A NEW MINIMUM BENEFIT FOR LOW LIFETIME EARNERS*

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CONTENTS **Page**

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Executive Summary

Despite working hard and playing by the rules over long periods, many workers end up poor in retirement. We propose a new, enhanced minimum benefit for Social Security that targets workers with long careers with low lifetime earnings along with a modest credit that compensates workers for up to three years out of the labor market due to caregiving, unemployment, or poor health. Combining these two elements means that the proposal provides work incentives, yet also recognizes the realities facing low-wage workers, many of whom have had intermittent work careers.

The generosity of the proposed minimum benefit varies based on the total number of years that an individual has worked in Social Security-covered employment (with a year defined as four quarters of coverage). It starts at 60 percent of the poverty threshold for a worker with twenty years of Social Security-covered earnings, the minimum required work years to receive a boost from the minimum, and increases to a maximum of 110 percent of poverty for those working 40 or more years. The caregiving and health credits, which are based on the average wage, count toward the work years required by the minimum benefit. We prorate the number of credits for which one is eligible based on time of residence in the United States (for immigrants) and time of disability onset (for those who qualify for disabled worker benefits). We present both wage- and price-indexed versions of the minimum benefits, and also contrast our base minimum benefit with an alternative that starts at a lower benefit level but increases faster with each additional year of service. The proposed change takes effect for those first qualifying for benefits in 2010 and later.

We show that these proposed enhancements to Social Security would allow more adults to retire with a secure financial foothold. To demonstrate the plan's potential effectiveness, we present results from simulations of several versions of the proposal using DYNASIM, the Urban Institute's dynamic microsimulation model of the U.S. population. These results suggest that the proposal could help to remove hundreds of thousands of American workers from poverty at relatively modest cost. Fractions of benefits directed to less educated workers and workers who raised children outside of marriage increase under all parameterizations of the reform.

We then consider alternative ways of financing the credits and the minimum benefits. We find that relatively modest reductions to current law spouse benefits could on their own finance the caregiver credit. When combined with disability credits and a minimum benefit, the caregiver credits become more costly, especially if the minimum benefit is wage-indexed. Deeper cuts in the spouse benefit could offset these increased costs, as could modest increases in the Social Security wage and benefit base (the "taxable maximum"). When the minimum benefit and care credits are financed, the tradeoffs associated with their introduction become more obvious. These tradeoffs include reduced returns to payroll tax contributions for moderate- and high-earners, especially those who have more education or, in some cases, longer earnings histories.

Of course, the larger context in which we propose these changes is one of serious financial challenge for the Social Security system. We thus recommend further, more rigorous analyses to optimize the proposal components so that they maximize the overall poverty reduction effect while minimizing any work disincentives.

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Introduction: Despite working hard and playing by the rules over long periods, many workers end up poor in retirement. Unlike many other countries' public retirement systems, Social Security does not provide a minimum benefit or demogrant.[†] We propose a new, enhanced minimum benefit that targets workers with long careers with low lifetime earnings along with a modest credit that compensates workers for up to three years out of the labor market due to caregiving, unemployment, or poor health. The enhanced minimum will allow more adults to retire with a secure financial foothold.

The proposed change to OASDI extends our past work, which used fairly stylized simulations to explore alternative minimum benefit designs that vary generosity, eligibility criteria, and indexing choices (Favreault et al. 2007, Favreault and Mermin 2008, Favreault and Steuerle 2007).[‡] This previous work detailed other issues associated with effective OASDI minimum benefit design, such as spousal rights, treatment of uncovered employment spells, and how it interacts with Disability Insurance.

What is the problem and target population? Some workers end up with very low Social Security benefits either because they have low wages throughout their careers and/or because they have intermittent work careers. A long-term, low-wage worker typically does not qualify for an OASI retired worker benefit that exceeds poverty unless he/she defers claiming until at least the normal retirement age.[§] For example, at age 62, a single worker who earned the minimum wage for full-time, full-year work (2,000 hours of work per year) starting at age 20 every year for the next 40 years would be eligible for a benefit of about 82 percent of poverty. At the full retirement age (age 66 for workers born between 1943 and 1954, increasing by two months per birth year for those born after 1954 until reaching 67 for those born in 1960 or later), he or she could receive a benefit of just over poverty (106 percent of the threshold). While deferring retirement past the first eligibility age for retirement benefits could increase many low-wage workers' benefits significantly, a sizable fraction of these same vulnerable workers cannot work longer. Estimates suggest that up to one-third of older workers will be hard pressed to work into their mid-60s due to poor health or job prospects (Munnell and Sass 2008).

In 2006, about 45.3 percent of women and 18.6 percent of men received retired worker

benefits that did not exceed the aged poverty threshold for an individual (author's calculations, Social Security Administration [SSA] 2008a: Table 5.B9). About 85 percent of the aged 65 and older have income from sources other than Social Security (SSA 2006). As a result of this other income (and also sharing of resources within households), the fractions of all aged beneficiaries, including survivors and spouses who are not entitled to retired worker benefits, with household income of less than poverty were much lower than the fractions with sub-poverty Social Security benefits, about 9.9 percent for women and 4.8 percent for men (SSA 2006).[**]

To inform choices about how to design a minimum benefit, it helps to consider why workers reach later life not qualifying for a benefit—or obtaining a combination of OASDI and other income—that reaches the poverty level or some other income adequacy threshold. Low skill, low wages, and intermittent work histories (due to caregiving or health or unemployment shocks) each suggest different design approaches for Social Security adjustments like a minimum benefit. As we discuss below, low wages are one component of the problem of inadequate benefits, but intermittency and caregiving arguably have larger effects. This suggests that minimum benefits that target only very long-term, low-wage workers would have limited effectiveness at alleviating poverty.

Low wages: While not all low-wage workers earn the minimum wage, data on those who do nonetheless provide some context on the extent to which low-wages are an important in today's labor force. In 2007, about 2.3 percent of workers who were paid at hourly rates reported that they received the minimum wage or less (Bureau of Labor Statistics 2008a). Given that workers paid at hourly rates comprise about 58.5 percent of the workforce, it follows that at least 1.35 percent of all workers receive the minimum wage or less. These workers are disproportionately young, disproportionately female, and disproportionately less educated. While nearly half of workers who make less than the minimum wage are below age 25, just over half are 25 and older. This corresponds to about 915,000 workers over age 25—about 611,000 of them women and 304,000 of them men—earning at or below the minimum wage last year.[††]

Point-in-time estimates of the prevalence of low wages can obscure larger trends. The value of the minimum wage has failed to keep up with wage growth (Figure 1), and, over some periods, has even failed to keep up with inflation (Figures 2). For example, before the recent minimum wage increase earlier this decade, the real value of full-year work at the minimum wage had reached a fifty-year low. More broadly, economic growth has been disproportionately

reflected at the highest wage and skills levels. In recent decades, workers with less than a high school education have experienced relatively slow rates of real wage growth (Bureau of Labor Statistics 2008b).

Intermittent work histories: However, low wages and slow growth in wages for less-skilled workers are only part of the reason for low Social Security benefits. Evidence shows that relatively low fractions of workers earn low wages for full-time work over a long career. When we consider recent retirees, we see that most low-wage workers work fewer than 40 years before reaching the early eligibility age (Favreault and Steuerle 2008). For example, only about 8 percent of men and 4 percent of women whose highest earnings over their career were between half and 75 percent of the average wage worked 35 or more years in their career.[‡‡] Looking exclusively at younger individuals from the late Baby Boom who have not yet reached retirement age (but will in coming decades), patterns are similar. Less educated late-Boomer workers worked lower percentages of available weeks between ages 18 and 42 than more educated workers. Late Boomers with a high school diploma worked on average about 65.1 percent of available weeks between 18 and 42, compared to 82.1 percent of available weeks for those with a bachelor's degree or more (Bureau of Labor Statistics 2008b).

Health and unemployment shocks are significant factors in labor force intermittency, with disability increasingly likely to play a role as a worker ages. Recent estimates of experiences of Americans ages 51 to 61 from the Health and Retirement Study (HRS) suggest that in the ten years after the survey baseline, just over 40 percent of respondents experience onset of a serious medical condition, about a third report developing work limitations, and about one fifth report experiencing a layoff (Johnson, Mermin, and Uccello 2005). Those with less education and racial and ethnic minorities are typically more likely to experience these shocks than others (Ibid, Table 4). While the DI and Supplemental Security Income (SSI) programs are effective for shielding many of those with severe and permanent disabilities from economic hardship, those with less severe disabilities often face significant income losses and reduced future Social Security retirement benefits.[§§] Indeed, analysts have noted the lack of a short-term disability program for most U.S. workers as a key gap in the social safety net (Wittenburg and Favreault 2003). The Unemployment Insurance (UI) program likewise does not cover some of the most vulnerable workers, given its requirements, which vary by state, about base-period earnings (which often work against workers with more volatile employment histories) and about the type

of work claimants must be seeking (e.g., searching for part-time work often does not qualify a worker for unemployment benefits) and its time limits on benefit receipt (for discussion, see, for example, Stone et al. 2007).

Caregiving/child care wage penalties: Many workers, overwhelmingly women, take time out of the labor force or reduce their earnings to care for young children. Recent estimates from the Survey of Income and Program Participation suggest that on average women with two children in the 1948-1958 birth cohorts will work 4.4 fewer years than women with no children, who will in turn work about two years fewer on average than men (Favreault and Steuerle 2008). While this represents a marked increase in work effort from past generations, when women, and especially those with children, worked far less (see, for example, Blau and Kahn 2007 and other estimates in Favreault and Steuerle 2008), these levels are still inadequate for many women to accrue a Social Security benefit that will allow a secure retirement.[***]

When considering the extent to which childcare reduces Social Security benefits for some parents, we need to consider not just the effect of the years that the parent takes out of the labor force, but also the extent to which those years away affect the parent's wage evolution more broadly (i.e., the extent to which wage growth is retarded even in those years while one is on the job). Research suggests that the parenthood wage penalty is substantial, though the size of this penalty is the subject of significant debate.[†††]

What is the policy approach? The proposed enhanced minimum benefit approach has two key elements: 1.) Implement a targeted minimum benefit based on total years of service that shores up benefits for long-term, low-wage workers, and 2.) provide a credit to low-wage workers for up to three years of work lost due to care of an infant or toddler, unemployment, or poor health.[‡‡‡] The proposal includes financing recommendations that would reduce some of the redistribution to high-income beneficiaries in the current system.

The enhanced minimum benefit would provide a work incentive by rewarding more years of earnings, but it would also recognize the realities facing low-wage workers. The proposed minimum benefit is based on years in the labor force, where a year is defined as at least four quarters of OASDI covered employment (see Favreault and Steuerle 2008 for sensitivity analyses on the definition of a work year[§§§]). The minimum provides a benefit equal to 60 percent of the poverty threshold for those with 20 work years, and increases by 2.5 percent of

poverty for each additional work year, reaching a maximum of 110 percent of poverty at 40 years. Both retired and disabled workers are eligible for the minimum benefit.

These percentages of poverty that the minimum provides are based on claiming at Social Security's normal retirement age (in technical terms, our minimum benefit is computed as an adjustment to the Primary Insurance Amount, or PIA). The second column in Table 1 under "Base Minimum Benefit" shows how Social Security's actuarial reduction would influence a worker's minimum retirement benefit for individuals reaching the early retirement age over the next eight years.

Table 1. Parameters in the Proposed Minimum Benefit: Percent of Poverty Replaced at Various Ages and Years of Service

	Base Minimum Benefit (1)		Sensitivity Test (2)	
Service years	Percent of poverty at NRA for	Percent of poverty at EEA (1943-54 birth cohorts)	Percent of poverty at NRA for	Percent of poverty at EEA (1943-54 birth cohorts)
20	60.0	45.0	55.0	41.25
25	72.5	54.375	72.5	54.375
30	85.0	63.75	90.0	67.5
35	97.5	73.125	107.5	80.625
40	110	82.50	125.0	93.75

Source: Author's design.
Notes: A service year is defined as four covered quarters of earnings, and can be accrued in partial increments of a year. EEA=Early eligibility age. NRA=Normal (Full) Retirement Age.

The table also presents parameters for a second minimum benefit which we compare to our base minimum in sensitivity analyses. This alternative minimum benefit starts out at lower level for those with 20 years of work, but increases more rapidly with each additional work year. The objective of this alternative is to provide stronger work incentives for low-wage workers. Corresponding to the higher generosity levels with more work years, this second benefit also brings benefits closer to the poverty level at the early eligibility age, a potentially controversial component.[****]

The proposal would base the earnings credits for caregiving, disability, or unemployment on the OASDI average wage (i.e., the average wage index used in benefit computation), and count credited years toward the minimum benefit. For caregivers, supplements would only be available in calendar years in which a child is age 4 or under (so typically not yet eligible for school), and only one parent per child could claim the supplement in any given year.[††††] The first-year child care supplement equals the maximum of actual earnings or 60 percent of the average wage, declining to 50 percent of the average wage in the second year, and 40 percent in the third.[‡‡‡‡] For the unemployed and those with health problems, the first supplement year is similarly higher than the supplement for subsequent years. The rationale for the declining credit level in the second and third credit years (where applicable) is to minimize any disincentives to work that the credit might provide, recognizing that longer breaks from the labor force can often lead to greater reductions in a worker's lifetime wages. We propose a maximum of 3 *total* unemployment and health credits, payable only from age 25 onward (caregiver credits would not be age restricted).[§§§§] Further, we restrict credits to avoid providing windfalls such as to individuals who worked outside of the U.S. for most of adulthood or who work predominantly in uncovered employment (e.g., because they are covered by a state or federal pension).[*****]

While our proposal has several unique features (perhaps most notably, its combination of a variety of credits with a minimum benefit), it fits in with a broader literature--and legislative legacy--that considers similar adjustments to improve Social Security adequacy. Analysts, legislators, and advocates on both the left and right have proposed minimum benefits as components of OASDI plans (e.g., Diamond and Orszag 2004, Graham 2003). Further, minimums have been prominent components of bi-partisan and non-partisan plans (e.g., National Commission on Retirement Policy 1998, Liebman et al. 2005), suggesting their political feasibility.

Caregiver credits also appear to have political resonance. In 2007, Representative Lowey of New York proposed legislation (H.R. 1161 of the 110th Congress, "The Social Security Caregiver Credit Act of 2007") that would provide up to five years for those caring for dependent family members. Senator Brownback of Kansas provided for up to seven Social Security caregiver credits in a recent Senate proposal focused on income taxes (S. 816 of the 110th Congress, "Parents' Tax Relief Act of 2007"). While neither of these pieces of legislation made it out of committee, the fact that each comes from a different side of the aisle suggests the

possibility for future coalition support behind caregiver credits. Caregiver credits also have long been a subject of interest among advocates and analysts. Policy analysts have been discussing caregiver credits for well over 20 years (see, for example, Holden 1982), often in the context of addressing the Social Security system's treatment of women more broadly, and in contrast to other adjustments (e.g., caregiver dropout years or earnings sharing).

How would the proposed change address the problem? Our minimum benefit proposal aims to reach primarily those with long-term low wages. We do not intend to replace or phase-out the means-tested Supplemental Security Income program, the "program of last resort" for those without significant work histories.[†††††] This is evidenced by the fact that our minimum benefit has a twenty-year service requirement. Nor do we intend to supplement higher-wage workers who voluntarily take time out of the labor force.[‡‡‡‡‡] The target is those with low-lifetime earnings capacity who either stay low earners for a long career or who have modest career interruptions due either to shocks (from layoffs or health events) or childrearing (which benefits OASDI by replacing workers the system needs to keep its financing from deteriorating further in years to come). The option boosts their replacement rates but maintains work incentives through the tie to service years.

Depending on its financing (described further below), the proposed change could also serve to move non-contributory Social Security benefits for spouses and adult survivors to a more universal conception of need rather than a strictly marriage-based qualification system. This is appropriate given that need is typically higher among unmarried individuals and non-contributory benefits are essentially subsidies (because workers do not pay any additional payroll tax for this coverage) (for discussion, see, for example, Harrington Meyer 1996, Favreault and Steuerle 2007). Integrating greater marriage-neutrality into Social Security would also be consistent with broader changes in society. These include the trend toward increased childbearing outside of marriage, under which over 38 percent of recent births have been non-marital (Hamilton et al. 2007), and the reduced expectation that spouses who are neither caring for children nor disabled and who take extended periods outside of the labor force are entitled to significant subsidies from workers.

Cost and distributional questions

Our proposal's cost and distributional effects depend greatly on its parameterization. We analyze these effects using the Urban Institute's Dynamic Simulation of Income Model (*DYNASIM*), a nationally representative, Social Security-focused long-term model. DYNASIM starts with a population of about 100,000 individuals and then ages these individuals a year at a time from baseline (in the early 1990s) through 2080. The model's starting sample is based on the 1990 to 1993 Survey of Income and Program Participation (SIPP) statistically matched to publicly available earnings records (from 1951 through baseline), which allow us to compute Social Security benefits.[§§§§§] DYNASIM's aging algorithms are drawn for a variety of longitudinal sources, including the National Longitudinal Survey of Youth (1979 and 1997), the Panel Study of Income Dynamics, and the SIPP. An important aspect of the model is that developers have carefully designed these aging algorithms to capture socioeconomic differentials in a wide range of outcomes. For example, work and earnings are responsive to changes in family situation (e.g., marriage or the birth of a child), and likelihood of disability onset varies by education and lifetime earnings. We calibrate many of the model's predictions (for example, fertility levels and wage growth) to the intermediate assumptions of the Social Security Trustees (OASDI Board of Trustees 2008). For additional information on DYNASIM's structure and parameters, see Favreault and Smith (2004) and The Urban Institute (2008).

We present both cross-sectional and longitudinal DYNASIM estimates of the effects of the proposal, which we simulate in incremental steps to allow readers to see the independent distributional and cost effects of various components of the proposal. The cross-sectional estimates, for example the percent of the Social Security beneficiary population in or near poverty at a point in time before and after a change, help us to better understand the proposals' performance on adequacy grounds. The longitudinal estimates are especially useful for exploring equity issues, for example, how lifetime payroll tax contributions relate to lifetime benefits, and how this varies based on work and/or childrearing effort.

To provide a benchmark for these simulations in which we change Social Security law, we also present separate estimates of benefits as they are scheduled current law and payable under current law (in those cases when we are examining a year after which the Trustees project that the Social Security Trust Fund would become insolvent). Our payable estimates assume that the entire Social Security shortfall would be made up through benefit reductions (as opposed to some combination of payroll or income tax increases and benefit reductions).[******] These

alternative comparisons—one of which arguably is overly optimistic about future Social Security benefits, the other of which may be overly pessimistic—can thus serve to bracket the range of possible Social Security systems, assuming that the program retains its existing structures. They can thus provide readers with a rough guide to the proposals' magnitudes and distributional features.

One important aspect of these DYNASIM simulations is that we assume no behavioral responses to our proposed changes to Social Security. That is, workers do not change their work, savings, or Social Security claiming behavior in response to the change in available credits and benefits.[††††††] In situations in which this assumption is not realistic (e.g., proposed changes to Social Security benefits or taxes are quite significant), we thus recommend conservative interpretation of the simulation results.

What cohorts would feel the effect? Are there some cohorts that would feel no effect? The proposal would take effect in 2010 for those that are first entitled to retirement, disability, or survivor benefits that year and later. Those entitled earlier would not feel effects except insofar as they are (or have been) married to affected individuals and qualify for a non-contributory benefit based on their spouses' earnings records.[‡‡‡‡‡‡] Workers in the affected cohorts are eligible to receive caregiver, disability, and unemployment credits for years prior to 2010. For example, a woman who first applies for retirement benefits in 2010 can claim caregiver credits for years in the early 1980s when she was out of the labor force caring for her children who were at or under the credit's cutoff age in those years.

What variations would increase effectiveness/costs? As previous literature has indicated, the treatment of the minimum benefit level after its initial assignment can dramatically alter both its costs and its effectiveness. Wage-indexing the benefit can lead it to reduce poverty even further. However, it can also increase the costs dramatically. Throughout our analyses, we therefore present two versions of the base minimum benefit: one in which the benefit level is price indexed (the baseline), and a more generous version in which it is wage indexed. We also show results for a second minimum benefit to demonstrate the sensitivity of the minimum to its work incentive parameters, and again juxtapose wage- and price-indexed versions of the benefit.

Another expansion would be to allow other forms of caregiving (for example, for a

disabled spouse or aged parent) to qualify for earnings credits under the proposal. We have not simulated such provisions in the current analyses, but could extend the simulations to include other types of care in future work. Other research explores this question in more detail (see, for example, White-Means and Rubin 2008).

Who would it help? Prior DYNASIM analyses suggest that proposals of this type would disproportionately affect lower-wage, less-educated men and women who have not married. Single parents could see particular benefits given that many have several low earnings years in their work careers because they reduced their hours to care for their children, but they often are not insured by spousal or survivor benefits (especially if they had children outside of marriage). The estimates in Tables 2 and 3 bear out these patterns.

Table 2 displays the percentage of total adult Social Security benefits that individuals in various demographic groups receive under current law and six separate parameterizations of the option.[§§§§§§] We first show the caregiver credit on its own, then add the health and disability credits, and finally add the various minimum benefits. In these first results, we just add the new entitlements to current law without implementing any offsetting reductions to pay for the expansion of benefits. (We display selected results which include cost offsets later.) We present results in two separate years: 2030, when the proposal would have been in effect for 20 years, and 2050, when it is essentially fully phased in (i.e., virtually all retirees have been eligible for the minimum and the earnings credits). We look at outcomes by gender, education, and never married parent status in these analyses, but can provide many additional comparisons upon request.

As we would expect, the reforms redistribute income toward historically vulnerable populations. We see that under all of the options, the fraction of benefits that never married parents and less educated workers receive increases relative to current law in both 2030 and 2050. For women, the highest relative increases in benefit fractions occur with implementation of the caregiver credit on its own. For the less educated workers, disability credits provide additional tilt in distribution of benefits in the group's direction. Adding the minimum benefit to the credits tilts redistribution toward men relative to women under all four minimum benefit options, while the credits remain more favorable to women.

Table 2. Percent of Adult Social Security Benefits Members of Various Subgroups Received in 2030 and 2050 under Current Law and Three Versions of the Proposal

	Current law scheduled	Caregiver credit	Caregiver credit plus disability credit	Caregiver plus disability credit (3) plus **base** minimum benefit	Caregiver plus disability credit (3) plus **sensitivity** minimum benefit
	(1)	(2)	(3)	(4)	(5)
2030				Price / Wage	Price / Wage
Men	47.24	47.18	47.21	47.25 / 47.26	47.25 / 47.25
Women	52.76	52.82	52.79	52.75 / 52.74	52.75 / 52.75
Never married parents	2.41	2.44	2.45	2.46 / 2.46	2.46 / 2.47
Less than a high school education	8.58	8.65	8.67	8.69 / 8.72	8.71 / 8.77
High school graduate	55.29	55.33	55.35	55.36 / 55.39	55.40 / 55.48
At least some college	36.13	36.02	35.97	35.95 / 35.89	35.89 / 35.75
2050				Price / Wage	Price / Wage
Men	48.19	48.12	48.16	48.22 / 48.27	48.23 / 48.25
Women	51.81	51.88	51.84	51.78 / 51.73	51.77 / 51.75
Never married parents	2.37	2.42	2.45	2.46 / 2.45	2.43 / 2.46
Less than a high school education	8.32	8.38	8.40	8.40 / 8.43	8.40 / 8.46
High school graduate	49.08	49.16	49.18	49.18 / 49.30	49.21 / 49.42
At least some college	42.59	42.47	42.41	42.42 / 42.27	42.39 / 42.11

Source: Author's tabulations from DYNASIM3 (runid: 592)
Notes: For married people, we tabulate benefits on a family basis (i.e., we assume that husbands and wives share their individual Social Security benefits equally). Percentages may not sum to 100 because of rounding. "n/c" indicates no change from current law scheduled.

Poverty and near poverty reductions under several parameterizations of the proposal would also be marked (Table 3). As we would expect, poverty reductions would increase with the level of generosity of the proposal. In 2030, we would see a poverty reduction of between 0.29 and 1.07 percentage points among adult Social Security beneficiaries across the proposals.

This translates into between 230,000 and 850,000 beneficiaries removed from poverty by the options. In 2050, the poverty reduction range is even larger in percentage point terms, surprising given the lower baseline rate of poverty that year. Because the Social Security beneficiary population grows markedly between 2030 and 2050, this represents a much greater change in absolute terms, with over 1.14 million beneficiaries who would be removed from poverty (relative to current law scheduled) in the case of the most expensive change to the program, the wage-indexed minimum benefit from the sensitivity test.[*******] The improvement relative to current law payable is much greater.

Table 3. Poverty and Near Poverty among Adult Social Security Beneficiaries under Current Law (Both Scheduled and Payable) and Several Versions of the Proposal

	Current law scheduled	Current law payable	Caregiver credit	Caregiver credit plus disability credit	Caregiver plus disability credit (3) plus **base** minimum benefit	Caregiver plus disability credit (3) plus **sens.** minimum benefit
	(1a)	(1b)	(2)	(3)	(4)	(5)
2030					Price / Wage	Price / Wage
Poverty	4.95	n/c	4.66	4.47	4.26 / 4.10	4.12 / 3.88
Near poverty	8.97	n/c	8.70	8.54	8.39 / 8.21	8.17 / 7.86
2050					Price / Wage	Price / Wage
Poverty	3.10	5.37	2.75	2.58	2.42 / 2.00	2.32 /1.87
Near poverty	5.73	8.90	5.43	5.23	5.17 / 4.72	5.07 / 4.33

Source: Author's tabulations from DYNASIM3 (runid: 592)
Notes: "Near poverty" is defined as total family income of less than 125 percent of poverty. "n/c" indicates no change from current law scheduled. Current law payable projections are based on OCACT projections of the payable ratio for the combined OASDI Trust Funds (rather than separate ratios for the OASI and DI Trust Funds).

What are the approximate costs? Table 4 shows the estimated cost for adult OASDI benefits under several of the proposals, expressed as a percent of current law (scheduled) benefits.[†††††††] Cost increases range from just under a half of a percent higher (for the caregiver credit by itself) to over two and a half percent higher (for the wage-indexed sensitivity

minimum) than under current law. After the proposals are fully phased in (usually, around 2040-2050, the point at which the proposals would have been in effect for 30 to 40 years), costs are relatively constant as a fraction of current law scheduled benefits, except for the wage-indexed minimum benefits, which continue to increase in costs, as we would anticipate. One interesting aspect of the costs of the proposals (not shown) is their interaction effects. For example, the effect of the minimum benefit with a caregiver credit differs from the sum of the cost of the caregiver credit and the minimum benefit without the caregiver credit. Often, one type of subsidy is replaced by another when we combine parameters into a package.

Table 4. Comparison of Projected Costs for Adult OASDI Benefits under Several Versions of the Proposal (Without any Financing Provisions) Relative to Current Law Scheduled at Several Points in Time

	Current law sched-uled	Add care-giver credit	Caregiver credit (2) plus disability credit	Add **base** minimum benefit to (3), price-indexed	Add **base** minimum benefit to (3), wage-indexed	Add **sensitiv-ity** minimum benefit to (3), price-indexed	Add **sensitiv-ity** minimum benefit to (3), wage-indexed
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
2020	100.0	100.5	100.7	100.8	100.9	101.1	101.4
2030	100.0	100.6	100.9	100.9	101.3	101.2	102.0
2040	100.0	100.7	101.0	101.0	101.5	101.2	102.4
2050	100.0	100.7	101.0	100.9	101.7	101.0	102.6
2060	100.0	100.7	101.0	100.9	101.7	100.9	102.7

Source: Author's tabulations from DYNASIM3 (runid: 592)

How could the benefit enhancements be financed? Our experience (e.g., Favreault and Mermin 2008 and Favreault, Mermin, and Steuerle 2007), plus other work on minimum benefits (e.g., Herd 2005), suggests that a package with many of these core elements could be cost-neutral relative to current law scheduled (and even a less generous "feasible benefits" scenario that assumes that the program's long-term deficit is financed equally by payroll tax increases and benefit reductions) with modest, incremental adjustments to other Social Security benefits and/or payroll taxes. Cost-neutrality would be highly desirable, given OASDI's enormous unfunded

obligation, estimated to be on the order of $4.3 trillion over the 75-year projection horizon and $13.6 trillion over the infinite horizon, according to the most recent estimates of the Social Security actuaries (OASDI Board of Trustees 2008).

For example, the proposal could limit spouse and survivor benefits for those with relatively high family incomes (e.g., by capping spouse/survivor benefits above a certain level, like the benefit an average-wage worker's record would generate) to pay for the minimum and/or the credits. As discussed earlier, the rationale for this tradeoff is that OASDI spouse/survivor benefits compensate to some degree for low lifetime wages and intermittent work histories. However, many workers who raise children but never marry--or divorce prior to the 10-year marriage duration required for auxiliary benefit eligibility--do not qualify for them. Those who do qualify tend to be relatively well-off given the socioeconomic gradients in both marriage and divorce. Bramlett and Mosher (2002), for example, document a strong relationship between whether a marriage breaks up within 10 years and a community's male unemployment rates, median incomes, poverty rates, and public assistance receipt rates. The fact that spouse and survivor benefits are more valuable for couples with less evenly split earnings than for those with more disparate earnings also calls into question the effectiveness of their targeting (for discussion, see for example, Favreault and Steuerle 2007). Preliminary simulations suggest that the costs of the caregiver credit alone, without the disability credits or minimum benefit, could be offset by a reduction of spousal benefits from their current law level of half of PIA to about 39 percent of PIA. When we add the disability credit, the required spousal benefit reduction would be to about 32 percent of PIA.

Components of the many proposals geared at enhancing program solvency that legislators and analysts have advanced in recent years provide other ideas for potential financing sources. For example, our prior work (e.g., Favreault and Mermin 2008) suggests that a modest increase in Social Security's wage and benefit base, known as the "taxable maximum," could support minimum benefits and caregiver credits (partially substituting for spouse benefits) that would markedly reduce poverty. The taxable maximum for 2008 is set at $102,000; currently, only about 84 percent of total payroll is taxable. Some solvency plans (for example, Diamond and Orszag 2004) propose to increase this base to the point that about 90 percent of payroll in OASDI-covered employment would be taxable, as was the case in the early 1980s, before significant wage growth at the top of the earnings distribution reduced the taxable fraction. The

reduction required to finance the minimum benefits presented here would fall far below the level that would cover 90 percent of payroll. Preliminary estimates suggest that an increase to about $123,500 in 2010 would provide substantial financing for the base wage-indexed minimum benefit in a scenario in which workers could earner additional benefits as a result of their increased payroll tax contributions over the cap. (This compares to a scheduled increase in the cap to about $110,700, which would be implemented assuming the OASDI Trustees intermediate assumptions from 2008 were correct.) Financing the price-indexed version of this minimum would require less of an increase.

Returning to the distributional effects of the simulations in which enhancements are financed, we find that reductions in poverty and near poverty are still possible under the proposed options even in those contexts in which we would be spending slightly *less* on Social Security than we would under current law (the option where we swap the caregiver and disability credits for part of the spouse benefit) or when costs roughly approximate long-term costs under current law (the option in which we finance the wage-indexed minimum and caregiver/disability credits with reduced spouse benefits and an increase in the taxable maximum). As Table 5 shows, poverty reductions are more significant in the latter case, where poverty falls by 0.87 percentage points in 2030 and 1.11 percentage points in 2050. These percentage point changes correspond to over a half million and a million beneficiaries, respectively. This difference across the alternative proposals is not surprising, given that this option increases both payroll taxes and benefits, while the option that just swaps spouse benefits for the credits does not increase total Social Security benefits.

Are there other Social Security options to help this group? Why is this approach better?
Minimum benefits coupled with modest credits for up to 3 years of lost work (due to caregiving, disability, or unemployment) are not the only possible approach to help long-term low-wage workers. Alternatives would include changing the bend points and replacement percentage in the formula that converts average indexed monthly earnings (AIME) into a benefit, or changing the denominator (i.e., number of years) used in the AIME calculation (see, for example, Iams and Sandell 1994). Our previous work explores the former approach, contrasting OASDI benefit formula changes with minimum benefits of various generosity levels (Favreault, Mermin and Steuerle 2007). This work suggests that minimum benefits often have better work incentives than formula adjustments alone, though clearly the formula adjustments can have similar impacts

on poverty. Formula adjustments would possibly be cheaper to implement than credits for caregiving, unemployment, and disability, though probably no cheaper than minimum benefits on their own.

Table 5. Poverty and Near Poverty among Adult Social Security Beneficiaries under Current Law (Both Scheduled and Payable) and Several Versions of the Proposal

	Current law scheduled	Current law payable	Caregiver and disability credits + reduce spouse benefit (32%)	Base minimum, wage-indexed + reduce spouse + increase taxable maximum
	(1a)	(1b)	(2)	(3)
2030				
Poverty	4.95	n/c	4.67	4.08
Near poverty	8.97	n/c	8.76	8.17
2050				
Poverty	3.10	5.37	2.78	1.99
Near poverty	5.73	8.90	5.46	4.67

Source: Author's tabulations from DYNASIM3 (runid: 592)
Notes: "Near poverty" is defined as total family income of less than 125 percent of poverty. "n/c" indicates no change from current law scheduled. Current law payable projections are based on OCACT projections of the payable ratio for the combined OASDI Trust Funds (rather than separate ratios for the OASI and DI Trust Funds).

Administrative, behavioral, and comparative questions

What would be involved in implementing the proposal? Implementing pure formula adjustments based on years of service with covered earnings above a given threshold would be straightforward. Internal Revenue Service (IRS) records that the Social Security Administration (SSA) uses to calculate benefit levels already contain such information.

Provisions requiring documentation of the reasons out of the labor market, in contrast, could add significantly to SSA's administrative burden. SSA could thus consider a range of alternatives, ranging from simple declarations to more formal linkages to administrative records. Political pressures for more intensive documentation might lead to very significant compliance

costs.

OASDI currently has a childcare provision under DI (specifically used to determine computation years for those who had a period of zero earnings while living with either their own or their spouse's child, under the age of three), so those regulations could serve as a model. Birth certificates and children's Social Security numbers could document relationships. For federal personal income tax filers, a data linkage could provide SSA information on dependency exemptions. Many lower-wage workers are not required to file personal income tax returns, though, and assignment of a child's dependency is often difficult (for example, because parents who live separately may dispute which parent has the right to claim a child in a given year). Credits for unemployment could be based on Unemployment Insurance claims, though take-up for these benefits is incomplete and failure to reach insured status for UI in some jobs could lead to underestimation of lower wage workers' eligibility for the credit (see, for example, Vroman 2005). Spells with health problems would be especially complex (and thus expensive) to document.‡‡‡‡‡‡

Who else could be affected? Might there be unintended consequences? Employment credits and minimum benefits would run the risk of providing work disincentives (e.g., by making the last dollar paid into Social Security worth less) and/or encouraging workers to game the system in various ways (i.e., they would earn just over the coverage threshold in order to receive a very high return). Program interactions are another possibility. Given that benefits from the Supplemental Security Income program often confer eligibility for Medicaid, for example, some beneficiaries could be made worse off if their Social Security benefits increased to the point at which they were no longer available for SSI (see the discussion in Favreault et al. 2007).

To try to better illustrate the degree to which work disincentives could be an issue for Social Security under the proposal, Table 6 contrasts the projected median ratio of lifetime benefits to lifetime payroll taxes for individuals born between 1965 and 1972 by their total family years in the labor force (i.e., the combined husband and wife earnings years in years when married, divided by two, and one's own work years when not married) and completed education.§§§§§§§ A ratio of one indicates that, taking into account inflation and interest (assumed to be two percent real), the middle person in the group received lifetime benefits from Social

Security that were equivalent to his/her payroll taxes. Lower ratios imply that workers received less than a two percent real return on payroll tax contributions, while higher ratios imply more favorable returns.********

Table 6. Median Real Lifetime Benefits as a Ratio of Real Payroll Taxes (2008$) for Members of the 1965-1972 Birth Cohorts by Shared Years in the Labor Force and Education under Current Law (Scheduled and Payable) and Several Versions of the Option

	Current Law		Add-On Benefit Enhancement Options						Financed Options	
	Sched-uled	Pay-able	Care-giver credit	Care-giver plus disab-ility credits	Option 3 + **base** minimum benefit (by type of indexing)		Option 3 + **sensitivity** minimum benefit (by type of indexing)		Option 3 + reduce spouse benefit (32%)	Option 4b + reduce spouse + increase taxable max-imum
	(1a)	(1b)	(2)	(3)	(4a) *price*	(4b) *wage*	(5a) *price*	(5b) *wage*	(6)	(7)
Work Years										
1-9 years	0.136	0.136	0.572	0.586	0.600	0.600	0.600	0.586	0.582	0.586
10-19 years	1.489	1.363	1.527	1.541	1.543	1.545	1.543	1.558	1.515	1.543
20-29 years	1.185	1.057	1.197	1.200	1.202	1.206	1.203	1.214	1.182	1.202
30-34 years	1.107	0.984	1.112	1.113	1.112	1.119	1.115	1.129	1.098	1.117
35+ years	1.067	0.934	1.067	1.068	1.069	1.076	1.071	1.083	1.061	1.072
Education										
< HS grad	1.274	1.155	1.292	1.321	1.321	1.334	1.327	1.352	1.275	1.333
HSgraduate	1.191	1.059	1.203	1.209	1.211	1.218	1.214	1.229	1.191	1.215
Some coll	1.039	0.915	1.040	1.041	1.041	1.045	1.043	1.049	1.030	1.038

Source: Author's tabulations from DYNASIM3 (runid: 592)
Notes: We use a discount rate of 2 percent when accumulating both benefits and payroll taxes. The table universe includes individuals who die prior to receiving Social Security benefits if they survived to at least age 30 and paid any payroll taxes. For ever married people, we tabulate payroll taxes and benefits on a family basis (i.e., we assume that husbands and wives share their individual Social Security payroll taxes and benefits equally in those years that they are married). Current law payable projections are based on OCACT projections of the payable ratio for the combined OASDI Trust Funds (rather than separate ratios for the OASI and DI Trust Funds).

The declining median ratios under current law for the groups from 10 through 19 years of work and onward and by education reflect several aspects of Social Security redistribution: the progressive benefit formula, the fact that the formula only counts the highest 35 years of earnings, and the presence of non-contributory spouse and survivor benefits.

Before we finance the additional costs associated with the introduction of the care and disability credits and the minimum benefit (columns 2 through 5), we see that all of the work history groups would experience increases in their ratios of benefits to contributions (relative to current law), with those with the shortest work histories and least education realizing the greatest gains (both in absolute and percentage terms). Once we finance the benefit either with a spouse benefit cut or an increase in the taxable maximum (columns 6 and 7), we better see one equity trade-off associated with the reform.†††††††† Those who have worked thirty or more years would see the median ratio of their benefits to taxes decline relative to current law scheduled under the option in which we swap spousal benefits for caregiver and disability credits, and the most educated workers would see their ratios decline under both options.

Closely related to these work incentive issues, the political arena is another area in which the proposal could generate unintended consequences. Many advocates of Social Security express reluctance to make the system significantly more redistributive. They argue (like Franklin D. Roosevelt asserted at the program's creation) that the system is so popular because of the relatively strong relationship between payroll taxes and benefits, and they fear that middle and higher wage workers could reduce--or even withdraw--their support for the program if it were to become a worse deal for them.

Maintaining the program's strong popular support is bound to be a continual challenge, given the system's current underfunding (and the attendant likelihood that coming years will bring payroll tax increases and/or benefit reductions for future generations of beneficiaries) coupled with the economic vulnerability of a significant fraction of the aged population that relies on Social Security. In the case of our proposals, we hypothesize that two particular choices could help to minimize any reduction in political support that the proposal might generate. First, we believe that constructing a link to caregiving is likely to be effective, as it is resonant to significant fractions of the population, and has been successful internationally. Second, legislators can adjust parameters in the benefit formula to allow greater work incentives or greater of lesser generosity at various points in the work years distribution.

Has it been done previously (U.S., private sector, internationally)? What were the results? The U.S. Social Security system is a relative rarity in terms of not integrating caregiver credits and in the relative generosity of its worker benefits compared to its auxiliary benefits (see, for example, Thompson and Carasso 2002). Public pensions in Austria, Belgium, Germany, Japan, Norway, Sweden, and Switzerland include caregiving credits, while those in Canada, France, and the United Kingdom have caregiving dropout years.‡‡‡‡‡‡‡ Age limits for the child to whom the worker provides care vary from age 1 or under (Japan) to age 16 or under (Switzerland and the United Kingdom), with ages 3 to 4 a common middle ground (that is similar to our proposal, which uses an age limit of 4).

International experience suggests that adjustments along these lines can be effective with respect to adequacy. It is difficult to divorce the effects of these individual provisions from the larger differences in social policy and social insurance environments across countries, but comparative evidence suggests that U.S. worker benefits could be brought closer into line with standards from other countries for worker benefits with the types of adjustments we describe.

Conclusions and Next Steps: One great risk that workers face in retirement is the cumulative effect of long-term low wages plus shocks to work ability (in the form of short-term disability or illness, layoffs, and caring for children). Our proposal aims to mitigate these effects through increased benefit progressivity in the form of minimum benefits and wage credits. These progressive features are directly related to work, caregiving, and unemployment shocks, and carefully designed to avoid redistributing to higher wage workers who interrupt their careers voluntarily. They thus avert, or at least minimize, most dangers of discouraging work or saving inherent in other redistributive adjustments. Corresponding increases in burden for those with higher incomes could be largely offset by the disproportionate wage growth that those at the top of the income distribution have experienced in recent decades.

Our distributional estimates of the package's effects reveal that they have the potential to markedly reduce poverty. Aggregate estimates of packages in which the new minimum benefit is offset by spouse benefit reductions and increases in the taxable maximum suggest that some aspects of equity (as reflected by Social Security tax-benefit ratios of workers according to education and the total number of years that they and, when married, their spouses worked) are

sometimes reduced in concert with the adequacy improvement, a dilemma common to Social Security proposals.

In future work, we plan to explore ways to improve the minimum benefit's work incentives while retaining (or even improving) its performance on adequacy measures. For example, the proposals we have considered here have all used uniform increments in the minimum benefit formula (i.e., the fraction of poverty by which the benefit increases for each work year is the same for earlier work years as it is for later work years). We could adjust these amounts to better tailor the minimum toward more problematic points in the lifetime work years distribution.

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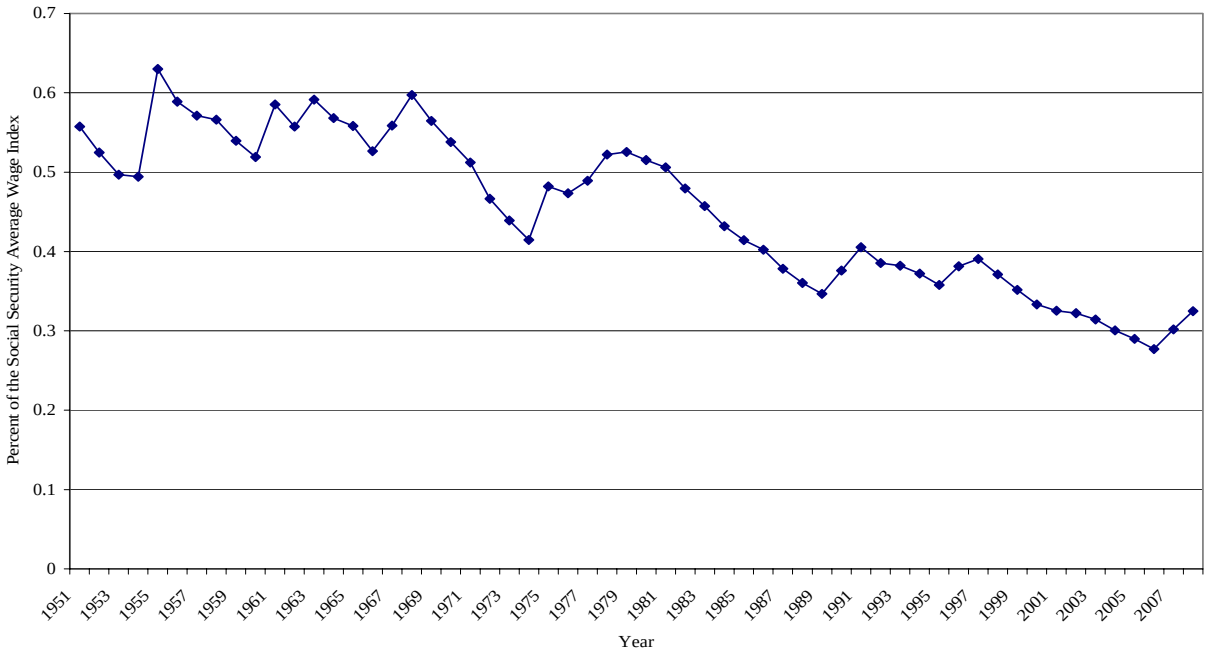
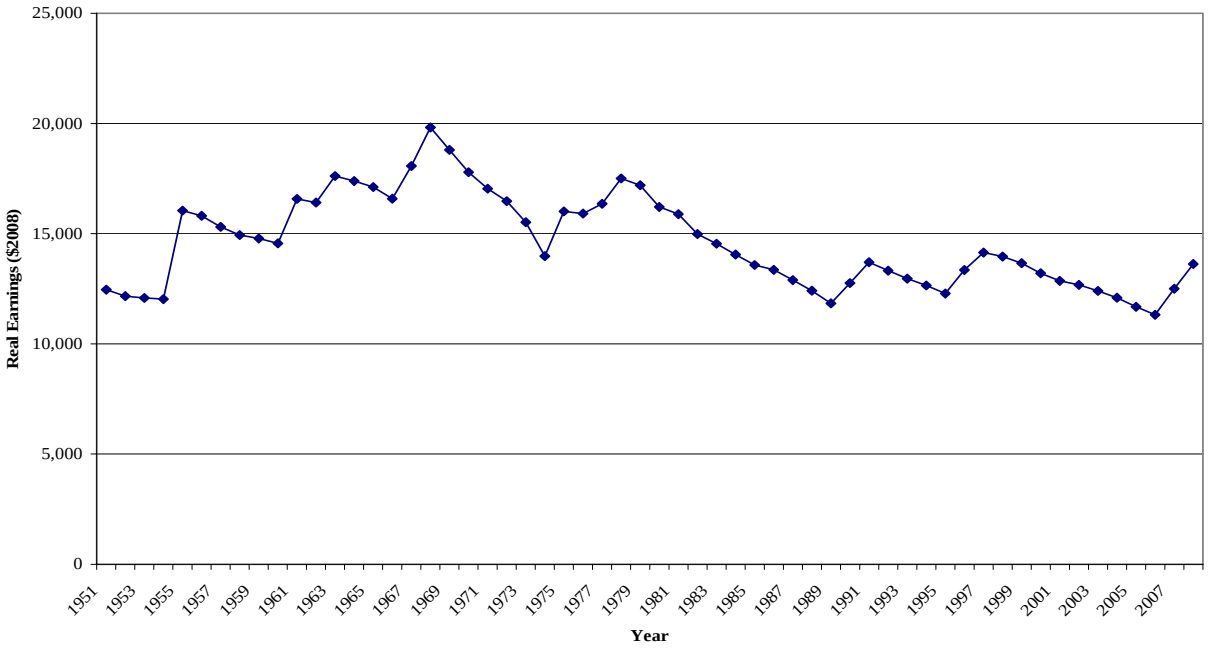
Figures

Figure 1. Annual earnings for a Full-Time, Full-Year (2080-hour) Worker Earning Minimum Wage as a Percent of Average Earnings, 1951-2008



Source: Author's calculations.

Figure 2. Annual Real Earnings ($2008) for a Full-time, Full-Year (2080-hour) Worker Earning the Minimum Wage, 1951-2008



Source: Author's calculations.

Endnotes

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† OASDI currently has a special minimum PIA, though its effect has diminished in recent decades and new workers will no longer qualify for it within a few years (Feinstein 2000, see also Olsen and Hoffmeyer 2001/2002). In late 2006, just 102,300 OASDI beneficiaries (about one-fifth of one percent of the total caseload) received benefits based on the special minimum.

‡ Throughout our discussion, we use the terms "Social Security" and "OASDI" interchangeably when referring to the program as a whole. When we wish to refer to a subset of the program (for example, Disability Insurance or aged Survivor benefits), we do this explicitly.

§ A low-wage worker married at least 10 years can also qualify for a benefit equal to one-half his/her spouse's benefit. For those with spouses with very high earnings, the spouse's benefit may exceed the worker's benefit and total family income may exceed the poverty threshold.

** Census Bureau estimates for 2007 suggest that 9.7 percent of persons 65 and older were poor (DeNavas-Walt, Proctor, and Smith 2008). Poverty estimates for the overall population are typically higher than those for the OASDI beneficiary population. This is because many needy aged individuals do not qualify for Social Security (including individuals who are eligible only for SSI or who are eligible for neither Social Security nor SSI, for example because of immigration status).

†† These workers are concentrated in certain occupations (most notably, food service) as well as geographically, with hourly workers in the South more likely to be paid at or below the minimum wage than those elsewhere in the country.

‡‡ These annual earnings figures could of course represent full-time work at low earnings or part-time and/or part-year work at higher earnings. As Figure 2 shows, full-time work at the minimum wage has yielded total earnings that range from 28 percent of the average wage in 2006 to 63 percent in 1955. The SIPP estimates reported from Favreault and Steuerle (2008) exclude disabled workers.

§§ A disability that qualifies a worker for benefits from DI is defined as a "medically determinable physical or mental impairment that can be expected to result in death or can be expected to last for a continuous period of not less than 12 months" that leaves one unable to engage in substantial gainful activity.

*** One striking aspect about the labor force histories of women who have children is how heterogeneous they are. This average reduction in work effort that accompanies childbearing varies greatly, with significant fractions of women continuing to work in virtually all years and others dropping out of the labor force more or less permanently after having children.

††† Estimates are numerous and quite varied. A full review of this literature is beyond the scope of this project, but see, for example, Budig and England (2001) or Korenman and Neumark (1992) for a summary of important conceptual and econometric issues. Some recent literature in this area suggests that those who reduce work effort tend to have lesser qualifications than those who do not, and this may lead many studies to understate the true wage penalty associated with raising children (for example, Hotchkiss and Pitts 2003). Other literature suggests, in contrast, that non-wage compensations like health insurance may lead to an overstatement of the penalty (Amuedo-Dornates and Kimmel 2008).

‡‡‡ The intention with the unemployment credit is to target narrowly episodes of involuntary unemployment (for example due to a layoff). We do not include unemployment spells in the current simulation estimates given the difficulty of distinguishing voluntary and involuntary spells.

§§§ In 2008, a worker earns a quarter of coverage for $1,050 in Social Security-covered earnings, so can earn the maximum four covered quarters with $4,200 in earnings. (These figures are scheduled to increase to $1,090 and $4,360 in 2009.) Under the reform's current parameterization, partial years of service can be summed to earn a full year of service (e.g., a worker with two quarters of coverage in two separate years can receive one year of service for those four quarters).

**** The ages at which an individual can apply to have caregiver credits included in his or her earnings record and qualify for the minimum benefit are important elements of their design. Consistent with current law computation

and interpretation of a PIA, retired workers can claim our credits and minimum benefits at the early eligibility age (currently set at age 62). The early eligibility age has several important design advantages, most notably the fact that the most vulnerable workers have shorter work histories (Favreault and Steuerle 2008). However, increased longevity and workers' typically greater ability to continue working when they are closer to the early eligibility age than when they have reached their seventies or eighties would argue for minimizing any incentives for early labor force withdrawal. As a compromise between these two competing imperatives, policymakers might wish to consider adjusting the minimum benefit so that the level increases with delayed claiming or with very advanced age (see, for example, Turner 2008 on a longevity benefit for Social Security).

†††† The current simulations include only a limited application of this latter restriction.

‡‡‡‡ We sort those years, and first is the year with the lowest earnings among all years that qualify, the second is the second lowest, and so on.

§§§§ The rationale for limiting these credits to individuals above a certain age is to minimize windfalls to those who remained dependents and/or were not actually in the labor force (for example because of schooling).

***** Specifically, we require that immigrants must have arrived in the U.S. prior to age 27 to qualify for the full three credits, prior to age 37 to qualify for two credits, and before age 47 to qualify for one credit. Individuals who qualify for Disability Insurance benefits are only eligible for the full three credits if they were 55 or older at disability onset, two full credits if disability onset was from 45 to 54, and one credit if disability onset was at least at age 35. We do not currently test beneficiaries of the credit for relatively low lifetime earnings (e.g., average earnings below some multiple of the national average), but hope to extend the simulations to include such restrictions in the future. Other future extensions could include permitting those who cared for children and worked simultaneously (and therefore did not get the full top up in their earnings history) to receive some benefit and/or conserve their credit across more years, and more thorough treatment of interactions between Social Security and other public pensions benefits (see, for example, Brown and Weisbrenner 2008).

††††† For discussion and comparisons of the relative merits of using Social Security compared to SSI, see, for example, Rupp, Strand, and Davies (2003).

‡‡‡‡‡ We propose to avoid this by applying a test for lifetime earnings on credits in future parameterizations.

§§§§§ The earnings records are constructed using several sources: the Panel Study of Income Dynamics and a public use match of Current Population Survey data with administrative earnings records (Smith, Scheuren and Berk 2002).

****** When making these adjustments, we use the combined OASDI Trust fund balance to adjust benefits for both OASI and DI recipients, rather than adjusting benefits based on the timing of insolvency and financial position of the respective Trust Funds.

†††††† We make this simplifying assumption in part because of the difficulty of estimating the magnitude of a behavioral response in absence of a precedent.

‡‡‡‡‡‡ It would be possible to implement the minimum benefits retroactively, except it would be more expensive and complicate implementation. Prospective implementation may also be preferable on distributional grounds given rapid changes in the prevalence of spouse and survivor benefits across retirement cohorts.

§§§§§§ We focus on adult Social Security benefits in all of our analyses. We simulate benefits for retired and disabled workers and their aged spouses and survivors. We do not model children's benefits or non-aged auxiliary benefits.

******* Consistent with other long-term forecasting models, DYNASIM projects marked decline in beneficiary poverty in coming decades. This is because we assume that, in line with the Social Security trustees' intermediate forecasts, wages will grow more quickly than prices, as they have on average in past decades. This implies that, all else equal, poverty should decline because initial Social Security benefits grow with wages, while the poverty threshold grows only with prices.

††††††† In future work, we hope to express costs more comprehensively, taking into account the effect on actuarial balance and not just on annual costs.

‡‡‡‡‡‡‡ In the simulation, we have relied on projections of self-reported work limitations to produce cost and distributional estimates.

§§§§§§§ We use median rather than average ratios because the presence of outliers in these calculations (for example, an individual who paid taxes for just one year but received a large survivor benefit for many years) leads to a great deal of volatility in the means. We chose these particular cohorts because they would experience full careers under the new system, but acknowledge that other cohorts would have different outcomes.

******** Given that Social Security is designed to have a significant redistributive component, some analysts prefer to avoid the term "return" in this context.

†††††††† For this particular simulation, we increase the taxable maximum to $123,500 in 2010, wage indexed thereafter.

‡‡‡‡‡‡‡ We take these descriptions from Thompson and Carasso (2002), where they are based on 1999 data.