focus in this paper is to consider tax changes that would increase female labor force participation rates. However, I will also discuss how proposed reforms would alter the tax system’s ability to tax progressively, to provide equal tax treatment of families with equal ability to pay, and to move away from a marriage tax penalty.

Since 1948 the United States has used a policy of joint taxation, taxing a married couple as a unit on the basis of the combined income of husband and wife. By making a wife’s tax rate dependent on her husband’s earnings, joint taxation raises wives’ tax rates, on average, and reduces their labor supply. Joint taxation, in conjunction with other elements of the tax code that vary with marital status, also creates many violations of marriage neutrality. While joint taxation was once lauded as a step toward equal treatment of households with equal ability to pay—because it considers only the total income of the couple and does not account for its distribution across earners—this interpretation does not hold when the value of household nonmarket production is incorporated into measures of ability to pay (Apps and Rees 2011). For example, a household with one spouse not participating in the labor market and one full-time employee earning \$50,000 is likely better off than a household with two full-time employees each earning \$25,000. In the former case, the nonemployed spouse is typically able to generate considerably more nonmarket production that benefits the household—such as child care and home cooking—than can be provided when both spouses work.

In this paper I propose a second-earner deduction that would be added to the existing tax code. Two-earner couples would reduce their taxable income by an amount equal to 15 percent of the earnings of the lower-earning spouse. A second-earner deduction would raise the after-tax return to work for many married women, and would also reduce marriage penalties on average. It would go part of the way toward addressing concerns that households with two earners have lower effective ability to pay.

There is historical precedent for such a policy. Between 1981 and 1986 a secondary earner deduction was in place (Feldstein and Feenberg 1996). It was eliminated not because of particular concerns about the design of the deduction, but rather as part of the large set of reforms associated with the Tax Reform Act of 1986. A second-earner deduction also has the potential to garner bipartisan support. A modest second-earner tax credit was included in the last budget proposed by the Obama administration (U.S. Department of the Treasury 2016), and policies to reduce marriage penalties in the tax code have historically been championed by Republicans (Zelenak 2000). In addition to discussing these issues in my proposal, I also briefly describe some considerations related to a more radical change: a switch away from joint taxation.

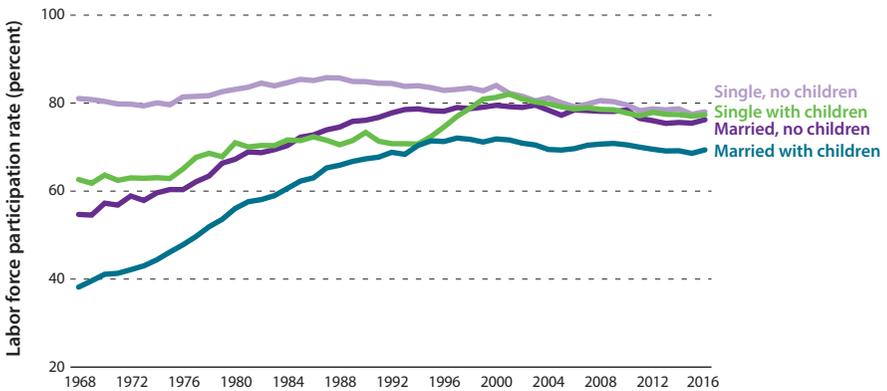
The Challenge

Both marriage and children affect a woman’s propensity to work. Figure 1 plots nearly 50 years of labor force participation rates for married and unmarried women with and without children under 18 in the household; all the women are between the ages of 25 and 54. Throughout the entire period, married women have had lower rates of labor force participation than unmarried women. However, the size of the participation gap between groups has varied over time. From the late 1960s until the late 1980s, women’s participation

rates rose regardless of marital status and presence of children in the household. The rate of increase was greater for married women than for unmarried women, and by the early 1990s married women with and without children were participating at similar or higher rates than single women with children, respectively. Over the course of the 1990s, though, labor force participation of unmarried mothers rose significantly. This well-documented increase reflected a number of policy changes, notably including welfare reform and the expansion of the Earned Income Tax Credit (EITC; Meyer and Rosenbaum 2001). Since around the year 2000, labor force participation rates have been stagnant or on a slow decline for all four groups of women. Today, the participation rate remains substantially lower for married women than for unmarried women, and the policy recommendations made in this paper are motivated by this pattern.

Under the joint taxation system currently used in the United States, the incomes of a husband and wife are pooled and then taxed using a set of tax brackets wider than the brackets for unmarried individuals. An alternative, used in a majority of developed countries, is a system of individual taxation.² Under individual taxation, a woman earning a low amount will be taxed at a low rate. Assuming a progressive rate structure, her tax rate will rise as her earnings increase. By definition, any direct effect that the tax system has on her decision to work is independent of her husband's earnings. In contrast, under joint taxation the income tax rate that a woman faces depends on her husband's earnings. Specifically, the tax rate on the first dollar of her earnings is the same as the tax rate on her husband's last dollar of earnings. Assuming a progressive rate structure, this pushes women—even those with limited earnings—up into higher tax brackets and likely discourages labor market

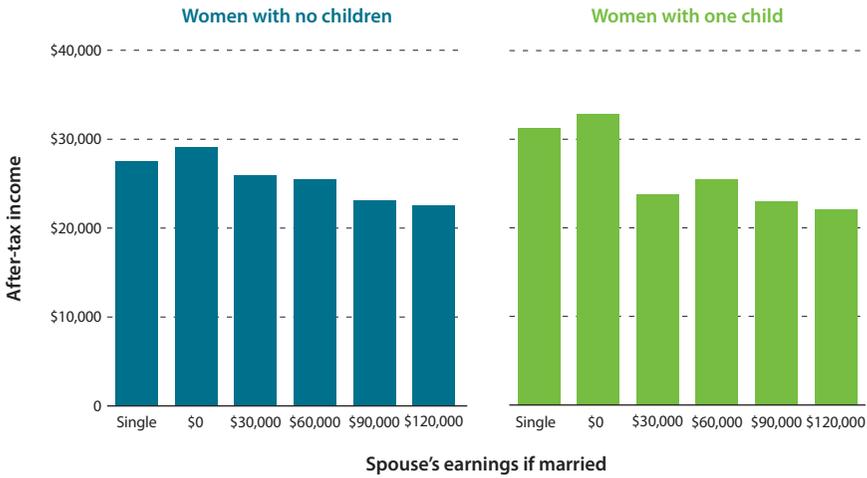
FIGURE 1.
Prime-Age Women's Labor Force Participation, by Marital Status and Presence of Children under Age 18



Source: Current Population Survey Annual Social and Economic Supplement 1968–2016.

Note: Sample includes women ages 25–54. “Married” is defined by women who have a spouse in the household or not in the household. “Single” is defined as all other women, including divorced and widowed women. “With children” is defined as having at least one child in the household under the age of 18. “No children” is defined as having no children in the household under the age of 18.

FIGURE 2.
Women’s After-Tax Income from \$30,000 Job, by Spouse’s Earnings and Presence of Children



Source: Author’s calculations.

Note: Calculations reflect 2016 tax law and do not incorporate state income or federal payroll taxes.



participation. The policy proposals discussed here attempt to mitigate this effect, removing impediments to work for many married women.

Figure 2 shows how the current tax system affects the after-tax return to working for women in various situations. For example, consider a woman who is deciding if she should take a job with before-tax pay of \$30,000. The figure shows the after-tax net income she will receive if she takes the job, depending on her marital status and, if she is married, depending on her husband’s before-tax income. Importantly, the after-tax return from taking a job is lower for a woman who would become the lower earner within a married couple than for an otherwise similar single woman.

The left-hand portion of the figure shows after-tax income for a woman with no children. If she is single, taking the job will move her from being a non-filer, with no tax liability, to being a taxpayer with a filing status of single. After claiming a standard deduction and paying tax on her income, taking the job will yield an after-tax income of \$27,516. If she is married, she will use a filing status of married filing jointly, with a higher standard deduction. If her husband has no income, taking the job will yield an after-tax income of \$29,070; this has the effect of raising the after-tax return to entering the workforce. For women who would be the sole earner in their households, the tax treatment of married couples therefore raises the after-tax return to labor market participation. But relatively few women in partnered households are sole earners.³ The next bar in the figure shows that, if the woman is married to a man earning \$30,000 in before-tax income himself, taking the job nets the woman only \$25,963. As the husband’s income rises, the wife’s after-tax return from taking the job falls still farther.

The right-hand portion of figure 2 shows equivalent calculations for a woman with one child. The same basic pattern is evident here: marrying a man with zero earnings raises the return to taking a job, while marrying a man with significant positive earnings reduces the after-tax return to work. As in the previous case, the deterioration in work incentives is larger when the husband earns more. What is different here, relative to the childless case, is that married couples with household income near \$30,000 are receiving the EITC. This credit functions as a wage subsidy at low levels of earnings, allowing a job with before-tax pay of \$30,000 to yield an after-tax amount greater than \$30,000. The credit amount gradually increases with earnings over a phase-in range, remains constant at the maximum credit amount as earnings increase within the plateau range, and then gradually falls with earnings over the phaseout range. The phaseout of the credit creates high marginal tax rates at certain income levels, and is evident in the very large decline in the after-tax return received by a wife when her husband's earnings increase from \$0 to \$30,000.

A New Approach

SHORT-TERM SOLUTION: SECOND-EARNER DEDUCTION

One way to increase wives' after-tax gain from entering the labor market would be to institute a tax deduction based on the earnings of a second worker in a married couple. Here I consider a deduction equal to 15 percent of the earnings of the lower-earning spouse in a married couple, up to an earnings cap of \$75,000. This corresponds to a maximum deduction of \$11,250. Married couples with two earners would be able to reduce their taxable income by the amount of the deduction, making work more attractive for second earners. The corresponding tax savings would be equal to the amount of the deduction multiplied by the couple's marginal tax rate. For example, consider the case of a wife who can take a job with before-tax earnings of \$30,000. Suppose her husband earns just over \$30,000. The wife's prospective earnings would make her household eligible for a second-earner deduction of \$4,500. This couple would be in the 15 percent tax bracket, and claiming the second-earner deduction would reduce their tax liability by 15 percent of \$4,500, or \$675. In other words, the net gain that the wife would receive from entering the work force would increase by \$675.

The proposed deduction would depend on the earnings of the lower-earning spouse within a married couple, without an explicit reference to gender, and would be available to same-sex couples who file jointly. Because wives earn less than husbands on average, the majority of couples claiming a second-earner deduction would designate the wife as the second earner. For tax year 2010, among joint returns that included wage income generated by both the husband and the wife, the wife earned less than half of the couple's combined wage income in approximately 68 percent of cases (Pierce and Gober 2013).

Like any tax deduction, the proposed second-earner deduction would be of greater benefit to families facing a higher marginal tax rate. Extending the earlier example, suppose that the wife considering a job with before-tax pay of \$30,000 is now married to a husband with earnings of \$120,000. This places the couple in the 25 percent tax bracket. In this scenario, the second-earner deduction would lower the tax liability of the couple (and raise the wife's net return from entering the labor market) by 25 percent of the \$4,500 second-

earner deduction, or \$1,125. This feature of the deduction reduces the progressivity of the tax code somewhat. On the other hand, figure 2 shows that the wives who currently face the lowest after-tax gain from entering the labor market are those married to higher-earning husbands. These wives face particularly high tax rates on their first dollar of income precisely because their husbands' earnings place them in high tax brackets. A deduction delivering greater tax savings to wives facing higher marginal tax rates mitigates this particular pattern.

The extent to which a second-earner deduction affects the overall progressivity of the tax code depends in part on how the deduction is phased out. I propose a phase-out beginning at an adjusted gross income (AGI) of \$150,000. This means that a couple in which each spouse earned \$75,000 in wage income (with no other income) would receive the maximum deduction. The deduction rate would then be reduced by one percentage point for every \$2,000 of AGI above \$150,000, so that the deduction is fully phased out for couples with AGI of \$180,000 or more. Internal Revenue Service (IRS) data from tax year 2014 show that slightly more than 10 percent of joint filers report AGI of \$200,000 or more (IRS 2014). Thus, this particular phase-out rule would make the second-earner deduction unavailable to couples in the top 10 percent of the joint filer income distribution.

The proposed deduction would be of limited benefit to the lowest-income filers. A deduction reduces the tax liability only of filers with positive taxable income. Couples with combined income less than the standard deduction plus personal exemption amounts do not have positive taxable income and would not be able to claim a second-earner deduction, and couples with positive but very low amounts of taxable income would be able to claim a second-earner deduction only as large as their taxable income.⁴ It is worth noting that these low-income families would not see any reduction in their EITC as a result of the new second-earner deduction: the EITC benefit amount would continue to be calculated as a function of all earned income. Importantly, married couples with children who are currently in the phaseout portion of the EITC, for whom the current tax code poses a particularly strong disincentive to work, would earn enough to benefit from the proposed second-earner deduction.

Under the proposal, both wage income and earnings from self-employment would be treated as earned income for purposes of calculating the second-earner deduction.⁵ There are two arguments for treating self-employment income in this way. First, the EITC definition of earned income includes self-employment income. Needless complexity can be avoided by using a parallel definition for a new earnings-related tax provision. Second, self-employment could be a particularly attractive form of labor market participation for women, especially mothers, who value scheduling flexibility (Lim 2016).

In addition to encouraging female labor force participation by raising the after-tax return to wives' entry into the labor market, a second-earner deduction would have implications for the pattern of marriage penalties and marriage bonuses. As of 2009, approximately 38 percent of married couples faced a marriage penalty. Marriage penalties are more common for two-earner couples than for one-earner couples, with penalties becoming more likely as the earnings of a husband and wife become more similar (Alm and Leguizamon 2015). The introduction of a second-earner deduction would reduce the share of couples experiencing a marriage penalty. Furthermore, its design would direct larger tax savings to couples who are currently most likely to pay a marriage penalty.

FUTURE AGENDA: INDIVIDUAL TAXATION

In the long run there would be advantages to switching away from joint taxation of married couples, instead taxing each individual on the basis of his or her own income regardless of marital status. Other countries—such as the United Kingdom in 1990—have switched from joint to individual taxation, and a majority of OECD nations currently use individual taxation. However, there are legal issues that would make the transition process difficult, and there are administrative issues that would present challenges even after a successful transition.

One important advantage of adopting individual taxation is that married women's labor force participation rates would very likely rise. Severing the link between a husband's income and a wife's tax rate will lower wives' tax rates, on average, and increase their net return to entering the labor market. Evidence from policy changes in a number of countries, with very different institutional contexts, consistently indicates that wives' labor supply is greater under individual taxation than under joint taxation. Such policy reforms have been studied in the cases of Canada (Crossley and Jeon 2007), the Czech Republic (Kaliskova 2014), Sweden (Selin 2014), and the United States (LaLumia 2008). A second advantage would be that individual taxation would remove any tax-related distortions of the decision to marry because all tax-related marriage penalties and bonuses would be eliminated.

The path toward adopting individual taxation in the United States holds one major legal roadblock, rooted in state legal treatment of the income and assets of a married couple. States with a community-property legal regime treat all income and property acquired during marriage as shared equally between husband and wife. States that instead follow a common-law regime assign income to the spouse who earned it. Under a federal system of joint taxation, state-specific allocation of income across spouses does not matter for federal tax liability. In contrast, under a federal system of individual taxation a married couple's tax burden would depend on the state's legal assignment of income.⁶ Two couples with exactly the same division of income across spouses could be taxed differently if one lived in a community-property state and one lived in a common-law state. Geographic discrepancies in tax treatment of married couples provided an important impetus for the adoption of joint taxation in 1948, and would again be a problem under a return to individual taxation.

If substantial legal changes were made and federal income tax could be collected on an individual basis across states with different legal treatment of marital property, there would still be many administrative questions to be resolved. Several of these questions involve appropriate allocations of income and expenses between spouses. The idea that income should be allocated to the person who receives that income is straightforward to apply, and to enforce, in the case of wage income. Wage income would be allocated to the spouse who earned it, and the IRS could verify who is earning what, using the third-party reports of wage income filed by employers on W-2 forms. Self-employment income and income derived from asset ownership (such as interest and dividend payments) would present more difficulties. Couples could reduce their combined tax liability by assigning these types of income to the spouse facing the lower marginal tax rate.⁷ The IRS could reduce its administrative burden by adopting a rule that nonwage income be split evenly across spouses for tax purposes. A similar rule could be applied to deductible expenses. Importantly, these concessions to practical necessity could be made without eliminating the core benefits of individual taxation for women's labor force participation.

Questions and Concerns

1. Could a second-earner deduction be modified to make it more progressive, delivering more of its benefits to low-income families?

Yes. The benefits of a second-earner deduction could be more targeted to low- and moderate-income households by phasing out the deduction at a lower level of income. For example, Kearney and Turner (2013) outline a second-earner deduction that would reach its maximum value for a spouse earning \$60,000 and that would be phased out starting at a household income of \$110,000.

2. This proposal doesn't do anything to promote the labor force participation of unmarried women. Why limit the focus to those who are married?

Married women face larger tax-related disincentives to work than do unmarried women. The current proposal attempts to target a tax-related solution to the population currently facing the largest tax-related distortions. This proposal could be paired with other policy reforms outside the tax code that promote labor force participation more broadly.

3. Why propose a second-earner deduction rather than a second-earner refundable tax credit?

Unlike deductions, refundable credits can be of benefit to the poorest tax filers—those with zero taxable income. I have chosen not to propose a refundable credit to prioritize the objective of increasing labor force participation over the objective of increasing progressivity. The refundable EITC already provides a powerful work incentive to individuals (particularly parents) at the lower end of the income distribution. The goal of my proposal is to extend work incentives to a different set of individuals.

4. The benefits of a tax deduction are typically received in a lump sum at the time of tax filing. Are there ways to alter the policy so that second earners would receive the benefits as higher take-home pay spread over the course of the year?

When workers start a new job, they complete a W-4 form with instructions about how much tax should be withheld from paychecks during the year. This form already includes a place to report marital status. It would be relatively easy to add a question about whether one's spouse is employed, and withholding could then be adjusted for two-earner households. I would recommend adjusting withholding as if a taxpayer is in the lowest tax bracket. This would ensure that the lowest-income households receiving the deduction, likely those who will benefit the most from having benefits spread over the year, will have most of their benefit delivered in the form of higher take-home pay during the year.

5. What about a system in which couples choose between joint and individual taxation? For example, Washington, DC, uses a single set of tax brackets that does not distinguish by marital status. Married couples can choose to report and pay taxes on their combined income, or they can choose to have each spouse taxed individually.

This is an intriguing possibility that has the potential to both increase wives' incentive to work and reduce marriage penalties. Less desirable is the potentially greater compliance burden of couples figuring out which approach is best for their situation. Additional discussion of the District of Columbia system is provided by Rivers (2013).

Conclusion

When joint taxation was adopted in the United States in 1948, it likely did not have quite the same implications that it has today. With changes in the social norms regarding employment of women, and employment of mothers in particular, taxes imposed on the income of a second earner might have become a relatively more important influence on labor supply. Moreover, given the variation across households in nonmarket home production, providing tax relief to households with two working spouses could help achieve a more equitable tax system.

These trends make it especially important to revisit the question of how families are taxed. The adoption of a second-earner deduction would raise the after-tax wages of married women, increasing wives' labor force participation rates while moving the tax system closer to other worthwhile goals. The largest benefits of the deduction would go to wives currently facing large tax-based disincentives to enter the labor market. The deduction would not be particularly difficult to administer as part of the existing tax code. Indeed, there is a precedent for this sort of policy in the U.S. tax system, and both Democrats and Republicans have supported similar policy ideas in the past. This policy will not solve all of the problems related to the tax treatment of families, nor will it be enough to overcome all of the barriers that prevent many women from entering the labor market, but it is a step in the right direction.

Endnotes

1. Tax return data from 2010 show that, among married couples reporting some wage income and filing jointly, in approximately two-thirds of cases the husband earns more than half of the couple's total wage income (Pierce and Gober 2013).
2. See Alm and Melnik (2005) for a detailed discussion of how families are taxed in 30 OECD countries. Only seven of these countries, including the United States, mandate joint filing for married couples. Married couples can choose to file jointly or individually in six countries. The number of countries using joint taxation has fallen over the past 50 years.
3. Data from the Pew Research Center (2015) show that in 2012, among married couples with children under age 18, the husband was the sole earner in 31 percent of cases and the wife was the sole earner in only 6 percent of cases.
4. In 2016 the standard deduction for joint filers was \$12,600 and the personal exemption was \$4,050 for each household member under age 65. Thus, a second-earner deduction would not provide tax relief to childless married couples earning under \$20,700 or to married couples with one child earning under \$24,750.
5. However, eligibility would be restricted to second earners who work for an employer other than their spouses, to avoid the possibility of tax-minimizing transfers within couples.
6. Two Supreme Court cases establish how state marital property regimes affect federal tax collection. In *Lucas v. Earl* the court considered a couple living in a common-law state who had written a contract transferring income earned by one spouse to the other. The court ruled that this contract did not shift the federal tax obligation from the income earner to the income recipient. In other words, the legal ability of couples in common-law states to shift income across spouses in a tax-minimizing way is limited. In *Poe v. Seaborn* the court ruled that a couple living in a community-property state could report income acquired during marriage as being split equally across spouses, and be taxed accordingly. This generates an income-splitting advantage for married couples in community-property states.
7. In the case of notoriously difficult-to-verify self-employment income, couples could simply report the tax-minimizing allocation of income across spouses, with low probability of misreporting being detected. In the case of asset-derived income, assets could be easily transferred from the spouse in the higher tax bracket to the spouse in the lower bracket. Stephens and Ward-Batts (2004) find evidence of such transfers in the United Kingdom after its switch to individual taxation.

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Increasing the Economic Security of Older Women

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Abstract

Disability and widowhood are major drivers of economic insecurity for women later in life. To reduce the risk of economic insecurity among older women, we propose to allow Social Security beneficiaries to forgo some benefits when claiming to finance greater benefits in the event of widowhood, disability, or both. The proposed changes would be voluntary and self-financing.

Introduction

Popular commentary often points to the lower lifetime earnings and longer expected life spans of women relative to men as a reason to be especially concerned about the economic risks women face as they age. Indeed, women aged 65 and older are twice as likely as their male counterparts to live in poverty. However, that economic vulnerability is tied to specific factors—being or becoming single and/or experiencing disability—rather than a product of aging generally. We therefore argue that policies designed to mitigate economic insecurity among older women should be linked to these factors. We offer two proposals for reforms to the Social Security program to mitigate economic insecurity among women in old age.

The first proposal is to allow married couples to choose a modified schedule of Social Security benefits that would reduce payments while both spouses are alive but limit the drop in benefits after one spouse dies. The second proposal is to use the Social Security system to provide a form of long-term care insurance (LTCI), allowing new Social Security recipients to elect lower payments when they are younger in exchange for supplementary income in the event of later-life disability. While the two proposals would not help all types of older women who face financial hardship, they have the potential to materially help at least the portion of the older female population that tends to face financial shocks due to the onset of disability or the death of a spouse.

The Challenge

The most commonly used measure of economic vulnerability for the general population is the poverty rate—the share of people with income below a certain threshold, adjusted for family size. Older people, however, rely relatively more on accumulated wealth to support themselves than does the working-age population, which renders income-based

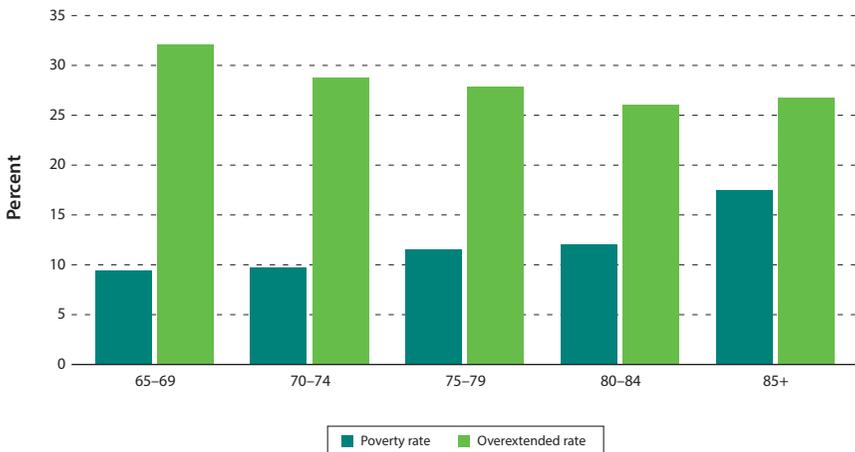
measures like poverty incomplete. Moreover, households above the poverty threshold often experience economic insecurity. Levy (2015) finds that 11 percent of the elderly population above the poverty line experiences material hardship, such as struggling to pay for food, skipping meals, cutting back on medication, and experiencing difficulty paying bills.

A recent Treasury report (U.S. Department of the Treasury 2017) consequently explored economic insecurity among older women, focusing in part on a metric—complementary to the poverty rate—that incorporates wealth and uses a more comprehensive definition of economic hardship. This metric, called the overextended rate, is the share of a given population whose annual household spending exceeds its means. Means, in this case, includes the sum of current noncapital income and an annuitized value of household financial and nonfinancial wealth, with the annuity amount determined by the life expectancies of household members. Thus, if a household is overextended, it will either have to reduce spending or increase wealth over its remaining life expectancy. Because most elderly households are unlikely to increase wealth, it usually will have to reduce spending—hence, the material hardship many elderly households experience.¹

Data from the Health and Retirement Study (National Institute on Aging n.d.) suggest that older women are considerably more likely than older men to experience economic insecurity, whether measured by the poverty rate or the overextended rate. With an average poverty rate of 12 percent from 2000 through 2012, women age 65 and older are twice as likely as their male counterparts to be in poverty.² More than a quarter of older women (29 percent) are overextended versus 21 percent of older men. Moreover, because women tend to live longer than men, the economically insecure population of older Americans is dominated by women: women make up 71 percent of the elderly in poverty, and 68 percent of the elderly who are overextended.

FIGURE 1.

Women's Poverty and Overextended Rates by Age



Source: National Institute on Aging n.d.; authors' calculations.

Overextended rates for older women are much higher than poverty rates regardless of age, but those rates evolve differently with age, as can be seen in figure 1. The poverty rate rises with age, starting below 10 percent for women in their late-60s and reaching 18 percent for women age 85 and above. The overextended rate for women in their late-60s is 32 percent, declining to 27 percent for women age 85 and above.³

Importantly, economic vulnerability appears to be tied to specific characteristics of older women—marital status and disability; understanding these links is essential to developing policies to address the insecurity. Of the older female population that is married and not disabled, only 3 percent is in poverty, whereas 17 percent of the unmarried (i.e., widowed, divorced, or single) or disabled female elderly population is in poverty. Even among those age 80 and above, for whom poverty rates are much higher, only 4 percent of married, nondisabled women live in poverty. Similarly, 18 percent of married, nondisabled older women are overextended, while 35 percent of other older women are overextended.

Single women of all ages experience much higher rates of economic insecurity than married women. Much of this pattern likely reflects underlying differences between them and the married population that do not change appreciably over time. But when women are widowed, they experience a sharp drop in income, often compounded by a drop in wealth, which together necessitate a large reduction in consumption. This stress persists for the remainder of the widows' lives.

Becoming disabled can result in economic insecurity, in part because the high costs of formal long-term services and supports can rapidly deplete the remaining wealth that households rely on to finance the rest of their retirement. While the median non-housing financial wealth of women 65 and older is sufficient to cover an estimated 9.0 months of nursing home expenses or 15.9 months of home health-care expenses, the median non-housing financial wealth of disabled elderly women is enough to finance only 0.4 months in a nursing home or 0.7 months of home health care.⁴

A New Approach

As we have shown, economic security among older women is closely associated with being single and being disabled. For some women—notably non-widowed single women—economic insecurity is a chronic problem and predates old age. But others enjoy considerably more security prior to widowhood or disability. This latter fact suggests that some women could be made better off with insurance paid for during periods of relative security (i.e., when married and able-bodied) that pays out during possible subsequent periods of relative insecurity (i.e., when widowed or disabled). Of course, policy can always be changed to redistribute income away from less-vulnerable households to more-vulnerable households, but the decision to do so involves normative considerations. We thus focus on solutions that are largely neutral from a distributional point of view and that would be freely chosen by households when enrolling in Social Security.

Some private-market products can help to mitigate the risks of widowhood and disability. For instance, annuities include distribution options that offer survivor benefits at a cost of lower benefits while both spouses are alive. For a premium, private LTCI provides benefits when the policy holder becomes disabled, spreading the costs of financing long-

term-care services and supports among the nondisabled population. While households should consider these options, the options have limitations. The decline of defined benefit pensions has made it more difficult to easily annuitize wealth upon retirement. In addition, the private LTCI market has struggled to catch on with consumers, particularly given its difficulties in pricing policies appropriately and in managing the risks associated with policies whose duration can extend 40 years or more for an individual (Ameriks et al. 2016). Subsidies and regulatory reforms might stimulate coverage on the private long-term care insurance market (Yin 2015), but in the absence of major reforms, sales of new policies have been trending downward even as the elderly population has been growing.

We believe that the Social Security program could be a mechanism for improving economic security for older Americans, particularly for certain groups of older women. One advantage to building off the existing Social Security program is that most of the people at risk of economic insecurity stemming from widowhood and disability are Social Security recipients. Moreover, Social Security benefits represent a key source of support for many retired households, constituting 46 percent of effective household wealth for the median decile of households approaching retirement (Gustman, Steinmeier, and Tabatabai 2011).

We propose two new Social Security benefit options that are actuarially neutral for the program as a whole and for individual beneficiaries, on average. Under our proposals, households will expect to receive the same cumulative benefits over their remaining lives as they currently do, but in a stream that results in fewer benefits during periods of greater economic security and more benefits during periods of lesser economic security.

WIDOWHOOD

Our first proposal helps to address the economic insecurity that can result from widowhood. In particular, the proposal addresses the problem that married couples with fairly similar earnings histories can see a steep and potentially unmanageable drop in their Social Security benefits when one member of the couple dies.

When married Social Security beneficiaries are both alive, each spouse can claim benefits based on their own or their spouse's work history. In the latter case, benefits equal 50 percent of the spouse's benefit. Couples with very unequal earnings histories will generally find it financially advantageous for both spouses to claim benefits on the earnings history of the higher earner. If the higher earner dies first, the surviving spouse can then claim the full amount of their spouse's benefits, effectively making Social Security a joint life annuity with a two-thirds survivor benefit.⁵ But for couples with similar earnings history—for whom it makes sense to claim full benefits on both earnings histories while both are alive—Social Security is a joint life annuity with a smaller survivor benefit. In the most extreme case of identical earnings histories, these couples will see a drop in total benefits of 50 percent when one member dies. Given that two people can live together less expensively than two people separately, this decline in benefits is almost certain to exceed the drop in household spending needs.

To improve the economic security of widows, we propose that married individuals be allowed, at initial Social Security benefits claiming, to irrevocably forgo their traditional benefit for a contingent annuity that would pay monthly benefits while both spouses are alive and continue to pay two-thirds of the benefits to a surviving spouse when the beneficiary dies. The surviving spouse, meanwhile, would also continue to receive their previous benefits. Benefits

associated with the contingent annuity would be actuarially neutral relative to traditional benefits—in other words, the couple would accept fewer benefits while both spouses are alive in order to have more benefits when only one is alive. The calculation would need to take into account both spouses' ages and lifetime incomes at the time of claiming, because both of those factors would affect expected current law benefits.

DISABILITY

Our second proposal is based on similar principles and provides financial protection against the risk of late-life disability. At the time of enrolling in Social Security, individuals would be given a chance to sign up for a disability indemnity insurance policy, with premiums financed out of their Social Security benefits. The policy would pay a cash benefit in the event the individual satisfies a disability trigger, such as needing assistance with two or more activities of daily living or suffering moderate to severe cognitive impairment for at least 90 days. Individuals could decide for themselves what level of protection they wanted at the time of purchase, but benefits would continue as long as the beneficiary remained disabled. Individual underwriting would not be used to determine eligibility for the policy. However, a 10-year waiting period before claims could begin would prevent adverse selection: individuals at a high risk of imminent disability would not overwhelm the risk pool. Premiums would be actuarially fair, so that the government would not provide any additional subsidies to maintain the program. Participation would be voluntary, but the decision to join the program or not would be irrevocable. As under current law, Social Security benefits would not be exempt from income for Medicaid consideration.

In principle, individuals already have the option to use some of their Social Security benefits to purchase long-term care insurance. In practice, because of the problems associated with the LTCI market noted earlier and discussed in more detail in Frank (2011), many individuals who would benefit from LTCI do not have it.

An LTCI policy offered through Social Security could overcome some of the problems observed in the private market. For instance, Social Security is a trusted institution, and individuals might have more confidence that it would pay out promised benefits. Individuals also might be more willing to accept a 10-year waiting period, which permits the elimination of individual underwriting (and lowers costs), for the same reason. We also believe that timing the decision to purchase LTCI with the claiming of Social Security benefits would make it more straightforward to arrange for such insurance, because individuals are already doing retirement planning at this time and because it would be logistically easier (e.g., it could be done simply by filling out an additional section of the Social Security form).

Simulations of the cost of this policy for people with different health risks, using data from the Health and Retirement Study (National Institute on Aging n.d.), reveal that a 10-year waiting period is adequate for the formation of a viable risk pool.⁶ We also find that 75 percent of expected long-term care costs for the population age 65 and above are incurred at age 75 or above, meaning that this policy, even with a 10-year waiting period, can provide considerable protection against late-in-life long-term care needs. We further estimate that \$1 per month in premiums would cover \$12 per month in benefits. Thus, to receive \$3,000 per month in coverage—enough to finance \$100 per day of nursing home or home health care—beneficiaries would have to accept \$250 less in Social Security benefits each month.

Impact

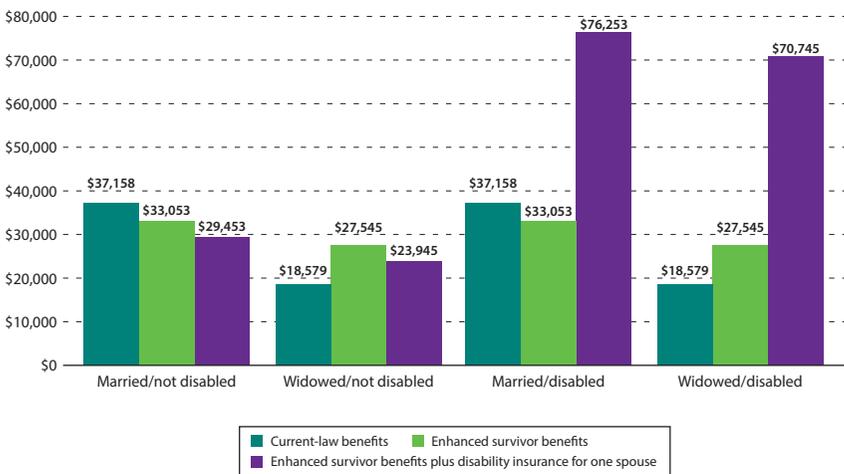
We now discuss how prototypical beneficiaries would fare under both the current and proposed benefits structures. We model the benefits of two types of married couples, with all dollar amounts adjusted for inflation to simplify comparisons over time. For both types, the spouses are exactly the same age, and both claim benefits at age 65. For one type of couple (shown in figure 2), both beneficiaries retire with scaled medium earnings (as defined in the 2016 Social Security report from the board of trustees [Social Security Administration 2016]) and would receive \$18,579 each under the current system. For the other type, one spouse is eligible for \$24,628 (due to having scaled high earnings), and the other spouse claims on the first spouse's earnings history and thus is entitled to an annual benefit of \$12,314.

Under the current beneficiary structure, the couple with the identical earnings histories would receive a combined \$37,158 in annual Social Security benefits at claiming. If one died, benefits would fall by 50 percent to \$18,579, which is a substantial drop in income given that household expenses for the survivor are unlikely to fall commensurately. By contrast, the couple with one high earner and one low earner would receive \$36,942 in benefits at claiming. If one died, the survivor would receive \$24,628 in benefits (the high earner's benefit), a drop of just one third.

In the event one spouse becomes disabled, Social Security provides no additional benefit for either type of couple. Given that the median cost of one month in a nursing home is \$6,844 and one month of home health care is \$3,861, formal care for one person could

FIGURE 2.

Social Security Benefits under Current and Proposed Structure for Equal Earners



Sources: National Institute on Aging n.d.; Social Security Administration 2016; authors' calculations.

Note: Current law benefits for each beneficiary = \$18,579. Enhanced survivor benefits = two-thirds benefits of deceased spouse. Disabled benefits = \$3,600/month, financed by \$3,600/year reduction in Social Security benefits.

easily claim a household's entire Social Security benefit, even for households in the middle of the income distribution (CareScout 2016).

Under our proposal—for individuals who opt in to the widowhood and/or disability provisions—benefits at claiming would be reduced by an amount that covers the expected costs of the enhancement to benefits, given Social Security's survivor rates and interest rates, as well as modeled projections of disability. Under the new benefit structure, the equal-earning couple electing to claim enhanced widow benefits would receive \$33,053 in annual benefits after claiming, a reduction of \$4,104 compared with the current structure, as shown in figure 2. If one spouse were to die, the surviving spouse would receive \$27,545 in benefits, an increase of \$8,966 compared with the current survivor benefit formula. Thus, an 11 percent reduction in benefits while both spouses are alive can pay for an increase in benefits of 48 percent when only one spouse is alive. Because the average time spent in widowhood is shorter than the average time spent married, additional survivor benefits can be purchased for a relatively small reduction in base benefits in both absolute and percentage terms.

The couple with a high earner and a low earner would likewise have to sacrifice some benefits in the base year to finance enhanced survivor benefits (not shown). But under the current benefits structure, survivor benefits are relatively more generous for the high earner/low earner couple than for the equal-earning couple, so the cost and benefit of the enhanced survivor benefits are smaller in this case. Specifically, the couple would need to sacrifice \$2,343 in base benefits for an increase of \$2,282 at the death of the high-earning spouse, and an increase of \$6,126 at the death of the low-earning spouse.

Under the proposal, each beneficiary could elect to purchase \$12 per month in disability benefits for a \$1 monthly reduction in Social Security benefits. In this example, we assume each couple selects \$43,200 per year in disability benefits for one spouse, at a cost of \$3,600 annually in reduced Social Security benefits. For the equal-earning couple that chose enhanced survivor benefits, this choice would further reduce base annual benefits by \$3,600, on top of the benefits already forgone, bringing the total reduction in benefits to \$7,705, or a drop of 21 percent. However, in the event the spouse purchasing disability coverage became disabled, benefits would increase by \$43,200. Whether the beneficiary were married or widowed, the combined benefits would be sufficient to cover average home health-care costs and the vast majority of nursing home costs for the prototypical beneficiaries we have modeled.

Questions and Concerns

1. Would this proposal leave some groups worse off?

The voluntary nature of these proposals leaves Social Security beneficiaries no worse off on a forward-looking basis; beneficiaries are free to stick with the current system if they prefer to do so. Nonetheless, the introduction of these choices would lead individuals and couples to make potentially difficult financial decisions. This situation is no different from the decisions couples already make when deciding to buy private-market LTCI or choosing how to distribute pensions, but it is unusual in the context of Social Security.

In addition, those who elect to enter the new system but do not experience long periods of widowhood or disability would receive fewer Social Security benefits. However, these beneficiaries tend to be economically secure—even at advanced elderly ages—so they might be able to cope with little difficulty.

2. Does this proposal help all older women who are economically insecure?

Enhanced survivor benefits do not protect those who never married or those who are divorced. These groups could be at particular risk given the lower average lifetime earnings of women relative to men. Furthermore, given their lower lifetime earnings (and, in turn, lower Social Security benefits), these women are less likely to be able to exchange some of their Social Security benefits for protection against expenses for long-term care. Other options will need to be developed to address economic insecurity among never-married and divorced women.

Because our proposals involve trading off current resources for future protection, they are not targeted at the poorest households who are already living hand-to-mouth. By design, the proposals do not redistribute resources across the population. The government already offers some assistance to the poorest households: for example, the Medicaid program pays nursing home costs for disabled older people who have sufficiently low financial resources. Strengthening such assistance is outside the scope of this proposal.

3. Do the proposals create risks for taxpayers?

Another concern is that the proposals would effectively expand the entitlement system and, in doing so, place more risk on the taxpayer. For example, despite the best efforts of actuaries to calculate adjustments to Social Security benefits that would cover the costs of a new disability benefit, there is potential for claims to be higher than expected. (Indeed, the possibility of such miscalculations is one reason why the private LTCI market has not thrived.) In the event of overly optimistic assumptions, the government would undoubtedly feel compelled to live up to its side of the bargain, with taxpayers footing the bill. With respect to the survivor benefit, actuaries could not simply calculate an adjustment to benefits that would make the program actuarially neutral for the average household because the option would be much more likely to be taken up by couples for whom the lower earner is expected to outlive the higher earner by a substantial amount. An assumption would need to be made about the degree to which this type of adverse selection would likely occur, and how to finance any shortfalls if the assumption proves too optimistic. Alternatively, the changes to the survivor benefit could be applied to all households, but doing so would give couples less choice and would likely be very unpopular with those who are myopic, have high time discount rates, or expect a short remaining lifetime.

Another potential fiscal risk posed by these proposals stems from the fact that they would—in the short run but not in the long run—strengthen the overall financial position of the Social Security program as well as federal finances more generally, given that both proposals would entail people electing smaller benefits now in exchange for higher expected benefits in the future. Thus, lawmakers would need to be mindful that the resulting short-run improvements in the financial position of either the Social Security program or the

federal budget are illusory, and that these policies would not bring about any increase in national saving over the longer run.

4. Would it be preferable to require that disabled beneficiaries receive formal services?

The disability benefit is structured very simply, as a cash indemnity benefit tied only to specified criteria. While this structure provides considerable flexibility for beneficiaries, it would almost certainly be more expensive than a service-based benefit in which a claimant would need both to satisfy the disability criteria and to receive formal services. Including a formal-service requirement could lower costs.

5. What role could the private sector play in the disability benefit?

The federal government should assess whether the private sector would do a better job of administering the disability benefit, either in servicing the benefit or bearing the risk, in which case the government might want to partner with the private sector on some dimensions of the policy.

6. Under this proposal, what would happen to widowhood benefits in the event of a divorce?

A couple's decision to opt in to the enhanced benefits associated with widowhood would not be affected by divorce. Importantly, the decision—made at the time of Social Security benefits claiming—would be irrevocable, meaning that neither of the divorced individuals could change the benefits due to the other individual. Likewise, remarriage would not affect the benefits received.

Conclusion

As women age, they become increasingly at risk of widowhood and disability, two important drivers of economic insecurity later in life. Many women would benefit from transferring wealth from periods of relative security to periods of relative insecurity. Because Social Security constitutes an important source of wealth for most elderly people, we believe that the program could be altered to help reduce economic insecurity among older women. We show that relatively modest reductions in benefits while women are married and not disabled can finance more generous benefits during periods of widowhood and disability. This insurance could be voluntary and self-financing, thus leaving the long-run financing of Social Security unaffected.⁷

Endnotes

1. Of course, for households with very low incomes, social insurance programs such as Medicaid will provide resources after financial wealth is exhausted. But the standards of living provided by these programs are generally associated with hardship.
2. The Census Bureau reports that the poverty rates for women and men 65 and older in 2015 were 10.3 percent and 7.0 percent, respectively, a slightly narrower difference than the gap based on the Health and Retirement Study data. See Proctor, Semega, and Kollar (2016).
3. U.S. Department of the Treasury (2017) finds that the fall in overextended rates with age is the result of this group's members adjusting their spending down at a faster rate than their wealth and income.

This finding is not necessarily indicative of older women becoming better off with time since it is unclear whether women are cutting back spending out of choice or out of necessity.

4. Evidence in Hurst (2008) corroborates the link between health shocks and hardship among older households. The study finds that many households that experience substantial drops in real consumption at retirement have been forced into involuntary retirement because of health shocks.
5. Survivors over 60 who have not attained full retirement age are eligible for reduced benefits.
6. The methodology for estimating the costs of disability for different health risks is described in Brown and Warshawsky (2013).
7. The findings and conclusions expressed are solely those of the authors and do not necessarily represent the views of any institution with which they are affiliated.

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SECTION THREE

Policies to Address the Needs of Caregiving Women

Women shoulder a disproportionate fraction of caregiving responsibilities, whether after the birth of a child or when family members become ill. For employed women who do not have access to paid sick or maternity leave, caregiving can result in income or job loss. For mothers who want to work or attend school, the high cost and limited availability of quality child care can keep them out of the labor force or in jobs that do not make full use of their talents. This section includes proposals that support women as they balance their responsibilities at home and in the workplace.

Nicole Maestas and Christopher Ruhm offer proposals for paid leave—for intermittent caregiving and childbirth, respectively—to keep women in the workforce by providing them with the flexibility they need. To reduce the employee burden of short-term and unexpected absences to care for sick family members, Maestas proposes to mandate the provision of earned paid sick leave to all members of the American workforce, including part-time and temporary workers. To facilitate longer-term leave following the birth or adoption of a child, Ruhm proposes the creation of a federal paid parental leave program that is available to both mothers and fathers. Eligible workers would have access to 12 weeks of job-protected paid leave, guaranteeing that parents can return to their jobs and continue to contribute to the economy.

The final two proposals in this section would promote access to high-quality child care, mitigating a significant impediment to full participation in employment and schooling. Elizabeth Cascio proposes early childhood education and care reform that would increase the availability of high-quality child care and preschool education, thereby supporting maternal employment in a child's early years. The proposal's centerpiece is a new refundable tax credit targeted to working families with the greatest need. Bridget Terry Long proposes to increase child care access for postsecondary student-parents through grants to postsecondary institutions that provide affordable, high-quality child-care services. The proposal would increase the likelihood of degree completion among student-parents, leading to substantial public and private returns as parents secure their families' financial futures.

Expanding Access to Earned Sick Leave to Support Caregiving

Nicole Maestas, *Harvard Medical School*

Abstract

The rapid growth of the older population in the United States will dramatically increase the need for elder care, most of which will be provided at home by family members. Supporting an older person sometimes comes at the cost of leaving the labor force, particularly for caregivers in jobs with an inflexible work schedule. This paper proposes a federal earned sick leave mandate guaranteeing one hour of flexible, multi-purpose sick leave for every 30 hours worked. By helping workers periodically adjust their work schedules to accommodate intermittent and urgent caregiving activities, paid sick leave would increase both home caregiving and employment, as fewer workers would be forced to choose between these activities. This policy would benefit women and low-income workers in particular, as they are more likely to have inflexible working conditions and can less afford to stop working in order to provide care.

Introduction

Nearly one in five Americans will be age 65 or older by 2030 (Administration on Aging 2017). As the population grows older, more and more Americans will experience health problems and functional limitations, and consequently will need help with activities of daily living. Indeed, 52 percent of today's 65-year-olds are projected to eventually need help with two or more self-care activities (such as bathing or eating) for at least three months, with most (64 percent) of this at-risk group likely to need help for more than one year (Favreault and Dey 2015).

Most of this care will be provided by family members. Indeed, institutional care is comparatively rare: family members have long provided the vast majority of care to older adults (National Academy of Sciences [NAS] 2016). As of late 2014, it is estimated that 39.8 million Americans (16.6 percent of the adult population) had provided unpaid care for an adult in the prior 12 months (National Alliance for Caregiving [NAC] and the AARP Public Policy Institute [AARP] 2015a). Women make up 60 percent of these caregivers (NAC and AARP 2015b). They care for parents (47 percent), parents-in-law (8 percent), spouses (11 percent), other relatives (20 percent), and neighbors or friends (12 percent). Two-thirds of the beneficiaries are female, with an average age of 75 years (NAC and AARP 2015b).

Among women, the lifetime prevalence of providing elder care rises sharply in middle age. For example, by age 50 only about 7 percent of women have ever provided elder care, but by age 65 nearly one-third of women have ever provided elder care (Fahle and McGarry forthcoming). When they are in their 50s and 60s, women most often provide care to a parent or parent-in-law, but the likelihood of providing care to a spouse or partner rises rapidly: by the time women are age 75, such care is the most common (Fahle and McGarry forthcoming).

Caregivers provide help with household tasks, mobility needs, self-care such as bathing or dressing, medication management and, increasingly in recent years, medical care coordination and nursing tasks. While caregiving can range from intermittent to intensive, it is most often a long-term activity (NAS 2016). Importantly, caregiving sometimes proceeds for many years at a moderate or intermittent level before becoming intensive.

In this proposal I document how much of this substantial burden of caregiving rests on the shoulders of working people, many of whom are forced to choose between working and caregiving because they are not able to be absent from work for short periods of time and on short notice. Earned sick leave policies, already in force in several U.S. states and municipalities, could help many to sustain both employment and caregiving over a longer horizon at little cost to employers and with very significant benefit to caregivers and their families.

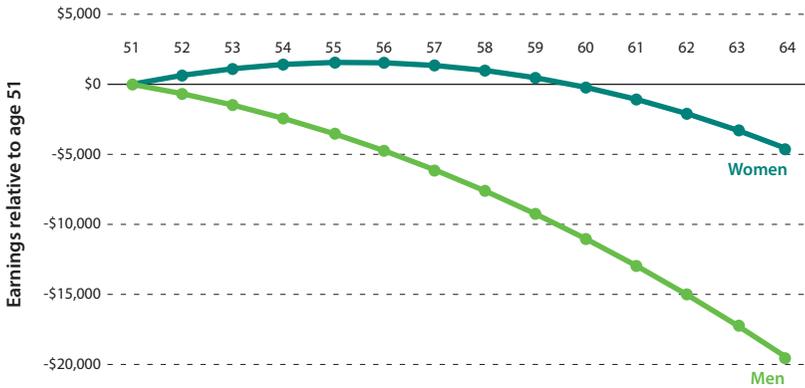
The Challenge

Family has a central role in providing elder care. Not only is it by far the dominant mode of care provision, but it is also highly preferred by families over institutional care (Mommaerts 2016). Individuals and their families are better off when care proceeds according to their wishes, and society benefits from reduced public expenditures on formal institutional care. Although these benefits are significant, so too are the individual and social costs. First and foremost are costs related to forgone work opportunities. Most people who provide care have worked at some point, and 60 percent of caregivers report having been employed while providing care during the past 12 months, with more than half of them working full time (NAC and AARP 2015a). That said, caregiving is associated with reduced employment, and research indicates that the need to provide caregiving likely causes reduced employment. In other words, the association does not merely reflect a tendency for people to provide care when their prospective wages are low (Fahle and McGarry forthcoming; NAS 2016; Van Houtven et al. 2013).

To better understand why caregiving reduces employment, Maestas and Truskinovsky (2017) used the linked Current Population Survey and American Time Use Survey to examine what happens when working individuals ages 40 to 70 first start providing care. In the months after caregiving begins, the likelihood of the caregiver being absent from work increases by 22 percent and their employment rate falls by 1.8 percent (both effects statistically significant). Even more interesting is that the employment effect is asymmetric for men and women: employment falls among women (by 2.9 percent) but not among men. The difference is not entirely due to men and women providing different amounts of care; the gender difference is present even among caregivers providing care on a regular weekly basis. The patterns are also asymmetric by education, with college graduates more likely than non-graduates to both increase absences and stop working when they start providing care.

FIGURE 1.

Predicted Annual Earnings by Age and Gender, Relative to Earnings at Age 51



Source: Author's calculations from the Health and Retirement Study (National Institute on Aging 1992–2012).

Note: The figure plots mean potential earnings by age, relative to earnings at age 51, separately for men and women. Estimates of potential earnings were obtained by regressing individual earnings on a quadratic function of age, controlling for baseline (age 51) measures of earnings, hours/weeks worked per year, job tenure, lifetime number of years worked, occupation category, education, race/ethnicity, fair/poor health, and household wealth quintile, and plotting the level of earnings implied by the coefficients on the age function (minus earnings at age 51). For further details as well as estimates for married women versus married men, see Maestas (forthcoming).

THE
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BROOKINGS

The finding that women are more likely than men to stop working when they begin providing care is important. The chances that an individual's parents or parents-in-law will need care are highest when the prospective caregiver is in middle age. But middle age is when women hit their peak earnings years, making employment interruptions particularly costly (Maestas forthcoming). Figure 1 displays the estimated age profile in earnings for women and men separately, each shown relative to earnings at age 51 (adjusted for differing worker characteristics following the methodology of Maestas [forthcoming]). As women age through their 50s, they earn on average the same or slightly more in real terms than they earned at age 51. Men, however, earn progressively less in real terms compared to their earnings at age 51. This difference between women and men is not explained by relative growth in women's labor supply; moreover, the overall pattern holds for married women as well as divorced women. One possible explanation for the fact that women's earnings peak later than men's is that women are more likely to have had early career gaps for caregiving of another kind—child rearing. If women continued working until age 70, the financial benefit would put them on even footing with men in terms of their Social Security benefits (which increase with average career earnings): that is, working longer increases both current income and future retirement income (Maestas forthcoming).

One study of caregivers valued their total lifetime lost wages and Social Security and pension benefits at more than \$300,000, with women losing substantially more than men when they leave the workforce early due to caregiving responsibilities (MetLife Mature Market Institute 2011). Elder caregiving often occurs just when women are at peak productivity,

resulting in sizable forgone immediate earnings and, later, retirement income. Thus, elder care might contribute to the gender disparity in lifetime income, and policy that supports caregiving will promote equality in lifetime income.

Forgone earnings and retirement income are not the only costs of family caregiving. Caregiving can lead to large out-of-pocket costs for the caregiver (Evercare and National Alliance for Caregiving 2007). In addition, caregivers are more likely to experience health problems than are non-caregivers, problems that are thought to arise from the emotional stress, social isolation, and physical demands of caregiving (Wolff et al. 2016). On the societal level, the economic costs of population aging are already significant enough (Maestas, Mullen, and Powell 2016) without further losses in employment associated with workers becoming unpaid family caregivers.

WHAT EXPLAINS THE DIFFERENCES IN EMPLOYMENT EFFECTS?

Why is it that working women and men respond to caregiving differently, with men maintaining employment but taking more absences and women reducing employment? The explanation could lie in part in the structure of jobs. Taking time off from work—whether planned or for an emergency—generally requires the permission of one’s employer; without permission, workers risk losing their pay and even their jobs. Medical appointments and care coordination often take place during business hours. To help a parent with these activities, a caregiver must be able to shift the timing of their work to start late or stop early, or to take time off in the middle of the day. Someone without access to paid time off must be able to make the time up later. While some kinds of jobs can be accomplished remotely, other jobs cannot: some work must be done at a prescribed time and place, and in coordination with others. For example, telecommuting options make work more flexible for many employees of technology companies, but workers engaged in food service must be present for every hour they work. In general, the growing service industries, which disproportionately employ women (Bureau of Labor Statistics [BLS] 2016), offer less flexibility to employees.

Even when it is technologically feasible to make up work after hours, doing so can be undesirable for those with caregiving or other personal responsibilities. Thus, some degree of flexibility in hours of work might be necessary for combining work and caregiving. One survey found that nearly one-half of working caregivers reported needing to arrive at work late or to leave early from time to time because of their caregiving responsibilities, and 34 percent of caregivers who stopped working said they did so because their job did not provide flexibility (NAC and AARP 2015a).

A large proportion of American workers do not have the ability to vary their hours or to take paid sick days. More than one-third of workers have no ability to adjust their work schedule: their schedules are set by their employers with no possibility for changes (Maestas et al. 2017a). Those with less education are significantly more likely to have restrictive schedules. But within education groups there are gender differences. College-graduate women are substantially more likely than college-graduate men to have a restrictive schedule (27 versus 18 percent), while non-college-graduate women are less likely than similar men to have a restrictive schedule (40 versus 48 percent). Women in both education groups are more likely than men to have fixed starting and finishing times (54 versus 46 percent).

Equally challenging can be work hours that change unpredictably. One in three American workers experiences frequent and unpredictable changes in their hours on short notice, and 78 percent of workers do not have the option to telecommute (Maestas et al. 2017a). Among working caregivers, only about half work for an employer who offers flexible work hours (NAC and AARP 2015a). Overall, women are more likely than men to report that they have difficulty arranging for time off to take care of personal or family matters—reflecting both their higher propensity to provide care and their higher likelihood of holding a job without hours flexibility (Maestas et al. 2017a).

Paid sick time is one of the primary tools for addressing intermittent caregiving responsibilities, but approximately one in three American workers has no paid sick time, a fraction that is roughly the same for men and women (Maestas et al. 2017a). In the private sector workforce, as many as 40 percent of workers do not have paid sick time; this figure rises to 70 percent among low-wage workers in the bottom earnings quartile (U.S. Department of Labor 2015). In stark contrast, the federal sector workforce has had paid sick leave since 1994 (Federal Employees Family Friendly Leave Act of 1994); federal contractors are covered as well due to a 2015 executive order by former President Obama (U.S. Department of Labor 2016).

THE VALUE OF PAID TIME OFF

Research by Maestas et al. (2017b) has examined how much people value nonwage aspects of jobs, such as paid time off, hours flexibility, work intensity, autonomy, prospects for advancement, and other job attributes. Using experimental methods to elicit stated preferences from a nationally representative sample of Americans, they find that the most highly valued job attribute was paid time off, which includes vacation as well as sick time. People were willing to give up a substantial portion of their earnings—more than it would cost the employer to provide it—to get access to paid time off. In fact, their estimates suggest paid time off functions as insurance against adverse events, providing value worth about 10 percent of earnings, in addition to daily wage replacement valued at about 0.7 percent of earnings. That is, access to paid time off provides income protection—and peace of mind—in case of emergencies. Paid time off was the most preferred job attribute of younger, middle-aged, and older workers alike. Interestingly, while women valued the daily wage replacement the same as men, the insurance value was worth nearly twice as much to them—12.3 percent of earnings among women compared to 6.8 percent among men. These estimates imply that women are much less willing than men to work in jobs without paid time off, all else equal. It also implies that Americans—and American women in particular—would be willing to contribute a portion of their earnings to an insurance pool to secure the job protection and daily wage replacement that paid time off confers.

WHAT PROTECTIONS ARE AVAILABLE?

The statistics in the preceding discussion indicate that the American workforce is far from equipped to manage the demands of caregiving, and existing public policies in this area are inadequate, especially to the degree they favor high-wage workers over low-wage workers. Unlike almost every other developed country, the United States has no federal requirement for the provision of paid sick time. Under the Family and Medical Leave Act of 1993 (FMLA), a worker can take up to 12 weeks of unpaid leave (in a 12-month period) to

care for a family member and is guaranteed their same or an equivalent job at the end of the leave period. But small employers (less than 50 employees) are not covered, unpaid leave is unaffordable for many workers, and the definition of “family” is exceptionally narrow, excluding, for example, parents-in-law. Because of these limitations, it is estimated that as much as 40 percent of the American workforce does not qualify for FMLA protection (Klerman, Daley, and Pozniak 2014).

While 14 states have expanded FMLA protection to a broader set of family relationships, and six states have expanded coverage to workers in smaller firms, only four states have gone so far as to mandate paid family leave—California, New Jersey, Rhode Island, and beginning in 2018, New York. Paid family leave offers partial pay replacement during eligible periods of leave, which include those for family caregiving. Paid family leave in the four states is financed through an addition to the state payroll tax that is fully paid by employees and ranges from 0.12 percent of taxable wages (New Jersey) to 1.2 percent of the first \$68,100 in earnings (Rhode Island). The programs are administered through the states’ preexisting temporary disability insurance infrastructure. Rhode Island offers up to four weeks of paid leave, while California and New Jersey offer up to six weeks. Beginning in 2018 New York will offer up to 12 weeks.

However, family leave differs in important ways from earned sick leave. While it is possible to use paid family leave on an intermittent basis, this might not be well understood by employees and practical barriers limit its use on short notice and for short periods of time. For example, there is a waiting period before benefits begin (e.g., seven days in California), and a medical certification is required (from the care recipient’s physician in the case of leave for caregiving). To date, more than 90 percent of users of paid family leave have been new parents (National Partnership for Women and Families [NPWF] 2016), indicating that this type of leave is structured to fit their needs. Parental leaves last several weeks and are

BOX 1.

The Difference between Earned Sick Leave and Family Leave

“Family leave” generally refers to a longer-term absence from work (typically several weeks), most often for the birth of a child but also for one’s own illness or to care for a sick family member. On the other hand, “earned sick leave” refers to a short absence of a few hours or days that can be used more flexibly to care for one’s own health and the health of family members. Both carry a legal guarantee of job protection if the employee complies with employer guidelines on leave.

Sick leave as described in this proposal is an earned benefit that is accrued through hours of work and provided at 100 percent wage replacement. Family leave can be unpaid or paid at an arbitrary percentage of earnings based on local laws and the employer’s choice. There is currently no federal legislation requiring employers to allow earned sick leave; this proposal advocates for such a policy, but does not advocate for a family leave policy change.

BOX 2.**Case Study: Leave Mandates in California**

The state of California has long been a leader in family-friendly workplace policies. In 2004 California became one of the first states to implement a paid family leave program using the administrative structure of its temporary disability insurance system. Since then, more than 2 million paid family leave claims have been filed in California, with nine of every ten claims being from new parents for maternity and paternity leave (NPWF 2016).

Recognizing that paid family leave does not fulfill the same need as paid sick leave, San Francisco became the first city in the state to mandate earned paid sick time as well. Under the policy, those employed by any size employer in the city (including part-time and temporary employees) earn at least one hour of sick leave for every 30 hours worked. The policy covers medical need of the worker or a family member (from grandchild to grandparent, partner, or “designated person”). Sick leave accrues from the first hour of employment but cannot be used until the 90th calendar day of employment, and includes strong job protections (A Better Balance 2016). Researchers found that sick leave coverage in San Francisco increased significantly after the ordinance was passed, although employers tended to finance sick leave benefits by reducing other benefits (Colla et al. 2014). Despite this trade-off, employee morale increased, indicating that employees were better off on net. Notably, employers argued that it would have been better to mandate sick leave policy at the state or national level (as opposed to city level) to avoid unfair competition (Boots, Martinson, and Danziger 2009).

In 2015 the State of California enacted a statewide policy closely matching the San Francisco law. Since then, several cities, including Oakland, Emeryville, Los Angeles, and San Diego, have passed ordinances that provide for even-more-generous sick leave benefits. The program is popular with voters: San Franciscans voted to expand the scope of the sick leave policy in 2016 by a vote of 80 percent to 20 percent, and similar measures passed in other cities by wide margins (San Francisco Department of Elections 2016; A Better Balance 2017).

A New Approach

To make it easier for people to remain in the workforce while caring for a family member, I propose the U.S. Congress mandate the provision of earned paid sick time to all American workers, allowing the states to decide how they will comply with minimum standards. This would ensure broad coverage of the American workforce, but give states the flexibility to adopt the model most suitable to their economy. Across the developed world, paid sick leave is provided in many forms, with some countries choosing employer financing and provision, and others using payroll-tax financing through their social insurance systems (Heymann et al. 2009). Employer provision offers the most flexibility and ease of access for workers, with

the least administrative cost. However, employer provision works best for large employers who can pool employee absence costs across a large group of workers, effectively self-insuring against the risks they face. To enhance risk pooling for small employers, states could establish statewide sick pay funds: employees would contribute to the state fund through an addition to the payroll tax, and payments would be made from the fund. Although more complex to administer, a statewide fund would benefit small employers through enhanced risk pooling, thereby ensuring that all workers can earn paid sick leave.

Regardless of the financial and administrative structure chosen by a state, the cost of the policy is likely to be passed on to workers in the form of lower earnings—that is, workers will ultimately pay for the policy whether employers provide earned paid sick time directly or employees contribute to a state insurance fund. Our estimates of workers' willingness to give up earnings for paid time off suggest that workers are willing to pay far more than such a system would cost, judging from the low payroll tax rates required to operate the state paid family leave programs currently in existence. For example, California has provided paid family leave benefits of several weeks at 55 percent pay replacement with an average annual payroll tax addition of \$45 per year per worker (NAS 2016).² Earned sick leaves, measured on a scale of hours or days rather than weeks, would be cheaper to finance on a per worker basis.

Table 1 describes the proposed policy in more detail. Notably, there are no firm-size exemptions, because the goal is broad coverage of the American workforce, including part-time and temporary workers. Employees would earn one hour of paid sick time at 100 percent of their regular wage for every 30 hours worked, up to an annual cap of 40 hours per year. Unused sick time can be carried forward, with some limitations, to avoid costly use-it-or-lose-it behavior. Importantly, earned sick leave can be used to provide care for loved ones as well as oneself.

American workers would be substantially better off if they had access to earned paid sick leave; indeed, they are willing to pay far more for this paid time off than it would cost to provide. Such a policy would permit many people who lose or quit jobs due to caregiving responsibilities to balance the two while maintaining their current income, career prospects, and future retirement income. The policy could have powerful equalizing effects, reducing the economic costs of caregiving for many women, while at the same time enabling lower-income workers to contribute to caregiving without the risks of income and job loss.

Although the focus here has been on the benefits of earned sick leave to support elder care, sick leave would also help American workers meet their own medical needs and the medical needs of their children. Recent evidence suggests that providing sick leave for self-care benefits American employers. Primary among such benefits could be reduced transmission of infectious disease (Pichler and Ziebarth 2017), resulting in a healthier and more productive workforce with reduced turnover costs. Another study identified large potential savings from reduced health care utilization as some employees shifted their medical care from (more-costly) after-hours emergency departments to regular business hours in physicians' offices (Miller, Williams, and Yi 2011). Although some have worried about potential costs in the form of negative employment effects, there appears to be little evidence of such an effect in the U.S. cities and states that have adopted paid sick leave (NPWF 2017). Finally, if paid sick leave increases employment across the age distribution, then it has the potential to offset some of the slowdown in economic growth caused by an aging population.

TABLE 1.
Details of Proposed Earned Sick Leave Policy

Provision	Detail	Rationale
Form of legal requirement	Federal mandate on employers, with state discretion as to implementation.	The federal mandate ensures broad coverage, but allows states to determine the best structure and financing. For example, some states might rely exclusively on employer provision, while other states might devise an insurance pool to help small employers pool risks, or to integrate earned sick leave benefits into an existing social insurance benefit structure.
Covered employers	All employers.	Ensures full coverage of the U.S. workforce, including employees working for small employers.
Covered employees	All employees, including part-time and temporary workers.	Sick leave is earned based on hours worked, so it is naturally prorated for part-time or temporary workers.
Beginning of accrual period, and eligibility for first use	Employees earn sick time beginning with their date of hire, but they must wait 90 days before first using earned sick time.	This is a typical probationary period for new hires.
Minimum accrual rate	Employees earn one hour of paid sick time for every 30 hours worked.	This is a minimum accrual rate; employers could offer a more generous accrual rate.
Cap on total annual accrual	Employees can earn up to at least 40 hours (five days) per year.	This is a minimum standard; employers could offer a more generous annual cap.
Carrying forward unused time	Employees can carry forward unused time into subsequent years, but employers can restrict the amount of carryforward time that is used in a year.	Allowing employees to carry forward time avoids a use-it-or-lose-it situation that tends to induce more leave-taking than is needed to avoid loss of accrued benefits.
Wage replacement rate	Employees receive 100 percent of their usual wage while taking earned sick leave.	Workers are fully insured against income losses from own and family illness.
Job protection	If the employee complies with their employer's leave policy, they will be entitled to return to their same job or an equivalent.	Job protection is a major reason why sick leave is highly valued by employees.
Permissible uses	Own sickness, care for sick spouse, domestic partners, children, parents, parents of spouse or domestic partner, grandchildren, grandparents, siblings, or designated person of worker's choice. Children include biological, adopted, foster, or stepchildren; legal wards; or a child or children for whom the worker stands in loco parentis.	To best support caregiving, the permissible uses should be as broad as possible, recognizing the diversity of American families, and enabling more family members to help provide care.
Waiting period and/or medical certification requirement	None.	Earned sick leave is designed to support short leaves that occur on short notice. Waiting periods and medical certifications are more appropriate for longer leaves, such as those that occur under FMLA.

Questions and Concerns

1. Which demographic group of women is most likely to be working while caring for family?

Notably, the group that is most likely to work while providing care for an elderly relative, most often their parents, tends to be more-educated women in their 50s. About two-thirds of caregivers with at least some college education were employed in 2015, compared to about half of those with less education (NAC and AARP 2015b). This means that the women most at risk of underemployment or unemployment as a consequence of caregiving are also those who have the highest potential income, which increases the lifetime income gap between men and women. Still, less-educated women and men could be less likely to engage in caregiving precisely because they lack access to the job and income protections that come with earned paid sick leave.

2. What is the ideal rate at which earned sick leave accrues?

Current practice in the states and cities that have enacted earned paid sick leave policies is a useful guide to what has worked in the past. In general, there are two key components to the accrual rate: the rate at which employees earn sick time and the maximum amount they can accrue in a year and carry forward into the next year. Accrual rates vary from one hour per 30 hours worked in Arizona, California, Massachusetts, and Oregon, to one hour per 52 hours worked in Vermont. The minimum caps on earned hours are set at anywhere from 40 hours to 72 hours in different states and municipalities, and often differ for large and small employers.

3. Will sick leave be costly for employers?

As noted above, the cost of earned sick leave is likely to be passed on to workers in the form of lower earnings. If this is the case, then employers who do not already provide sick leave benefits to their employees might experience some added administrative costs. The added costs are likely to be small in states that choose direct employer provision, and larger in states that choose payroll financing of sick leave. There are also potential costs associated with disruption of business activities when employees use earned sick leave for absences. However, these costs are offset by potential gains from reduced employee turnover, greater employee satisfaction, and productivity gains from reduced transmission of disease in the workplace. In addition, employers who are already experiencing labor shortages associated with population aging might find employee benefits to be an important tool for attracting and retaining workers. Recent research has not found evidence of negative effects on employment, which suggests that the cost of providing sick leave is either minimal, is fully passed on to workers, or produces employer benefits in the form of improved employee morale and less turnover.

4. Could this proposal lead to employment discrimination or retaliation against likely caretakers?

Discrimination and retaliation are potential issues under any kind of protected leave policy. For instance, the Family and Medical Leave Act (FMLA) contains language to protect workers from employer discrimination and retaliation, and employees often win

settlements for violations of that law. Because the costs to the employer are likely to be small under this policy, especially in comparison to the protected leaves under the FMLA, the additional incentive for discriminatory employer behavior on the basis of earned sick leave (either taken or anticipated) should be small.

Conclusion

The aging of the U.S. population has brought about a growing need for day-to-day elder care, almost all of which is currently provided informally by family members. However, current employer regulations are insufficient to ensure that working people can provide this care. Women and low-income workers in particular are often trapped between the responsibility to care for older family members when they become sick and the unaffordability of missing or quitting work.

This paper proposes a federal earned sick leave mandate, with state discretion over implementation, thus allowing for flexibility in administration and financing as well as the possibility of setting higher standards. Earned sick leave would provide workers with the flexibility they need to balance employment and intermittent elder care. Recognizing this important need, several states have already mandated that employers extend paid sick leave to all workers on this basis. Even so, coverage across the United States is inadequate, with an estimated one-third of the workforce lacking access to sick leave benefits.

The benefits of such a policy outweigh the costs. Higher and more-equal income among workers in late middle age, as well as higher labor force participation, are among the chief economic benefits. The evidence to date suggests that the costs of earned leave policies for employers have been minimal. Paid sick leave will help ensure that families are able to meet the day-to-day needs of family members who are sick while continuing to support themselves through gainful employment.

Endnotes

1. An exception is Washington, D.C., which requires small businesses (those with 24 employees or fewer) to provide earned sick time at a rate of one hour per 87 hours worked. The accrual rate is gradually increased with employer size.
2. In 2018 the replacement rate will rise to 70 percent for low-wage workers and 60 percent for other workers.

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A National Paid Parental Leave Policy for the United States

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Abstract

Prior research indicates that entitlements to paid parental leave following the birth of a child provide substantial labor market and health benefits. Despite widespread public support for paid leave, the United States is almost alone in being without a national paid leave policy, although a number of states have adopted such programs. A national paid leave program is proposed here that is designed to promote gender equity through entitlements to 12 weeks of paid time off work for both mothers and fathers. It is modest in comparison to other countries' programs in both duration and generosity; this is in recognition of the uncertainty involved in applying international experiences to the United States. Additional program elements include: job protection during the leave and broad eligibility to parents with minimal employment histories; a wage replacement rate of 75 percent for low earners and 50 percent at higher earnings, up to a maximum; financing through a stable stream of general revenues; administration through a new office established within the Social Security Administration; and careful evaluation of the program three to five years after initial implementation.

Introduction

The United States is the only industrialized country without a national policy providing mothers with rights to paid leave following the birth of a child (Addati, Cassirer, and Gilchrist 2014). Most industrialized countries also offer fathers paid time off work, although often much less than they offer mothers. The International Labour Organization recommends that women be provided with at least 14 weeks of paid leave surrounding the birth of a child, a standard met by 98 countries (Rossin-Slater forthcoming). The United States does offer 12 weeks of *unpaid* leave to some new parents, but the ability to take time off without pay is limited for many workers, particularly those who are economically disadvantaged (Han, Ruhm, and Waldfogel 2009). By contrast, paid leave entitlements result in increased leave use among these employees (Rossin-Slater, Ruhm, and Waldfogel 2013).

Research conducted over the past two decades indicates that entitlements of up to six to nine months of paid leave provide substantial labor market and health benefits, with particularly large gains that are probably associated with the initial establishment of leave rights (rather

than lengthened durations of existing programs).¹ The strongest evidence pertains to labor market gains for women. California's first-in-the-nation paid leave program increased maternal employment after the leave period (Baum and Ruhm 2016; Rossin-Slater, Ruhm, and Waldfogel 2013). Turning to international evidence, data from nine European countries over the 1969–93 period indicated that rights to three months of paid job-protected leave raised women's employment-to-population ratios by around 3 percent while having little effect on wages (Ruhm 1998). Other research uncovers evidence that paid leave increases job continuity (e.g., Baker and Milligan 2008a for Canada) and the likelihood of employment after the leave period (e.g., Kluve and Tamm 2013 for Germany). On the other hand, leave entitlements of more than one year could be associated with lower wages (e.g., Lalive and Zweimüller 2009; Schönberg and Ludsteck 2014).

The clearest evidence that parental leave entitlements improve child health comes from the study of birth outcomes such as birthweight or infant mortality rates (Heymann, Raub, and Earle 2011; Rossin 2011; Ruhm 2000; Tanaka 2005), or practices such as maternal breastfeeding that are known to advance child health and well-being (Baker and Milligan 2008b). For long-run outcomes, such as child educational attainment, there is generally little indication of either positive or negative effects of parental leave, possibly because other factors are more significant. An important exception is Carneiro, Løken, and Salvanes's (2015) finding that the introduction of a four-month paid leave program in Norway (in 1977) reduced subsequent high school dropout rates and increased adult wages. Researchers have also examined a variety of other outcomes—such as parental health or paternal engagement with children—although often with empirical designs that make it difficult to determine whether the observed statistical associations represent causal relationships.

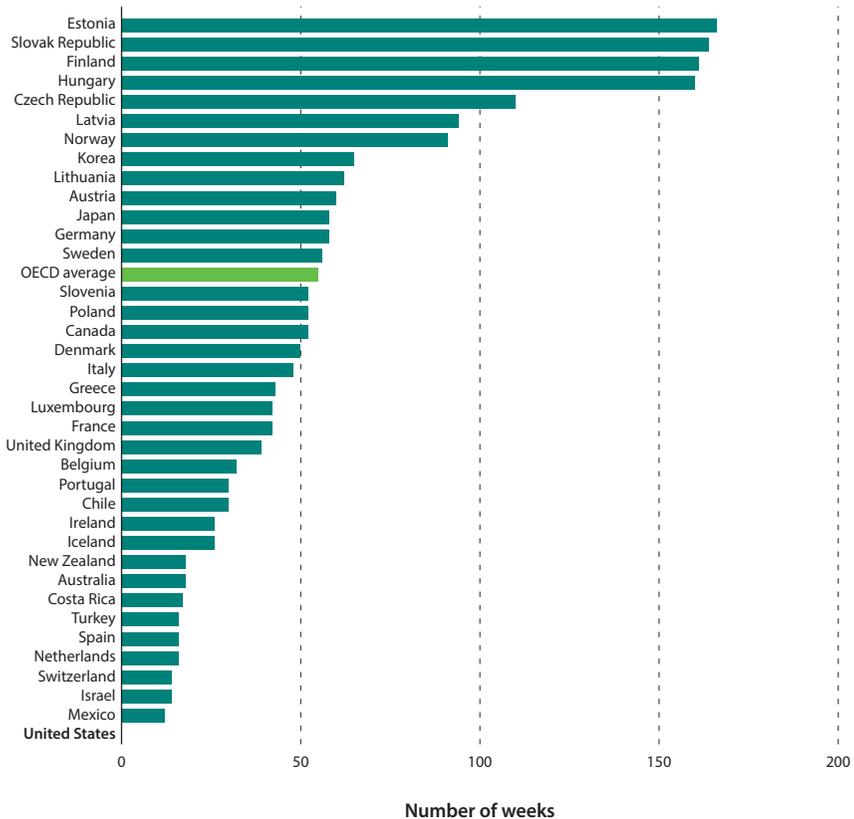
While paid leave appears to improve employment and health outcomes, voluntary provision by employers in the U.S. is relatively rare. In 2014 just 14 percent of U.S. workers had employer-sponsored paid family leave coverage, with considerably lower rates for part-time, less-skilled, and low-wage workers, or for those employed in small firms (Department of Labor 2016). These results are not surprising: there are several reasons why the private sector is unlikely to provide socially optimal levels of paid leave. Probably most important is that employers offering paid leave might attract a disproportionate share of workers with high probabilities of using it, which would be costly to the firm unless the associated expenses are sufficiently offset by reduced wages or higher productivity. Given this, it is no surprise that paid leave is most often offered to high-skill workers in sectors where competition for employees is intense; it is important to note, however, that employer provision of paid leave has been increasing over time (Stroman et al. 2017).

State policies can fill a portion of the gap but are unlikely to make paid leave available to all or even most U.S. workers. There is widespread public support for paid parental leave, including majorities of both political parties and among small businesses that are often thought to oppose it (Grodin 2016; Horowitz et al. 2017; Small Business Majority and Center for American Progress 2017). Both 2016 presidential candidates advocated for some type of paid leave policy, and additional proposals are being discussed in Congress. For all of these reasons, the time is right for the United States to establish a national paid parental leave program.

The Challenge

The United States is an outlier among industrialized countries in not providing mothers or fathers with rights to job-protected paid leave following the birth of a child. This is illustrated in figure 1, which shows the maximum number of weeks of paid leave available to mothers.² The OECD country average is 52.5 weeks, with the shortest entitlements outside the United States being 12 to 14 weeks in Mexico, Switzerland, and Israel, and the longest entitlements exceeding 100 weeks in several Eastern European countries. These durations should be interpreted with caution because wage replacement rates are often low for at least a portion of the leave period (see appendix table 1). For example, Finland offers 161 weeks of leave but at an average wage replacement rate of 26.5 percent, and the United Kingdom provides 39 weeks at a 31.3 percent average replacement rate. Worker uptake of low-paid leaves is likely to be relatively small.³ Notably, no OECD country other than the

FIGURE 1.
Total Duration of Paid Leave Entitlement for Mothers after
Childbirth, 2016



Source: OECD 2016a.

Note: Data are for OECD countries (or those with accession plans to join it). Total duration includes job-protected maternity and parental leave.

United States provides fewer than eight full-pay-equivalent weeks of leave (defined as the number of weeks multiplied by the average wage replacement rate).

The situation is very different in the United States. Prior to enactment of the Family and Medical Leave Act (FMLA) in 1993, there was no entitlement to parental leave. Under the FMLA, qualifying workers are entitled to 12 weeks of unpaid leave that they can use following the birth or adoption of a child, as well as to care for sick relatives (family leave) or their own serious health condition (medical leave). However, more than 40 percent of private sector workers do not qualify for FMLA leave, often because they do not meet the employment history requirements (1,250 work hours in the preceding year with a qualifying employer) or because they work for a small employer (fewer than 50 employees within a 75-mile radius) that is exempt from the law (Klerman, Daley, and Pozniak 2012). Another distinction between the FMLA and leave programs in many other countries is that the FMLA provides an individual rather than family entitlement. The latter would allow for an overall period of leave, most of which could be split between mothers and fathers as the household decides.

Although the United States does not have a national paid leave policy, three states—California, New Jersey, and Rhode Island—currently have programs in place; in addition, New York and the District of Columbia have enacted programs to take effect in 2018 and 2020, respectively. It is important to note that four of the five locations (the District is the exception) have layered paid family leave on top of existing state temporary disability insurance (TDI) systems. Under TDI women (but not men) are already entitled to receive six to eight weeks of paid leave to prepare for and recover from childbirth. However, other states will generally not be able to replicate these models because Hawaii is the only other state with TDI.

Table 1 summarizes characteristics of the state programs. By international standards, the parental leave rights are modest. Durations range from four to eight weeks, except in New York, where they will reach 12 weeks in 2021. Wage replacement varies from 55 percent to 67 percent, up to a maximum dollar amount, excluding DC where low-wage workers will receive up to 90 percent of previous wages.⁴ Job protection, beyond that provided under the FMLA, is supplied in Rhode Island and New York but not in California, New Jersey, or Washington, DC. However, private sector workers are generally eligible for the state leave: there are no exemptions for small firms, and coverage for family and medical leaves is the same as for births and adoptions (except in DC). The programs are financed by payroll taxes on employees in all locations except DC, where the tax is levied on employers.

There have been a number of proposals to implement paid leave policies at the national level. Most notably, the Family and Medical Insurance Leave (FAMILY) Act, sponsored by Representative Rosa DeLauro (D-CT) and Senator Kirsten Gillibrand (D-NY), has been introduced to Congress several times. It would guarantee workers 12 weeks of paid leave at a replacement rate of 66 percent (with minimum and maximum monthly benefits of \$580 and \$4,000 in its most-recent version) for job absences related to childbirth or adoption, or one's own or a relative's serious medical condition.⁵ All private workers would be covered, regardless of employer size. The Act would be administered through a newly established Office of Paid Family and Medical Leave within the Social Security Administration (SSA), and the program would be financed by 0.2 percent payroll tax contributions by both employees and employers (0.4 percent on the self-employed) paid into a dedicated

TABLE 1.
State Paid Parental or Family Leave Programs

	California	New Jersey	Rhode Island	New York	District of Columbia
Enactment/ Effective Dates	2002/2004	2008/2009	2013/2014	2016/2018	2017/2020
Duration (weeks)	6	6	4	8 (2018) 10 (2019) 12 (2021)	8 (parental) 6 (family) 2 (own health)
Wage Replacement (maximum)	55% (\$1,173), 60%–70% as of 2018	66% (\$615)	60% (\$817)	50% (2018) 55% (2019) 60% (2020) 67% (2021) ²	90% up to 150% of min. weekly wage, 50% above that (\$1,000)
Financing: Payroll Tax	Employees (0.9% of SDI taxable wage) ¹	Employees (0.1% of taxable wage)	Employees (1.2% up to \$66,300 wage base) ¹	Employees (rate TBD)	Employer (0.62%)
Coverage	Private sector, some public sector, and self-employed	Private and public sector	Private sector and some public sector	Private sector, some public sector, and self-employed	Private sector and some self-employed
Eligibility	\$300 in base quarter (5–18 months before claim)	20 weeks covered earnings ≥ \$168 during year preceding claim	\$1,920 earnings in base quarter and other conditions	26 weeks with covered employer	50% of work time is for DC employer
Job Protection (other than FMLA)	No	No	Yes	Yes	No

Sources: National Partnership for Women & Families (2017); New York State (n.d.); Rhode Island (2017); State of California (2017); State of New Jersey (n.d.).

Note: SDI = state disability insurance.

1. The payroll tax is for the entire state SDI program, and not just the parental leave portion.

2. Replacement rates are up to a specified percentage of state average weekly wage.

trust fund; questions have been raised about whether this source of financing would be sufficient, however (e.g., see Gitis 2016).

Both 2016 presidential candidates endorsed some form of paid leave. Hillary Clinton’s proposal was similar to the FAMILY Act in providing 12 weeks of paid family and medical leave, at a 66 percent replacement rate, but with financing coming from tax increases on high-income individuals rather than payroll taxes. Donald Trump’s proposal would have made available six weeks of unemployment insurance to mothers (but not fathers) following childbirth, to be financed by reducing fraud in the unemployment insurance system.⁶

A New Approach

As discussed, international evidence suggests that paid parental leave programs with generous wage replacement and durations of six to nine months impose few costs while offering substantial labor market and health benefits. However, we cannot be confident how transferable these outcomes are to the United States and its political, social, and economic

institutions. With this in mind, I propose starting with a paid parental leave program that is modest by international standards and that should be evaluated and possibly modified a few years after implementation. Such ongoing evaluation and modification is consistent with international practices. Many countries have changed their policies over time, usually moving toward increased generosity (see appendix figure 1). Large improvements in female labor market outcomes, along with possible improvements in child health, appear to accrue from initial implementation of even a fairly limited program, meaning that the first step proposed here is expected to be beneficial.

The proposal is more generous on some dimensions—particularly duration—than most state programs. This is possible because a federal program is able to avoid a race to the bottom, whereby states offer less-than-desirable paid leave levels out of a fear that over-generous levels might create an uncompetitive business environment relative to states offering even-less-generous leave benefits (or none at all).

The proposal focuses on paid parental leave and not work absences for one’s own or a relative’s serious medical condition. These programs would ideally be kept separate, since the issues and trade-offs involved are different. For instance, the timing of parental leave is more predictable and the triggering event (birth or adoption of a child) is easily verifiable. Employers might have greater concern about their ability to substantiate the need for other types of leave, and generous benefits could result in dramatic increases in use, raising program costs.

DETAILS OF PROPOSED NATIONAL PAID PARENTAL LEAVE PROGRAM

This section discusses characteristics of the proposed national paid parental leave program including eligibility, duration, wage replacement rate, financing, and administration. While these components are all interrelated, I discuss them sequentially.

Eligibility: Paid parental leave would be broadly available to all individuals meeting minimal qualification conditions.

The FMLA covers only around 60 percent of new parents because of relatively stringent work history requirements and because small employers are exempt. Both limitations are undesirable. Employees in small establishments have been excluded under the assumption that leave is more disruptive to their employers. However, the (admittedly incomplete) evidence provides little empirical support for this view, and the benefits of leave to workers do not depend on employer size.⁷

Under the current proposal, all employees qualifying for the minimum benefit level would be eligible for paid leave. Specifically, there would be no exclusion for small employers. The self-employed would also be eligible according to the same criteria. The leave would be an individual (rather than family) right, equally available to both parents. Providing equal rights to mothers and fathers helps to establish the principle of gender equality in employment opportunity and family responsibilities. This is consistent with a view that the optimal amount of leave could be higher for mothers than for fathers, as mothers would likely make more use of the benefit than would fathers. However, equality in the provision of leave does increase its use by fathers (e.g., see Bartel et al. 2015; Baum and Ruhm 2016; Patnaik 2016).

Duration: Twelve weeks of paid leave would be available during the 12 months following childbirth.

As mentioned, many European countries offer rights to six months or a year off work (or more) following birth or adoption of a child. Canada provides for a full year of leave. However, this proposal is for a much shorter 12 weeks of paid leave in the United States. This is longer than the four to six weeks in the three states with paid leave programs already in place; importantly, though, those state programs are layered on top of TDI systems that provide mothers with an additional six to eight weeks of paid leave. Thus, the effective duration proposed for the national program is similar to what mothers in these states currently receive. It is noteworthy that state programs might be moving toward longer leave periods, with 12 weeks to be offered in New York once the program is fully phased in, and eight weeks in Washington, DC.

In most cases, the leave would be fully job-protected. Job-protection is important because many new parents might be hesitant to take time off work without an assurance that their job will be available upon return. Leave would therefore be job-protected except in the case of workers with very limited histories with the firm, given the unfairness of asking employers to hold a job for an individual who has only recently been hired.

The leave could be taken at any time during the year after childbirth. Among other benefits, this provides parents with the option to coordinate leave-taking (e.g., allowing them to stagger their time at home with the infant). However, to reduce administrative costs to employers, there would be a one-week minimum duration for any leave spell, with advance notice provided to employers where possible.⁸

Wage replacement rate: Seventy-five percent of the first \$400 of weekly wages would be replaced, and 50 percent of additional wages (up to the Social Security taxable earnings cap) would be replaced.

Two basic principles motivate this design detail. First, the national leave program should replace some but not all lost wages: balancing the needs of work and family is a shared responsibility, yielding benefits for the country and the household. Thus, it is desirable to provide significant assistance to new parents but also appropriate for families to bear some of the economic costs. In addition, this shared burden recognizes that some job expenses, like commuting costs, are avoided when the individual is on leave. Second, offering higher replacement rates for the first dollars of earnings targets the benefits to the less well-off, while offering additional assistance to the middle-class. This structure also reduces the amount of crowd-out of paid parental leave currently offered by private employers, since those benefits are concentrated among relatively highly paid workers who will derive proportionally smaller benefits from the federal program.⁹

The wage replacement rate would be calculated based on Social Security taxable earnings during a 12-month period ending three months prior to the birth. Use of the 12-month period smooths any short-term fluctuations in work histories, and ending the base period several months before the birth avoids benefit reductions resulting from reduced labor supply (e.g., due to periods of partial or complete bed rest) that sometimes occurs shortly prior to childbirth.

Specifically, I propose that weekly benefit levels during the leave period be computed as follows: total earnings subject to Social Security payroll taxes over the 12-month period would be divided by 52 to provide the weekly wage base; the weekly leave benefit would then be calculated as 75 percent of the first \$400 of wages and 50 percent of any additional wages, up to the Social Security taxable earnings cap.¹⁰ The initial \$400 threshold is based on 40 hours per week of work at \$10 per hour, but could be adjusted upward or downward as desired.

Some examples help illustrate how wage replacement would be calculated. An individual averaging 40 hours per week at \$10/hour, over the full 12-month period, would receive a weekly leave benefit of \$300, or a cumulative maximum of \$3,600 if the full 12 weeks of leave were used. A low-wage, part-time worker averaging 20 hours per week at \$10/hour over the 12 months would qualify for weekly leave benefits of \$150. The highest possible benefit would be earned by an employee receiving the maximum Social Security payroll tax earnings (\$127,200 in 2017); the weekly benefit would be \$1,323.¹¹ The benefit schedule extends federal support throughout the income distribution, making the program available to the large majority of workers with children. The structure also allows for those with limited work histories to receive benefits. The parental leave payments would be fully subject to federal income taxes.

Financing: The paid leave program would be financed by general revenues.

The most desirable form of financing would be from general revenues, with the paid leave program treated as an entitlement despite the absence of a dedicated trust fund. The use of general revenues creates the broadest financing base, and one that is separated from employment decisions. By contrast, taxes on employees or employers drive a wedge between productivity and compensation that might inordinately discourage employment, particularly for low-wage workers. However, financing through general revenues introduces two challenges. First, there might be strong political opposition to this source of funding since it requires a combination of general tax increases, spending cuts in other programs, or higher budget deficits. Second, unless the paid leave program were treated as an entitlement, there would be the risk of it receiving inadequate appropriations for successful operation.

Administration: The program would be administered through a newly established Office of Paid Parental Leave within the Social Security Administration (SSA).

There are several advantages to administering the program through a newly established office within the SSA. First, SSA already has experience and expertise in most of the important administrative aspects of the program, including the determination of benefit levels and dissemination of payments. Second, the leave benefits will be calculated using data on payroll taxable earnings that the SSA already possesses.

Other administrative structures are possible, particularly if the program were financed by general revenues rather than payroll taxes. For example, leave payments could be made by employers who would then be reimbursed by the Internal Revenue Service for the cost of benefits plus program administration (Glynn 2015). This is similar to the approach used in Australia. However, such an administrative structure is likely to be considerably more complex and expensive. For instance, many employers would still need to receive information from the Social Security Administration to calculate leave benefits (e.g., for

workers who were not employed at the same firm during the entirety of the 12-month base period) and there would be additional difficulties related to the payment of benefits to the self-employed or individuals holding multiple jobs.

PROGRAM EVALUATION

Existing research strongly supports the introduction of a federal paid leave policy, but it does not supply the full array of information required to design the ideal paid leave program for the United States. The generosity of the proposed program is intentionally low by international standards in terms of duration and wage replacement rates, in part because we have an incomplete understanding of the costs that the program might impose on employers, their responses to the program, and how the leave provisions might interact with other employer mandates.

For these reasons, the program should be carefully assessed three to five years after initial implementation. Some components of this evaluation include measuring leave take-up rates among eligible parents in total and for subsamples defined by sex, age, other demographic characteristics (e.g., education, race/ethnicity, and marital status), firm size, industry, and occupation. Estimates of the average duration of leave-taking and the distribution of leaves would also be made, both for the total population of eligible parents and for the subsamples just defined. In addition, the evaluation would investigate barriers to leave use among people who choose not to use the leave entitlement, as well as program effects on hiring, retention, and promotion of groups most often using the paid leave benefits. The examination should also carefully consider employer attitudes toward the program; effects on productivity, turnover, absenteeism, and profitability; and specific problems potentially faced by employers (e.g., coordinating work schedules or holding jobs open for workers on leave). This second part of the evaluation should cover all employers but also provide information specific to subsamples based on firm size, industry, and employer share of part-time and female workers. Finally, the evaluation should examine issues related to program administration and changes in state and private provision of leave.

Questions and Concerns

1. Are there ways to finance the paid leave program other than from general revenues?

Financing could occur through payroll taxes (possibly paid into a dedicated trust fund), which is the mechanism used by all state programs and most other countries. In this case, there remains the question of whether the payroll taxes are paid by employers or by employees, or whether the taxes would be split between the two. In a simple economic model, the ultimate burden of the tax is independent of who it is levied on. In practice, because of institutional constraints like wage floors and other factors, the distribution of burden may depend on how the tax is divided across employers and employees.

2. Why not have a set of state programs rather than a single federal program?

Requiring each state to develop its own program would increase administrative costs and potentially create unfunded mandates for states. Program administration might also be burdensome in many states. The three states currently operating paid leave programs

(California, New Jersey, and Rhode Island) have layered them on top of existing TDI administrative structures. Only two other states have TDI (New York and Hawaii). All other states would have to develop new administrative structures or use existing ones, such as their unemployment insurance systems. Under the current proposal, states would certainly be permitted to supplement the federal program with more-generous benefits.

3. If other forms of family and medical leave were bundled with parental leave, how should this be accommodated?

The proposal in this paper does not address paid leave to care for one's own or a relative's serious medical condition. Covering these types of leave separately would be desirable since the incentives, issues, and complicating factors are quite different.

However, if the other forms of family and medical leave were combined with parental leave into a single program, several changes in program structure should be considered. First, it might be desirable to offer lower replacement rates and/or a shorter duration for family and medical leave than for parental leave. The District of Columbia's program will do this by providing eight weeks of parental leave, six weeks of family leave, and two weeks of medical leave. Second, wage replacement rates could be lower for leave other than parental leave. Third, a waiting period (during which leave is unpaid) could be imposed for family or medical leave, which would limit worker usage to affordable levels. Waiting periods, typically one week long, are already used in some state programs.

4. How would the federal leave program affect existing state and private parental leave benefits?

Several states and many private employers currently offer paid leave benefits. Nothing in the national program would prevent them from continuing to do so and it would be up to them to decide how to coordinate their benefits with it, although it is anticipated that most would provide a full or partial top-up to the federal benefits. Inevitably, the establishment of a national program will result in some crowd-out of benefits that were previously provided by states or employers. As discussed, since relatively few workers currently receive paid parental leave, the extent of crowd-out will likely not be large (although in principle employers could reduce other types of leave benefits such as sick leave or vacation). In addition, the 50 percent replacement rate, after the first \$400 of weekly wages, and the maximum threshold on the earnings base imply the lowest overall wage replacement rates for the high-skill and highly paid workers currently most likely to receive benefits. Thus, companies employing these workers are often likely to continue providing at least some private parental leave benefit.

Conclusion

The proposed parental leave program is—by design—modest compared with programs in other countries. Maternal rights to leave following the birth of a child would still be more limited—in duration or replacement rates, or both—than in all other OECD countries.¹² This limited generosity is intentional, motivated by the uncertainty involved with the introduction of any new program, as well as concerns about the impact on employers. Evaluating the program after it has been in place for several years will be of great value.

Even at the proposed level of generosity, a national paid parental leave policy represents an important step toward helping U.S. workers balance the competing responsibilities of jobs and families. The proposal calls for higher rates of wage replacement for the least advantaged workers and provides equal treatment of mothers and fathers. It embodies the principle that paid parental leave is a family value that promotes labor market opportunities for mothers and provides health benefits for children, while recognizing that the promotion of such family values represents a shared responsibility between families and society at large.

APPENDIX TABLE 1.

Paid Leave Entitlement for Mothers after Childbirth, 2016

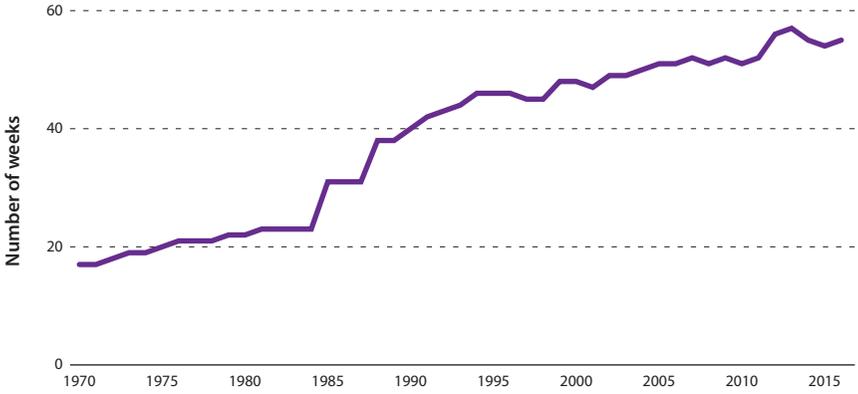
	Paid maternity leave			Paid parental and home care leave available to mothers			Total paid leave available to mothers		
	Length, in weeks	Average payment rate (percent)	Full-rate equivalent, in weeks	Length, in weeks	Average payment rate (percent)	Full-rate equivalent, in weeks	Length, in weeks	Average payment rate (percent)	Full-rate equivalent, in weeks
	(1)	(2)	(3)	(4)	(5)	(6)	(7)=(1)+(4)	(8)	(9)
Australia	6.0	42.3	2.5	12.0	42.3	5.1	18.0	42.3	7.6
Austria	16.0	100.0	16.0	44.0	80.0	35.2	60.0	85.3	51.2
Belgium	15.0	64.1	9.6	17.3	20.2	3.5	32.3	40.6	13.1
Canada	17.0	48.4	8.2	35.0	54.9	19.2	52.0	52.8	27.4
Chile	18.0	100.0	18.0	12.0	100.0	12.0	30.0	100.0	30.0
Czech Republic	28.0	62.6	17.5	82.0	43.4	35.6	110.0	48.3	53.1
Denmark	18.0	53.6	9.6	32.0	53.6	17.1	50.0	53.6	26.8
Estonia	20.0	100.0	20.0	146.0	44.5	65.0	166.0	51.2	85.0
Finland	17.5	78.5	13.7	143.5	19.7	28.2	161.0	26.1	41.9
France	16.0	94.2	15.1	26.0	14.5	3.8	42.0	44.9	18.8
Germany	14.0	100.0	14.0	44.0	65.0	28.6	58.0	73.4	42.6
Greece	43.0	54.2	23.3	0.0	0.0	0.0	43.0	54.2	23.3
Hungary	24.0	70.0	16.8	136.0	40.4	55.0	160.0	44.9	71.8
Iceland	13.0	59.7	7.8	13.0	59.7	7.8	26.0	59.7	15.5
Ireland	26.0	34.3	8.9	0.0	0.0	0.0	26.0	34.3	8.9
Israel	14.0	100.0	14.0	0.0	0.0	0.0	14.0	100.0	14.0
Italy	21.7	80.0	17.4	26.0	30.0	7.8	47.7	52.7	25.2
Japan	14.0	67.0	9.4	44.0	59.9	26.4	58.0	61.6	35.8
Korea	12.9	79.5	10.2	52.0	28.5	14.8	64.9	38.6	25.0
Latvia	16.0	80.0	12.8	78.0	51.9	40.5	94.0	56.7	53.3
Luxembourg	16.0	100.0	16.0	26.0	38.4	10.0	42.0	61.9	26.0
Mexico	12.0	100.0	12.0	0.0	0.0	0.0	12.0	100.0	12.0
Netherlands	16.0	100.0	16.0	0.0	0.0	0.0	16.0	100.0	16.0
New Zealand	18.0	42.6	7.7	0.0	0.0	0.0	18.0	42.6	7.7
Norway	13.0	97.9	12.7	78.0	41.3	32.2	91.0	49.4	45.0
Poland	20.0	100.0	20.0	32.0	67.5	21.6	52.0	80.0	41.6
Portugal	6.0	100.0	6.0	24.1	59.6	14.4	30.1	67.7	20.4
Slovak Republic	34.0	70.0	23.8	130.0	23.0	29.9	164.0	32.7	53.7
Slovenia	15.0	100.0	15.0	37.1	90.0	33.4	52.1	92.9	48.4
Spain	16.0	100.0	16.0	0.0	0.0	0.0	16.0	100.0	16.0
Sweden	12.9	77.6	10.0	42.9	57.7	24.7	55.7	62.3	34.7
Switzerland	14.0	56.4	7.9	0.0	0.0	0.0	14.0	56.4	7.9
Turkey	16.0	66.0	10.6	0.0	0.0	0.0	16.0	66.0	10.6
United Kingdom	39.0	30.9	12.1	0.0	0.0	0.0	39.0	30.9	12.1
United States	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OECD average	17.7	-	-	37.5	-	-	55.2	-	-
Costa Rica	17.3	100.0	17.3	0.0	0.0	0.0	17.3	100.0	17.3
Bulgaria	58.6	78.4	45.9	51.9	37.7	19.6	110.4	59.3	65.5
Croatia	30.0	100.0	30.0	26.0	33.6	8.7	56.0	69.2	38.7
Cyprus	18.0	75.2	13.5	0.0	0.0	0.0	18.0	75.2	13.5
Lithuania	18.0	100.0	18.0	44.0	100.0	44.0	62.0	100.0	62.0
Malta	18.0	87.0	15.7	0.0	0.0	0.0	18.0	87.0	15.7
Romania	18.0	85.0	15.3	38.7	85.0	32.9	56.7	-	-
EU average	21.8	-	-	43.8	-	-	65.6	-	-
Eurozone average	19.1	-	-	41.4	-	-	60.4	-	-

Source: OECD 2017.

Note: The table refers to paid leave entitlements in place as of April 2016. Data reflect entitlements at the national or federal level only, and do not reflect regional variations or additional/alternative entitlements provided by states/provinces or local governments in some countries (e.g., Québec in Canada, or California in the United States). See OECD (2017) for additional details.

APPENDIX FIGURE 1.

OECD Average Duration of Paid Leave Entitlement for Mothers after Childbirth, 1970–2016



Source: OECD 2016a.



Endnotes

1. AEI-Brookings Working Group on Paid Family Leave (2017) and Rossin-Slater (forthcoming) provide recent and fairly comprehensive summaries of the research on the consequences of paid leave.
2. This includes *maternity* leave, which is available only to mothers, as well as parental leave, which is generally available to either parent but in practice is used most often by mothers. I combine both in my discussion of parental leave in this proposal.
3. For example, approximately 90 percent of Austrian mothers with infants—whose leave is highly paid—were on leave during a 2013 survey reference week compared with about 30 percent of corresponding French mothers, whose paid leave is much lower (OECD 2016b).
4. San Francisco recently passed an ordinance requiring employers to top up the leave wage replacement rate to 100 percent (to a maximum of \$1,173/week) for six weeks following the birth of a child, with exceptions for small employers. See San Francisco Office of Labor Standards Enforcement (2016) for details. Washington state has also just (in July 2017) enacted a paid family leave program, which will start in 2020 and is not discussed here.
5. See National Partnership for Women & Families (2017) for a summary of the FAMILY Act, and U.S. Congress (2017b) for text of the proposed law.
6. For further details on the Clinton and Trump plans, see Sholar (2016). President Trump has since modified his proposal to include fathers as well as mothers. Other congressional proposals include the Strong Families Act (U.S. Congress 2017c), which would provide employer tax credits to employers providing paid leave, and the Working Families Flexibility Act (U.S. Congress 2017a), which would allow workers to receive paid leave in lieu of overtime pay.
7. The majority of small employers are supportive of the FAMILY Act (U.S. Congress 2017b). Evidence from Rhode Island indicates that 61 percent of small employers (10 to 99 employees) favor or strongly favor that state's parental leave program, while just 24 percent oppose or strongly oppose it (Bartel et al. 2016).
8. Some employers report difficulties created by short leaves such as those taken for a day or two at a time (Falcone 2010). The advance notice provision could apply to leaves taken in periods not immediately following childbirth and with exceptions made for emergencies.
9. In 2016 just 4 percent of workers in occupations that make up the lowest decile of occupation average income received paid family leave benefits, compared to 23 percent of workers in the top decile. Similarly, 27 percent of management employees received paid leave benefits versus 8 percent of service and 6 percent of production workers (Department of Labor 2016).
10. The minimum weekly benefit would be \$50, requiring annual earnings over the 12-month period of \$3,467. All specific dollar amounts in this proposal refer to 2017 and would increase with cost-of-living or average wage increases in later years.
11. Average weekly earnings for this individual, over the base period, are \$2,446 ($\$127,200/52$). The leave benefit is then calculated as $(\$400 \times 0.75) + (\$2,446 - \$400) \times 0.5$.
12. One exception is that the U.S. program would be very slightly (about one full-pay-equivalent week of leave) more generous than that in Switzerland for the lowest-earning mothers.

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Public Investments in Child Care

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Abstract

Child care is a necessity for working women with young children. Yet, the costs of high-quality center-based child care in the United States—particularly for children under age five—are prohibitively high for many families. In this proposal, I describe a multifaceted approach to child-care policy that reduces the financial burden of child care, encourages maternal employment, and supports child development. I propose to replace existing federal child-care tax policies with a single refundable federal child-care tax credit that is more generous to lower-income families and families with children under the age of five. To address child care quality, I propose investments in Quality Rating and Improvement Systems and in expansion of universal preschool for four-year-olds. State and local governments could pursue these investments on their own or with federal assistance.

Introduction

Though public schools across the United States provide free child care during the school day starting at about age five, there is more limited subsidization of the care of children under age five (Cascio 2009; Fitzpatrick 2012; Gelbach 2002). This is particularly the case for infants and toddlers, where care possibilities range from informal arrangements with relatives, neighbors, or friends to enrollment in private child-care centers. Costs vary dramatically along the spectrum of formality: although informal caregivers might not charge a fee, the average center-based program for infants costs nearly \$16,200 per year in 2016 dollars (Datta et al. 2015).

Such high sticker prices make center-based care—if not employment itself—unrealistic for many mothers of young children. In 2015 about 68 percent of mothers with children under age five were employed at all; a slim majority of these workers were employed full time and full year. And of all working mothers only 44 percent incurred any child-care costs as a result of their employment, with expenses averaging \$6,200—or about 17 percent of the average mother’s earnings—among those paying for care (author’s calculations; Bureau of Labor Statistics [BLS] 2016). Informal care arrangements for young children are therefore common, but when families pay for child care, they can represent a substantial share of income.¹

Statistics such as these have motivated recent proposals to change the tax treatment of child-care costs. Among these is a suite of reforms proposed by President Trump during the 2016 presidential election campaign. As described by Batchelder et al. (2017, 1), however, these proposals—a new tax deduction, a refundable tax credit, and a tax-preferred dependent care savings account—“provide limited benefits to those who are likely to need the most help affording child care.” Current federal tax policy regarding child care is already regressive, and means-tested federal subsidies for child care are limited. Both existing federal policy and tax proposals like Trump’s also treat all children under the age of 13 equally, despite the larger costs of caring for younger children, and take no steps to ensure that child care quality is high. How the youngest children spend their time has long-term implications not just for the children themselves, but also for the future U.S. economy.

In this proposal, I describe a multifaceted approach to child-care policy that aims to achieve three goals: (1) relieving the financial burden of child care, (2) encouraging maternal employment, and (3) supporting child development. My central proposal is to replace existing federal child-care tax policy with a new, refundable, federal child-care tax credit that is more generous not only for lower-income families, but also for families with children under the age of five. Because tax policy cannot easily ensure child care quality, I then discuss two supplementary proposals to support quality in center-based program offerings for young children: continued investments in Quality Rating and Improvement Systems and in preschool expansion. State and local governments could pursue these investments on their own or with the help of federal dollars.

The Challenge

CURRENT CHILD-CARE POLICY

The existing child-care policy landscape in the United States consists of a patchwork quilt of programs with different goals—human capital development versus work support—run by different agencies if not different levels of government, and serving children of different ages and income levels. Table 1 outlines the major programs, by child age. To encompass the dual role of these programs, I refer to them collectively as early childhood education and care (ECEC) from here forward. For completeness, the table incorporates public K–12 education, which provides free child care during the school day. In October 2014 over 85 percent of five- to twelve-year-olds were enrolled in public schools, compared to 1.2 percent of children under age five—statistics that are not surprising given that most children are eligible for kindergarten only if they have turned five years old by the fall of a given academic year.

Among children under age five, preschoolers (ages three and four) are more likely to be served via direct public provision—or in school-like programs that also provide child care—than are infants (aged under one) and toddlers (ages one and two). Since the 1980s, large gains in publicly funded ECEC for preschool-age children, particularly for four-year-olds, have come through state-funded (pre-K) programs (Cascio and Schanzenbach 2013). In 2014–15 an estimated 1.16 million four-year-olds (29 percent of all four-year-olds) and 193,000 three-year-olds (4.8 percent of all three-year-olds) participated in state pre-K programs (Barnett et al. 2016). Most of these programs focus on disadvantaged children,

TABLE 1.
Spending and Coverage of Major ECEC Programs, by Child Age

	Spending ^a (billions of 2016 dollars)	Percent of children served, by child age							Percent of families with children served	Eligibility	
		0	1	2	3	4	0 to 4	5 to 12			
Direct provision	K-12 Education (Public)	632	-	-	-	1.3	4.9	1.2	86.4	-	Usually based on age
	State- Funded Pre-K	6.25		0.24		4.8	29.0	7.0	-	-	Varies by state; ≤185% FPL common
	Head Start	8.67	1.4	1.4	2.2	9.9	12.1	5.4	-	-	≤130% FPL
Tax and subsidy policy	CCDF Child Care Subsidies	5.42	1.8	3.5	4.6	4.9	4.5	3.9	1.7	1.7	Varies by state; no more than 85% SMI
	CDCTC	3.42	-	-	-	-	-	-	-	12.5	Earned income > 0 ^{c,d}
	Dependent Care FSAs ^b	1.14	-	-	-	-	-	-	-	2.8	Employer must offer ^d

Note: – = not applicable/available; FPL = federal poverty line; SMI = state median income; CCDF = Child Care and Development Fund; CDCTC = Child and Dependent Care Tax Credit; DCFSA = Dependent Care Flexible Spending Account. Percentages of children enrolled in public K–12 education were calculated from the 2014 October Current Population Survey; K–12 spending is drawn from the *The Condition of Education 2017* (NCES 2017) and pertains to the 2013–14 academic year. Figures for the CDCTC and DCFSA correspond to the 2016 tax year, while figures for Head Start, state-funded pre-K programs, and CCDF child-care subsidies correspond to the 2015 fiscal year (2014–15 program year), with monetary values inflated to 2016 dollars using the CPI-U. These program-specific enrollment numbers by age were normalized by Census Bureau estimates of population for July 1, 2014, and the number of family beneficiaries were normalized by the Urban-Brookings Tax Policy Center’s estimates of the number of tax-filing units with children in the 2016 tax year.

a. These are outlays by the federal government (in the case of Head Start, CCDF child-care subsidies, the CDCTC, and DCFSA); state governments (in the case of state-funded pre-K); and state, local, and federal governments (in the case of K–12 education).

b. Also known as the “child-care exclusion” or the “employment exclusion.”

c. Both parents in a married couple must work for the couple to be able to claim the CDCTC.

d. In practice, beneficiaries have positive tax liability.

but some, such as large, well-known, and long-operating programs in Georgia and Oklahoma, are universal. (See box 1.) Though perennially underfunded, the federal Head Start program has provided targeted ECEC to economically disadvantaged preschoolers since the mid-1960s. That program enrolled about 484,000 four-year-olds (12.1 percent) and 396,000 three-year-olds (9.9 percent) in 2014–15.²

Available (but still rare) for infants and toddler are subsidies that can be used to offset the costs of child care on the private market. Subject to availability, the Child Care and Development Fund, which consolidated federal child-care subsidy programs into a block grant as part of federal welfare reform in 1996, provides means-tested vouchers for child care to working applicants with children under age 13. States have considerable discretion regarding reimbursement rates and copayments, and are free to set the income test at less than the federally suggested 85 percent of state median income. In the average month in the 2015 fiscal year, CCDF child-care subsidies helped to fund the care of about 70,000 infants (1.8 percent) and 321,000 toddlers (4.1 percent). They also served about 196,000 three-year-olds (4.9 percent) and 180,610 four-year-olds (4.5 percent).³

BOX 1.

Universal versus Targeted ECEC Programs

ECEC programs can be divided into two mutually exclusive groups. Universal ECEC serves all children who meet age requirements (and, if applicable, residency requirements). Prominent examples of universal ECEC include the pre-K programs in the states of Georgia and Oklahoma—first funded in 1995 and 1998, respectively—the effects of which have been widely studied (e.g., Cascio and Schanzenbach 2013; Fitzpatrick 2008, 2010; Gormley and Gayer 2005).

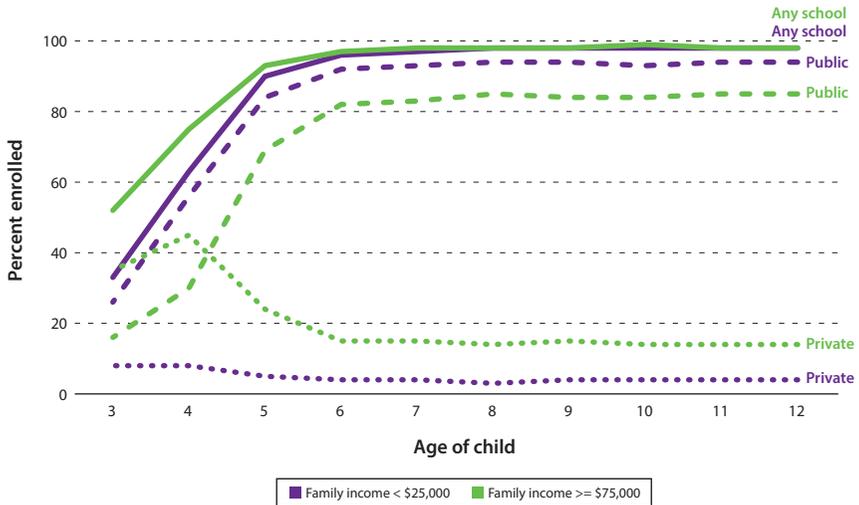
By contrast, targeted ECEC programs impose additional eligibility requirements in an attempt to limit service to economically and/or socially disadvantaged children. Means-testing, or the application of eligibility cutoffs based on family income, is the most common targeting technique. For example, most slots in Head Start are reserved for children from families with incomes at or below 130 percent of the federal poverty line (FPL), and Child Care and Development Fund (CCDF) subsidies have family income thresholds that vary across states. Many state pre-K programs also establish eligibility based on the income threshold for reduced-price school lunch (185 percent FPL). However, other state pre-K programs use alternative criteria, such as maternal education, teenage motherhood, or status as an English language learner, to establish eligibility.

Regardless of whether an ECEC program is universal or targeted, meeting eligibility requirements does not ensure a spot in the program. Appropriations for Head Start have never been large enough to enroll all children who meet eligibility criteria. Some universal state pre-K programs operate out of a limited number of sites and so do not serve all children within the state who meet eligibility requirements. Furthermore, ECEC attendance is not mandatory for eligible children.

Two additional tax programs—the Child and Dependent Care Tax Credit (CDCTC) and Dependent Care Flexible Spending Accounts (DCFSA, sometimes referred to as the “employment exclusion” or “child-care exclusion”)—provide preferential tax treatment for the costs of caring for children under age 13. However, these policies are neither generous nor likely to help the families most financially burdened by child care (Maag 2013). The CDCTC maxes out at \$1,050 for families with one child and at \$2,100 for families with two or more children. As a nonrefundable tax credit, it benefits only those families with positive tax liability; in 2016 nearly 40 percent of CDCTC benefits went to families with incomes of \$100,000 or more. In practice, the program provides \$3.4 billion in benefits annually and reaches only 12.5 percent of families with children. The distribution of benefits from DCFSA, which allow families to set aside up to \$5,000 in pretax earnings annually for child care, is even more weighted to higher-income families, but the program is smaller, reaching 2.8 percent of families at a cost of \$1.14 billion.

FIGURE 1.

Overall, Public, and Private School Enrollment, by Age of Child and Family Income



Source: Author's calculations from the 2011–14 October Education Supplements of the Current Population Survey (Flood et al. 2015).

Note: Family income pertains to family of the householder. School enrollment includes nursery school, preschool, pre-K, and K-12 education.

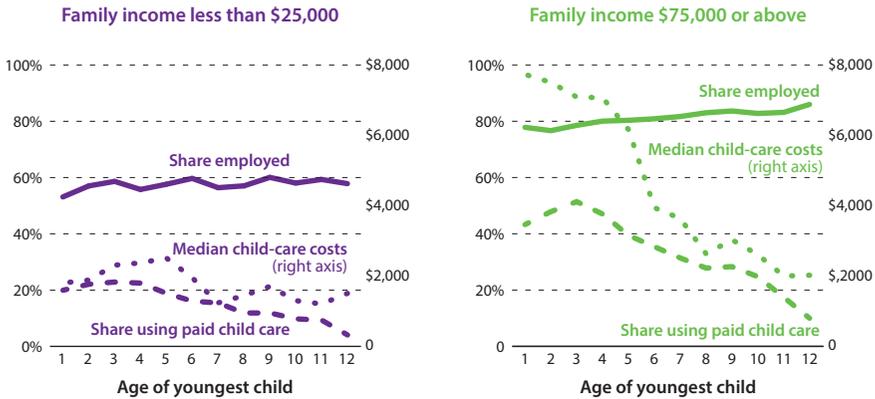
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Since the programs listed in table 1 vary in terms of the populations they reach, the fraction of disadvantaged children affected could be considerably different from the overall rates reported. To get a sense of the age and income variation in subsidy generosity, figure 1 plots school enrollment rates by child age and family income, where family income is divided into two groups—less than \$25,000 (roughly the federal poverty line) and at least \$75,000 annually. As expected, three- and four-year-old children of lower-income families (depicted by the purple lines) are more likely to be enrolled in public programs. However, at these young ages the higher rate of private enrollment among children of higher-income families (depicted by the light green lines) offsets the public enrollment gap. Overall, enrollment is 12 percentage points higher for four-year-olds with higher-income families (75 percent for higher-income families versus 63 percent for lower-income mothers) and 19 percentage points higher for three-year-olds with higher-income families (52 percent versus 33 percent).⁴ Other data also suggest substantial socioeconomic gaps in participation in center-based care for infants and toddlers (Laughlin 2013).

Figure 2 provides an alternative visualization of the age and income variation in subsidy generosity, showing the percent of families using any paid child care (left axis) and median amount spent (among families with positive spending, right axis) by family income and the age of youngest child. Consistent with the targeted nature of most of the programs

FIGURE 2.

Maternal Employment and Child-Care Expenses by Age of Youngest Child and Family Income



Source: Author's calculations from the 2011–16 Current Population Survey Annual Social and Economic Supplement (ASEC).

Note: All dollar values are in 2016 dollars. A mother is categorized as employed if she had positive wage, salary, or self-employment income the prior year. Child care spending variables also correspond to the prior year, when children would have been on average more than a half year younger than reported on the horizontal axis. Median child-care costs (right axis) are calculated among the subsample of mothers with any child-care spending.

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just described, higher-income mothers are more likely to be paying out of pocket and to pay more for child care than their lower-income counterparts at all child ages. However, income-based differences in the likelihood of paying for child care and in the median amount paid out of pocket shrink dramatically between when a youngest child is age four and age six, as children age into public school eligibility. Even so, paying substantial sums for child care remains common among mothers with school-age children.

IMPACTS

It is uncontroversial that policies like those outlined in table 1 relieve the financial burden of child-care costs. But to what extent do they achieve the other two policy goals of supporting maternal employment and promoting child development? How sensitive is maternal employment to subsidies, and which program characteristics are most important for child development? In practice, the goal of the program is the key determinant of what it achieves.

Maternal Employment

In theory, the higher are child-care costs, the more they offset a mother's earnings, and the greater the chance that it is not economically sensible for her to work. However, an impact of child-care costs on employment can be hard to detect. This is evident in figure 2, which does not show a large increase in maternal employment as children age into school eligibility and families experience a reduction in child-care costs (Lubotsky and Qureshi 2017). Studies

that exploit quasi-experimental variation in eligibility for public school kindergarten (Cascio 2009; Fitzpatrick 2012; Gelbach 2002) and universal pre-K (Cascio and Schanzenbach 2013; Fitzpatrick 2010) generally confirm this result. (One exception is for single women responding to child care costs for their youngest child [Cascio 2009; Fitzpatrick 2012].) A possible explanation is that a full day of school typically does not cover the entire workday, and child-care expenses do not fall to zero when a child becomes school-eligible.

By contrast, studies of child-care subsidies in the form of vouchers to parents or providers tend to find more systematic impacts on maternal employment. In particular, Tekin (2005) and Blau and Tekin (2007) show that the child-care subsidies provided through the Child Care and Development Fund—which can cover the full work day and are designed to promote employment—increase the employment chances of low-income single women.⁵ More generally, the labor supply decisions of single women have over time become more sensitive to wages (Eissa and Liebman 1996; McClelland and Mok 2012; Meyer and Rosenbaum 2001).

Recent declines in employment of less-educated single mothers with young children have been noticeable, but for less-educated married mothers, they have been staggering: between 2000 and 2016 the likelihood of earning any income during the prior year fell by more than 13 percentage points for married mothers with young children and no more than a high school diploma, compared to a 6 percentage-point decline for their single counterparts (author's calculations; Flood et al. 2015). While the role of rising child-care costs in these declines is unclear, policies to make child care more affordable, such as the tax credit proposal outlined in this paper, could promote employment among mothers.⁶ However, it is important to realize that such efforts might end up being more effective for single women, because the employment of married women has recently been less responsive to changes in after-tax wages (Blau and Kahn 2007; Heim 2007).

Child Development

Unfortunately, the same child-care subsidies that increase maternal employment might actually be detrimental for children. For example, Herbst and Tekin (2010a, 2010b) show that CCDF child-care subsidies lowered test performance of children with single mothers, at least in the short term. The authors attribute this finding to a lack of concern over ECEC quality in allocation of the subsidies.⁷ Without simultaneously addressing the issue of quality, new child-care tax or subsidy policy could therefore leave children worse off even while it facilitates maternal employment.

What defines high-quality ECEC? In practice, it is not something as simple as licensure of child-care providers. Though important, child-care regulations and licensing are first and foremost intended to ensure children's safety, making them a poor guarantor of quality; in fact, nearly three quarters of CCDF subsidy beneficiaries already use licensed centers. There is tremendous variation in the quality of ECEC among licensed programs. Variation exists in structural quality, indicated by class size and teacher education, where programs differ in how far they exceed minimum regulatory standards. Variation also exists in process quality, for example in the level of stimulation and support evident in interactions between children and their caregivers, which is not regulated at all. Process quality appears to be more predictive of test score gains than are the traditional input measures. (See box 2.)

BOX 2.

Structural Quality versus Process Quality

ECEC scholars differentiate two dimensions of quality: (1) structural quality and (2) process quality. A comprehensive overview of the evidence on preschool education (Yoshikawa et al. 2013, 6) described the two dimensions of quality as follows: “Process quality features—children’s immediate experience of positive and stimulating interactions—are the most important contributors to children’s gains in language, literacy, mathematics, and social skills. Structural features of quality (those features of quality that can be changed by structuring the setting differently or putting different requirements for staff in place, like group size, ratio, or teacher qualifications) help to create the conditions for positive process quality, but do not ensure that it will occur.” Measurement of process quality is much more fraught than measurement of structural quality. The most well-known and oft-used process quality metric is the Classroom Assessment Scoring System (or CLASS), which is based on a rubric and observation by trained personnel. Sabol et al. (2013) find CLASS to be more predictive of children’s test score gains than traditional input measures. Likewise, Araujo, Dormal, and Schady (2017) find that infants and toddlers who are effectively randomly assigned within child-care centers to caregivers with higher CLASS scores have better development outcomes; assignment to a caregiver with more experience improves child outcomes as well, but caregiver education—a structural quality measure—has no impact.

Directly provided ECEC appears more likely to be high quality than the child-care options available to low-income families receiving CCDF subsidies. A growing literature documents the positive test score impacts of universal pre-K for disadvantaged four-year-olds, both in the short run (Cascio 2017; Gormley and Gayer 2005; Weiland and Yoshikawa 2013) and over the medium term (Cascio and Schanzenbach 2013; Fitzpatrick 2008). Many of these universal pre-K programs are thought to have high levels of both structural and process quality; the alternatives to universal pre-K generally include other center-based programs, and universal pre-K still confers benefits relative to those programs. Head Start does not appear to perform as well on average on either quality dimension, but it might still improve short-term outcomes for disadvantaged children relative to informal child-care arrangements or parental care (Kline and Walters 2016). Studies of early cohorts of Head Start participants, for whom parental care was the likely alternative to the program, suggest that these short-term benefits could translate into longer-term social and economic gains (Garces, Thomas, and Currie 2002; Ludwig and Miller 2007).⁸ Thus, though it might not have large effects on maternal employment, publicly provided ECEC appears to promote child development while reducing the burden of child-care costs.

A New Approach

The policy challenge is to design a program that simultaneously encourages and supports maternal employment while enabling enrollment in ECEC that meets children’s developmental needs, particularly in more disadvantaged families where the social returns to both are high. To achieve this, I advocate a multifaceted approach founded on two central insights from the data and literature. The first is that current child-care tax policy is inefficiently targeted, in terms of both child age and the family income of beneficiaries. Reallocating existing benefits toward children under the age of five and toward lower-income families—and supplementing those reallocated funds with new federal dollars—would dramatically increase social impact. The second insight is that tax policy alone cannot achieve the goal of promoting child development: doing so will require additional supports.

IMPROVING TARGETING OF CHILD-CARE TAX POLICY

I propose eliminating the Child and Dependent Care Tax Credit and the Dependent Care Flexible Spending Account and replacing them with a new refundable child-care tax credit. As with the CDCTC, families would be eligible for this new credit if they have positive earned income and children under age 13 with qualifying child-care expenses. However, the proposed credit differs from the CDCTC in being refundable, which allows it to focus on families with no tax liability and thus with the greatest need, and in distinguishing between children four years old and younger and five- to twelve-year-olds. It also limits eligibility to those with adjusted gross income (AGI) at or below \$70,000. In these ways, it is similar to the child-care credit proposed by Ziliak (2014).

Table 2 outlines the schedule for the proposed child-care tax credit. The credit is the product of a base and a rate. The proposed credit base is \$4,000 each for the first two children with qualifying child-care expenses, \$2,000 for the third child with qualifying expenses, and \$0 for additional children with qualifying expenses; the maximum base is thus \$10,000. The proposed credit rate then depends on both the age of the child and the family’s AGI. For families that are eligible for the maximum credit—those with positive earned income but AGI below \$25,000—the credit rate is 100 percent for newborns to four-year-olds and 50 percent for five- to twelve-year-olds.⁹ For families eligible for a credit

TABLE 2.

Schedule for the Proposed Child-Care Tax Credit

Age of child	0 to \$25,000	\$25,000 to \$70,000	\$70,000 or more
Less than 5 years old	100%	Reduced 10 percentage points for every \$5,000 in adjusted gross income	0%
Between 5 and 13 years old	50%	Reduced 5 percentage points for every \$5,000 in adjusted gross income	0%

Note: The credit is the product of the credit rate listed above, which depends on the age of the child, adjusted gross income, and the credit base. The credit base is \$4,000 for the first child with qualifying child-care expenses, \$4,000 for the second child with qualifying child-care expenses, \$2,000 for the third child with qualifying child-care expenses, and \$0 for additional children.

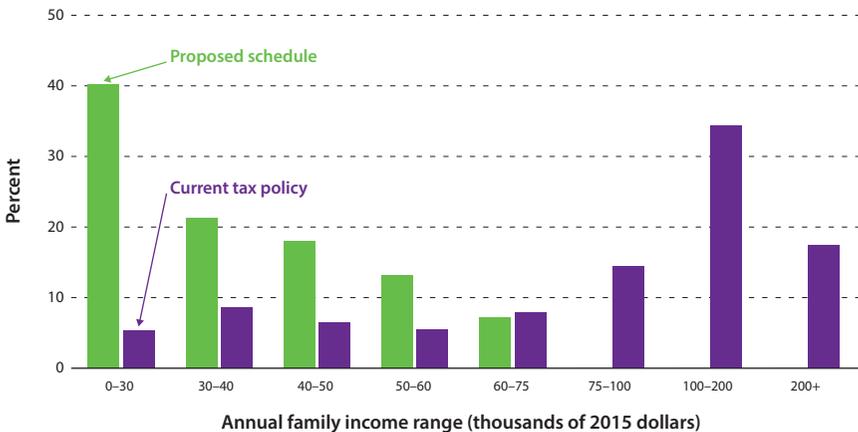
below the maximum—those with positive earned income and with AGI between \$25,000 and \$70,000—the credit rate declines linearly with AGI. In particular, the credit rate for a newborn to four-year-old (five- to twelve-year-old) is reduced by 10 percentage points (5 percentage points) for every additional \$5,000 in AGI.¹⁰ For a family with one child under age five and an AGI of \$45,000, the credit would be \$2,400 (or $\$4,000 - 0.1 \times \$4,000 \times [(\$45,000 - \$25,000) / \$5,000]$).

The different credit rates by child age raise the issue of how the first, second, and third children are to be determined for the purposes of calculating the credit. For families that have qualifying expenses spanning both age ranges, the credit is determined by arraying children with qualifying child-care expenses from youngest to oldest. For example, a family with two children ages zero to four, and one child ages five to twelve could receive a maximum credit of \$9,000 (\$4,000 each for the two youngest children, plus \$1,000 for the third child). Similarly, a family with one child ages zero to four and two children ages five to twelve would face a schedule with a maximum credit of \$7,000 (\$4,000 for the first child, \$2,000 for the second child, and \$1,000 for the third child). A family with one child in each age category would face a schedule with a maximum credit of \$6,000 (\$4,000 for the first child, \$2,000 for the second).

Because the credit is refundable, credit amounts that exceed a family's tax liability can still be received by families to offset child-care costs on the private market. The green bars in figure 3 and 4 demonstrate how this feature would affect progressivity by plotting what the

FIGURE 3.

Distribution of Benefits under Current and Proposed Tax Policy by Annual Family Income

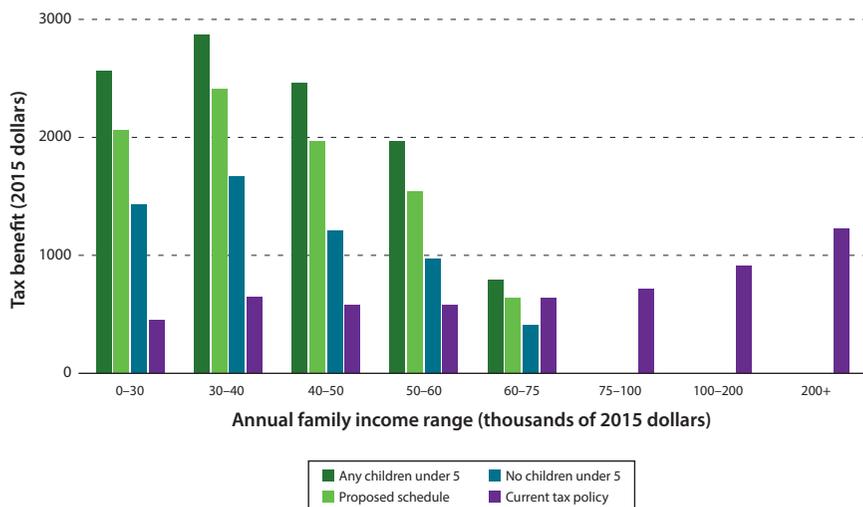


Source: Author's calculations based on Current Population Survey Annual Social and Economic Supplement 2016 and Internal Revenue Service 2016.

Note: Green bars show author's calculations from the 2016 ASEC based on income and child-care expenses in the 2015 tax year; purple bars show 2016 tax year distribution of benefits under the Child and Dependent Care Tax Credit and Dependent Care Flexible Spending Accounts. See endnote 11 for more details. Bins include the lower-bound value but exclude the upper-bound value.

FIGURE 4.

Average Tax Benefit among Claimants, by Family Income and Presence of Children



Source: Author's calculations based on Current Population Survey Annual Social and Economic Supplement 2016 and Internal Revenue Service 2016.

Note: Green bars show author's calculations from the 2016 ASEC based on income and child-care expenses in the 2015 tax year; purple bars show 2016 tax year distribution of benefits under the Child and Dependent Care Tax Credit and Dependent Care Flexible Spending Accounts. See end-note 11 for more details. Bins include the lower-bound value but exclude the upper-bound value.



distribution of benefits by AGI would have looked like if the proposed schedule had applied to families in the 2015 tax year; the purple bars give the analogous figures under current child-care tax policy.¹¹ They are dramatically different: benefits under the proposed credit not only favor lower-income families, but are also considerably larger per family—even for families with no children under age five—for those with AGIs less than \$60,000. Starting in the \$60,000 to \$75,000 income range, families lose benefits for which they were previously eligible. However, the average ratio of out-of-pocket child-care costs to family income is constant at 6.5 percent between \$60,000 and \$100,000.

Additional calculations suggest that if the proposed credit had been in effect in 2015, it would have cost the federal government about \$5.57 billion—a little over a billion more than the CDCTC and Dependent Care FSAs. However, this is a lower-bound estimate of program costs, since the intent of the proposal is to encourage more families to take up formal child-care options for their children and to increase employment. At current expense levels, the average ratio of out-of-pocket expenses to family income under the proposal for families with annual incomes less than \$60,000 is considerably lower than 6.5 percent, suggesting that there is scope for lower-income families to increase their child-care spending under this policy.

Establishing an upper bound of potential program costs is difficult, but can be projected under several scenarios. For example, if all working women incurred child-care expenses equal to the average among women with any expenses given their income and the number and age distribution of children, the program cost would be about \$20 billion. If instead all working women upgraded their child care such that expenses were at or above the available credit, the total program cost would rise to \$28 billion. Of course, if more women started working in response to the credit under either of these scenarios, the cost of the program would be higher. However, it is unlikely that all families with working mothers would receive the maximum credit for which they are eligible.¹²

An important caveat is that if the child-care tax credit is available only in a large lump sum once a year, like the Earned Income Tax Credit (EITC), it will likely provide weaker incentives to upgrade ECEC experiences and to enter the labor force, particularly for the lowest-income families. An advance credit would allow recipients to access some portion of the credit throughout the year, making it easier to pay monthly or bi-weekly child-care bills. The key feature of any successful advance credit would be providing liquidity sufficient to pay these bills, but not so much that a tax-filer ends up owing the federal government when predicted child-care expenses are not realized (Ziliak 2014). Because achieving this is potentially difficult, I recommend that the IRS experiment with an advance child-care tax credit before any large-scale implementation.

QUALITY SUPPORTS

A limitation of current CCDF child-care subsidies and the proposed refundable child-care tax credit is that they do not make quality distinctions between providers. While potentially effective in easing the child-care cost burden and even in moving children toward center-based care and their mothers toward employment, tax or subsidy policy cannot alone ensure that ECEC is well-designed for child development. One approach to supporting quality would be to improve the dissemination of information to parents and to provide funds for professional development of child-care providers; another is to invest more in directly provided preschool. This proposal takes both approaches.

Accountability (Quality Rating and Improvement Systems)

Recent research suggests that parents have a difficult time recognizing either structural or process quality in ECEC settings (Bassok, Miller, and Galdo 2016; Araujo, Dormal, and Schady 2017). Ongoing state and local efforts to promote accountability in ECEC, commonly referred to as Quality Rating and Improvement Systems (QRISs), are explicitly designed to address this problem. As of January 2017 38 states and the District of Columbia had statewide QRISs in place; three other states had substate programs, and seven more states were in the planning phase (QRIS n.d.). The goal of a QRIS is to improve both the functioning of ECEC markets and child outcomes through dissemination of simplified information about the quality of various local ECEC options, much like public report-card accountability in K–12 education. Improved information may prompt parents to choose higher-quality options to the extent that it is financially possible, encouraging lower-quality providers to reallocate existing resources to “level up” or risk being driven out of the market.

Unfortunately, there is little evidence to date on whether QRISs shift parents toward higher-quality centers. However, experimental evidence from low-cost informational interventions in K–12 education (Hastings and Weinstein 2008) suggests that QRISs could be a promising, relatively low-cost means of promoting quality in ECEC. An important caveat, however, is that the content of the information disseminated matters: as Sabol et al. (2013) point out, many QRIS scoring algorithms focus on structural quality measures with weak or nonexistent correlations with child outcomes. Though it would come at some expense, including measures such as Classroom Assessment Scoring System (CLASS) in these algorithms (see box 2) could greatly improve their efficacy. Even so, not all child-care markets are thick with high-quality providers, suggesting that additional resources for professional development would be helpful. I therefore propose that state governments incorporate process quality measures into their existing and planned QRISs and accompany these QRIS programs with grant opportunities for professional development among child-care providers. This would enhance their usefulness to families and gradually improve the quality of market-provided child care, with attendant benefits for children in the long run.

Reaching More Children through Direct Provision

Another approach to improving quality in ECEC offerings is to provide more ECEC directly. However, states seem to have less appetite for pre-K expansion than they once did. Although state investments in pre-K programs have grown tremendously since the 1980s, these investments have slowed in recent years, possibly due to budgetary pressures from the Great Recession. The 2014–15 enrollment rate of four-year-olds in state pre-K programs was more than double what it was in 2001–2 (29 versus 14 percent), but it has changed little since 2009–10 (Barnett et al. 2016).

It might therefore not be particularly helpful to suggest spending more on preschool without providing some guidance as to how preschool dollars could be spent more efficiently. The great variation in pre-K program characteristics across states provides some insight into which types of approaches might be more or less productive. In terms of new programs, for example, one way to save on capital costs is to offer the state subsidy through private child-care centers, or even via in-home family day-care settings.¹³ Such programs may be more difficult to monitor, and thus can present challenges in ensuring quality. Limited financial support from the state may also result in diminished capacity or lower quality of care for infants and toddlers, as private providers reallocate resources toward preschoolers to meet state standards (Bassok, Miller, and Galdo 2016). However, using private child-care centers helps make efficient use of existing child-care infrastructure. It is possible that although such programs are less expensive, they nonetheless have the same impact on children as programs operated through public schools.

Starting a new pre-K program or continuing to operate an existing one also involves choices about how to allocate current expenditures, and not just capital expenditures. Typically, states monitor structural quality—inputs such as class size and teacher education—and use these as quality markers. With the exception of class size requirements, though, few input measures appear to improve program effects; for example, requiring pre-K teachers to have a four-year college degree does not appear to boost gains in pre-K or for Head Start (Cascio 2017; Walters 2015). Holding program standards constant, recent research finds that

low-income four-year-olds benefit more from universal state pre-K programs than from targeted programs (Cascio 2017). In serving more children, the universal programs are more expensive, but such findings raise the question of whether existing pre-K resources could be reallocated toward reaching more children without diminishing child outcomes. While more research is needed, serving more children while mandating fewer inputs may be preferable to mandating expensive standards with no proven track record and serving fewer students.

The findings in Cascio (2017) might owe in part to the fact that targeted pre-K programs generally draw their enrollees from a very similar program—Head Start. While this might diminish the gains from targeted pre-K enrollment, it also presents an opportunity, opening up slots in Head Start programs for children ages three and under. Enrollment of three-year-olds in Head Start has increased as enrollment of four-year-olds has fallen, and Bassok (2012) presents evidence that the two trends are causally linked. State pre-K expansion efforts thus have the potential for positive spillovers on younger children, increasing their exposure to publicly provided ECEC. Improved coordination between ECEC providers at the local level could help to maximize enrollment of preschool-age children in publicly funded programs.

Questions and Concerns

1. Why not have different tax credit schedules for licensed and nonlicensed care?

The proposed tax credit does not distinguish between care by licensed and unlicensed providers, as was done in Ziliak (2014), a proposal on which I build. There are four reasons for this decision. First, by not conditioning the schedule on licensure of the child-care provider, I attempt to minimize the administrative burden of the credit. Licensure would need to be verified against state records, and it would be more efficient to allocate funds that would have been spent on administration toward the quality supports described in the proposal. Second, licensure is not a good measure of quality of care. Third, many lower-income workers might need child-care services during nonstandard hours, when fewer licensed options are available. Finally, many of the care options available for school-age children, including after-school programs and summer camps, are not licensed or even subject to licensing. The definition of “qualifying child-care expenses” will remain the same as under the CDCTC so as to include these programs.

2. What are the benefits and disadvantages of an advance child-care tax credit?

If not available in advance, the proposed refundable credit would be paid in a lump sum to families after tax filing, well after child-care expenses are incurred. A family would therefore need to be able to pay for child care out of pocket when payment is due. For families without significant savings, this would limit child-care options, and possibly preclude enrollment in the centers that are most beneficial for child development.

A seemingly simple solution to this problem would be to allow families to draw on their credit in advance. However, the logistics of an advance credit would be quite complicated. To the extent that actual child-care expenses and income are difficult to predict—a particular problem for lower-income families where engagement with the labor market and child-care sector can be more tenuous—families might end up owing money back to

the IRS. One work-around is to allow participants to draw some percentage of their prior tax year's credit, as proposed by Ziliak (2014), but this raises the challenge that child-care expenses drop dramatically as kids age into school, in addition to the problem of income that varies from year to year.

Ultimately, we do not know how an advance child-care tax credit would work in practice. It is for this reason that I suggest that the IRS experiment with advance credits of different structures using a representative sample of eligible filers before implementing any advance credit at scale. If the logistics of an advance credit prove too challenging for those at the bottom of the income distribution, I would recommend complementing this proposal with an expansion to the CCDF that favored families with children under age 5.

3. Is it undesirable to provide the proposed tax credit to families that already pay for child care?

For families that would have purchased child care even in the absence of the subsidy, the proposed child-care tax credit represents a potentially large cash transfer. For these families, the credit would affect children through a different channel—increases in family disposable income. There is an emerging body of evidence to suggest that the additional family income from transfers is spent in ways that benefit children: at birth, in the form of higher birth weights (see Hoynes, Miller, and Simon 2015); in adolescence, in the form of higher test scores (see Dahl and Lochner 2012); and in young adulthood, in the form of higher rates of college attendance (see Manoli and Turner 2014).

Conclusion

High-quality ECEC represents both investment in a child's human capital, which will yield private and social returns in the future, and support for maternal employment. Yet, all too often, policy discussions about supporting employment of women with children and supporting child development take place in isolation. This is unproductive, leading to policy proposals that emphasize one at the expense of the other.

This policy paper has built on the evidence regarding child care and preschool education to propose reforms that would make high-quality, work-supportive ECEC a reality for more mothers. The centerpiece proposal in this agenda is a new child-care tax credit that is refundable, targeted toward families earning less than \$70,000 a year, and more generous for families with children under age five. Simulations based on status quo child-care expenditures suggest that this credit would significantly improve the targeting of tax benefits without greatly increasing government outlays overall. However, if the program were successful in its goals of increasing labor force participation among mothers with young children and helping parents to enroll their children in higher quality ECEC programs, outlays would increase. In addition, improvements in dissemination of information about ECEC quality and direct provision of high-quality ECEC will help more children participate in ECEC programs that are beneficial for their development.

Endnotes

1. These figures are consistent with those reported in the Census Bureau's Survey of Income and Program Participation (SIPP; Census Bureau 2013). In Spring 2011 48.6 percent of preschool-age children of employed mothers were in the care of their parents (including a small share who stay with their mother while she works) or with other relatives. Only 25.2 percent were in an organized facility, and 9.8 percent were in other nonrelative care in the provider's home, including family day care (Laughlin 2013). Macartney and Laughlin (2011) compare the child-care spending questions in the Current Population Survey Annual Social and Economic Supplement (Bureau of Labor Statistics [BLS], various years) and SIPP (Census Bureau 2013) and find them to be largely similar.
2. Head Start enrollment figures are calculated from Head Start (2015). Population figures used to create age-specific percentages are from the single-year-of-age-specific population estimates as of July 1, 2014, reported by the Census Bureau (2017).
3. Estimates were obtained using the aggregate average number of children served and their age distribution from Office of Child Care (2016).
4. Notably, overall public school enrollment rates by age in the October Current Population Survey are comparable to those implied by the figures in table 1: 42 percent for four-year-olds (versus the 46 percent implied by table 1) and 21 percent for three-year-olds (versus 20 percent). Private school enrollment rates of children from higher-income families in the October CPS are also similar to the fraction of mothers reporting paying for child care in the CPS ASEC, but more so for four-year-olds (45 versus 47 percent) than for three-year-olds (35 versus 51 percent). However, private school enrollment rates of children from lower-income families are considerably lower than the fraction of lower-income mothers paying for child care (7.8 versus 22 percent for four-year-olds and 7.6 versus 23 percent for three-year-olds). These statistics imply that school-based private child-care arrangements are more common for more-advantaged children, and, among more-advantaged children, those who are older.
5. Relatedly, the Canadian province of Québec's subsidized child-care program significantly increased employment (Lefebvre and Merrigan 2008), even among married mothers (Baker, Gruber, and Milligan 2008).
6. On the one hand, increases in out-of-pocket child-care expenses have been particularly steep since 1999 (Laughlin 2013), whereas the wages of the less-educated have stagnated. On the other hand, employment declines are quite similar among less-educated women overall (Black, Schanzenbach, and Breitwieser 2017), and either subsidy programs did not shrink (CCDF subsidies, Head Start) or they expanded (state-funded pre-K).
7. Québec's subsidized child-care program also appears to have negatively affected child development along a number of dimensions (see, e.g., Baker, Gruber, and Milligan 2008).
8. Even larger longer-term effects are found for so-called model ECEC interventions that were conducted in the 1960s and 1970s, such as the Perry Preschool Project (Heckman et al. 2010) and the Carolina Abecedarian Project (García et al. 2016). The latter also served infants and toddlers, suggesting that directly provided ECEC for younger children might be similarly beneficial.
9. The choice of credit rate for five- to twelve-year-olds was informed by data on the unsubsidized prices of full-time, full-year center-based care (Datta et al. 2015). In 2012 (real 2016 dollars) the median hourly price for center-based care of children under age five ranged from \$3.75 (for four-year-olds) to \$4.60 (for infants); median hourly rates for center-based care were similar for school-age children and for preschoolers (\$3.85). Under the assumption of 15 hours of care per week during the school year and 14 weeks of full-time care during the summer, the median annual price of center-based care for one school-age child is \$4,225. By comparison, the median annual price of center-based care for an infant is \$9,135—about twice as much.
10. This is a similar schedule to that proposed by Ziliak (2014), with the exceptions that I impose a greater penalty for older children, which is consistent with data on unsubsidized prices of center-based care (Datta et al. 2015) and actual child-care expenses by child age (such as in figure 2); that the schedule is not differentiated by licensed and unlicensed care (see below); and that the proposed credit itself is more generous in allowing for differentiation across families with up to three children.

11. Simulations of the proposed credit are based on my calculations from the 2016 ASEC. I applied the proposed child-care tax credit schedule (table 2) to child-care expenditure amounts and income for 2015 reported by ASEC respondents. For these calculations, I limited attention to primary family households to minimize misclassification error in the assignment of child-care expenses, which are reported at the household level. Whether the household has positive earned income is determined by the earnings of the reference person. Because child-care expenses are not reported separately by child, I assumed that all children in a family had qualifying child-care expenses.
12. Under the extreme assumption that all families take the largest credit for which they were eligible, the cost of the program would be approximately \$38 billion. This scenario is unrealistic, however, since it requires all families—including those where mothers are not currently working—to take up a child-care option that is at least as expensive as the credit. As described above, a labor supply response is possible, particularly for female-headed families, but it is not likely to take mothers to full employment.
13. Such an approach is taken by Georgia, where about half of four-year-olds in the state-funded pre-K are enrolled in private centers, and by Florida, where nearly all are.

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Helping Women to Succeed in Higher Education

Supporting Student-Parents with Child Care

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Abstract

Women have surpassed men in college enrollment. This trend is particularly pronounced among nontraditional students, including part-time and older students—two groups that face significant challenges in higher education. For the 4.8 million college students who are parents, high-quality, reliable, and affordable child care is essential. I propose building on the Child Care Access Means Parents in School (CCAMPIS) Program to structure an institutional grant program that better supports the availability of high-quality child care for parents pursuing postsecondary credentials (student-parents). Compared with the existing federal program, the proposed program would be larger and better targeted to address the substantial needs of low-income student-parents. Moreover, by focusing on the role of postsecondary institutions, the proposal is designed to ensure that student-parents have access to high-quality child care options that will have long-term benefits for both the student-parent and their child. The program would encourage enrollment practices and educational investments that benefit the individual as well as the overall economy.

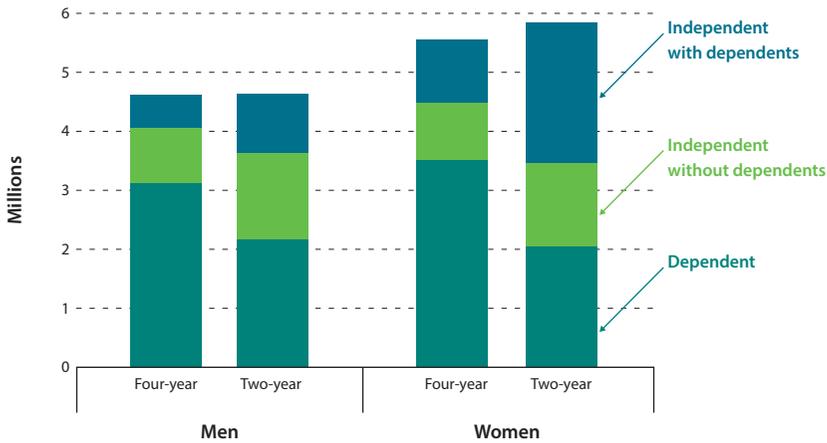
Introduction

Over the past few decades, women's postsecondary enrollment has swelled, and for the past 20 years women have outpaced men in college attendance and degree attainment (National Center for Education Statistics [NCES] 2016, table 318.10; 2017, table 303.10). At the same time, many students are older than traditional college students: almost one in five students at public four-year colleges is age 25 or older, as is about one in three students at public two-year colleges (NCES 2016, table 303.50). Older students are particularly likely to be female, with almost twice as many women as men among students over age 35 in 2010 (NCES 2016, table 303.40). Perhaps unsurprising given these statistics, the number of women with dependents enrolled in higher education is sizeable (figure 1). In 2011–12, there were more than 5 million students who had dependents of their own (NCES 2012); 3.4 million students are estimated to be mothers, with 2 million of them being single mothers (Eckerson et al. 2016).

It is vital to the nation's economic success for adults to have opportunities to attain a higher education credential or to retrain for a career change. Higher education yields strong labor market benefits, including increased wages and lower rates of unemployment. In addition, postsecondary education has positive spillover effects on children: it brings additional

FIGURE 1.

Students Enrolled in Higher Education by Dependency Status, 2011–12



Source: NCES 2012.

Note: Four-year includes public and private institutions. Two-year refers to public two-year institutions. Dependent students are generally below the age of 24 unless they are married, a veteran, in foster care, or have dependents of their own.

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income and more stable employment to the family and a host of nonmonetary benefits that relate to children's health and educational outcomes (Currie and Moretti 2003; Ma, Pender, and Welch 2016).

The challenges associated with attending and completing postsecondary school can be particularly daunting for student-parents, however. Key supports are often lacking, and in some cases existing supports have been reduced in recent years. For example, only 49 percent of four-year public colleges provided child care on campus in 2015, less than the 55 percent that did in 2003–4; in addition, colleges that provide child care often have long waiting lists. Together with a financial aid system that poorly serves nontraditional students, this situation presents serious impediments to the postsecondary success of these students.

The Challenge

Nontraditional college students face many challenges. Many are juggling a number of other commitments, such as working full time, but lack the financial support that traditional students often receive from family. Student-parents have the additional challenge of balancing child-care responsibilities with work and study. As such, many of the challenges these students face relate to issues of affordability for their postsecondary education.

Unfortunately, the federal needs analysis system—based on the Free Application for Federal Student Aid (FAFSA), described in box 1—fails to accurately measure student financial need. This is a particular problem for nontraditional students, including student-parents.

There are several major criticisms of the way federal need analysis is applied to nontraditional students (Long 2009). First, the needs analysis system assumes that the earnings of the

BOX 1.**The Free Application for Federal Student Aid**

Each prospective postsecondary student begins the financial aid process by completing the Free Application for Federal Student Aid (FAFSA). The FAFSA collects information on family income and assets to determine the estimated amount a family is able to spend on higher education expenses (called the expected family contribution, or EFC). Other information that affects this calculation includes the size of the family, the number of family members in college, and the age of the oldest parent, as well as information about the prospective student's earnings and assets. To calculate need, the government subtracts the EFC from the total cost of attendance.¹ A student's financial need, in combination with their EFC, determines whether they are eligible for certain grants and loans.

The EFC formula differs if the student is independent (e.g., if they are age 24 or older), married, has dependents, is orphaned, or has served in the armed forces. Because independent students could have their own dependents and might not be able to rely on financial support from family, the federal system does not expect independent students to contribute as much as they expect from the families of dependent students.

potential college student are relatively minor (e.g., earnings from a summer job), can be maintained during the period of enrollment, and should be largely allocated to cover college expenses. However, most nontraditional students are formally engaged in the labor market when they apply for financial aid. While the government assumes this income level will remain the same even after college enrollment, the nontraditional student is actually likely to experience a reduction in earnings while enrolled. This assumption results in an overstatement of the income available to nontraditional students and an understatement of their financial need.

Other financial aid criteria can also penalize nontraditional students, including older students. For example, some financial aid requires students to be enrolled at least part time or even full time in a credential-seeking program. Particularly at community colleges, this requirement excludes large numbers of nontraditional students, many of whom are more likely to take classes to gain a particular skill without the goal of completing a certificate or other credential. Finally, some financial aid programs require a high school diploma for eligibility, whereas many nontraditional students have a GED or other certificate, such as a certificate of completion (Bosworth and Choitz 2002).

Existing financial aid programs are often insufficient to help nontraditional students meet the costs of college. Still, nontraditional students respond to financial aid policy, perhaps even to a greater degree than traditional students who can count on financial support from family (Seftor and Turner 2002). It is important to recognize that the financial needs of nontraditional students, especially student-parents, go far beyond tuition. Subsidies for transportation, child care, and books can have positive effects on students' academic

progress. For example, Brock and Richburg-Hayes (2006) examine the effects of giving a performance-based scholarship (\$1,000 per semester) to low-income student-parents for adequate academic performance. As long as they had met fairly modest benchmarks, students were given checks at the beginning, middle, and end of each semester. Notably, many used the scholarship money for basic living expenses, including child care and transportation, and the program had positive effects on educational persistence and college credit accumulation.

Community college and broad-access institutions are not currently funded at levels that enable them to offer those supports widely. Community colleges have far fewer resources than other institutions, and spending at community colleges has dropped to the lowest level in a decade—a period that included two recessions (Hurlburt and Kirshstein 2012). From 2001 to 2011 instructional expenditures per full-time equivalent student fell 12 percent after accounting for inflation, and expenditures on student services and academic support fell 7 and 17 percent, respectively (Long 2016). Because they have limited resources to devote to instruction and academic support, it is difficult for community colleges to improve student persistence and credential completion.

SUPPORTING FEMALE STUDENT-PARENTS

Given the substantial number of mothers enrolled in higher education—and their considerably lower rate of postsecondary credential attainment—focusing support on this group could yield large benefits. Juggling the responsibilities of parenthood with college is extremely difficult. As illustrated in figure 2, among women who entered college in 2003–04 without dependents, nearly 60 percent attained a credential (degree or certificate) within six years, and fewer than 30 percent dropped out with no credential. Among those with a dependent, the success rate was much lower. More than half of female student-parents dropped out with no credential, and fewer than one-third attained any credential at all.

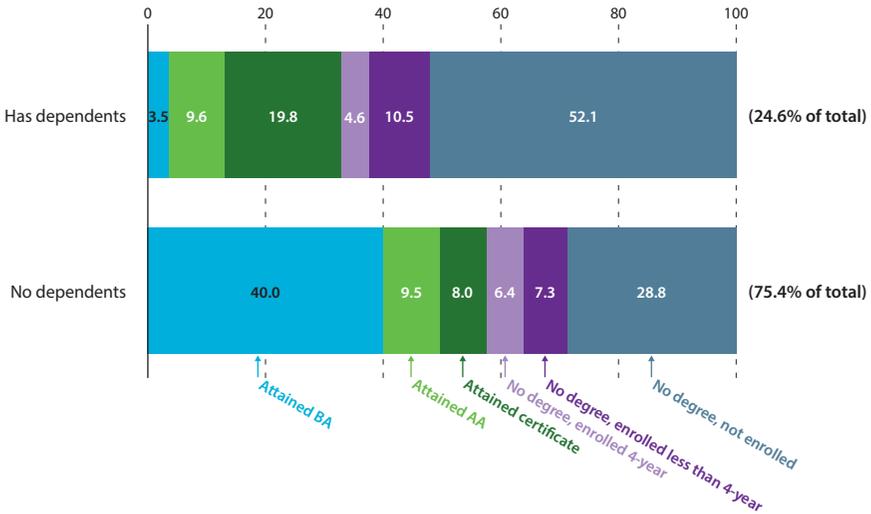
A 2009 survey reported that of students ages 22 to 30 with at least some college coursework completed, 53 percent said family commitments were a major reason why they could not return to complete a credential (Johnson and Rochkind 2009). Without child care, a student-parent cannot take advantage of the support services offered by an institution, thereby affecting their academic progress (Carlson 2015). This proposal focuses on the role of child care in enabling postsecondary progress and completion.

CHILD CARE AVAILABILITY: KEY FOR STUDENT-PARENT SUCCESS

The lack of dependable child care might be partly due to the fact that the FAFSA does not take child-care costs into account when calculating student need and awarding financial aid. Moreover, few campuses offer child-care centers, let alone provide subsidized child care. In fact, even with the growing need for supports for students with children, the percentage of campuses with child-care centers has been declining. About 49 percent of four-year public colleges provided campus child care in 2015, lower than the 55 percent that did so in 2003–04. The percentage was even smaller and declining faster at community colleges: 44 percent in 2015 versus 53 percent in 2003–04 (Eckerson et al. 2016). Women whose children are cared for in off-campus locations have higher transportation expenses and less time to spend on campus and studying (Duquaine-Watson 2007). As such, child-care costs and concerns are a major challenge facing many female student-parents. As

FIGURE 2.

Educational Attainment of Female Student-Parents Six Years after Enrollment



Source: NCES 2009.

Note: students matriculated in 2003-04 and their progress was observed in June 2009.

"No degree, enrolled 4-year" refers to students enrolled in a 4-year program in June 2009.



summarized by Catherine Hill, vice president for research at the American Association of University Women (AAUW), “Students say that if they don’t have child care, then the other support services just don’t mean that much” (quoted in Carlson 2015).

Targeting financial support to address the lack of child care is warranted given the large public and private returns from increasing the likelihood of credential completion. Furthermore, in this case, the benefits are experienced not only by the adult but also by the student’s children. Previous efforts, whether with financial aid that aims to alleviate child-care costs or by increasing capacity in child-care centers, have been found to have promising results. For instance, in 1988–89 up to \$1,000 in child-care costs were allowed in the calculations used to determine Pell Grant amounts. Simmons and Turner (2004) examine the impact of helping students cover child-care costs through financial aid and provide suggestive evidence that the policy change resulted in increasing the college enrollment rate of women with children.

A more recent example of a government policy that targets child-care issues is found in Minnesota. The Postsecondary Child Care Grant Program aims to help low-income undergraduate students who have children age 12 or younger by paying for care while the student-parent is in class. The amount of assistance the student can receive depends on family size; the income of the student and their spouse, if married; and the number of child-care hours necessary to cover the student-parent’s education and work obligations. For 2016–17 the maximum award was \$5,125, a substantial increase from the previous year, which was only \$2,800. To access the award, students apply through the financial aid office of their

college. Another example of a state-based program that supports child-care needs is funded by the Arkansas Department of Higher Education. The Career Pathways Initiative (CPI), which is funded by the federal government through a TANF grant, pays staff and instructors to provide services, including child care. CPI provides support for a staff member on each of the college campuses it serves to help student-parents find child care (St. Rose and Hill 2013).

Tennessee is also piloting a support program for student-parents. As part of the “2G for Tennessee” initiative, which is a two-generation strategy the state is promoting to create cycles of success within families, the Tennessee Department of Human Services launched a public-private partnership with Pellissippi State Community College in 2016 called Leg-Up. The program gives child-care payment assistance along with mentorship for single parents. The pilot is part of a larger state effort called “Drive to 55,” which aims to have 55 percent of Tennessee residents with a college degree or certificate by the year 2025, and a major component focuses on adult students (Stone 2016). There are also examples of targeted support for student-parents at the institutional level. For instance, the University of Memphis created the Child Development Center in 2011. This center provides subsidized, flexible child care to their many student-parents for a highly subsidized rate with extended evening and weekend hours (The Urban Child Institute 2011).

Based on these approaches and the larger literature on effective supports for nontraditional college students, including student-parents, revising policies to recognize the costs of child care for student-parents is one way to improve the current system. For example, the Child Care and Development Fund (CCDF), governed by the Child Care and Development Block Grant, provides formula block grants to states to provide subsidized child care to eligible low-income families. However, many states restrict student-parents’ access to CCDF subsidies for child care through rules like work requirements, limitations on credential type, eligibility time limits, and activity and academic progress requirements (Eckerson et al. 2016). Even when they meet the eligibility requirements, student-parents can be subject to long waiting periods before they receive benefits (Schulman and Blank 2015). Relaxing eligibility requirements for child-care subsidies, including eliminating work requirements and other restrictions for the CCDF, would be one way to help student-parents get much-needed support to help balance postsecondary study with high-quality child care (Eckerson et al. 2016).

One notable federal program that supports access to child care for student-parents is the Child Care Access Means Parents in School (CCAMPIS) Program, described in box 2. While CCAMPIS aims to address the challenges described in this section, it has significant limitations as a support to student-parents. Most importantly, the program currently receives funding that is much less than would be required to meet the needs of student-parents. Strikingly, only about 2 percent of eligible postsecondary institutions actually receive CCAMPIS grants (Federal Register 2017). Total funding for the program has been less than \$20 million in recent years, restricting the number of successful applicants and the size of the individual grants.

In addition, CCAMPIS does not include strong provisions for ensuring that grants support both high-quality child care and enrollment in high-need postsecondary programs. This constitutes a missed opportunity to improve outcomes for both children and student-parents, making better use of limited federal resources.

BOX 2.

Child Care Access Means Parents in School Program

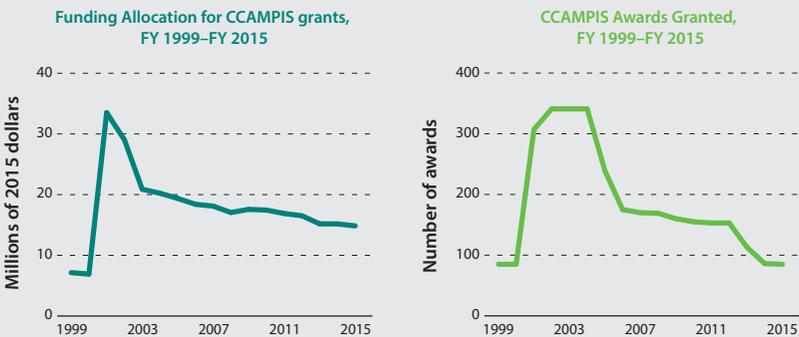
The Child Care Access Means Parents in School (CCAMPIS) Program was created in 1998 to support low-income parents pursuing postsecondary education by providing them with access to campus-based child-care services (U.S. Department of Education 2008). Eligible institutions of higher education—those whose students collectively receive more than \$350,000 in Pell Grant funding—apply to the Department of Education for four-year grants that are used to provide child-care services to Pell-eligible students. Funding is capped at 1 percent of total Pell Grant funds awarded to students at the applicant institution in the previous fiscal year and has a floor of \$10,000 annually (Legal Information Institute n.d.). Were Congress to appropriate more than \$20 million of funding in a year, current law provides for eligibility and grants to be automatically modified. Additional institutions—those whose students are granted in excess of \$250,000 in Pell Grant funding—would become eligible to apply; the minimum grant size would also increase to \$30,000 (Legal Information Institute n.d.).

In deciding how to allocate CCAMPIS grants, the Department of Education prioritizes applicant institutions that can leverage local or institutional resources, including in-kind contributions, to support activities assisted by CCAMPIS. Successful applicants should also use a sliding fee scale for child-care services to support a high number of low-income student-parents. These institutions can use CCAMPIS funds to provide or contract for child-care services; with specific exceptions, funds are not to be used for construction projects (Legal Information Institute n.d.).

As shown in box figure 1, funding for CCAMPIS has averaged \$17.5 million since 2003 (U.S. Department of Education 2016). The number of CCAMPIS grant recipients has fallen from more than 341 institutions in 2003 to 85 institutions in 2015 (U.S. Department of Education 2015).

BOX FIGURE 1.

CCAMPIS Grants, FY 1999–FY 2015



Source: U.S. Department of Education 2016.

Currently, 3943 institutions (73 percent) whose students receive federal Pell Grants are eligible for CCAMPIS (Federal Student Aid 2017; author's calculations). However, only 72 institutions—about 2 percent of those eligible—are expected to receive an award in FY 2017 (Federal Register 2017). The Trump administration's proposed 2018 budget calls for eliminating the program entirely (U.S. Department of Education 2017).

A New Approach

This proposal for expansion and improvement of CCAMPIS—an institutional grant program that supports the availability of child care at postsecondary institutions—addresses a substantial challenge for student-parents: the limited availability of high-quality, affordable, conveniently located child care. While there is a range of possible approaches to helping student parents with child-care needs, this proposal focuses on the role of postsecondary institutions to address this challenge by proposing grants to colleges and universities to create or expand the capacity of on-campus child-care centers. The proposed expanded CCAMPIS would be funded at \$250 million annually. Such a level would be ten times the peak funding level of \$25 million in 2001 and would meet at least half of the demand for child care by student-parents (Young Invincibles 2015). Notably, bills were introduced in the House and Senate during summer 2017 that call for the U.S. Department of Education to reauthorize the CCAMPIS program at a funding level of \$67 million per year, a step in the right direction but far short of the needs of the nearly 5 million student-parents in higher education.²

IMPLEMENTING THE GRANT PROGRAM FOR ELIGIBLE INSTITUTIONS

The expanded and revised grant program would work in the following way: accredited postsecondary institutions would apply for a federal grant to increase the availability of high-quality child care for student-parents who are pursuing a valuable educational credential. As with the current CCAMPIS program, student eligibility would be tied to Pell Grant eligibility, which already requires documentation of financial need and enrollment in a program leading to an educational credential. By linking the proposed grant to the federal Pell Grant program, the government is able to adjust the size of the grant to the college or university in proportion to the number of low-income students an institution serves (i.e., based on the number of Pell Grant recipients), thereby giving priority to institutions that serve the students who would benefit most. Another advantage of linking the grant to individual student Pell Grant eligibility is that it streamlines communication and awarding of the benefit—current administrative systems already have contact information and the verification of dependents among Pell Grant recipients, especially in cases in which tax information is submitted to the college as part of the verification process.

This proposal focuses on institutional action because colleges and universities have the best chance of designing and offering care that acknowledges the educational and parenting demands student-parents are balancing. First, providing grants to institutions gives policymakers the opportunity to press for the creation of high-quality child-care options. Because colleges and universities will be subject to the regulations required for larger child-

care centers, they can be held accountable to quality standards. Indeed, a postsecondary institution would likely create and maintain higher-quality care than an individual low-income student-parent could find and monitor independently. Moreover, the proposal emphasizes on-campus child-care centers because off-campus care is much more difficult to coordinate with postsecondary study and can vary tremendously in terms of quality and availability. However, because institutions are the primary actors to apply for and use the funds, it will be important for them to do significant outreach to potential student-parents so that those parents can benefit from the services.

By providing funds to institutions and giving colleges some flexibility on the specific way they pursue expansion of child-care options, the proposal recognizes that community circumstances vary. For example, in some communities expanding existing campus-based child-care centers would be warranted. In other communities, institutions would need to initiate wholly new child-care programs. Combined with strong guidelines and shared implementation plans across institutions, the grant would prompt each institution to address an important need; at the same time, the grant would give the institution the discretion to tailor child-care offerings to the needs of their specific community.

USING CHILD-CARE AWARDS TO BENEFIT CHILDREN AND SUPPORT STUDENT-PARENTS' SUCCESS

Well-designed, high-quality child-care awards are intended to benefit children while boosting student-parents' likelihood of postsecondary success. To increase the chances of attaining the latter goal, the proposal gives institutions the opportunity to encourage student-parents to pursue especially beneficial educational tracks or enrollment patterns.

The demand for child-care slots created by this program will likely exceed the available supply, at least in the near term as capacity is being created. When allocating those scarce slots, institutions could give preference to students pursuing studies in high-need fields, which would result in maximizing not only private returns but also the social benefits of education. Additionally, students who are enrolled full time (thus trying to complete their credentials faster) and who participate in other important college supports related to student success, such as advising sessions, could be given preference in getting a slot in a child-care center. At the University of Wisconsin-Madison, for example, current CCAMPIS funds are limited to full-time students and provide full-time care. Analysis of participants suggests 90 percent have either graduated or are making satisfactory progress, most with GPAs above 3.0. At Pikes Peak Community College in Colorado, funding not only provides child care but also helps mothers develop a degree plan and requires career counseling, technology workshops, and tutoring sessions (Sykes, Reichlin, and Gault 2016). These examples show how CCAMPIS could be coupled with other efforts to improve student completion and address local labor market needs. Many more such programs would be encouraged with this proposal.

Costs and Benefits

This proposal would fund the CCAMPIS program at the level of \$250 million, a substantial increase above the current funding level. However, this cost is justified by the potential benefits. There are nearly 5 million student-parents, and waiting lists for campus-based

child care are long. Most of these students are low income, with 88 percent living below 200 percent of the federal poverty line (Gault, Reichlin, and Roman 2014). Unfortunately, fewer than 3 in 10 currently complete a degree or credential in six years (NCES 2009). As such, there is a large population of students with great financial need and potential ability to benefit. Efforts to raise the educational attainment level of this group would produce numerous private and public benefits, from increased earnings potential to lower government dependency and higher tax contributions (Ma, Pender, and Welch 2016). Additionally, there would be benefits that extend to the second generation (as is made explicit in the approach of Tennessee's pilot program focused on providing child care for student-parents) due to the fact that high-quality child care improves the outcomes of the child being served, and greater income would benefit the entire family.

Under this proposal, eligibility for the grant and potential award size would be related to the number of Pell Grant recipients the school serves so that institutions serving many more low-income students would be eligible to receive more in funds. The minimum grant level would be \$30,000 to help ensure that institutions have enough incentive to apply and that the funds are sufficient to create meaningful capacity for students. If the average grant is \$170,000, similar to awards levels in FY 2015, then an estimated 1,500 institutions would benefit.

To encourage institutions to also support the success of their student-parents, bonus funds would be available to institutions that average a retention rate of student-parents above 50 percent. For example, institutions that have received CCAMPIS funding for three consecutive years could apply for a 20 percent increase in their previous-year grant level if they demonstrate a year-to-year retention rate of over 50 percent for past CCAMPIS recipients. Institutions could attempt to reach this standard by instituting other requirements such as mandatory advising or tutoring for their student-parent beneficiaries, as these have been found to be effective supports at other institutions.

Questions and Concerns

1. Programs that aim to help low-income student-parents afford child care are already in place. How does this proposal improve those programs?

Although there are currently several support programs focused on child care, most are not geared toward supporting the specific needs of student-parents. Support of those needs is warranted given the public and private returns, to both the adult and the child, from investing in programs that increase the likelihood of credential completion. The current federal program that targets student-parents, the Child Care Access Means Parents in School (CCAMPIS) Program, is small and leaves substantial unmet needs. In FY 2015, less than \$15 million was awarded to only 85 institutions. For FY 2017–18, the estimated available funds are only \$8,549,000 (Federal Register 2017). Meanwhile, a survey of 100 administrators at campus child-care centers found that 95 percent maintain a waitlist with an average of 82 children waiting for quality care (Institute for Women's Policy Research 2016).

The proposed program aims to create a much larger program of supports for child-care expenses that is better targeted to address the substantial needs of student-parents. It helps more institutions to provide high-quality, convenient child-care options that are well integrated with postsecondary studies. Institutions will be encouraged to share

implementation plans and best practices. The design also incorporates incentives for students to pursue especially beneficial educational tracks or enrollment patterns that maximize their likelihood of success.

2. Why does the proposal focus on colleges and universities as providers of child care?

By focusing on postsecondary institutions, this proposal aims to ensure the creation of high-quality child-care centers that produce benefits for the students as well as for the students' children. Indeed, a postsecondary institution would likely create and maintain higher-quality care than a group of low-income student-parents could find independently. Having the program work at the institutional level also increases the chances of creating a larger network that shares information about best practices and implementation strategies. This approach would still allow colleges to account for the particular needs of their environment.

3. Why not reform FAFSA or provide vouchers for private market child care rather than have institutions provide child care directly?

The current FAFSA system does not do a good job of accounting for the realities and needs of student-parents or nontraditional students in general. Simply including child-care expenses as part of the total "cost of attendance" in the need analysis calculation would not adequately address the challenges of student-parents, because the underlying formulas would still fail to provide students with sufficient financial aid. Moreover, even with the maximum need-based financial aid available, student-parents still have significant unmet financial need. This is reflected in the fact that students with children graduate with higher debt levels than students without children (Gault, Reichlin, and Roman 2014). Reforming the FAFSA to better address the needs of student-parents would require both dramatically changing how financial aid eligibility is calculated for a diverse group of nontraditional students and increasing the amount of financial aid that could be awarded.

An alternative strategy would be to give student-parents vouchers to use for child care they locate themselves. However, this has several disadvantages. The first is the difficulty of locating high-quality child care. Busy, low-income parents may have difficulty identifying and monitoring care that may also be in short supply. This proposal would instead increase the supply of high-quality care. Moreover, by focusing on on-campus child care, student-parents are more likely to be supported and have reliable care conducive to making time for their academic studies.

Conclusion

Community colleges and four-year broad-access institutions serve large numbers of female students, especially student-parents. Many of these students are teetering on the edge between success and failure, with their success depending on the resources and support available to them. It is imperative to consider ways to better target resources to this large and vulnerable potential group of college graduates. While the majority of funding for higher education comes from state and local communities, funding trends spurred by the Great Recession and competing budgetary demands have had detrimental effects on the ability of institutions to serve students who are in most need of support. However, whether or not higher education systems are able to serve and support the female majorities on

their campuses has important implications for the entire country, thereby justifying a stronger federal role; as such, this proposal would be funded and coordinated federally. The proposed grant program would address multiple financial concerns, at both the student and the institutional level, with a direct injection of funds earmarked to address a specific challenge faced by many students.

Endnotes

1. Total cost of attendance, which is prorated based on the student's enrollment intensity (whether they attend full or part time), includes tuition, fees, room and board, and other costs at the institution the student attends.
2. The bill in the House was introduced by Rep. Katherine Clark (D-MA) and Rep. Don Young (R-AK). The bill in the Senate was introduced by Sen. Tammy Duckworth (D-IL), Sen. Patty Murray (D-WA), Sen. Kirsten Gillibrand (D-NY), Sen. Bob Casey (D-PA) and Sen. Dick Durbin (D-IL).

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Karen Dynan served as Assistant Secretary for Economic Policy and Chief Economist at the U.S. Department of the Treasury from 2014 to 2017. From 2009 to 2013, Dynan was vice president and co-director of the Economic Studies program at the Brookings Institution. Before that, she was on the staff of the Federal Reserve Board, leading work in macroeconomic forecasting, household finances, and the Fed's response to the financial crisis. Dynan has also served as a senior economist at the White House Council of Economic Advisers (2003-2004) and as a visiting assistant professor at Johns Hopkins University (1998). Her current research focuses on fiscal and other types of macroeconomic policy, consumer behavior, and household finances. She is also currently a nonresident senior fellow at the Peterson Institute for International Economics. Dynan received her Ph.D. in economics from Harvard University and her A.B. from Brown University.

Hilary Hoynes

Professor of Public Policy and Economics, Haas Distinguished Chair in Economic Disparities, University of California, Berkeley

Hilary Hoynes is a Professor of Economics and Public Policy and holds the Haas Distinguished Chair in Economic Disparities at the University of California Berkeley. From 2011 to 2016 she was the co-editor of the leading journal in economics: the *American Economic Review*. Hoynes specializes in the study of poverty, inequality, food and nutrition programs, and the impacts of government tax and transfer programs on low income families. Current projects include evaluating the effects of the access to the social safety net in early life on later life health and human capital outcomes, as well as examining the effects of the Great Recession on poverty and the role of the safety net in mitigating income losses.

Hoynes is a member of the American Economic Association's Executive Committee, the Federal Commission on Evidence-Based Policy Making, and the National Academy of Sciences Committee on Building an Agenda to Reduce the Number of Children in Poverty by Half in 10 Years. In 2014 she received the Carolyn Shaw Bell Award from the Committee on the Status of the Economics Profession of the American Economic Association. Previously, she was a member of the Advisory Committee for the National Science Foundation, as well as Directorate for the Social, Behavioral, and Economic Sciences and the National Advisory Committee of the Robert Wood Johnson Foundation Scholars in Health Policy Research Program. Hoynes received her Ph.D. in Economics from Stanford in 1992 and her undergraduate degree in Economics and Mathematics from Colby College in 1983.

Sara LaLumia

Associate Professor of Economics, Williams College

Sara LaLumia is an Associate Professor of Economics at Williams College, where she teaches classes on public economics, tax policy, and income distribution. Her research has investigated how the U.S. individual income tax affects individuals' labor supply, educational choices, tax reporting behavior, and other outcomes. She is a co-editor of *International Tax and Public Finance*.

LaLumia received a Ph.D. in Economics from the University of Michigan in 2006. She has spent time as a visiting researcher at the Joint Committee on Taxation, at the Burch Center for Tax Policy and Public Finance at UC-Berkeley, and at the Office of Tax Policy Research at the University of Michigan.

Bridget Terry Long

Saris Professor of Education and Economics, Harvard Graduate School of Education

Long is the Saris Professor of Education and Economics and former Academic Dean at the Harvard Graduate School of Education. Long is an economist who focuses on education with an emphasis on college access and success. Several current projects examine the roles of information and assistance in promoting college savings behavior, the completion of financial aid forms, and the likelihood of enrolling in college full-time. Other studies by Long examine the effects of financial aid; the impact of postsecondary remediation; and the role of instructor quality, class size, and support programs on student outcomes.

Long is a Research Associate of the National Bureau of Economic Research (NBER) and member of the Board of Directors for MDRC. She has been a presidential appointee and served as Chair of the National Board for Education Sciences (NBES), the advisory panel of the U.S. Department of Education. Long has also been a Visiting Fellow at the Federal Reserve Bank of Boston, recipient of the National Academy of Education/Spencer Postdoctoral Fellowship, and she has testified multiple times before Congressional Committees on education issues. Long received her Ph.D. and M.A. from the Harvard University Department of Economics and her A.B. from Princeton University.

Nicole Maestas

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Nicole Maestas is an associate professor of health care policy at Harvard Medical School and a research associate at the National Bureau of Economic Research. Her research studies how the health and disability insurance systems affect individual economic behaviors, such as labor supply and the consumption of medical care. She received her MPP in public policy from the Goldman School of Public Policy at UC Berkeley and her Ph.D. in economics also from UC Berkeley. Prior to joining Harvard, Dr. Maestas was a senior economist at RAND, where she served as director of the Economics, Sociology, and Statistics Research Department and director of the Center for Disability Research.

Megan Mumford

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Megan Mumford graduated from Texas A&M University in 2015 with a Master of Public Administration and a Bachelor of Arts in Political Science. While working as a research assistant at the Brookings Institution, she coauthored papers on economic policy topics including criminal justice, education, and worker classification in the gig economy. She is currently a student at Yale Law School.

Ryan Nunn

Policy Director, The Hamilton Project; Fellow, Economic Studies, The Brookings Institution

Ryan Nunn is a fellow in Economics Studies at the Brookings Institution and policy director for The Hamilton Project. He was previously an economist in the Office of Economic Policy at the U.S. Department of the Treasury. At both The Hamilton Project and the Department of the Treasury, he has conducted work on a variety of topics including occupational licensing and non-compete policy. Nunn's research interests include labor economics and public finance, with a particular focus on labor market institutions. He received his doctorate in Public Policy and Economics from the University of Michigan, Ann Arbor.

Jesse Rothstein

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Jesse Rothstein is a public and labor economist. His research focuses on education and tax policy, and particularly on the way that public institutions ameliorate or reinforce the effects of children's families on their academic and economic outcomes. Within education, he has conducted studies on teacher evaluation; on the value of school infrastructure spending; on affirmative action in college and graduate school admissions; and on the causes and consequences of racial segregation. He has also written about the effects of unemployment insurance on job search and labor force participation; the role of structural factors in impeding recovery from the Great Recession; and the incidence of the Earned Income Tax Credit.

Rothstein's work has been published in the *American Economic Review*, the *Quarterly Journal of Economics*, the *Journal of Public Economics*, the *Chicago Law Review*, and the *American Economic Journal: Economic Policy*, among other outlets. He has a Ph.D. in economics from the University of California, Berkeley, and an MPP from the Goldman School, and he is a Research Associate of the National Bureau of Economic Research. In 2009–2010 he served as a Senior Economist for the Council of Economic Advisers and then as Chief Economist at the U.S. Department of Labor.

Krista Ruffini

Ph.D. Student, University of California, Berkeley

Krista Ruffini is a Ph.D. student in Public Policy at the University of California, Berkeley. Her research interests include labor and public economics, with a focus on programs targeted to low-income populations.

Prior to beginning her doctoral studies, Ruffini worked as a Research Economist at the Council of Economic Advisers, where her work focused on health, education, and employment issues. She has also worked on budget and fiscal policies with the Center on Budget and Policy Priorities and the UK House of Commons.

Ruffini graduated summa cum laude with a BA in Economics, International Relations, and Political Science from Boston University and holds a MPA in Public and Economic Policy from the London School of Economics.

Christopher J. Ruhm

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Christopher J. Ruhm is Professor of Public Policy and Economics at the University of Virginia. He received his doctorate in economics from the University of California at Berkeley. Prior to joining UVA, he held faculty positions at the University of North Carolina at Greensboro and Boston University. During 1996–97, he served as Senior Economist on President Clinton’s Council of Economic Advisers. He is currently a Research Associate at the National Bureau of Economic Research and a Research Fellow at the Institute for the Study of Labor (IZA).

Professor Ruhm’s recent research focuses on how various aspects of health are produced—including the rise in drug deaths and obesity, and the relationship between macroeconomic conditions and health—and on parental leave and other work-family policies. He is co-author of two books and has more than 80 pieces published as book chapters and articles in academic journals. His research has been cited in media outlets including *The New York Times*, *Washington Post*, *Wall Street Journal*, *USA Today*, *Business Week*, CNN, ABC, CBS, BBC and NPR.

Ruhm has received external research funding from a diverse set of organizations. He is currently associate editor of the *Journal of Health Economics* and the *Southern Economic Journal*, on the editorial board of the *American Journal of Health Economics*, *Economics Letters* and the *Journal of Labor Research*, President-Elect of the Southern Economic Association, on the Board of Directors of the American Society of Health Economists and a steering committee member of the Southeastern Health Economics Study Group.

Diane Whitmore Schanzenbach

Margaret Walker Alexander Professor and Director, The Institute for Policy Research, Northwestern University; Director Emeritus, The Hamilton Project; Nonresident Fellow, Economic Studies, The Brookings Institution

Diane Whitmore Schanzenbach is the director of the Institute for Policy Research at Northwestern University and the Margaret Walker Alexander Professor at the University. From 2015–2017, she was the director of The Hamilton Project. She is also a research associate at the National Bureau of Economic Research, a research affiliate of the Institute for Research on Poverty, and a nonresident senior fellow in Economic Studies at the Brookings Institution.

Schanzenbach studies issues related to child poverty, including education policy, child health, and food consumption. Much of her research investigates the longer-run impacts of early life experiences, such as the impacts of receiving SNAP benefits during childhood, the impacts of kindergarten classroom quality, and the impacts of early childhood education. She recently served on the Institute of Medicine’s Committee on the Examination of the Adequacy of Food Resources and SNAP Allotments.

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Advancing Opportunity,
Prosperity, and Growth

The Hamilton Project seeks to advance America's promise of opportunity, prosperity, and growth.

We believe that today's increasingly competitive global economy demands public policy ideas commensurate with the challenges of the 21st Century. The Project's economic strategy reflects a judgment that long-term prosperity is best achieved by fostering economic growth and broad participation in that growth, by enhancing individual economic security, and by embracing a role for effective government in making needed public investments.

Our strategy calls for combining public investment, a secure social safety net, and fiscal discipline. In that framework, the Project puts forward innovative proposals from leading economic thinkers — based on credible evidence and experience, not ideology or doctrine — to introduce new and effective policy options into the national debate.

The Project is named after Alexander Hamilton, the nation's first Treasury Secretary, who laid the foundation for the modern American economy. Hamilton stood for sound fiscal policy, believed that broad-based opportunity for advancement would drive American economic growth, and recognized that "prudent aids and encouragements on the part of government" are necessary to enhance and guide market forces. The guiding principles of the Project remain consistent with these views.

BROOKINGS

THE U.S. ECONOMY will not operate at its full potential unless government and employers remove impediments to full participation by women in the labor market. The failure to address structural problems in labor markets—including tax and employment policy—does more than hold back women’s careers and aspirations for a better life. In fact, barriers to participation by women also act as brakes on the national economy, stifling the economy’s ability to fully apply the talents of 51 percent of the population. By acting to remove barriers to women’s participation, we can realize stronger economic growth that will be more broadly shared by the American people.

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