

Minimum Benefits in Social Security

by

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Abstract

Although a number of recent proposals to alter Social Security have included provisions for minimum benefits (for example, proposals of the President's Commission to Strengthen Social Security), relatively little effort has been made to develop the rationale for a minimum benefit or to examine alternative ways it might be designed. As a consequence, the design of a minimum benefit—or, for that matter, the design of almost all redistributive formulas within Social Security—has seldom been based upon any theoretical or empirical notion of exactly what goals are sought and what types of formulaic adjustments would best achieve them. This study attempts to fill that gap. We examine the redistributive purpose of Social Security and how it relates to other purposes of the program. With this more theoretical section in mind, we turn to the second section, in which we compare a few minimum benefit designs of varying generosity based on years of covered work and the current poverty threshold, both price-indexed and wage-indexed. We then compare the distributional effects of the minimum benefit with other types of adjustments. Most of our comparisons are fiscally equivalent, allowing readers to make purer comparisons about the targeting effectiveness of different reforms. We make these fiscally equivalent comparisons in the context of a system that is reduced relative to scheduled benefits because of Social Security's long-term fiscal deficit.

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Introduction

In 1998 the bipartisan National Commission on Retirement Policy put forward a reform proposal that contained a minimum benefit within Social Security. Since then numerous Congressional proposals have also included a minimum benefit as part of a package of reforms, and a commission set up by George W. Bush during his first Presidential term also recommended one.¹ Little effort, however, has been made to develop the rationale for a minimum benefit or to examine alternative designs.² As one consequence, the design of a minimum benefit—or, for that matter, the design of almost all redistributive formulas within Social Security—has seldom been based upon any theoretical or empirical notion of exactly what goals are sought and what types of formulaic adjustments would best achieve them.

This study attempts to fill that gap. It is divided into three main sections. In the first section, we examine the redistributive purpose of Social Security and how it relates to other purposes of the program. We discuss some of the current system's redistributive features, and consider whether a minimum benefit might improve program adequacy in a more equitable or efficient way. We also consider another alternative—increasing the basic means-tested welfare program that provides a floor of income for the aged and disabled—instead of a minimum benefit. Then we examine briefly some types of proposed Social Security reforms and consider whether the risks they might introduce could be reduced if combined with a minimum benefit.

With this more theoretical section in mind, we turn to the second section, in which we offer a few minimum benefit designs based on years of covered work and the current poverty threshold (both wage-indexed and price-indexed). In this section, we consider how Social Security currently treats low-wage workers. We review the literature on minimum benefits and examine benefit design elements. The benefit design draws from the philosophical principles outlined above, as well as from empirical research about distributions of numbers of years in covered employment (and levels of earnings during working years) for both men and women.

In the third section, we examine empirically just how well different types of minimum benefits achieve various goals such as reduction in poverty. We compare the minimum benefits designed above with similar mechanisms (for example, changes to the bend points or replacement percentages in the Primary Insurance Amount formula).³ We use DYNASIM, the Urban Institute's dynamic microsimulation model of the U.S. population (Favreault and Smith 2004), in these analyses. Our aim is not to come to a definitive conclusion about how a minimum benefit should be designed, but, rather, to show how particular Social Security

¹ Some disclosure is required. Steuerle was an early proponent of including a minimum benefit, in part for reasons this study outlines in more depth—mainly trying to target Social Security benefits to the most vulnerable among the aged, providing some floor of protection if either benefits were pared or individual accounts introduced some risk, and providing an alternative to items such as the current structure of spousal and survival benefits or limiting the number of years that would be counted in the wage base that determined future benefits. Several of the later Congressional proposals containing a related provision were put forward by the two Democrats and two Republicans who chaired that Commission, while one of their aides moved on to serve President Bush's Social Security Commission through his role in the White House Economic Policy Council.

² Noteworthy exceptions from the literature include Herd (2005) and Fitzpatrick et al. (2003), as we discuss below.

³ To facilitate comparisons, we construct several of the simulations so that their costs are approximately neutral to the minimum benefit.

purposes—in particular, those associated with poverty relief and redistribution—can be better achieved when they stand on a solid ground of thoughtful analysis and empirical research.

We make roughly fiscally equivalent comparisons in the context of a system that is reduced relative to scheduled benefits because of Social Security’s long-term fiscal deficit (Board of Trustees OASDI 2005). We assume that increased contributions will meet approximately half of Social Security’s annual deficit in 2050, and benefit reductions will meet the other half.⁴ Of course, these estimated reductions are based on projections of future Social Security costs, which are inherently uncertain. Social Security may require smaller or greater adjustments depending on how accurate these predictions turn out to be. Nonetheless, we argue that this is a reasonable place to start the discussion.

Progressivity and Other Goals of Social Security

In its current design, Social Security reflects a compromise between the principles of progressivity and individual equity. It contains both redistributive features and features that relate benefits to what workers pay into the system. It differs from means-tested programs that are only available to individuals when their means (or income) are less than some given amount. Almost all contributors to Social Security—provided they have made deposits for at least 10 years—and their spouses are entitled to some level of benefits when they reach retirement age.

Adequacy/progressivity: The provision of adequate income in retirement for the aged stands out as a clear goal for Social Security. At the program’s outset, poverty rates among the aged were quite high. Even as late as 1959, over a third (35 percent) of the elderly lived in poverty. Today, the aged are less likely to be poor than prime age workers or children.⁵ There is no doubt that one major goal—and accomplishment—for Social Security has been to reduce poverty among the aged. Indeed, the issue is given prominence even to this date. The Census Bureau and the Social Security Administration have regularly produced measures of the poverty rate among the aged and the extent to which Social Security payments might reduce this (see, for example, a figure of 12 million Americans brought out of poverty derived from Koenig 2002).

In addition to redistributing from younger generations to older generations, the system attempts to redistribute *within* each generation of the aged, in part by providing a higher replacement rate for those with lower lifetime earnings even though those with higher earnings were required to pay in at the same rate (up to a taxable maximum, set at \$94,200 in 2006). Put another way, the Social Security benefit formula is progressive with respect to earnings, while the payroll tax is roughly proportionate (though becomes regressive by some definitions because of the maximum).⁶ Other redistributive mechanisms are also part of the system, as we shall examine below.

⁴ As we discuss below, we evaluate cost equivalence in 2050, the DYNASIM simulation horizon.

⁵ DeNavas-Walt, Proctor, and Lee (2005) report 2004 poverty rates of 9.8 percent for those ages 65 and older, compared to 11.3 percent for those ages 18 to 64 and 17.8 percent for children.

⁶ In 2003, approximately 5.5 percent of workers (8.2 percent of men and 2.5 percent of women) had earnings above the maximum taxable level (Social Security Administration 2006: Table 4.B4, estimates are preliminary). A definition of progressivity that applies only to the proportionality of the tax rate is limited. A more comprehensive

Recent data on the income of aged persons in the United States suggests that while Social Security's impacts on adequacy are enormous, there is room for further poverty reduction. In 2002, for example, almost 9 percent of Social Security beneficiaries ages 65 and older had family income below the poverty line, and almost 15 percent had family income below 125 percent of the poverty line (Social Security Administration 2005). For certain groups, risk levels are far more substantial. Almost 11 percent of women, for example, have income less than poverty, and this jumps to almost 18 percent of nonmarried women, 29 percent of whom have family income below 125 percent of poverty. This suggests that many more of these unmarried women have incomes that are just over the poverty threshold. Age and race differences in poverty also reveal groups at high risk. In 2003, over a quarter (27.4 percent) of black women ages 65 and older were poor, as were over a fifth (21.7 percent) of Hispanic women (He et al. 2005). If we look at older black and Hispanic women who live alone, the rate reaches 40 percent for both groups.

Equity: Social Security's aims, of course, have not been simply to reduce poverty or to redistribute across and within generations. The program mandates that most workers participate over their lifetimes and thus share part of the burden of the retirement system as a whole.⁷ The system's design helps to prevent free riders—those who might avoid paying into a collective effort, but still rely upon that effort by consuming down their income when younger and then later becoming eligible for some income-conditioned old age assistance.

Once taxes are paid for a modest number of years, each taxpayer qualifies for a Social Security benefit. Relating benefits to taxes paid is consistent with the notion that those who pay for government benefits ought to receive something back for them. This concept corresponds closely to the benefit principle of taxation, where taxes are considered to be payment for goods and services received. In turn, the benefit principle is associated with the broader notion of individual equity, which holds that individuals are entitled to the rewards from their own labors.

Evaluation: Unfortunately, little research in Social Security's early years determined just how much redistribution was being accomplished. The claims of progressivity for the most part went unexamined,⁸ making it difficult to determine whether amounts paid or received met any objective criterion. Looking back at Social Security's history, there was an effort to make the replacement wage for an "average wage" worker equal to about 40 percent for much of the history of the program. However, that figure was imperfectly related to expenses of old age, taxes in younger ages, the extent to which spousal benefits changed with the evolving work patterns of the family, or other considerations.⁹ Moreover, because benefits were related to earnings rather than to taxes actually paid, the amount of income the system redistributed would vary enormously from generation to generation, with substantially higher returns for those earlier generations paying in at lower tax rates for the same replacement wage (see, for example, Moffitt

determination of government's progressivity considers the combination of the taxes and the ways that those taxes are spent.

⁷There are some exceptions, like state and local workers.

⁸Friedman (1962) was an early advocate of attention to the question of offsetting effects in Social Security progressivity. Aaron (1977) was one of the first researchers to examine Social Security redistribution empirically.

⁹In fact, it was not an average-wage worker because many workers, especially women, drop out of the workforce over their lifetime career. Hence, the average lifetime earnings of an average worker are less than the average wages of a worker who works all years. See, for example, Steuerle, Carasso, and Spiro (2000).

1984, Steuerle and Bakija 1994). If policy makers seek to protect especially low- and moderate-income aged through a redistributive formula, it would make sense to design provisions to achieve some desired amount of redistribution or minimum protection.

Only recently has research revealed that Social Security redistributes less within generations, despite many redistributive features, than conventional wisdom may have suggested. The research suggests that this situation is more complex than claims of system “progressivity” suggest, at least when measured by rates of return on taxes paid or on lifetime benefits relative to lifetime taxes (see, for instance, Steuerle and Bakija 1994, Caldwell et al. 1999, Coronado, Fullerton, and Glass 1999, Gustman and Steinmeier 2000, and Smith, Toder, and Iams 2003/2004).¹⁰ The various mechanisms in the system that redistribute to those with lower lifetime earnings (or less means) are only partially effective. The primary reason for less net redistribution to groups with lower-than-average incomes is that over their lifetimes those groups face an offsetting penalty due to shorter life expectancy.¹¹

The longer life expectancy of those with higher incomes, more education, or in higher-earning racial groups effectively means they are favored when benefits are converted to annuities. Considered by itself, annuitization redistributes on an expected basis to those with greater, not lesser, means. (Women are an important exception. On average, they live significantly longer than men, but they also tend to have fewer resources, especially in old age. But *among* both men and women, those with more resources on average survive longer.) This is not to argue that annuitization is not valuable for other reasons. It does protect the older, often more vulnerable, aged from the risk of running out of money, even while it transfers money to groups who are more likely to have members who live to a very old age.¹²

Cohen, Steuerle, and Carasso (2004) have performed one comprehensive analysis of OASDI redistribution, based upon fairly elaborate Social Security data supplemented by projections of those data. When examining the net effect of Social Security retirement and survivor benefits alone, they find that, while the system provides higher rates of return to lower lifetime earners, it often does not provide higher rates of return for racial and ethnic minority groups and workers with less education. In fact, sometimes they even do worse, as is the case for men with less than high school education relative to more educated men and was the case for earlier generations of black women relative to white women. However, adding in Disability Insurance renders the system mildly progressive or redistributive toward those in lower-earning socio-economic groups. Smith, Toder, and Iams (2003/2004), using similar data, point out that the levels and effect of OASI redistribution are changing as a consequence of women’s increased work and other factors.

¹⁰ Results from these types of studies are both sensitive to outcome measures (Leimer 1995) and to definition of lifetime earnings (actual versus potential, individual as opposed to couple).

¹¹ Differential marriage and divorce rates by socioeconomic status, as well as the cap on FICA taxes, also have impacts.

¹² Paying people lump sum benefits rather than annuities might redistribute to some lesser-earning groups *on average*, but then some of the very old might risk ending up back in poverty. The very old are especially vulnerable because at any point in time they are likely to be poorer than the younger retirees in Social Security, and they generally have worse health and less work capacity.

Tools for Redistribution: Existing Provisions Versus a Minimum Benefit

Existing Provisions

Social Security attempts to redistribute to those with lower lifetime earnings primarily through the following three provisions:

- (1) A progressive formula of benefit rates;
- (2) A limited number of years counted in the benefit formula; and
- (3) Add-on spousal and survivor benefits.¹³

Social Security technically does include a “special minimum PIA” under current law, but very few individuals receive benefits on this basis.¹⁴

A progressive formula of benefit rates: The progressive benefit formula is designed to provide a much higher rate of return for the first dollars of wages earned than for the last dollars earned. Put another way, it is designed to provide those with lower lifetime earnings a higher replacement rate, defined as the benefit divided by the average earnings subject to payroll tax over the taxpayer’s lifetime. For instance, a worker with Average Indexed Monthly Earnings of less than \$627 in 2005 will get a benefit equal to 90 percent of that average (assuming benefit claiming at the normal retirement age). As earnings increase, the benefit is calibrated so that it returns or replaces only 32 percent of the additional dollars of earnings, then eventually (above \$3,779) only 15 percent of additional earnings. For someone with \$2,000 of average monthly earnings in 2005, the combination of a 90 percent, 32 percent, and 15 percent replacement wage for different portions of earnings yields about 50 percent on net. At \$5,000 of average earnings, the combination yields about 40 percent on net.¹⁵

In many ways, this progressive rate schedule in the benefit formula is the most effective mechanism within Social Security for progressively redistributing benefits. It is also unique within the U.S. social welfare structure in that it depends upon *lifetime* rather than *annual* circumstances. In contrast, many private pension annuities, which do not have any offset of this type, effectively redistribute from those poorer or less educated classes with lower life

¹³ Other redistributive provisions in Social Security include, for example, income taxation of benefits above certain thresholds. This particular provision is, though, of declining significance because the benefit thresholds for income taxation are not indexed for inflation.

¹⁴ In December of 2004, just 113,200 persons, or less than a half of one percent of the OASDI caseload, received a benefit based on the special minimum PIA (Social Security Administration 2006: Table 5.A8). These benefits averaged \$674 per month. Coverage by the special minimum has declined in large part because its parameters are indexed to prices (rather than wages). For more detail on the special minimum, see Olsen and Hoffmeyer (2001/2002) or Fitzpatrick, Hill, and Muller (2003). OCACT analyses have suggested that the special minimum will be irrelevant for new beneficiaries by the year 2013 (Feinstein 2000).

¹⁵ These replacement rate calculations assume first benefit take-up at the full retirement age (previously age 65, now age 66 for those reaching age 62 in 2005-2016, and scheduled to increase to age 67 for those born in 1960 and later). Because overwhelming fractions of beneficiaries claim Social Security much earlier than this (with modal claiming at age 62), they tend to receive a sizeable reduction in benefits to compensate for the longer period of receipt. This implies significantly lower replacement rates. For example, individuals reaching age 62 this year would receive 75 percent of their full benefit if they take it at age 62. This implies replacement rates of 37.5 and 30 percent in the two previous examples (for \$2000 and \$5000, respectively).

expectancy to richer classes. Cohen, Carasso, and Steuerle (2004) break out the various components of redistribution, and show that none comes close to this formula in tilting the benefit structure in a more progressive direction toward those with lower lifetime earnings.

The progressive rate structure also redistributes to those whose incomes fall because they are out of the labor force for a variety of reasons, including taking time off to raise children, unemployment, working part-time, or residence abroad (e.g., immigration). Just as every additional dollar of earnings generates a lower average replacement wage, every dollar less of earnings generates a higher average replacement wage. The progressive benefit formula does not differentiate in favor of one cause for lesser earnings over another.

A limited number of years counted in the benefit formula: In counting only the highest 35 years of earnings, the system provides some reprieve for those who are unemployed or out of the workforce for other reasons. However, this adjustment is fairly arbitrary in its application. Because of the way it interacts with the progressive benefit formula, it fails to reward lower-income workers who might work more years. For example, it provides a higher benefit to someone who has average (indexed) annual earnings of \$40,000 for 30 years than to someone with earnings of \$30,000 for 40 years. This is because for the former worker, all earnings count toward the benefit, while for the latter earner just 35 years worth of earnings could toward it. It seems inequitable to penalize the latter person who pays as much tax and works more years over a lifetime. Similarly, the formula tends to penalize more the lifetime worker over a 45-year career who decides to work half-time for 20 years, and might get to count only half the earnings from those part-time years in the formula, relative to the person who drops out entirely for 10 years but then gets to count every dollar earned over a 35-year career. Without limiting the number of years of work, the benefit formula already provides some progressive compensation for lower earnings, no matter what their cause. Some say there is little justification for counting only a limited number of years (Steuerle and Spiro, 1999), and that if more progressivity is sought, a way to do this with equal justice for all workers is just to change the rates in the progressive benefit formula.¹⁶ Others argue for explicit consideration of caregiving.

Add-on spousal and survivor benefits: Spousal and survivor benefits represent another redistributive mechanism in Social Security. Social Security's original design relied upon the stereotypical family of a male breadwinner and a stay-at-home wife raising children, and thus spousal and survivor benefits were largely designed for women who were not in the labor force for most of their lives. Even 50 years ago, many households did not conform to that stereotype, but today such arrangements have become the exception rather than the rule (Smith 2002).

Policy makers in Social Security's early years made a relatively simple calculation of how much they wanted to increase the replacement rate for a married worker given that two people had more expenses than one. A spousal benefit of one half of the worker's benefit was provided when both spouses were alive, while the full worker's benefit was made available for the survivor. When a family has two workers, the lower earner can take the higher of his or her own worker benefit, or the spousal and survivor benefit.

¹⁶ For example, one could use total *lifetime* earnings (capped annually at the taxable maximum) rather than *average indexed monthly* earnings in the formula, and then alter the rates accordingly to make the package expenditure neutral with respect to this change.

Some government regulations (for example the Retirement Equity Act of 1984) require that private sector retirement arrangements recognize spouses' needs, but workers typically must pay for any spousal and survivor benefit out of their own benefits. For instance, a worker would receive a lower annuity payment initially in order to pay for the expected cost of a survivor's benefit. In Social Security, in contrast, spousal and survivor benefits are totally free at the margin in the sense that they require no extra contribution on the part of the worker.

Many people are denied access to this generous redistribution, for which no additional taxes are paid. Left out are many never married parents, single individuals, and persons divorced before ten years of marriage to any one worker. As a consequence, many inequities arise. A single head of household can work more, pay more taxes, and raise more children than a spouse, yet still receive lower Social Security benefits. Spouses who marry workers with higher earnings get many more benefits than those who marry low-wage workers.¹⁷ One worker can generate several spousal and survivor benefits through multiple marriages, yet not pay additional tax. Individuals divorced after many years of marriage do not share equally in the benefits generated by a worker and are left waiting for a divorced spouse to die before they receive a higher level of benefits (i.e., a survivor's benefit instead of a spousal benefit). In many cases, spousal and survivor benefits reduce rather than increase the progressivity of Social Security.

Social Security's structure of spousal and survivor benefits also provides unequal justice or "horizontal inequity" by treating unequally some households who pay the same amount of taxes into the system (and presumably have equal needs). A two-earner couple where one spouse earns much more than the other gets more benefits than a two-earner couple with more equal earnings even though both pay the same amount of tax to the system. The disparity between the two couples rises significantly when one spouse dies, as the survivor then gets the benefit associated with the higher earner of the two. As an example of these problems, a typical couple with one spouse earning \$30,000 and the other nothing will get around \$100,000 more in lifetime benefits than a couple where each earns \$15,000.

Minimum Benefit

A minimum benefit could be much more efficient at redistributing than these existing mechanisms—especially the latter two (limited computation years and add-on spousal and survivor benefits).¹⁸

A minimum benefit could take a variety of forms. Some minimum benefit proposals require no years of work, thus insuring a universal minimum level of support for all aged individuals; others require some minimum number of work years or create a formula that ratchets up the minimum benefit as years of work increase. These latter types of minimums then rely more on a back-up welfare system (e.g., Supplemental Security Income, or SSI) to cover those in need. Many proposals have special provisions for the disabled and/or for spouses and survivors

¹⁷ The philosophical underpinnings of this result rely on the notion of a family replacement rate in retirement.

¹⁸ Of course, a minimum benefit could be used in combination with, rather than instead of, these other mechanisms. We begin with these simpler comparisons for illustrative purposes.

(of retired, disabled, and deceased workers). Table 1 presents a summary of minimum benefit proposals that have appeared in a variety of legislative or advisory contexts.

As the table suggests, minimums that require some work have been far more common than universal benefits in recent proposals. The National Commission on Retirement Policy (NCRP) minimum benefit recommendation (1998) offered workers a benefit equal to 60 percent of poverty with 20 years of work, increasing by 2 percent of poverty for each additional year of work, and reaching a maximum 100 percent of poverty with 40 years. The benefit was scheduled to take effect in 2010, and to be wage-indexed thereafter.¹⁹ The NCRP plan enhanced minimum benefits in the context of a package with carve-out personal accounts, retirement age increases, and other changes (reductions to spouse benefits, increases in computation years, Social Security coverage of newly hired state and local workers).

The President's Commission to Strengthen Social Security (CSSS) report (2001) contained two plans with minimum benefits and other changes to the system.²⁰ The model 2 minimum would only affect those with more than twenty years of work, providing a benefit of 120 percent of poverty for those minimum-wage workers with 30 or more years of service (prorated for those with 21 to 29 years of service). It is combined with a number of changes, probably most notably carve-out personal account and the price indexing (rather than wage indexing) of initial Social Security benefits. The model 3 minimum would provide a benefit of 100 percent of poverty for those minimum-wage workers with 30 or more years of service (again, prorated for those with 21 to 29 years of service), and again in concert with carve-out personal account, but also with longevity-indexed benefits. In the first case (model 2), the benefit was price-indexed, and in the second case (model 3), it was indexed at a level between wages and prices. Liebman, MacGuineas, and Samwick (2005) develop a plan that includes, among other changes, the same minimum benefit as model 2. Diamond and Orszag (2003) also propose a low-earner PIA enhancement for workers with 21 or more years of earnings in their solvency plan. Senator Graham (2003) proposes a minimum benefit that is equal to 120 percent of poverty with 35 years of work and that phases out at 10 years of work.

Some have advanced minimum benefit proposals in more isolated contexts (e.g., not in the context of a proposal that improves the system's long-term fiscal balance). The National Organization for Women recently proposed revising the earnings requirements for the Special Minimum to 50 percent of minimum-wage earnings for full-time, year-round work (2005). Wasow (2004) proposes a minimum for persons at and above the normal retirement age who have total (IRS) income below the poverty line, and who receive 75 percent of their income or more from Social Security.

Smeeding and Weaver (2001) propose a "Senior Income Guarantee" (SIG) that resembles a minimum benefit in several respects, but essentially develops a third tier in the U.S. retirement income system (that falls between SSI and OASDI). Their full guarantee requires 40 years of

¹⁹ Legislation sponsored by representatives Kolbe and Stenholm (H.R. 1793 of the 106th Congress, H.R. 2771 of the 107th Congress, and H.R. 3821 of the 108th Congress) and more recently by Kolbe and Boyd (H.R. 440 of the 109th congress) included a minimum benefit of this nature. Sandell, Iams, and Fanaras (1999) provide empirical analysis of such a plan.

²⁰ Technical details of how these might be implemented are contained in Goss and Wade (2002).

residence and 40 covered quarters, but the guarantee can be prorated for persons with shorter residency. The SIG would award persons a benefit of 75 percent of the poverty threshold (at the normal retirement age), and additionally would allow persons to exclude \$200 per month of other income (including income from OASDI) from their income when determining eligibility. The program also would impose an asset test, though this test would be far more liberal than the current SSI asset test (somewhere in the order of \$20,000 in assets for an individual and \$30,000 for a couple, ten times the current SSI limit). The SIG would not automatically confer Medicaid eligibility, as SSI does in most states. (We discuss issues associated with means tested assistance in more detail below.)

One other noteworthy Social Security proposal that received a lot of attention in 2005 was progressive price indexing, as forwarded by Robert Pozen (2005). Pozen's plan would introduce price indexing of initial Social Security benefits, but only at levels of lifetime earnings above the 30th percentile, and then on a progressive basis as earnings rise. In the context of reducing Social Security outlays, progressive price indexing, like a minimum benefit, would protect lower earners. Unlike a minimum such an approach only holds low earners harmless as opposed to enhancing their benefits. Of course by not enhancing benefits this type of indexing could protect a greater number retirees from reductions at the same cost. Progressive price indexing also differs from most minimums in that it would not be dependent on years in the labor force. Both approaches could lead to flattening of benefits, as would be the case for a very generous minimum or after many years of progressive price indexing.

Key Design Parameters in a Minimum Benefit

The preceding discussion reveals that there are several key issues associated with the design of a minimum benefit for Social Security. These include:

- The benefit level (often expressed as a percent of poverty), and how this varies with years of service (steeper slopes have the desirable effect of serving as work incentives, but can lead to lower levels of benefit adequacy at the bottom);
- The number of years of service required (usually based upon work, though this could be based upon a combination of childrearing and work, for example);
- The definition of a year of service (e.g., four covered quarters, 1000 hours at the minimum wage, care for a child under age 5);
- Whether partial years of service are permitted (for example, for a person who earns half the designated earnings threshold receives a half a credit);
- Whether and how disabled individuals can qualify for the minimum;
- Future treatment of the benefit level (e.g., is it wage-indexed or price-indexed, or perhaps something in between?);
 - If the benefit is wage-indexed, at what year does the wage indexing begin?
- Computation method (e.g., is it attached to the PIA, or does it occur after actuarial adjustments?);
- Whether it confers an additional spousal right;²¹

²¹ This could be done directly or indirectly, for example by reducing the number of years of work that are required for eligibility for someone married to a covered worker. In that sense, the minimum benefit approach would be

- Whether it unintentionally creates windfalls for groups that may not have high levels of attachment to Social Security covered work (e.g., uncovered state and local workers or immigrants in the U.S. for a short time) and whether prorating addresses such trajectories;²²
- How well it coordinates with means tested assistance (e.g., does the imposition of the minimum throw people off of—or move people onto—Medicaid and other programs).

These issues of course interact in very complex ways. Such interactions could lead a minimum benefit design to have extraordinarily high replacement rates, discontinuities (e.g., cliffs at which benefits drop markedly), and strong or less strong work incentives/disincentives.

Is There Need for a Minimum Benefit?

Representative worker analyses can help to illustrate how a minimum benefit could work, and how the existing proposals for minimums that we just described would alter current law. Table 2 shows how current law treats workers with wages of certain levels for select numbers of years. The table presents the workers in descending level of work effort, starting with a worker who has worked full-year, full-time (i.e., 2,000 hours per year) at the federal minimum wage, then moving on to a worker who worked half as much as the prior worker (also at the minimum wage), and finishing with a worker who earned exactly the threshold for four quarters of coverage in a year (equivalent to \$3,880 in 2006).²³ For each of these wage profiles, we compute Social Security benefits for different numbers of years in the labor force (0 through 40). We examine benefits at both age 62 (the early eligibility age) and age 66 (the normal retirement age for members of this cohort).²⁴ At the normal retirement age, we add SSI benefits (assuming asset eligibility) to the Social Security benefit where applicable in the designated column.

Perhaps the most striking finding from this table is that a minimum wage worker who works for 40 years would at age 62 be eligible only for a Social Security benefit that is significantly less than poverty (approximately 77 percent of the threshold). At the normal retirement age (age 66 in this case), the worker would earn a benefit that just reaches poverty.²⁵

closer to the spousal and survivor benefit most Western European countries provide, which grants some minimum or average benefit, rather than, as in the United States, one that rises with the earnings of the worker (for details, see for example Thompson and Carasso 2002). Actuarial adjustments can be made so that a survivor's benefit is at least some level—say, 70 percent—relative to the benefit level of the two spouses, when alive.

²² These issues played an important role in earlier debates about the Minimum Social Security benefit (General Accounting Office 1979).

²³ We chose the four covered quarters threshold (even though Social Security no longer requires that one have earnings in different calendar quarters to accrue four quarters in a year) as one prototype because several proposals have used this value as a parameter for determining minimum benefit eligibility.

²⁴ To make these computations, we need to make many assumptions. We have assumed that workers are born in 1943, first collect OASI benefits at age 62 (in 2005), and do not qualify for disability, spouse, or survivor benefits. Work years occur beginning at age 20 in all cases, and last without interruption until the designated end age (29, 39, 49, and 59). In the calculations, we use the aged poverty threshold (and COLA adjust it given that Census had not yet released this year's threshold at the time of writing).

²⁵ The U.S. is an outlier with respect to worker benefits. Generally, low-wage workers have significantly lower retirement incomes from public worker pensions than their counterparts in nations of comparable economic

When they turn age 65, virtually all of the workers represented in the table would be eligible to receive Supplemental Security Income benefits on top of their Social Security if their assets met the SSI tests and they did not have other income sources (e.g., an employer pension).²⁶ Indeed, with the exception of the minimum wage full-year full-time workers, all are only slightly better off on an annual basis with Social Security than they would be with SSI alone (compare 1e to 1a, 2e to 2a, and 3e to 3a in the SSI eligible column). Of course, the workers can receive benefits for an additional three years—ages 62, 63, and 64—if they accrue rights to Social Security in addition to SSI, so that is of significant value and they are clearly better off on a lifetime basis even if on an annual basis their benefit does not change much. We should also note that while the incomes that Social Security provides to these workers do not exceed poverty, the replacement rates are quite high. All the workers have AIMEs that fall below the first bend point under current law, so OASI replaces 90 percent of their pre-retirement income at the normal retirement age (or 68 percent at age 62). This suggests that while these workers may have low incomes in retirement, they are not much worse off than they were on average pre-retirement.

With the addition of a minimum benefit in the style of the NCRP minimum, we see that workers in the latter two work categories (full-year half-time work and exactly four covered quarters) experience significant Social Security benefit increases in almost all instances. For example, at age 62 the worker who consistently worked four covered quarters for 30 years would see his/her benefit increase from 14 percent of poverty under scheduled benefits to 60 percent of poverty with the minimum. If he waited until the normal retirement age of 66 to claim, he would receive 19 percent of poverty under current law, but 80 percent under the option.

Recent Social Security data on distributions of worker benefits (Table 3) reveal that these representative workers, while stylized, reflect an important reality: that non-trivial fractions of beneficiaries will reach retirement with an OASDI benefit of less than poverty. In December 2004, almost half of women worker beneficiaries under Social Security received a benefit of less than 99 percent of poverty, as did about a fifth of men worker beneficiaries.²⁷ The women's fractions show a clear age pattern, with fractions with benefits lower than 99 percent of poverty decreasing with age. This is due in large part to the women converting from workers or spouses to survivors (upon their spouses' deaths). For men, there is less of an age pattern, with some tendency for risk of a subpoverty benefit to increase with age. The table also shows fractions with benefits of less than 119 percent of poverty as a useful threshold, as a benefit of 120 percent of poverty is an upper limit among the minimum benefit proposals we have examined. We see that this increases worker men's fractions with less than the poverty multiple to well over a quarter, and women's fractions to over three fifths.

development (Smeeding and Weaver 2001; Thompson and Carasso 2002). Spouse and survivor benefits tend to be more generous in the U.S. context, mitigating this difference.

²⁶ For 2006, the SSI asset test standard is "countable resources" not exceeding \$2,000 for an individual or \$3,000 for a couple. In determining countable resources, SSA excludes the value of a home and of personal effects (within reasonable limits set by the Social Security Administration), as well as the value of an auto (up to \$4,500 or, if used for medical purposes, one hundred percent of the vehicle's value), the value of life insurance cash surrender (up to \$1,500), and burial funds (also up to \$1,500).

²⁷ We chose the 99 and 119 percent thresholds (as opposed to 100 percent and 120 percent) as they were at a break point in the Social Security (2006) table (5.D9 from the *Annual Statistical Supplement*).

Of course, a Social Security benefit of less than poverty does not necessarily translate into an income of less than poverty. About 20 percent of the aged in 2002 had Social Security as their sole income source, and for 31 percent Social Security made up more than 90 percent of total income (Social Security Administration 2005, Table 6.A1). The remaining individuals have other resources, sometimes quite substantial. Because of their strong relationship to lifetime earnings, Social Security benefits tend to be highly correlated with other forms of wealth and income. But there is substantial diversity, so taking other income sources into account when evaluating Social Security reforms can help to improve targeting of resources where they are most needed. (This is especially likely to be the case for persons with substantial pensions earned in uncovered employment.)

Evaluating a Minimum Benefit

Relative to the traditional benefit formula already in Social Security, a minimum benefit is close to, but not precisely the same as, increasing the rate (now 90 percent) for the first dollars of average earnings. In that benefit formula, one only has to work for 10 years (40 covered quarters), so differences arise depending upon minimum benefit design issues identified earlier, most notably the way that the formula counts years of work.

Because a minimum benefit concentrates redistribution on those with lesser lifetime earnings, it also avoids the types of redistribution that results from failing to count earnings for years of work beyond 35 toward benefits received. The latter could redistribute to those with higher earnings (if they were more likely to take years out of the labor force). In the case of a minimum benefit, however, under almost any reform, those with higher lifetime earnings would already be eligible for a higher basic Social Security benefit than the minimum.

If we spent the same amount on a minimum benefit as we spend on auxiliary benefits, it could be more effective at reducing poverty and increasing the well-being of those aged persons who are worse off (see, for example, Herd 2005, as we discuss below). Moreover, it would not, as the current spousal and survivor benefit, leave out the many single parents and other divorced and never married individuals who have no access to the current spousal and survivor benefit and often are among the more economically vulnerable members of society (Johnson and Favreault 2004).

In sum, a carefully designed minimum benefit has the potential to achieve progressive goals in a more efficient and straightforward manner than do the current redistributive mechanisms in Social Security. In economic language, it would likely be more target efficient. Again, this is something that can be analyzed empirically, as we will do below, and depends upon design of the minimum benefit.

Expansion of Means-Tested Programs

An alternative to the minimum benefit approach would be to means test benefits, so that only those with lower incomes (and/or assets) get any of the redistribution. Congress has thus far

avoided means testing OASDI, and program advocates often oppose means testing.²⁸ They believe, as Wilbur Cohen, a former Secretary of Health, Education, and Welfare once stated, that a program “for the poor is a poor program” (Cohen and Friedman 1972). Indeed, a large literature discusses the relative merits of targeting compared to universalism in social policy (see, for example, Ellwood 1988, Greenstein 1991, Skocpol 1991; on Social Security specifically, see Kingston and Schulz 1997). Even beyond the political question of whether means-tested programs are poorly supported, some recipients viewed them as degrading and many people do not apply for other means-tested benefits for which they are eligible. For example, estimates of participation by the eligible aged in the Supplemental Security Income program typically range between half and two thirds percent, with the most recent estimates on the high end of that range (e.g., McGarry 1996, Davies et al. 2002).

In the case of the aged, however, a means-tested approach poses several additional problems. A first major issue is that many people with significant capability to save for retirement simply choose not to save. As noted above, by requiring virtually everyone to pay into the system, Social Security minimizes low-saving (“free rider”) problems. The flip side to this is that no one is entirely denied benefits because her or his earnings are too high. Second, means tests are especially inaccurate in measuring the well-being of the aged. While annual income is a somewhat reasonable means of identifying those who are less well off during working years, it is weak at determining who has need or ability to pay taxes among individuals who can decide whether or not to work. The simple choice not to work typically lowers one’s income by tens of thousands of dollars annually, regardless of ability. Meanwhile, when it comes to capital income and, in many cases, income from retirement accounts, those who are relatively well off can easily recognize little or none of it. They can hold onto stock that pays few dividends or not realize the gains on that stock, transfer assets into primary residences or vacation homes that yield no direct earnings (and that may not count against program asset tests), or hide income in foreign assets (although few take advantage of this option). Likewise, transferring money to one’s children can make an aged person eligible for means-tested programs. Tracking down these types of transfers is difficult and costly. Finally, means testing often imposes high tax rates and large marriage penalties on those who are subject to them (on marriage penalties in SSI, see for example Balkus and Wilschke 2003).²⁹

Besides these philosophical issues, in the current U.S. social policy context, interactions among programs are also important. Simply expanding SSI could create all sorts of technical issues that might significantly alter costs (and that could potentially undermine support).³⁰ For example, in many states there is a close link between SSI participation and other programs, like Medicaid (and also food stamps, energy assistance, and other supports). Significant enhancements in SSI’s generosity could thus increase Medicaid costs substantially, which in turn could erode support for any reform.

²⁸ Of course, Congress did create a new means tested program for the aged and disabled, called Supplemental Security Income, in 1974 to provide a floor for those with low or no Social Security.

²⁹ These result from the ways that benefits are phased out as income rises, effectively creating an implicit income tax system within the program itself in that higher private income reduces the availability of the public monies.

³⁰ Favreault, Berk, and Smith (2004) find that SSI asset tests would prevent many Social Security beneficiaries from receiving SSI if their Social Security benefits were cut (for example, to improve the program’s long-term fiscal balance).

This suggests that increases in any minimum benefit within Social Security would need to be coordinated in those cases where other current law means-tested programs provide additional benefits. In particular, one might still want to allow people to qualify for health insurance under SSI or SSI-type program in those cases where they might otherwise lose health insurance coverage for two years. Under current law, Medicaid insurance is available immediately if one gets disability coverage under SSI, but Medicare insurance requires a two-year waiting period under Social Security Disability Insurance.

Another issue with a minimum benefit—which we will empirically examine below—is that if it depends upon years of work, some still might fail to benefit from it (or benefit enough to pull them out of poverty). Partially disabled people with very little work experience (who do not qualify for DI) provide one example.

In sum, expanding means testing could target transfers more progressively to those with less annual income, but it would raise significant problems of enforcement and administration, many individuals would consider it degrading, and it could generate many inequities and program interactions. However, some features of a back-up means tested program may still be required even if primary emphasis were placed on a minimum benefit, depending on its parameters (for example, work years).

Minimum Benefits and Other Proposed Changes to Social Security

The imbalance between benefits and taxes within Social Security's financing structure is going to force some reform. The reform will likely have, as at least one component, some cutback in the rate of growth of lifetime benefits available through the current benefit formula. Indeed, although there is widespread disagreement on the degree of cutback, most major reform proposals entail at least some reduction (see, for example, CSSS 2001, Diamond and Orszag 2003, Liebman, MacGuineas, and Samwick 2005, Pozen 2005). Many also may contain a personal account component.

Any smaller benefit system by its very nature entails some additional elements of risk for the aged relative to a larger benefit system. Any addition of personal accounts also involves a second type of risk that follows naturally from the holding of real investment assets. The latter risk derives not merely from annual fluctuations in rates of return available from the stock and bond investment, but from the related risk that interest rates might fall at the time or times one purchases annuities for old age (for discussion, see for example, Burtless 1999; also Favreault, Goldwyn, et al. 2004).

A minimum benefit could reduce both risks. If low-to-moderate income individuals would be guaranteed a minimum above what they receive under current law, the reform would actually reduce the total risk they face. There would be no cutback in basic benefits and, even if there were an account whose return or annuity rate were reduced substantially due to adverse financial market conditions, those receiving a higher basic benefit through the minimum would still be better off than under current law.

A minimum benefit could not reduce risk for all future aged unless it provided greater benefits for some and the reform as a whole reduced benefits for none. (We do not examine here a minimum *guarantee* in lieu of a minimum benefit, as guarantees provide a number of additional complications.³¹) However, such a radical reform is unlikely since it would require continually higher tax rates on the young. Thus, increased risks would be transferred almost entirely to the young, who pay taxes. Because a variety of analyses now show that the aged are about as well off as the young (and better off, on average, than children), it is probably unreasonable to try to impose all risks, including those related to an ever increasing system of old age benefits, on the young. This is especially true when it adds risks for the young, many of whom may not be as well off as the aged. In any case, almost no reform being proposed today moves in that direction.

In sum, a minimum benefit offers many possibilities for targeting resources better within a Social Security system. Depending on design, it could be superior on grounds of equal justice, poverty relief, and efficiently meeting progressive goals to many existing forms of redistribution within the existing system. It also offers a way to provide a minimum safety net to insure that low and moderate income individuals do not bear any additional risk from a reform that brings the system back into long-term financial balance.

Empirical Evidence on Designing a Minimum Benefit Based on Years Worked

Because, as we saw in Table 1, so many minimum benefit proposals structure benefit eligibility and levels on the basis of the number of years one spends in Social Security covered employment, it is helpful to examine what distributions of years in the labor force look like for Americans today. Recent tabulations from survey data matched to Social Security administrative data (Table 4) suggest that men and women have very different employment histories, and that women's employment experiences are changing rapidly (Burtless, Ratcliffe, and Moskowitz 2004).

Table 4 displays the distribution of years of Social Security covered employment in 2000, by gender and cohort. (The persons in the first cohort are ages 65 to 69 when we last observe them, while those in the second cohort are ages 60 to 64.) The data show a clear increase in both men's and women's Social Security coverage across recent cohorts. The increase is due in part to increased Social Security coverage over the historical period, and, for women, to increased

³¹ First, guarantees add great uncertainty into cost calculations (for a detailed summary, see Congressional Budget Office 2006). For instance, if a guarantee is with respect to a return on the individual account or tied to what an older Social Security system would have provided, then all those uncertainties are added into the calculation. Second, as has been shown, guarantees can add substantial expected costs to the Social Security system (see, for example, Smith, Steuerle, and Montagnes 2004). Most importantly, they make reform of the system difficult, as guarantees are often tied to some alternative. If a young taxpayer is granted some guarantee in 1995 about her future benefits in, say, 2025, then it becomes more difficult for elected officials to reform the system in 2025, no matter what other societal needs arose. Such guarantees have never been part of the system. Had they been, they would have made it more difficult to enact the reforms of 1977 and 1983. Those reforms cut back on benefits that were growing rapidly relative to available funds, precisely because they were not guaranteed. Finally, a guarantee can be timed poorly when it comes to risk. If an economic downturn hurts all classes of people--old and young, retired and working, account owners and laborers--it is not clear that some included group should be automatically granted an advance guarantee the excluded group would likely pay.

labor force participation. For example, in the 1931 to 1935 cohort, approximately 14 percent of women have had 36 or more years of work in Social Security covered employment, compared to 20 percent of women in the 1936 to 1940 cohort. For men the increase is also dramatic, from 57 percent in the 1931 to 1935 cohort to 72 percent in the 1936 to 1940 cohort.

These data reveal several patterns important for minimum benefit design. First, a significant share (21 percent) of women entering retirement (e.g., reaching the early eligibility age of 62) in the years 1998 to 2002 would not be eligible for a minimum benefit that required at least ten years of earnings (though some of these women are of course already covered by spousal and/or survivor benefits under current law). Second, younger cohorts have accumulated more years of covered earnings, so that the group that would not benefit from a minimum based on work years is getting smaller over time. Recent Social Security data suggest that about 84 percent of all women are fully insured for Social Security, as are close to 90 percent in prime age (Social Security Administration 2006: Table 4.C5; denominator refers to the Social Security Area population).³²

Of course, minimum benefit design requires more subtle exploration of years in covered employment. One issue is whether persons with low wages continue to have low wages for a long career. Hungerford (2004) uses synthetically matched data (from the Current Population Survey and the Panel Study of Income Dynamics) and finds that over a full career (ages 22 to 61), people with low lifetime earnings are overwhelmingly women and most have low lifetime earnings because of years out of the labor force, not low wages for a long period. Ryscavage (1996) uses data from the Survey of Income and Program Participation to consider this question over shorter periods (of 28 months), and finds considerable mobility, though less so for workers with less education. He also finds some increase in low-wage work and sustained low wage work from the early 1980s to the early 1990s. Schochet and Rangarajan (2004) also use data from the 1996 Survey of Income and Program Participation (SIPP), and use a full 48-month follow-up period. They find that low-wage workers' labor market dynamics are complex. They determine that wage growth is associated with time spent employed and job switching (especially for women), and that job quality matters over these shorter periods. (Smith and Vavrichek [1992] explore similar issues.)

A second design issue for a minimum benefit is how to handle spells in covered and uncovered employment. Under current law, legislators attempt to avoid providing windfalls (because of Social Security's progressive benefit rate structure) to those with work outside of Social Security covered employment. Any windfall avoidance provision would need to apply to minimum benefits as well. But, regardless of a legislative design to deal with this issue, the spells in and outside of covered employment also complicate estimation of any proposal's effects, since publicly available information with which to break out covered versus uncovered employment on a household-by-household basis is limited.³³ We do know that uncovered state and local government workers are concentrated in several states (including California, Colorado, Illinois, Louisiana, Massachusetts, Ohio, and Texas).³⁴

³² Fully insured status is defined as quarters of coverage greater than or equal to the number of elapsed years.

³³ Aggregate numbers are easier to find, since one can compare estimates of Social Security covered employment with total employment.

³⁴ Munnell (2005) provides a useful overview of issues associated with Social Security coverage.

A third design issue connected to work years is how to treat immigration. According to the Census Bureau, approximately 12 percent of the U.S. population in 2004 is foreign born. While immigrants disproportionately arrive in the U.S. early in their careers, some arrive well into their careers. This means that they may have limited years of work in Social Security covered employment, and this can lead to lower Social Security benefits. Gustman and Steinmeier (1998) point out that the Social Security formula treats high earnings immigrants with short careers relatively well. Years spent out of the country are treated as years of zero earnings, leading many to receive relatively high replacement rates.³⁵ Designers of a minimum benefit may wish to take these complexities into account when determining how to treat workers with a substantial fraction of their work history outside the U.S.

Previous Studies on Minimum Benefits

While explorations of the design and rationale for minimum benefits have been relatively sparse, at least one half dozen recent studies have contributed to our understanding of how minimums could work and the extent to which their effects would meet various criteria. Herd (2005) considers three different types of minimum benefits: one that, consistent with NCRP and other proposals, would offer long-career (40-year) low-wage workers a poverty level benefit (and that declines to 60 percent of poverty for a worker with a 20-year work history); one that provides a poverty-level benefit to any worker with at least 10 years of work; and one that is universal and provides an SSI-level benefit to all citizens or residents (regardless of whether they meet SSI asset tests). As cost offsets to these latter two types of minimums, Herd simulates the elimination of spousal benefits. She simulates the alternatives using a simplified microsimulation model based on data from the 1992 Health and Retirement Study (HRS). She finds important differences in the redistributive properties (as measured by fraction of benefits going to individuals in different wealth quintiles) of the three minimums. Namely, she finds that all of the minimums have more progressive effects (i.e., grant larger fractions of noncontributory benefits to lower wealth quintiles) than the current spousal benefit. The universal minimum and the worker minimum that requires just 10 years direct more benefits to the bottom (as defined by asset quintiles) than does the minimum more closely tied to work.

Fitzpatrick, Hill, and Muller (2003) look more narrowly at the existing Social Security provisions for a special minimum benefit. They consider expanding the benefit in three different ways. These include lowering the number of required years from 30 to 25, lowering the level required for a year of earnings, counting partial years of coverage, and then finally counting quarters of coverage toward the minimum. The authors use data from the 1996 SIPP matched to administrative records to simulate effects. They focus on changes in the fraction of persons with below median earning who could benefit from the special minimum under these conditions. They find that the changes could greatly elevate the number of persons qualifying for the special minimum. They find that the reforms have fairly similar effects by gender. One interesting finding is that the special minimum population would become less skewed towards persons with less than a high school education under the reforms.

³⁵ They suggest that prorating of Social Security benefits on the basis of period of residence could help to equalize returns between the foreign and the native born.

Favreault, Sammartino, and Steuerle (2002) and Favreault and Sammartino (2002) simulate minimum benefits (that resemble the NCRP version), both alone as an add-on to the system, and in combination with other provisions that aim to increase the system's equity (e.g., a cap on spousal benefits). They simulate effects using an earlier version of the DYNASIM model. Their findings stress the efficacy of minimum benefits in relieving poverty relative to other alternatives (e.g., increases to survivor benefits). Davies and Favreault (2004) model a minimum benefit equal to 50 percent of poverty for workers with at least 15 years of work, with 2 percent added for each additional year of work (reaching maximum of 100 percent of poverty for those with 40 work years). They find that a minimum benefit within Social Security tends to be more effective at poverty reduction than three different reforms to the Supplemental Security Income program, including liberalization of the asset test, increasing the general income exclusion, and increases in benefit levels.

Sandell, Iams, and Fanaras (1999) simulate the effects of a benefit similar to the one in the NCRP plan. They use data from the 1991 SIPP matched to earnings records through 1996, and focus on members of the early baby boom cohorts (born between 1946 and 1955), and make earnings projections on the basis of the administrative records. They find that substantial fractions of the population (21 percent of the men and nearly half of the women) could benefit from such a minimum.³⁶ These authors also consider the combination of a minimum benefit and increasing the averaging period for AIME to 40 years. They find that the minimum benefit can serve to counteract some of the effects from the increase in computation years.

Zedlewski (2002) considers the Social Security entitlement of women with some experience with the welfare system, and how minimum benefits might affect them. This is a small but significant fraction of the low-earnings population that minimum benefits target. The women in her analyses are all raising children as single mothers for at least part of their lives. She divides the women into three groups: those with limited, moderate, and high public assistance usage. Zedlewski uses PSID data to construct representative workers for the groups, and considers the effects of the recent (late 1990s) uptick in single mothers' work in the analysis. She finds that the most attached single mothers can almost reach a poverty level benefit from Social Security at age 62, but do not receive much help with a minimum at that point. Women with the more extensive experiences with public assistance have Social Security benefits that are further below poverty, and they benefit more from a minimum (though much more so at the normal retirement age than at age 62). Those in the highest welfare usage groups find that they are not much better off with Social Security and additional work than they would have been with SSI alone. In some cases, though, they are no longer subject to the SSI asset tests and can receive benefits for more years, as they no longer need to wait until age 65 to collect.

Our study complements this literature. It differs from others (Herd 2005, Sandell et al. 1999, Fitzpatrick et al. 2003) in that the simulation model we use is more detailed and has a broader population base (the full U.S. non-institutional population in 1992), and can thus focus on more recent cohorts who are far more likely to experience a reform. This should better enable us to capture important cohort effects, especially the increase in women's work in recent decades

³⁶ The study does not appear to include spouse/survivor benefits, so this may lead to some misestimation of the minimum's scope.

and changes in marital patterns. It builds upon the Favreault et al. papers, which use a similar method and focus on alternative mechanisms to spousal and survivor expansion, by focusing on implementing reforms in a reduced system, rather than an increased system. (Of the studies we mention, only Davies and Favreault use a reduced system as a benchmark.) Finally, our study uses information on total income to help identify instances when low Social Security benefits do not necessarily signify need.

Simulations

Description of Options

In this section, we simulate a number of alternative benefit options that all target workers with relatively low incomes. Table 5 details the eight options (plus two sensitivity tests) that we simulate. As the table indicates, we compare current law benefits that have been reduced because of Social Security’s long-term fiscal imbalance with four distinct minimum benefits, one formula adjustment, and then one of the minimums combined with two other often-mentioned reforms. (In two sensitivity tests, we simulate changes to a few technical details. We present results from the sensitivity analyses in select tables.) Like the current law baseline, all the other simulations are constrained to the context of a reduced Social Security system. We assume that an approximately equal combination of benefit reductions and tax increases will close the long-run fiscal deficit.³⁷ We further process all of these simulations in a roughly cost neutral manner. We define cost neutrality as approximately equivalent costs at a point in time (2050).³⁸

Turning to the details of the minimums themselves, we first examine two minimum benefits that are relatively standard for the literature. Our “baseline” or “standard” minimum benefit resembles those found in the NCRP plan (see p. 8) and Kolbe-Boyd/Stenholm, but is more generous for persons who have worked between 10 and 20 years. Instead of offering 60 percent of poverty at 20 work years and an additional 2 percent for each year, we offer 55 percent of poverty for 10 years of work and an additional 1.5 percent of poverty for each additional year up to 40.³⁹ The first version of this standard minimum is price-indexed, and the second wage-indexed (consistent with NCRP). We then consider two minimum benefits that are on the generous end of those from the literature. Our more generous minimum has some features that are consistent on the top-end with Senator Lindsey Graham’s proposal. It starts at 80 percent of poverty for a worker with 10 years of work, significantly more generous than Graham at the low end, and increases to 120 percent of poverty for 40 years (equivalent in generosity to

³⁷ This is broadly consistent with Bosworth and Burtless’ (2002) notion of a “feasible benefits” baseline.

³⁸ Alternatively, we could define neutrality as approximately equivalent costs from the reform’s inception (for example, in 2007) to the end of the simulation horizon (through 2050). This approach has the advantage of better accounting for a reform’s true costs, as reforms could have very different time paths for their expenditures. For example, adding a minimum benefit that is indexed to prices may frontload costs (i.e., the reform will cost more in early years of the simulation, before wage growth leads many workers at the low-end of the income distribution to no longer qualify for benefits), while another reform may have effects that are more uniform over time (or may even backload costs). Targeting longer-term neutrality has the disadvantages of being more difficult to implement (in part because of the 2050 time horizon, which is less than in OCACT analyses) of requiring assumptions about discount rates and appropriate accumulation of costs/savings over time.

³⁹ In defining poverty, we use Census Bureau thresholds for the aged, with 1997 as a base.

Graham’s proposal for a full career). Our minimums thus provide a spectrum of possibilities, although we do not consider minimum benefits that are not conditioned on years of work in some minimal way.⁴⁰ We chose not to model such plans because of the paucity of proposals with this feature in recent years.

To implement cost neutrality in the simulations, we simulate the first option (the standard price-indexed minimum benefit, as just described) and tabulate its costs in 2050. We then determine how much benefits need to be reduced (for all persons becoming entitled starting in the year the simulations take effect, 2007) to meet our goal of resolving half the Social Security financing problem in 2050. This turns out to be about 12.8 percent in the case of the first minimum. When we wage index this minimum, the size of the required cut is far more substantial, a total of 14.3 percent. Finally, we construct the other simulations (minimums of different sizes, adjusting the bend points/percentages under current law, as we discuss next, and the combination options) in such a way that the same amount of money is expended (in 2050). Put another way, we solve for the parameters that guarantee roughly equivalent expenditures across reforms. So, when minimum benefits are larger (and reach more people), we need to institute across-the board benefit cuts (for those entitled after 2007) that are deeper in order to have equivalent costs in 2050.

By way of comparison, we then change the Social Security benefit formula to try to protect those with low incomes. Our means for doing this is to add a third bend point (between the first and second) to the PIA formula at the poverty threshold as defined for those age 65+. Specifically, we use the following formula parameters:⁴¹

Bend points (2006)	\$656	\$1,320	\$3,995	
Rates	90%	32%	23.6125%	9.445%

Figure 1 illustrates how the change works. The dotted line indicates the replacement levels from the current law benefit formula, the dashed line shows what current law would look like in the presence of scalar reductions that bring outlays and revenues into balance in 2050, while the solid line shows the alternative with the new bend point. Under this alternative, benefits remain identical to current law through a poverty level benefit, and then are reduced in a progressive manner, with benefits reduced by 26 percent (from 32 to 23.6 percent) at earnings between the new third and fourth bend points and by 37 percent (from 15 to and 9.4 percent) at earnings above the highest bend point. Relative to scalar-reduced current law, this formula generates higher benefits up to AIMEs of about \$3,600 (corresponding to average annual earnings over the

⁴⁰ On a technical note, in all cases, the minimum benefits are determined at the point of PIA calculation. This implies that actuarial reductions and delayed retirement credits apply (so individuals below the normal retirement age when they first take their benefits do not get the full fraction of poverty designated by the minimum). A second consequence is that individuals do not “age onto” the minimums (when wage indexing increases the minimums beyond the point at which one would be eligible if entitlement were redetermined). Finally, it implies that the minimum benefit can generate spousal and survivor benefits (above and beyond the original worker entitlement).

⁴¹ By way of comparison, current law uses the following formula amounts:

Bend points (2006)	\$656	\$3,995	
Rates	90%	32%	15%

35 highest years of about \$43,000), but then (depicted by the point where the solid and dashed lines cross) generates lower ones.⁴²

We then repeat the standard wage-indexed minimum benefit from above in combination with two other benefit reforms: a chained Consumer Price Index (CPI)⁴³—assuming a 0.5 percentage point reduction to the Social Security cost-of-living adjustment (or COLA)—and an increase in the number of computation years required for a Social Security benefit (to 40 from 35). Both of these parameter change proposals have received frequent attention (see, for example, Chaplain and Wade 2005). Because the COLA cut and increase in computation years both reduce costs, the size of the scalar reductions required to keep these options in balance with the others is lower (7.7 percent for COLA, 10.2 percent for computation years).

Finally, the first sensitivity test again uses the wage-indexed standard minimum and gauges the effects when we make a different change to the scalar adjustment to meet half the shortfall. We make the adjustment more progressive, by explicitly shielding the bottom AIME bracket (the 90 percent replacement zone) from benefit cuts when making the adjustments to benefits. The second sensitivity test considers what would happen if we did *not* pro-rate the work years requirements for this same minimum benefit for people who are entitled to DI (rather than allowing disabled workers to qualify for a minimum with years of service more proportionate to the length of their career prior to entitlement).

In all cases, the changes to OASDI take place in 2007. For each of the alternatives, we compare outcomes based on lifetime earnings (calculated both on an individual basis and on a couple basis for persons who have been married),⁴⁴ education, marital status, sex, race/origin, disability status (and age of disability), nativity (U.S. or foreign born), years of work, and other attributes (like current law benefit type). Our key objective for this analysis is to determine whether the alternatives perform better or worse than the minimum benefit based on a set of criteria (adequacy, equity, efficiency). To evaluate performance on the adequacy criterion, we look at poverty rates (and poverty reduction) and the fraction of benefits going to beneficiaries with incomes of different multiples of poverty and in different earnings quintiles.⁴⁵ For the equity criterion, we look at fractions of benefits going to individuals in different groups of years worked. We examine outcomes at two separate points in time: 2025 and 2050. This enables us to understand how the effects of the minimums (and other policy changes) evolve over time. We

⁴² This change to the benefit formula differs from a Pozen-style progressive price indexing in that the change occurs at a single point in time, and does not grow over time. This implies stable replacement rates at middle and upper income ranges. The change does share with Pozen the feature of not implementing reductions below a certain point.

⁴³ The rationale for a chained CPI is that individuals can substitute various goods in the CPI basket as prices fluctuate (for details, see, for example, Verma and Beedon 2005).

⁴⁴ We define lifetime earnings as average earnings between ages 22 and 62, where each year's earnings are divided by the average wage. This resembles AIME for Social Security purposes, but differs because of the age range and lack of computation years (i.e., there is no sorting and dropping of the lowest few years).

⁴⁵ DYNASIM projects most major income sources in retirement, enabling comprehensive projections of poverty status. The income sources that DYNASIM projects (and that these poverty measures reflect) include: earnings, defined benefit and defined contribution pensions, income from assets, SSI, OASDI, and co-resident income. Excluded income sources that Census integrates into the poverty definition are transfer income other than OASDI or SSI (e.g., benefits from TANF, Unemployment Insurance, Veterans' benefits, or Workers' Compensation). One recent report suggests that in 2004 about 3.2 percent of Americans 65 and older had income from Veterans' benefits that averaged \$8,800, suggesting the size of the potential bias from this exclusion (Whitman and Purcell 2005).

can see whether their effects shrink, grow, or stay relatively constant and whether they reach different types of people at the two different points.

Methods

Our method for simulating the effects of these minimum benefits is to integrate the proposed parameters into a dynamic microsimulation model of the U.S. population, the Urban Institute's DYNASIM3 model.⁴⁶ DYNASIM relies on a starting sample of approximately 100,000 persons from the 1990 to 1993 panels of the Census Bureau's Survey of Income and Program Participation (SIPP). For each year, the model simulates birth, schooling, deaths, marriages, divorces, work, disability, and participation in Social Security. This aging process accounts for differentials in processes along important dimensions (age, gender, race, education, earnings). We calibrate key assumptions (about fertility, mortality, immigration, disability, work, and earnings) to the assumptions of the OASDI Trustees (2005). As earnings histories are vital for calculating Social Security benefits (and minimum benefits), the model includes a careful imputation of earnings histories based on data from the Panel Study of Income Dynamics and the Current Population Survey matched to administrative records on earnings (Smith, Scheuren, and Berk 2002). The appendix provides some additional detail on the model and on our efforts to validate key aspects of the earnings distribution relevant to these analyses.

In using the model to process the options, we assume that individuals do not substantially change their behavior as a consequence of the imposition of the benefit reductions or the new minimum benefits. That is, we assume that people work, earn, and collect their Social Security benefits no differently after the change than they did under current law. This allows us to focus on the policies' effects in a relatively simple environment. (Any assumptions about behavioral change—and especially behavioral change differentials—are likely to be controversial, especially given the absence of empirical data from which to estimate the changes.) Because of this simplifying assumption, readers should interpret our results conservatively.

Results: Comparing the Minimums

Table 6 presents the fraction of beneficiaries age 62 and older who are eligible for the minimum benefit under each scenario in 2025 and 2050.⁴⁷ We see that all four of the minimum benefits have a fairly broad reach in 2025. The standard price-indexed minimum reaches about 6.3 percent of beneficiaries, compared to 11.3 percent for the standard wage-indexed minimum. The more generous minimum benefits more than double these impacts. In the price-indexed case, almost 19 percent of persons who have Social Security income receive the minimum. For wage-indexed generous, nearly three in ten persons receive this benefit of up to 120 percent of poverty. Of course, we need to bear in mind that in the cost-neutral context we are working in, the larger minimum benefits trigger larger benefit reductions than in the scenarios with more standard minimums. This means that the benefit reduction qualifies more people for the minimum in addition to the minimum's reaching further into the distribution.

⁴⁶ The specific release of DYNASIM that we use is run number 432 (FEH data file date stamped October 26, 2005).

⁴⁷ This measure is a complex one. For each formula change, it identifies the people who receive the minimum. This is not the same thing as the number of people receiving higher benefits than under our current law baseline, which is reduced to equate costs with revenues in 2050.

The story changes fairly dramatically for the price-indexed minimums when we reach 2050. At that point, the standard price-indexed minimum has markedly declined in its importance. Only five percent of beneficiaries receive an increment on this basis. For the price-indexed generous minimum benefit, 12 percent receive the minimum. Interestingly, the wage-indexed standard minimum surpasses the price-indexed generous benefit in its reach by 2050. About 16 percent receive a benefit from this provision. The wage-indexed generous benefit still reaches well over a third of persons in 2050, documenting persistence both in need and in the minimums' ability to reach it as long as it is wage-indexed. One concern with this reach, however, is that it represents a flattening of benefits (and potentially lesser replacement for added effort despite the work years tie in the benefit).

In addition to these aggregate differences, there are also important differences in the *types* of people that the minimums reach across the four minimum options. Women are far more likely to receive a minimum than men in all four cases. This is even more true in 2025, when the women's histories differ more significantly from the men's, than in 2050, when the groups have more similar lifetime work experiences. For example, in 2025 the ratio of women to men receiving the standard wage-indexed minimum is about 1.5. This falls to 1.1 in 2050. Further, the price-indexed minimums reach proportionately more women than the wage-indexed versions in both years. This is likely because a minimum with broader reach extends further up the earnings scale, where women earners dominate the distribution less. (More detailed tabulations of who receives a minimum under each of the options are located in Appendix Tables 1a and 1b.)

Of course, whether individuals receive the minimum is a fairly limited measure of its reach, especially given our cost-neutral concept. We also need to know how *much* people receive from the minimum, and how this compares to their current situation (again, assuming proportional benefit reductions that will bring the system closer to long-term fiscal balance).

To this end, Tables 7a and 7b, for 2025 and 2050, respectively, display the share of total Social Security benefits that each of the given groups receives.⁴⁸ In terms of aggregate expenditures, all four of the minimums make the system more redistributive toward women in 2025. For example, in 2025 current law reduced directs 51.33 percent of the benefits to persons age 62 and older toward women, while the standard wage-indexed minimum directs 51.48 percent toward them. The more generous wage-indexed minimum has the largest effect for women as a whole, and directs quite a bit of this to married women in particular. All four minimums also direct higher fractions of total Social Security to individuals in the bottom quintile of the AIME distribution (both individual and shared by spouses), with income of less than twice the poverty threshold, and with less than a college education in both years.

The minimum benefits further lead to greater fraction of benefits for non-Hispanic blacks and Hispanics than for non-Hispanic whites in both 2025 and 2050. High Hispanic redistribution by minimums to a certain degree reflects nativity, as large fraction of Hispanics were born abroad, and thus more likely to have years in which they did not earn in the U.S. The table does

⁴⁸ The real Average Indexed Earnings column in this table provides an interesting benchmark of overall redistribution by the Social Security system. It reflects the amount of uncapped earnings that individuals in each group had, averaged and indexed over their prime work years (here, ages 22 to 62).

indicate that all four of the minimums are clearly redistributive toward immigrants in 2025, but only the more generous minimums tilt redistribution toward immigrants in 2050.

Age patterns in benefit payments under the minimums differ markedly across the various types. Not surprisingly, the wage-indexed minimums have deeper effects at younger ages in both 2025 and 2050, while the price-indexed minimums are far less patterned by age. In considering patterns by age group, we must bear in mind that the youngest age group is relatively select. For example, workers who are collecting benefits at age 62 will be disproportionately female (see, for example, Munnell and Soto 2005) and disproportionately disabled. The other age ranges reflect a broader, and thus more representative, fraction of the beneficiaries in a given cohort. Also, in 2025 there are significant phase-in effects. The oldest beneficiaries were already collecting their OASDI benefits in 2007 (when the change went into effect), so were not subject to any benefit reductions (or the minimum benefit as it is currently implemented), except through a spouse's benefit.

Additionally, Appendix Tables 2a and 2b (again for 2025 and 2050) show the average size of the annual additions from the minimum benefits, expressed in 2005 dollars. This gives a sense of how much Social Security benefits are incremented as a consequence of the combination of the parameters in the reform. It reveals a number of interesting patterns. For example, while more women than men receive minimums and Social Security as a whole is more redistributive toward women after the minimums' introduction, on average men's increments from the minimum are larger than women's in both 2025 and 2050. Unmarried beneficiaries of the minimum tend to have larger absolute gains than their married counterparts, reflecting their typically more extensive work histories.

Results: Minimum Benefits and Other Adjustments

A big question with minimum benefits is whether formula adjustments can be just as effective at achieving certain objectives (e.g., insuring adequate income while encouraging and rewarding work effort). When we compare the minimums to changes in the benefit formula to add a bend point at a poverty level benefit and make it more progressive (by reducing the upper replacement rates) (Tables 8a and 8b, for 2025 and 2050, respectively), we see that the formula adjustment has similar redistributive properties with respect to lifetime earnings as some of the minimums. Here we focus on a comparison with the more standard wage-indexed minimum, as it is the most common minimum from the literature. Once again, our outcome measure is the share of benefits going to a particular group.

In 2050, the formula adjustment (in the column labeled "poverty bend point") is slightly more redistributive toward women than the wage-indexed standard minimum benefit with an across the board benefit cut (for post-2007 entitlees). Only the generous wage-indexed minimum is as, or more, redistributive toward the lowest lifetime earnings quintile as the additional bend points with the change to the formula (compare Table 8b to Table 7b).

However, in concert with this redistribution, we do see some equity tradeoffs, in that higher fractions of benefits go to those with fewer years of work under the formula adjustment with a new bend point than under any of the other options. For example, in 2050 fractions of

benefits going to people with less than 10, 10 to 19, and 20 to 29 years of work all increase with the poverty-level benefit bend point relative to all of the other simulation options and current law reduced.

The increased computation years option (in tandem with the standard wage-indexed minimum benefit increases and across-the-board reductions for new entitlees in 2007 onward), in contrast, has several desirable equity properties. The share of benefits going to individuals with the most (35 and higher) work years as well as the share to those with at least 20 work years increases relative to current law reduced in both 2025 and 2050. The option also reduces redistribution toward immigrants relative to all of the other options and current law reduced in both years. At the same time, it is redistributive toward those in the lower parts of the earnings distribution, certainly relative to current law reduced.

Adjustments to the Social Security COLA to take into account a shift to using a chained CPI (again, along with a wage-indexed standard minimum) have a substantially different redistributive character than the other simulations in the tables. This simulation is the only one that leads to greater fraction of benefits going to men than to women (relative to current law reduced). To a large extent, this reflects differences in benefits by age, as women are overrepresented at the oldest ages where COLA cuts have the deepest reach. Like the computation years option, the COLA option also leads to greater concentration of benefits among those with more years of work, and indeed surpasses the computation years option on several work years dimensions (especially in 2025). Again, this likely reflects the strong age/cohort-gender component of a COLA reduction. Because this option contains the standard wage-indexed minimum, redistribution toward those with lesser education and benefits of less than poverty is still maintained relative to current law with a simple across-the-board reduction.

Results: Impacts on Poverty and Near Poverty

Our analyses' final key outcome is comprised of poverty rates and poverty reduction from the minimum benefits. To better understand these outcomes, it is useful to consider DYNASIM baseline estimates of poverty in the two projection years. In both 2025 and 2050, we project that poverty rates at older ages will be substantially lower than they are today. Recent estimates of aged poverty suggest that about 9.8 percent of persons ages 65 and older were poor in 2004 (DeNavas-Walt, Proctor, and Lee 2005). Because wages (and thus Social Security benefits, which are initially indexed to wages) are expected to grow faster than prices (and thus poverty thresholds), all else equal we would anticipate poverty reduction. Assuming current law scheduled benefits are paid, DYNASIM projects aged poverty of 9.5 percent in 2025 and 8.4 percent in 2050. Among persons age 62 and older receiving Social Security, DYNASIM projects poverty of 5.4 percent in 2025 and 3.2 percent in 2050, much lower poverty than we see for the population at large because of the select nature of older persons not receiving OASDI.⁴⁹

Table 9 displays results for the poverty and near-poverty rates and poverty reduction (in percentage terms and number of people no longer in poverty) from the minimum benefits with

⁴⁹ At present, about 6 percent of persons ages 75 and older do not collect Social Security (Social Security Administration 2005: Table 6.A1). (The corresponding figure for persons 65 to 74 is 11 percent.) These include individuals who are eligible only for SSI.

across the board reductions to Social Security and each of the three alternative ways for restructuring benefits (new bend point at poverty, COLA cut, increase in computation years). The table also includes results from the two sensitivity analyses, as we discuss in a moment. Again, this table is restricted to Social Security beneficiaries ages 62 and older. Poverty reduction is tracked relative to current law reduced for solvency using the uniform reductions to benefits. By definition, poverty rates under this scenario are higher than current law scheduled: 6.9 percent in 2025 and 4.3 percent in 2050.

We see that the more generous minimums, not surprisingly, are highly effective at reducing poverty from these levels. In 2025, the more generous wage-indexed benefit leads to poverty reduction of 30 percent. This represents over 1.3 million people moved out of poverty. The more generous price-indexed benefit leads to the second highest reduction, of 21 percent (representing 940,000 people). The COLA cut with the more modest wage-indexed minimum benefit is the least effective of the options, but it nonetheless leads to improvements over current law with the scalar reduction, decreasing poverty by 2 percent (or about 90,000 people).

An interesting comparison in this table is between the option with the poverty level bend point and the various minimums. In 2025, this formula option does better than both of the standard minimums at alleviating poverty, though it does not do as well as the two more generous minimums. However, when the lowest bend point is not reduced in concert with the standard wage-indexed minimum benefit (in the sensitivity analysis), the poverty impact of the option more than doubles, so that it about equals the impact of the poverty bend point. This illustrates the importance of the form that any necessary benefit reductions might take. The sensitivity test in which work requirements for the disabled are not pro-rated based on the number of years elapsed prior to the disability, in contrast, does worse with respect to poverty alleviation than the minimum alone (a difference of about 17,000 people in 2025). This underscores the vulnerability of many in the DI population, and the need to be careful to take account of their needs in minimum benefit design.

In 2050, the situation changes somewhat. Again, the more generous wage-indexed benefit leads the pack, leading to a poverty reduction of about two-thirds (and over 2.2 million people). The second most effective option with respect to poverty alleviation is now the sensitivity test with the standard wage-indexed minimum where we do not reduce benefits in the 90 percent bracket. It increases the poverty alleviation impact by over half (relative to the minimum alone). The poverty level bend point comes next in poverty alleviation terms, followed closely by wage-indexed standard minimum benefit and this same minimum in concert with an increase in computation years (both granting about a 20 percent reduction in poverty). The least effective option is now the more modest price-indexed minimum benefit, which reduces poverty by about 6 percent. Even the COLA simulation, the second least effective with respect to poverty reduction, does substantially better than this, with reduction of almost 13 percent.

We also look at two measures of near poverty, defined here as having total family income of less than 125 or 150 percent of poverty, in Appendix Table 2. The relative rankings of the options remain about the same, though the sizes of the reductions in near poverty are far less dramatic in percentage terms (though in absolute terms they are often impressive).

Caveats

A few caveats to these analyses are appropriate. First, predicting the future along so many dimensions (work/earnings, fertility, mortality, marriage/divorce) is difficult, and so always warrants conservative interpretation. For example, the DYNASIM model projections are very sensitive to assumptions about employment patterns into the future, and especially assumptions about labor force continuity for workers. Tabulations suggest that the DYNASIM projections are similar to other long-term models (for example, the Social Security Administration's Polisim and MINT) on the key dimensions for our study: years of work and percentiles of lifetime earnings. This provides some reassurance, but offers no guarantee.

Our assumptions about minimal behavioral response also call for caution. If Social Security benefit reductions lead older workers to increase their labor supply, then they would typically enter their retirement in a much stronger financial position because of lower actuarial reductions to their Social Security benefits and additional savings (including accruals to employer provided pensions, where applicable) (see, for example, Smith, Butrica, and Steuerle 2006). Conversely, the very high replacement rates that certain minimum benefits could impose might lead some low-wage workers to work up to the threshold that qualifies them for the minimum benefit, but then reduce labor supply if there is not a strong added incentive.

In this paper, we have focused on retirees ages 62 and older (we have also included disabled workers who are ages 62 to 64 and formerly disabled workers who have converted to retired worker benefits at the normal retirement age). Including younger disabled workers would change the estimates.

Our estimates have not focused on family structure issues. Designers of a minimum may want to implement caps on couples' benefit from the minimum (for example, limiting minimum payments to spouses of workers with high benefits) so that a minimum does not serve to replicate or (even exacerbate) some of the less desirable equity features of spouse and survivor benefits. This is an important area for future investigation of minimum benefit design and structures.

Finally, while the proposals all have similar costs in 2050, they have different time paths for these costs.⁵⁰ Readers need to take this variation in trajectories into account. (Appendix Table 4 describes these differences.) For example, the price-indexed generous minimum benefit is more expensive than any of the other options in 2010, 2020, 2030, and 2040, and the computation years simulation is less expensive than any of the other options at each of the ten year intervals (with the COLA reduction next behind it). Essentially, some of the simulations "front load" benefits, while others "back load" them in order for them all to reach 2050 with similar costs.

⁵⁰ Note that when costing out the proposals, we examine the OASDI program as a whole, as modeled in DYNASIM. DYNASIM has a comprehensive representation of retired and disabled worker benefits (including spouses and survivors of retired and disabled workers), but does not currently include children's benefits of any type.

Conclusions

Given that many low-wage workers are not guaranteed a poverty-level benefit under Social Security, there may be a case for expanding minimum benefits within the program. This is especially true given that the system's long-term fiscal deficit is likely to lead to some type of benefit (or benefit growth) reductions. Indeed, the U.S. retirement benefit system is significantly less generous to those with low lifetime earnings than those of similar countries, and the SSI system fails to reach a sizable fraction of people who would be eligible for assistance because of incomplete take-up and asset tests that have not kept up with inflation.

We find that minimum benefits could help to reduce aged poverty substantially, even in the context of a system with benefits reduced in order to improve the program's long-term fiscal deficit. A first observation is that minimum benefits that have relatively high requirements for qualification of a year of coverage or large numbers of work years required tend to have relatively modest impacts. More generous minimums have broader reach, but they sometimes raise issues of equity for long-term workers and inadequate work incentives. (Of course, the current system also has work incentive issues, as we have described, including not counting more than 35 years of earnings and providing little or no return to workers with significantly higher earnings spouses.)

Although our analyses are fairly stylized (in terms of assuming across-the-board benefit reductions in combination with the minimums and sometimes other policy shifts, for example), a few important lessons for designers of Social Security policy are clear:

- Without wage indexing its parameters, many minimum benefits designs would lead to decreasing relevance of a minimum into the future.
- Tradeoffs between adequacy and horizontal equity are readily apparent. Those approaches that do the most to alleviate poverty tend to do less in terms of rewarding extra work. The most generous versions of a minimum could lead to a flattening of the benefit distribution, reducing Social Security's strong earnings relationship, which has been a source of the program's strong political support.
- Formula adjustments can do about as well as minimums on the adequacy front, but could result in less of a tie to work effort.
- Women appear to benefit disproportionately from minimum benefits in the aggregate. However, when men receive minimums, their benefit increments are larger than women's on average.
- The form of benefit reductions will interact with minimum benefit design.
- Minimum benefit designs that do not take into account the truncated work histories of disabled workers will be less successful at alleviating poverty than those that do.

In sum, the most effective changes to OASDI are likely to integrate a combination of parameters that include both means for improving program adequacy and means for enhancing horizontal equity. Careful analysis will be required to understand the interactions between these parameters.

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Tables

Table 1. Selected Minimum Benefit Proposals for Social Security

Proposal name and source	Size of minimum (as percent of poverty at time of design); fraction is amount granted at NRA unless indicated	Minimum number of years required (and max if applicable)	Definition of a year (e.g., CQ, 20 hours/week at minimum wage, etc.)	Allow partial years?	Future treatment of initial level (default = price-indexed); note whether you can "age on" if wage-indexed	Empirical analyses
National Commission on Retirement Policy (1998) (similar in Kolbe-Stenholm [2002], Kolbe-Boyd [2005])	60% poverty at 20 years, up to 100% at 40 years	20 (up to 40)	4 CQs (2006=\$3880)	yes in law, no in some cited studies	Wage-indexed	Herd (2005) "Privatization"; Sandell, Iams, Fanaras (1999); Favreault, Steuerle, Sammartino (2002); Zedlewski (2002)
Herd "Worker"	Poverty	10	4 CQs (2006=\$3880)	no	Price-indexed	Herd (2005)
"Resident" (1979 SS Advisory Council)	\$545 (72.5% of poverty): federal SSI level in 2002	0	n/a	n/a	Price-indexed	Herd (2005)
President's Commission to Strengthen Social Security Model 2 (2001)	120% poverty at 30 years	21 to 30 (no work after 60 assumed)	minimum wage worker (2000 hours per year at \$5.15 in 2000, wage indexed, or \$10,300)	still counts CQs when <4 CQs in any year still counts CQs	Price-indexed	Goss and Wade (2002) (primarily aggregate)
President's Commission to Strengthen Social Security Model 3 (2001)	100% poverty at 30 years	21 to 30	as in CSSS Model 2	when <4 CQs in any year still counts CQs	Intermediate-indexed (projected CPI + 0.5)	Goss and Wade (2002) (primarily aggregate)
Diamond and Orszag (2003)	60% poverty at 20 years, up to 100% at 35 years	21 (up to 35)	minimum wage worker ("steadily rising to" 2000 hours per year at \$5.15 in 2000, wage indexed, or \$10,300)	still counts CQs when <4 CQs in any year	Wage-indexed	Goss (2003) (primarily aggregate)
Graham (2003)	120% poverty at 35 years, reduced by 1.2% for each CQ under 140 (phased in); pro-rate for DI	11 (up to 35)	4 CQs (2006=\$3880)	yes	Price-indexed	Chaplain and Wade (2003) (primarily aggregate)
National Organization for Women (2005)	Adjust special minimum	no change	50 percent of minimum-wage earnings for full-time, year round work (approx \$10,700)	?	No change	None, but similar to Fitzpatrick et al (2003)
Fitzpatrick et al (2003)	Adjust special minimum: Change years of service from 30 to 25 Adjust special minimum: lower amount necessary for a year of service Count partial years of service		.26*average wage (\$9516 in 2005)	yes	No change No change	Fitzpatrick et al (2003)
Senior Income Guarantee (Smeeding, Weaver 2001)	75% poverty at 40 years residence and 10 work years	10	4 CQs (2006=\$3880)	pro-rate	unspecified, appears price-indexed	Simple estimates in Smeeding, Weaver (2001)
National Council of Women's Organizations (Hartmann and Hill 1999)	Adjust special minimum: lower amount necessary for a year of service		minimum wage worker (1000 hours per year at \$5.15 in 2000, wage indexed, or \$5,150)			

Table 2. Combined Social Security and SSI Benefits as a Percent of Poverty Under Current Law for Low-Wage Workers of Various Types

Career type	Number of work years	Combined annual benefit (OASDI + SSI as a percent of poverty for single person)						OASI replacement rate (current law)		
		Current law				NCRP-style		62	NRA	
		SSI ineligible		SSI eligible		minimum (ineligible)				
Claiming age	62	NRA	62	NRA	62	NRA	62	NRA		
1a	Earnings at federal minimum wage	0	0%	0%	Nc	74%	Nc	Nc	N/a	N/a
1b	(\$5.15 in 2005) full-year, full-time (2000 hours annually)	10	38%	50%	Nc	76%	Nc	Nc	68	90
1c		20	62%	82%	Nc	82%	Nc	82%	68	90
1d		30	72%	95%	Nc	95%	Nc	95%	68	90
1e		40	77%	100%	Nc	100%	Nc	100%	68	90
2a	Earnings at federal minimum wage full-year, part time or half-year full-time (1000 hours annually)	0	0%	0%	Nc	74%	Nc	Nc	N/a	N/a
2b		10	19%	25%	Nc	76%	Nc	Nc	68	90
2c		20	36%	47%	Nc	76%	45%	60%	68	90
2d		30	50%	66%	Nc	76%	60%	80%	68	90
2e		40	57%	74%	Nc	76%	75%	100%	68	90
3a	Earnings in all years at exactly 4 CQ threshold (\$3880 annually in 2006)	0	0%	0%	Nc	74%	Nc	Nc	N/a	N/a
3b		10	3%	4%	Nc	76%	Nc	Nc	68	90
3c		20	7%	9%	Nc	76%	45%	60%	68	90
3d		30	14%	19%	Nc	76%	60%	80%	68	90
3e		40	21%	27%	Nc	76%	75%	100%	68	90

Source: Authors' calculations

NC = no change from current law SSI-ineligible individual

Notes: In all cases we assume that the individual is born in 1943, claims benefits in 2005 (at age 62), and does not qualify for a benefit as a spouse or survivor. We assume work years as follows: For persons with:

10 years of work
20 years of work
30 years of work
40 years of work

we assume that these earnings occurred:

at ages 20 to 29.
at ages 20 to 39.
at ages 20 to 49.
at ages 20 to 59.

When they reached age 65, individuals would be eligible for SSI benefits of up to \$603 (monthly, 2006) if their assets (excluding full value of a home, vehicle, and life insurance cash surrender and burial funds of up to \$1500 each) were less than \$2000. Some states have minimum wages that exceed the federal. For the SSI calculations, we assume no earnings and no other income besides Social Security. Some states supplement the SSI benefit, but we assume that this worker lives in a state without a supplement. Because Census had not released poverty estimate for 2005, we use 2004 version and apply SSA COLA.

Table 3. Percent of Retired Worker Beneficiaries With OASDI Benefits of Less than 99 and 119 Percent of Poverty under Current Law, December 2004

Ages	Men		Women	
	Percent with Social Security Benefit <		Percent with Social Security Benefit <	
	<u>99%</u>	<u>119%</u>	<u>99%</u>	<u>119%</u>
All	19.2	28.5	47.4	61.4
62-64	21.5	30.2	64.7	77.2
65-69	17.9	26.2	52.3	67.6
70-74	19.6	29.0	52.1	65.8
75-79	19.0	28.6	46.9	59.8
80-84	20.3	31.3	39.6	52.9
85-89	18.6	28.5	29.3	43.5
90+	20.5	33.7	27.9	45.3

Source: Authors' calculations from Social Security Administration (2006), Table 5.B9.

Notes: We use the Census Bureau's aged poverty threshold for all groups (even though Census definitions classify persons ages 62 to 64 using non-aged thresholds). As this table reflects data on worker benefits, it does not include all Social Security beneficiaries age 62 and older (workers must have earned a minimum number of quarters of coverage).

Table 4. Years of Social Security Covered Earnings in 2000 by Cohort

Yrs covered earnings	Birth Cohort			
	(percentage distribution)			
	<i>Women</i>		<i>Men</i>	
	<i>1931-35 Cohort</i>	<i>1936-40 Cohort</i>	<i>1931-35 Cohort</i>	<i>1936-40 Cohort</i>
0	7	4	1	0
1-5	11	9	3	1
6-10	9	8	3	2
11-15	10	9	3	3
16-20	11	10	3	4
21-25	10	11	4	3
26-30	14	14	8	4
31-35	14	16	18	10
36+	14	20	57	72

Source: Burtless et al. (2004)

Notes: The sample excludes immigrants and individuals who became disabled or died before age 62.

Source: Pooled 1990-1993 panels of the Survey of Income and Program Participation matched to Summary Earnings Records. A year of earnings is defined as having any earnings.

Table 5. Options Simulated

Option	Minimum details (% of poverty by year, work year = 4 CQ)	Solvency mechanism(s)
<i>Current Law with Feasible Benefits</i>		
1 Reduced current law	None	Uniform cuts of 12.45%
<i>Minimum Benefits</i>		
2 Standard price-indexed minimum benefit	55% at 10, increment by 1.5% to reach 100% at 40	Uniform cuts of 12.81%
3 Standard wage-indexed minimum benefit	55% at 10, increment by 1.5% to reach 100% at 40	Uniform cuts of 14.27%
4 Generous price-indexed minimum benefit	80% at 10, increment by 2.0% to reach 100% at 20, increment by 1.0% to reach 120% at 40	Uniform cuts of 13.64%
5 Generous wage-indexed minimum benefit	80% at 10, increment by 2.0% to reach 100% at 20, increment by 1.0% to reach 120% at 40	Uniform cuts of 18.62%
<i>Formula Adjustments</i>		
6 Add a bend point to the benefit formula at the poverty threshold	N/A	Reduce 2 upper formula factors (to 23.6125% and 9.445%, respectively); first and new segments retain CL replacement rates (90%, 32%)
<i>Minimum Benefits in Combination with Other Well-Known Reforms</i>		
7 Standard wage-indexed minimum benefit with chained CPI	As in 3	COLA cut of 0.50% plus uniform cuts of 7.67%
8 Standard wage-indexed minimum with increase in computation years	As in 3	Increase computation years (to 40) plus uniform cuts of 10.22%
<i>Sensitivity analyses</i>		
9 Standard wage-indexed minimum benefit, but lowest bracket shielded	As in 3	Reduce upper 2 formula factors by 24.0% (90% bracket is unchanged)
10 Standard wage-indexed minimum benefit, but DI is not pro-rated	As in 3, except for DI	Uniform cuts of 13.7%

Notes: All options take effect in 2007 unless otherwise indicated. Work years requirements are pro-rated for those on DI (except as indicated in option 9). Benefit reductions are “across-the-board” for new entitlees and target cost equivalence in 2050. Expenditure time paths of the reforms differ (see Appendix Table 4 for detail).

Table 6. Percent of OASDI Beneficiaries Ages 62 and Older Receiving a Minimum Benefit Under Four Alternative Specifications, 2025 and 2050

	N	Standard Wage- Indexed	Standard Price- Indexed	Generous Wage- Indexed	Generous Price- Indexed
2025					
All	25,336	11.3%	6.3%	29.3%	18.7%
Men	11,215	8.7%	4.8%	24.4%	14.4%
Women	14,121	13.4%	7.6%	33.2%	22.0%
2050					
All	31,302	15.8%	4.6%	35.4%	12.1%
Men	14,709	15.1%	4.3%	32.7%	11.0%
Women	16,593	16.4%	4.8%	37.7%	13.0%

Source: Authors' tabulations from the Urban Institute's *DYNASIM3* (run id is 432)

Table 7a. Share of OASDI Benefits Received by Different Groups at Ages 62 and Older Under Four Alternative Minimum Benefit Specifications, 2025

	N	Share of All Persons	Real Average Indexed Earnings	Current Law Reduced	Standard Wage-Indexed	Standard Price-Indexed	Generous Wage-Indexed	Generous Price-Indexed
All	25,336	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Sex and 2025 Marital Status								
Men								
All Men	11,215	44.27	60.52	48.67	48.52	48.62	47.93	48.37
Married	7,301	28.82	41.94	32.30	32.17	32.26	31.68	32.06
Widowed	1,466	5.79	6.96	6.74	6.72	6.73	6.65	6.68
Divorced	1,335	5.27	6.88	5.45	5.43	5.45	5.37	5.42
Never Married	1,113	4.39	4.74	4.18	4.19	4.18	4.22	4.2
Women								
All Women	14,121	55.73	39.48	51.33	51.48	51.38	52.07	51.63
Married	6,250	24.67	19.22	19.74	19.83	19.78	20.37	20.04
Widowed	4,263	16.83	8.86	18.39	18.40	18.37	18.30	18.27
Divorced	2,533	10.00	7.56	9.41	9.42	9.42	9.51	9.45
Never Married	1,075	4.24	3.84	3.79	3.82	3.81	3.90	3.87
Age								
62 - 66	5,813	22.94	27.25	19.85	19.91	19.87	20.22	19.95
67 - 70	5,681	22.42	26.59	22.93	22.9	22.93	22.9	22.95
71 - 74	4,695	18.53	19.56	19.49	19.41	19.48	19.23	19.46
75 - 79	4,588	18.11	15.83	18.63	18.56	18.62	18.41	18.65
80 - 84	2,705	10.68	7.31	11.48	11.55	11.49	11.55	11.43
85+	1,854	7.32	3.46	7.62	7.67	7.61	7.70	7.55
Highest Grade 2025								
HS Dropout	3,001	11.84	5.33	8.68	8.86	8.77	9.39	9.06
HS Grad	15,281	60.31	50.14	56.88	56.92	56.87	57.26	56.96
College	7,054	27.84	44.53	34.45	34.22	34.36	33.34	33.98
Race/ethnicity								
White, Non-Hispanic	18,976	74.90	81.12	78.90	78.74	78.81	78.18	78.50
Black, Non-Hispanic	2,351	9.28	6.76	7.86	7.91	7.89	8.10	7.98
Hispanic	2,688	10.61	7.25	8.45	8.54	8.50	8.88	8.69
Other	1,321	5.21	4.87	4.79	4.80	4.80	4.85	4.84
Benefit Type								
Retired Worker	15,343	60.56	76.68	63.15	63.01	63.12	62.54	62.99
Disabled Worker	3,213	12.68	10.58	12.65	12.72	12.68	12.92	12.78
Spouse Only	825	3.26	3.17	1.52	1.53	1.53	1.54	1.54
Survivor Only	696	2.75	1.48	2.59	2.59	2.59	2.58	2.57
Dual Spouse	1,703	6.72	1.82	4.10	4.17	4.13	4.58	4.29
Dual Survivor	3,556	14.04	6.27	15.98	15.98	15.95	15.84	15.82
Work years								
Less than 10	859	3.39	0.38	2.21	2.23	2.22	2.29	2.24
10-19	3,301	13.03	4.06	9.19	9.31	9.25	9.85	9.53
20-29	5,445	21.49	13.26	18.60	18.69	18.64	19.14	18.84
30-34	4,304	16.99	16.09	16.61	16.64	16.62	16.70	16.64
35+	11,427	45.10	66.21	53.39	53.13	53.27	52.02	52.76
Immigration Status								
Born in US	21,501	84.86	88.64	87.47	87.39	87.42	87.00	87.19
Not born in US	3,835	15.14	11.36	12.53	12.61	12.58	13.00	12.81
AIE class								
Lowest quintile	5,067	20.00	3.09	13.83	14.32	14.09	15.34	14.76
Second quintile	5,067	20.00	8.48	15.41	15.61	15.42	16.73	15.84
Middle quintile	5,068	20.00	15.44	18.68	18.57	18.62	18.57	18.38
Fourth quintile	5,067	20.00	25.27	23.26	23.04	23.17	22.17	22.81
Highest quintile	5,067	20.00	47.72	28.82	28.46	28.70	27.18	28.21
Shared AIE class								
Lowest quintile	5,067	20.00	4.96	12.77	13.28	13.01	14.58	13.81
Second quintile	5,067	20.00	10.79	17.32	17.41	17.32	17.97	17.43
Middle quintile	5,068	20.00	16.78	20.05	19.99	20.01	19.91	19.87
Fourth quintile	5,067	20.00	25.14	23.00	22.78	22.92	22.12	22.59
Highest quintile	5,067	20.00	42.33	26.86	26.54	26.75	25.43	26.31
Poverty Level								
<99.99%	1,743	6.88	1.71	3.31	3.54	3.45	4.15	3.82
100% -149.99%	2,400	9.47	3.93	6.58	6.70	6.63	7.14	6.84
150% -199.99%	2,567	10.13	5.94	8.71	8.77	8.72	8.98	8.80
200% -249.99%	2,339	9.23	6.61	8.70	8.72	8.70	8.79	8.71
250%+	16,287	64.28	81.81	72.71	72.27	72.51	70.93	71.82

Source: Authors' tabulations from the Urban Institute's *DYNASIM3* (run id is 432)

Notes: AIE is defined as average indexed earnings (covered and uncovered) from ages 22 to 62.

Table 7b. Share of OASDI Benefits Received by Different Groups at Ages 62 and Older Under Four Alternative Minimum Benefit Specifications, 2050

	N	Share of All Persons	Real Average Indexed Earnings	Current Law Reduced	Standard Wage-Indexed	Standard Price-Indexed	Generous Wage-Indexed	Generous Price-Indexed
All	31,302	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Sex and 2050 Marital Status								
Men								
All Men	14,709	46.99	59.14	49.56	49.57	49.56	49.29	49.51
Married	8,670	27.70	38.14	30.13	30.08	30.11	29.81	30.05
Widowed	1,986	6.34	6.83	7.18	7.10	7.16	6.95	7.13
Divorced	1,777	5.68	6.88	5.66	5.69	5.66	5.70	5.67
Never Married	2,276	7.27	7.29	6.59	6.69	6.62	6.82	6.66
Women								
All Women	16,593	53.01	40.86	50.44	50.43	50.44	50.71	50.49
Married	6,694	21.39	18.00	18.32	18.37	18.31	18.77	18.33
Widowed	5,350	17.09	10.92	18.50	18.31	18.46	17.99	18.42
Divorced	2,637	8.42	6.99	8.33	8.33	8.33	8.36	8.33
Never Married	1,912	6.11	4.96	5.30	5.42	5.34	5.60	5.41
Age								
62 - 66	5,740	18.34	22.21	15.12	15.43	15.16	15.93	15.21
67 - 70	5,899	18.85	24.52	20.46	20.50	20.46	20.53	20.44
71 - 74	5,100	16.29	17.94	17.14	17.13	17.14	17.12	17.13
75 - 79	5,360	17.12	16.26	17.99	17.90	17.97	17.77	17.96
80 - 84	4,425	14.14	11.09	14.45	14.34	14.44	14.17	14.43
85+	4,778	15.26	7.99	14.84	14.70	14.83	14.48	14.84
Highest Grade 2050								
HS Dropout	3,381	10.80	5.11	7.72	7.91	7.77	8.50	7.93
HS Graduate	16,299	52.07	41.94	48.12	48.31	48.14	48.77	48.21
College	11,622	37.13	52.95	44.16	43.78	44.08	42.73	43.86
Race/ethnicity								
White, Non-Hispanic	19,595	62.60	67.39	65.99	65.86	65.95	65.33	65.84
Black, Non-Hispanic	3,675	11.74	9.59	10.32	10.45	10.35	10.67	10.41
Hispanic	5,391	17.22	14.36	15.31	15.37	15.32	15.72	15.39
Other	2,641	8.44	8.66	8.38	8.33	8.37	8.28	8.36
Benefit Type								
Retired Worker	20,102	64.22	80.51	66.42	66.25	66.37	65.73	66.2
Disabled Worker	4,328	13.83	10.91	13.65	13.86	13.71	14.25	13.87
Spouse Only	377	1.20	0.23	0.55	0.55	0.55	0.56	0.55
Survivor Only	486	1.55	0.52	1.36	1.35	1.36	1.35	1.36
Dual Spouse	1,949	6.23	1.74	3.85	3.97	3.86	4.42	3.93
Dual Survivor	4,060	12.97	6.10	14.18	14.02	14.15	13.7	14.10
Work years								
Less than 10	1,397	4.46	0.53	2.88	2.90	2.89	3.02	2.94
10-19	3,630	11.60	3.92	7.81	7.92	7.85	8.49	8.02
20-29	5,594	17.87	12.06	15.39	15.41	15.41	15.69	15.45
30-34	4,134	13.21	12.40	12.94	12.94	12.93	12.96	12.92
35+	16,547	52.86	71.09	60.99	60.84	60.92	59.85	60.67
Immigration Status								
Born in US	24,468	78.17	82.31	80.94	81.03	80.95	80.68	80.91
Not born in US	6,834	21.83	17.69	19.06	18.97	19.05	19.32	19.09
AIE class								
Lowest quintile	6,260	20.00	3.11	12.56	13.43	12.80	14.83	13.41
Second quintile	6,261	20.00	8.49	15.02	15.29	14.98	16.32	14.96
Middle quintile	6,260	20.00	15.12	18.84	18.60	18.79	18.51	18.64
Fourth quintile	6,261	20.00	24.76	23.72	23.33	23.66	22.34	23.47
Highest quintile	6,260	20.00	48.53	29.86	29.35	29.77	28.00	29.52
Shared AIE class								
Lowest quintile	6,260	20.00	4.40	11.69	12.58	11.90	14.22	12.48
Second quintile	6,261	20.00	10.25	16.46	16.56	16.43	17.09	16.39
Middle quintile	6,260	20.00	16.41	20.15	19.96	20.10	19.71	19.97
Fourth quintile	6,261	20.00	24.87	23.62	23.28	23.56	22.51	23.38
Highest quintile	6,260	20.00	44.08	28.08	27.63	28.00	26.47	27.78
Poverty Level								
<99.99%	1,322	4.22	0.75	1.64	2.03	1.78	2.59	2.03
100% -149.99%	2,241	7.16	2.27	4.12	4.37	4.15	5.02	4.30
150% -199.99%	2,406	7.69	3.58	5.57	5.69	5.58	6.04	5.64
200% -249.99%	2,557	8.17	5.00	6.96	7.00	6.96	7.13	6.97
250%+	22,776	72.76	88.39	81.71	80.90	81.53	79.21	81.05

Source: Authors' tabulations from the Urban Institute's *DYNASIM3* (run id is 432)

Notes: AIE is defined as average indexed earnings (covered and uncovered) from ages 22 to 62.

Table 8a. Share of OASDI Benefits Received by Different Groups at Ages 62 and Older Under Wage-Indexed Standard Minimum Benefit Specification and Three Alternatives, 2025

	N	Share of All Persons	Real Average Indexed Earnings	Current Law Reduced	Standard Wage-Indexed	Poverty Bend Point	Comp Years + Standard Wage	COLA + Standard Wage-Indexed
All	25,336	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Sex and 2025 Marital Status								
Men								
All Men	11,215	44.27	60.52	48.67	48.52	48.30	48.62	48.85
Married	7,301	28.82	41.94	32.30	32.17	31.96	32.27	32.54
Widowed	1,466	5.79	6.96	6.74	6.72	6.69	6.74	6.58
Divorced	1,335	5.27	6.88	5.45	5.43	5.44	5.43	5.50
Never Married	1,113	4.39	4.74	4.18	4.19	4.22	4.18	4.23
Women								
All Women	14,121	55.73	39.48	51.33	51.48	51.70	51.38	51.15
Married	6,250	24.67	19.22	19.74	19.83	20.06	19.73	20.14
Widowed	4,263	16.83	8.86	18.39	18.40	18.32	18.43	17.77
Divorced	2,533	10.00	7.56	9.41	9.42	9.48	9.41	9.39
Never Married	1,075	4.24	3.84	3.79	3.82	3.84	3.81	3.85
Age								
62 - 66	5,813	22.94	27.25	19.85	19.91	20.16	19.75	20.84
67 - 70	5,681	22.42	26.59	22.93	22.90	22.94	22.89	23.54
71 - 74	4,695	18.53	19.56	19.49	19.41	19.36	19.46	19.59
75 - 79	4,588	18.11	15.83	18.63	18.56	18.47	18.62	18.24
80 - 84	2,705	10.68	7.31	11.48	11.55	11.46	11.58	10.74
85+	1,854	7.32	3.46	7.62	7.67	7.62	7.69	7.05
Highest Grade 2025								
HS Dropout	3,001	11.84	5.33	8.68	8.86	8.97	8.81	8.72
HS Graduate	15,281	60.31	50.14	56.88	56.92	57.39	56.82	56.85
College	7,054	27.84	44.53	34.45	34.22	33.64	34.36	34.43
Race/ethnicity								
White, Non-Hispanic	18,976	74.90	81.12	78.90	78.74	78.44	78.89	78.70
Black, Non-Hispanic	2,351	9.28	6.76	7.86	7.91	8.04	7.86	7.90
Hispanic	2,688	10.61	7.25	8.45	8.54	8.68	8.48	8.57
Other	1,321	5.21	4.87	4.79	4.8	4.84	4.76	4.82
Benefit Type								
Retired Worker	15,343	60.56	76.68	63.15	63.01	63.06	63.05	63.86
Disabled Worker	3,213	12.68	10.58	12.65	12.72	12.86	12.62	12.59
Spouse Only	825	3.26	3.17	1.52	1.53	1.53	1.53	1.54
Survivor Only	696	2.75	1.48	2.59	2.59	2.59	2.59	2.50
Dual Spouse	1,703	6.72	1.82	4.10	4.17	4.07	4.21	4.18
Dual Survivor	3,556	14.04	6.27	15.98	15.98	15.88	16	15.33
Work years								
Less than 10	859	3.39	0.38	2.21	2.23	2.26	2.22	2.15
10-19	3,301	13.03	4.06	9.19	9.31	9.49	9.25	9.10
20-29	5,445	21.49	13.26	18.60	18.69	18.96	18.48	18.47
30-34	4,304	16.99	16.09	16.61	16.64	16.73	16.47	16.68
35+	11,427	45.10	66.21	53.39	53.13	52.56	53.58	53.60
Immigration Status								
Born in US	21,501	84.86	88.64	87.47	87.39	87.17	87.52	87.32
Not born in US	3,835	15.14	11.36	12.53	12.61	12.83	12.48	12.68
AIE class								
Lowest quintile	5,067	20.00	3.09	13.83	14.32	14.08	14.34	13.69
Second quintile	5,067	20.00	8.48	15.41	15.61	16.03	15.58	15.22
Middle quintile	5,068	20.00	15.44	18.68	18.57	19.20	18.39	18.47
Fourth quintile	5,067	20.00	25.27	23.26	23.04	23.16	22.88	23.29
Highest quintile	5,067	20.00	47.72	28.82	28.46	27.53	28.81	29.33
Shared AIE class								
Lowest quintile	5,067	20.00	4.96	12.77	13.28	13.36	13.25	12.68
Second quintile	5,067	20.00	10.79	17.32	17.41	17.83	17.31	16.94
Middle quintile	5,068	20.00	16.78	20.05	19.99	20.28	19.89	19.86
Fourth quintile	5,067	20.00	25.14	23.00	22.78	22.75	22.77	23.10
Highest quintile	5,067	20.00	42.33	26.86	26.54	25.78	26.79	27.42
Poverty Level								
<99.99%	1,743	6.88	1.71	3.31	3.54	3.56	3.53	3.45
100% -149.99%	2,400	9.47	3.93	6.58	6.70	6.91	6.65	6.58
150% -199.99%	2,567	10.13	5.94	8.71	8.77	8.93	8.69	8.63
200% -249.99%	2,339	9.23	6.61	8.70	8.72	8.83	8.66	8.61
250% +	16,287	64.28	81.81	72.71	72.27	71.76	72.47	72.74

Source: Authors' tabulations from the Urban Institute's *DYNASIM3* (run id is 432)

Notes: AIE is defined as average indexed earnings (covered and uncovered) from ages 22 to 62.

Table 8b. Share of OASDI Benefits Received by Different Groups at Ages 62 and Older Under Wage-Indexed Standard Minimum Benefit Specification and Three Alternatives, 2050

	N	Share of All Persons	Real Average Indexed Earnings	Current Law Reduced	Standard Wage-Indexed	Poverty Bend Point	Comp Years + Standard Wage	COLA + Standard Wage-Indexed	
All	31,302	100.00	100.00	100.00	100.00	100.00	100.00	100.00	
Sex and 2050 Marital Status									
Men									
All Men	14,709	46.99	59.14	49.56	49.57	49.36	49.63	49.94	
Married	8,670	27.70	38.14	30.13	30.08	29.88	30.16	30.49	
Widowed	1,986	6.34	6.83	7.18	7.1	7.08	7.11	6.95	
Divorced	1,777	5.68	6.88	5.66	5.69	5.67	5.7	5.75	
Never Married	2,276	7.27	7.29	6.59	6.69	6.73	6.66	6.74	
Women									
All Women	16,593	53.01	40.86	50.44	50.43	50.64	50.37	50.06	
Married	6,694	21.39	18.00	18.32	18.37	18.56	18.30	18.66	
Widowed	5,350	17.09	10.92	18.5	18.31	18.27	18.34	17.74	
Divorced	2,637	8.42	6.99	8.33	8.33	8.36	8.33	8.29	
Never Married	1,912	6.11	4.96	5.3	5.42	5.45	5.4	5.38	
Age									
62 - 66	5,740	18.34	22.21	15.12	15.43	15.49	15.30	16.17	
67 - 70	5,899	18.85	24.52	20.46	20.5	20.47	20.52	21.14	
71 - 74	5,100	16.29	17.94	17.14	17.13	17.12	17.16	17.34	
75 - 79	5,360	17.12	16.26	17.99	17.9	17.88	17.95	17.76	
80 - 84	4,425	14.14	11.09	14.45	14.34	14.34	14.37	13.9	
85+	4,778	15.26	7.99	14.84	14.7	14.7	14.7	13.69	
Highest Grade 2050									
HS Dropout	3,381	10.80	5.11	7.72	7.91	8.10	7.84	7.82	
HS Graduate	16,299	52.07	41.94	48.12	48.31	48.72	48.21	48.15	
College	11,622	37.13	52.95	44.16	43.78	43.18	43.95	44.03	
Race/ethnicity									
White, Non-Hispanic	19,595	62.60	67.39	65.99	65.86	65.45	66.07	65.76	
Black, Non-Hispanic	3,675	11.74	9.59	10.32	10.45	10.55	10.39	10.45	
Hispanic	5,391	17.22	14.36	15.31	15.37	15.59	15.29	15.43	
Other	2,641	8.44	8.66	8.38	8.33	8.41	8.25	8.36	
Benefit Type									
Retired Worker	20,102	64.22	80.51	66.42	66.25	66.26	66.32	67.04	
Disabled Worker	4,328	13.83	10.91	13.65	13.86	14.04	13.75	13.64	
Spouse Only	377	1.20	0.23	0.55	0.55	0.55	0.55	0.55	
Survivor Only	486	1.55	0.52	1.36	1.35	1.36	1.35	1.3	
Dual Spouse	1,949	6.23	1.74	3.85	3.97	3.81	4	4.01	
Dual Survivor	4,060	12.97	6.1	14.18	14.02	13.97	14.03	13.46	
Work years									
Less than 10	1,397	4.46	0.53	2.88	2.9	2.97	2.89	2.77	
10-19	3,630	11.60	3.92	7.81	7.92	8.22	7.82	7.74	
20-29	5,594	17.87	12.06	15.39	15.41	15.78	15.12	15.27	
30-34	4,134	13.21	12.40	12.94	12.94	13.02	12.77	12.92	
35+	16,547	52.86	71.09	60.99	60.84	60.01	61.41	61.29	
Immigration Status									
Born in US	24,468	78.17	82.31	80.94	81.03	80.5	81.27	80.97	
Not born in US	6,834	21.83	17.69	19.06	18.97	19.5	18.73	19.03	
AIE class									
Lowest quintile	6,260	20.00	3.11	12.56	13.43	13.04	13.41	12.73	
Second quintile	6,261	20.00	8.49	15.02	15.29	15.75	15.19	14.89	
Middle quintile	6,260	20.00	15.12	18.84	18.60	19.28	18.43	18.49	
Fourth quintile	6,261	20.00	24.76	23.72	23.33	23.50	23.26	23.62	
Highest quintile	6,260	20.00	48.53	29.86	29.35	28.42	29.73	30.26	
Shared AIE class									
Lowest quintile	6,260	20.00	4.4	11.69	12.58	12.57	12.47	11.81	
Second quintile	6,261	20.00	10.25	16.46	16.56	17.04	16.40	16.16	
Middle quintile	6,260	20.00	16.41	20.15	19.96	20.26	19.87	19.86	
Fourth quintile	6,261	20.00	24.87	23.62	23.28	23.25	23.32	23.61	
Highest quintile	6,260	20.00	44.08	28.08	27.63	26.86	27.94	28.56	
Poverty Level									
<99.99%	1,322	4.22	0.75	1.64	2.03	1.85	2.02	1.93	
100%-149.99%	2,241	7.16	2.27	4.12	4.37	4.52	4.33	4.22	
150%-199.99%	2,406	7.69	3.58	5.57	5.69	5.91	5.61	5.55	
200%-249.99%	2,557	8.17	5.00	6.96	7.00	7.18	6.91	6.90	
250%+	22,776	72.76	88.39	81.71	80.90	80.54	81.12	81.40	

Source: Authors' tabulations from the Urban Institute's *DYNASIM3* (run id is 432)

Notes: AIE is defined as average indexed earnings (covered and uncovered) from ages 22 to 62.

Table 9. Share and Number of Social Security Beneficiaries in Poverty Under the Options at Ages 62 and Older, 2025 and 2050

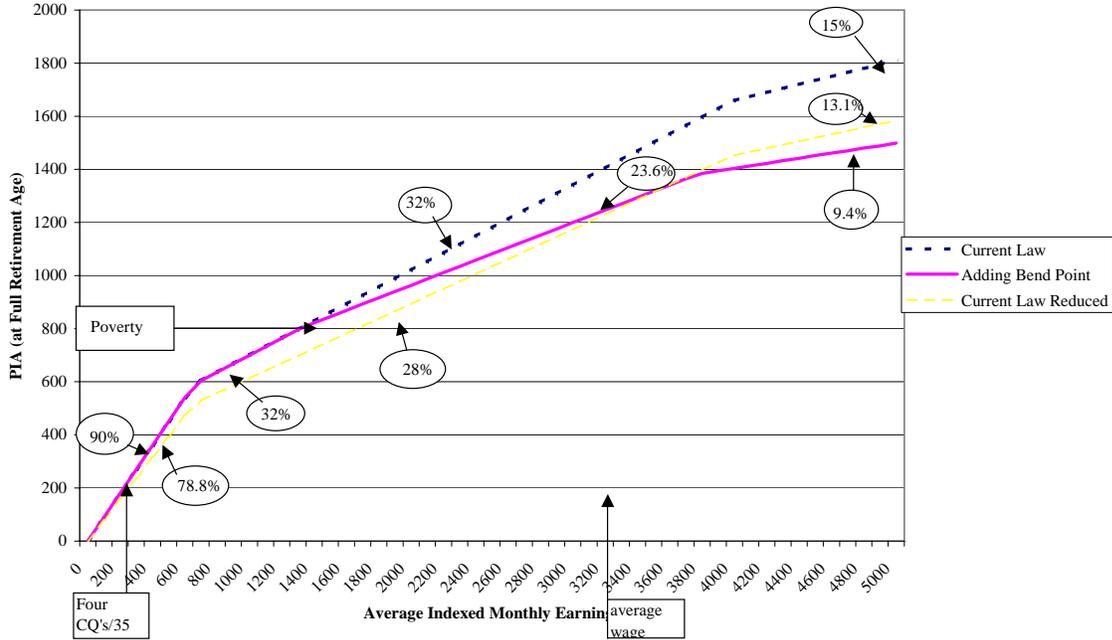
Year	Current Law Reduced	Poverty Bend Point	Standard Wage-Indexed	Standard Price-Indexed	Generous Wage-Indexed	Generous Price-Indexed	Computation Years plus Standard Wage-Indexed	COLA Cut plus Standard Wage-Indexed	Shield Lowest Formula Factors plus Standard Wage-Indexed	Standard Wage-Indexed with No DI Pro-rating
2025										
N	25,345	25,342	25,332	25,341	25,313	25,335	25,335	25,362	25,331	25,334
Poverty rate (%)	6.90	5.84	6.43	6.56	4.82	5.42	6.59	6.76	5.88	6.45
Change in poverty										
Number of people		-679,000	-302,000	-218,000	-1,324,000	-942,000	-197,000	-89,000	-652,000	-285,000
Percentage points		-1.06	-0.47	-0.34	-2.08	-1.48	-0.31	-0.14	-1.02	-0.45
% change		-15.43%	-6.87%	-4.96%	-30.10%	-21.41%	-4.48%	-2.01%	-14.82%	-6.48%
2050										
N	31,302	31,297	31,284	31,296	31,274	31,285	31,293	31,331	31,287	31,288
Poverty Rate	4.26	3.19	3.24	3.99	1.42	3.23	3.31	3.72	2.68	3.38
Change in poverty										
Number of people		-848,000	-806,000	-213,000	-2,240,000	-814,000	-749,000	-429,000	-1,244,000	-696,000
Percentage points		-1.08	-1.02	-0.27	-2.85	-1.03	-0.95	-0.54	-1.58	-0.88
% change		-25.25%	-24.02%	-6.35%	-66.76%	-24.25%	-22.32%	-12.75%	-37.08%	-20.73%

Source: Authors' tabulations from the Urban Institute's *DYNASIM3* (run id is 432)

Notes: Changes are expressed relative to current law reduction

Figures

Figure 1. Design of Simulation with Additional Bend Point (In the Context of Reduced Benefits), Compared to Current Law and Current Law With Scalar Reductions



Note: Formula applies to a person first entitled in 2006.

Appendix

Details on the DYNASIM model

DYNASIM

DYNASIM3, the version of the model that we use in these analyses, is a direct descendent of the original DYNASIM (Orcutt, Caldwell, and Wertheimer 1976). Unlike several other prominent microsimulation sources (for example MINT), DYNASIM relies fully on publicly available sources, and as a result researchers can use it without restriction. Because computing Social Security benefits requires information on a full lifetime of earnings, researchers often use administrative earnings records, which are not available to the public, when trying to model program reform. For DYNASIM, we use publicly available sources to create the equivalent of government earnings records. Specifically, we statistically match earnings histories (from 1951 through the model baseline of 1993) to members of the SIPP sample using donor records from the Panel Study of Income Dynamics (PSID) and an unrestricted Current Population Survey exact match to government earnings records from 1973. DYNASIM's developers extensively validated these imputed earnings to ensure that lifetime earnings patterns in the model are consistent with those found in Social Security Administration records (Smith, Scheuren, and Berk 2002).

For each simulation of the DYNASIM baseline, we produce an extensive array of tables and charts that validate core outcomes. For example, we look at mean labor force participation, hours of work, wages, and earnings in every year of the simulation. We examine these outcomes separately by age, gender, cohort, and combinations of age, gender, and education. We also look at earnings percentiles. In addition, we examine longitudinal outcomes, such as percentiles of lifetime earnings, years of covered work, and Social Security benefit means and distributions (again separately by gender). Where historical data exist, we use them (e.g., the CPS) as a basis for comparison. Otherwise, we compare to outcomes from alternative models (e.g., the SSA actuarial model, Modeling Income in the Near Term). Our analyses suggest that differences between the models reflect reasonable differences generated by varying assumptions and methods.

Appendix Tables

Appendix Table 1a. Percent of OASDI Beneficiaries Ages 62 and Older Receiving a Minimum Benefit Under Four Alternative Specifications, by Detailed Characteristics, 2025

	N	Standard Wage-Indexed	Standard Price-Indexed	Generous Wage-Indexed	Generous Price-Indexed	
All	25,336	11.3%	6.3%	29.3%	18.7%	
Sex and 2025 Marital Status						
Men	All Men	11,215	8.7%	4.8%	24.4%	14.4%
	Married	7,301	8.9%	4.9%	25.0%	14.8%
	Widowed	1,466	4.2%	2.7%	16.0%	10.2%
	Divorced	1,335	8.5%	4.4%	24.9%	13.0%
	Never Married	1,113	13.5%	6.9%	31.5%	19.7%
Women	All Women	14,121	13.4%	7.6%	33.2%	22.0%
	Married	6,250	19.3%	10.6%	46.3%	30.4%
	Widowed	4,263	4.2%	2.4%	13.3%	8.7%
	Divorced	2,533	13.4%	8.0%	33.2%	22.2%
	Never Married	1,075	16.2%	9.4%	36.3%	25.7%
Age						
	62 - 66	5,813	17.3%	7.5%	41.8%	23.6%
	67 - 70	5,681	14.8%	7.7%	36.3%	22.4%
	71 - 74	4,695	11.0%	7.2%	31.1%	20.3%
	75 - 79	4,588	9.4%	7.1%	27.9%	20.9%
	80 - 84	2,705	2.7%	2.6%	7.0%	6.0%
	85+	1,854	0.2%	0.2%	0.6%	0.5%
Highest Grade 2025						
	HS Dropout	3,001	21.2%	13.9%	47.6%	35.3%
	HS Graduate	15,281	12.4%	6.5%	32.6%	20.2%
	College	7,054	4.9%	2.7%	14.4%	8.3%
Race/ethnicity						
	White, Non-Hispanic	18,976	9.7%	5.1%	25.4%	15.9%
	Black, Non-Hispanic	2,351	14.5%	8.7%	38.5%	24.2%
	Hispanic	2,688	19.2%	12.2%	46.1%	31.3%
	Other	1,321	13.0%	7.7%	34.7%	22.9%
Benefit Type						
	Retired Worker	15,343	10.7%	5.6%	29.3%	17.7%
	Disabled Worker	3,213	10.7%	5.9%	28.8%	18.6%
	Spouse Only	825	13.1%	8.2%	32.6%	20.9%
	Survivor Only	696	3.5%	2.2%	13.9%	8.3%
	Dual Spouse	1,703	39.6%	25.3%	75.9%	58.1%
	Dual Survivor	3,556	2.3%	1.0%	9.8%	5.6%
Work years						
	Less than 10	859	7.8%	5.8%	29.9%	19.8%
	10-19	3,301	16.8%	11.8%	45.8%	32.7%
	20-29	5,445	13.6%	7.5%	37.2%	24.9%
	30-34	4,304	13.5%	6.8%	31.8%	19.7%
	35+	11,427	8.2%	4.1%	19.8%	11.1%
Immigration Status						
	Born in US	21,501	10.4%	5.6%	26.7%	16.7%
	Not born in US	3,835	16.5%	10.2%	44.4%	29.6%
AIE class						
	Lowest quintile	5,067	28.1%	22.1%	43.4%	38.8%
	Second quintile	5,067	22.6%	7.6%	58.2%	44.0%
	Middle quintile	5,068	3.6%	0.3%	37.3%	6.4%
	Fourth quintile	5,067	1.1%	0.8%	4.6%	1.6%
	Highest quintile	5,067	1.4%	0.8%	3.1%	2.5%
Shared AIE class						
	Lowest quintile	5,067	28.0%	19.3%	51.1%	43.4%
	Second quintile	5,067	13.7%	5.6%	42.0%	24.8%
	Middle quintile	5,068	8.2%	3.8%	29.3%	14.0%
	Fourth quintile	5,067	4.3%	1.8%	15.6%	7.3%
	Highest quintile	5,067	2.6%	1.2%	8.6%	3.8%
Poverty Level						
	<50%	43	76.7%	76.7%	81.4%	81.4%
	50%-99.99%	1,700	34.9%	24.5%	68.2%	57.4%
	100%-149.99%	2,400	20.0%	12.7%	51.6%	33.3%
	150%-199.99%	2,567	14.5%	7.7%	35.8%	23.2%
	200%-249.99%	2,339	12.1%	6.2%	30.6%	19.0%
	250%+	16,287	6.8%	3.1%	20.7%	11.5%

Source: Authors' tabulations from the Urban Institute's *DYNASIM3* (run id is 432)

Notes: AIE is defined as average indexed earnings (covered and uncovered) from ages 22 to 62.

Appendix Table 1b. Percent of OASDI Beneficiaries Ages 62 and Older Receiving a Minimum Benefit Under Four Alternative Specifications, by Detailed Characteristics, 2050

		N	Standard Wage- Indexed	Standard Price- Indexed	Generous Wage- Indexed	Generous Price- Indexed
All		31,302	15.8%	4.6%	35.4%	12.1%
Sex and 2050 Marital Status						
Men	All Men	14,709	15.1%	4.3%	32.7%	11.0%
	Married	8,670	14.6%	3.9%	31.6%	10.1%
	Widowed	1,986	7.7%	1.6%	23.5%	8.4%
	Divorced	1,777	18.4%	4.8%	36.0%	12.8%
	Never Married	2,276	21.0%	7.7%	42.3%	15.5%
Women	All Women	16,593	16.4%	4.8%	37.7%	13.0%
	Married	6,694	21.7%	5.9%	47.1%	14.9%
	Widowed	5,350	7.3%	1.9%	22.8%	8.0%
	Divorced	2,637	15.7%	5.1%	37.7%	12.8%
	Never Married	1,912	23.9%	8.8%	47.0%	20.8%
Age						
	62 - 66	5,740	25.6%	7.0%	48.2%	14.9%
	67 - 70	5,899	17.7%	4.5%	37.7%	11.2%
	71 - 74	5,100	16.0%	5.1%	36.3%	11.6%
	75 - 79	5,360	13.3%	3.6%	32.0%	11.3%
	80 - 84	4,425	11.1%	3.5%	29.5%	11.1%
	85+	4,778	8.3%	3.2%	25.3%	12.1%
Highest Grade 2050						
	HS Dropout	3,381	27.9%	11.4%	61.6%	25.4%
	HS Graduate	16,299	17.9%	4.8%	40.1%	13.7%
	College	11,622	9.2%	2.3%	21.2%	5.9%
Race/ethnicity						
	White, Non-Hispanic	19,595	14.5%	4.1%	31.2%	10.6%
	Black, Non-Hispanic	3,675	21.2%	6.6%	44.0%	16.5%
	Hispanic	5,391	18.9%	5.5%	46.1%	15.5%
	Other	2,641	11.2%	3.7%	32.0%	9.6%
Benefit Type						
	Retired Worker	20,102	13.6%	3.2%	32.2%	9.2%
	Disabled Worker	4,328	21.6%	7.8%	43.4%	19.2%
	Spouse Only	377	16.5%	4.5%	41.4%	12.5%
	Survivor Only	486	8.2%	3.3%	31.9%	11.9%
	Dual Spouse	1,949	47.1%	19.0%	83.3%	37.6%
	Dual Survivor	4,060	5.9%	1.5%	19.4%	6.4%
Work years						
	Less than 10	1,397	16.7%	7.7%	47.7%	19.5%
	10-19	3,630	20.6%	9.6%	62.1%	24.2%
	20-29	5,594	15.9%	4.8%	41.1%	13.2%
	30-34	4,134	16.2%	3.6%	34.3%	10.6%
	35+	16,547	14.5%	3.4%	26.8%	8.8%
Immigration Status						
	Born in US	24,468	16.5%	4.8%	32.9%	12.0%
	Not born in US	6,834	13.1%	3.9%	44.3%	12.4%
AIE class						
	Lowest quintile	6,260	41.1%	21.7%	67.1%	44.9%
	Second quintile	6,261	28.4%	0.5%	65.9%	13.0%
	Middle quintile	6,260	7.4%	0.3%	35.8%	0.8%
	Fourth quintile	6,261	1.0%	0.2%	6.3%	1.0%
	Highest quintile	6,260	1.0%	0.2%	1.8%	0.7%
Shared AIE class						
	Lowest quintile	6,260	40.4%	16.9%	74.1%	41.4%
	Second quintile	6,261	20.7%	2.6%	50.2%	10.4%
	Middle quintile	6,260	10.1%	1.6%	30.0%	4.6%
	Fourth quintile	6,261	4.9%	1.0%	15.3%	2.5%
	Highest quintile	6,260	2.7%	0.7%	7.2%	1.5%
Poverty Level						
	<50%	59	98.3%	96.6%	98.3%	98.3%
	50% -99.99%	1,263	59.6%	32.1%	93.4%	64.9%
	100% -149.99%	2,241	40.3%	11.7%	83.9%	34.4%
	150% -199.99%	2,406	24.3%	6.0%	60.4%	19.7%
	200% -249.99%	2,557	17.5%	4.2%	42.4%	13.2%
	250%+	22,776	9.6%	2.0%	23.8%	5.8%

Source: Authors' tabulations from the Urban Institute's *DYNASIM3* (run id is 432)

Notes: AIE is defined as average indexed earnings (covered and uncovered) from ages 22 to 62.

Appendix Table 2a. Minimum Benefit Sizes (in 2005\$) for Beneficiaries Ages 62 and Older in 2025

	N	Standard Wage-Indexed	Standard Price-Indexed	Generous Wage-Indexed	Generous Price-Indexed	Comp Years + Standard Wage-Indexed	COLA + Standard Wage-Indexed
All	25,336	\$965	\$759	\$1,913	\$1,353	\$1,007	\$865
Sex and 2025 Marital Status							
Men							
All Men	11,215	1,058	820	1,865	1,365	1,088	979
Married	7,301	1,038	808	1,808	1,304	1,062	954
Widowed	1,466	942	730	1,773	1,313	990	811
Divorced	1,335	1,049	861	1,831	1,475	1,103	948
Never Married	1,113	1,198	887	2,254	1,617	1,228	1,200
Women							
All Women	14,121	918	728	1,942	1,347	965	809
Married	6,250	860	642	1,884	1,269	906	745
Widowed	4,263	1,047	884	1,927	1,470	1,043	956
Divorced	2,533	869	688	1,924	1,285	937	761
Never Married	1,075	1,283	1,211	2,431	1,841	1,344	1,203
Age 62 - 66	5,813	1,073	810	2,106	1,322	1,120	980
67 - 70	5,681	947	723	1,966	1,340	994	856
71 - 74	4,695	919	733	1,781	1,347	960	806
75 - 79	4,588	814	737	1,647	1,382	835	693
80 - 84	2,705	927	880	1,698	1,592	981	789
85+	1,854	886	867	1,583	1,060	963	977
Highest Grade 2025							
HS Dropout	3,001	1,197	956	2,314	1,667	1,281	1,111
HS Graduate	15,281	887	686	1,843	1,270	919	774
College	7,054	966	703	1,695	1,222	984	867
Race/ethnicity							
White, Non-Hispanic	18,976	900	692	1,822	1,229	927	796
Black, Non-Hispanic	2,351	1,174	947	2,075	1,571	1,217	1,045
Hispanic	2,688	1,061	821	2,133	1,596	1,139	945
Other	1,321	968	810	1,955	1,496	1,039	960
Benefit Type							
Retired Worker	15,343	1,063	850	1,907	1,387	1,103	975
Disabled Worker	3,213	1,326	1,173	2,524	1,927	1,430	1,248
Spouse Only	825	706	608	1,145	979	730	623
Survivor Only	696	1,196	1,207	1,786	1,485	1,267	1,068
Dual Spouse	1,703	599	410	1,740	997	610	509
Dual Survivor	3,556	782	653	1,641	1,219	796	716
Work years							
Less than 10	859	1,130	1,000	1,627	1,325	1,114	970
10-19	3,301	968	773	2,020	1,520	1,074	897
20-29	5,445	943	843	1,965	1,400	1,008	888
30-34	4,304	984	793	1,983	1,367	1,018	874
35+	11,427	958	625	1,786	1,155	947	811
Immigration Status							
Born in US	21,501	951	735	1,886	1,297	977	848
Not born in US	3,835	1,016	831	2,006	1,529	1,108	921
AIE class							
Lowest quintile	5,067	1,210	884	2,674	1,939	1,306	1,052
Second quintile	5,067	801	478	2,010	1,029	799	642
Middle quintile	5,068	433	590	1,115	470	426	377
Fourth quintile	5,067	553	435	696	720	559	480
Highest quintile	5,067	414	336	855	607	415	357
Shared AIE class							
Lowest quintile	5,067	1,233	925	2,612	1,842	1,305	1,089
Second quintile	5,067	792	574	1,761	1,044	811	686
Middle quintile	5,068	730	530	1,482	921	737	648
Fourth quintile	5,067	461	266	1,247	630	450	346
Highest quintile	5,067	578	405	1,179	748	623	494
Poverty Level							
<99.99%	1,743	1,316	1,065	2,622	1,881	1,385	1,193
100% -149.99%	2,400	1,070	762	2,064	1,551	1,128	919
150% -199.99%	2,567	930	594	2,029	1,359	979	758
200% -249.99%	2,339	835	558	1,865	1,223	871	742
250% +	16,287	752	578	1,582	1,003	768	666

Source: Authors' tabulations from the Urban Institute's *DYNASIM3* (run id is 432)

Notes: AIE is defined as average indexed earnings (covered and uncovered) from ages 22 to 62.

Appendix Table 2b. Minimum Benefit Sizes (in 2005\$) for Beneficiaries Ages 62 and Older in 2050

	N	Standard Wage- Indexed	Standard Price- Indexed	Generous Wage- Indexed	Generous Price- Indexed	Comp Years + Standard Wage- Indexed	COLA + Standard Wage- Indexed
All	31,302	\$1,705	\$1,015	\$2,721	\$1,467	\$1,710	\$1,559
Sex and 2050 Marital Status							
Men							
All Men	14,709	1,909	1,158	2,846	1,550	1,897	1,738
Married	8,670	1,867	1,042	2,796	1,470	1,843	1,671
Widowed	1,986	1,231	916	2,096	970	1,217	1,028
Divorced	1,777	1,956	1,246	3,026	1,560	1,958	1,709
Never Married	2,276	2,203	1,386	3,231	2,014	2,223	2,165
Women							
All Women	16,593	1,539	901	2,625	1,406	1,560	1,408
Married	6,694	1,309	637	2,515	1,147	1,338	1,219
Widowed	5,350	1,355	751	2,315	1,321	1,352	1,158
Divorced	2,637	1,715	957	2,647	1,439	1,722	1,564
Never Married	1,912	2,268	1,563	3,410	2,120	2,339	1,999
Age 62 - 66	5,740	2,068	1,189	3,352	1,697	2,095	1,921
67 - 70	5,899	1,816	1,098	2,905	1,539	1,839	1,670
71 - 74	5,100	1,687	971	2,701	1,478	1,659	1,531
75 - 79	5,360	1,454	828	2,455	1,316	1,452	1,247
80 - 84	4,425	1,274	858	2,169	1,320	1,299	1,092
85+	4,778	1,093	882	1,944	1,318	1,104	935
Highest Grade 2050							
HS Dropout	3,381	1,697	962	2,967	1,729	1,780	1,677
HS Graduate	16,299	1,719	1,057	2,713	1,399	1,705	1,531
College	11,622	1,674	965	2,535	1,361	1,664	1,538
Race/ethnicity							
White, Non-Hispanic	19,595	1,712	974	2,696	1,382	1,718	1,516
Black, Non-Hispanic	3,675	1,931	1,273	2,993	1,695	1,972	1,735
Hispanic	5,391	1,554	974	2,711	1,489	1,532	1,566
Other	2,641	1,569	841	2,412	1,557	1,615	1,462
Benefit Type							
Retired Worker	20,102	1,729	1,075	2,599	1,394	1,735	1,627
Disabled Worker	4,328	2,324	1,583	3,700	2,192	2,322	2,065
Spouse Only	377	812	627	1,382	954	854	797
Survivor Only	486	1,804	1,359	2,208	1,426	1,550	1,534
Dual Spouse	1,949	1,199	465	2,564	998	1,221	1,061
Dual Survivor	4,060	1,170	594	2,084	1,108	1,165	997
Work years							
Less than 10	1,397	1,374	976	2,186	1,648	1,380	1,284
10-19	3,630	1,548	926	2,523	1,655	1,630	1,467
20-29	5,594	1,541	1,191	2,648	1,596	1,555	1,484
30-34	4,134	1,638	1,067	2,820	1,400	1,659	1,504
35+	16,547	1,867	978	2,909	1,275	1,853	1,650
Immigration Status							
Born in US	24,468	1,801	1,079	2,867	1,491	1,818	1,598
Not born in US	6,834	1,276	738	2,334	1,386	1,286	1,338
AIE class							
Lowest quintile	6,260	2,122	1,054	3,550	1,780	2,155	1,912
Second quintile	6,261	1,451	302	2,651	598	1,396	1,210
Middle quintile	6,260	725	297	1,767	451	723	539
Fourth quintile	6,261	245	274	723	282	252	237
Highest quintile	6,260	358	476	395	342	323	315
Shared AIE class							
Lowest quintile	6,260	2,116	1,161	3,404	1,769	2,122	1,906
Second quintile	6,261	1,464	679	2,565	888	1,429	1,292
Middle quintile	6,260	1,135	535	2,045	720	1,144	1,028
Fourth quintile	6,261	928	536	1,734	676	947	854
Highest quintile	6,260	977	551	1,703	779	961	891
Poverty Level							
<99.99%	1,322	2,573	1,515	4,216	2,316	2,614	2,343
100% -149.99%	2,241	1,783	936	3,016	1,490	1,804	1,630
150% -199.99%	2,406	1,747	768	2,705	1,333	1,702	1,513
200% -249.99%	2,557	1,682	648	2,637	1,186	1,657	1,448
250% +	22,776	1,331	699	2,297	990	1,322	1,196

Source: Authors' tabulations from the Urban Institute's *DYNASIM3* (run id is 432)

Notes: AIE is defined as average indexed earnings (covered and uncovered) from ages 22 to 62.

Appendix Table 3. Share of Social Security Beneficiaries Near Poverty Under the Options at Ages 62 and Older, 2025 and 2050

Year	Current Law Reduced	Poverty Bend Point	Standard Wage-Indexed	Standard Price-Indexed	Generous Wage-Indexed	Generous Price-Indexed	Computation Years plus Standard Wage-Indexed	COLA Cut plus Standard Wage-Indexed	Shield Lowest Formula Factors plus Standard Wage-Indexed	Standard Wage-Indexed with No DI Pro-rating
2025										
n	25,345	25,342	25,332	25,341	25,313	25,335	25,335	25,362	25,331	25,334
Income < 125% of poverty	11.77%	10.74%	11.49%	11.57%	9.78%	10.50%	11.71%	11.92%	10.93%	11.47%
% Change in near (125%) poverty		-8.77%	-2.43%	-1.76%	-16.92%	-10.79%	-0.53%	1.24%	-7.19%	-2.54%
Income < 150% of poverty	16.38%	15.52%	16.23%	16.24%	15.19%	15.47%	16.51%	16.71%	15.76%	16.19%
% Change in near (150%) poverty		-5.26%	-0.91%	-0.85%	-7.25%	-5.57%	0.81%	1.98%	-3.82%	-1.19%
2050										
n	31,302	31,297	31,284	31,296	31,274	31,285	31,293	31,331	31,287	31,288
Income < 125% of poverty	7.77%	6.17%	6.74%	7.62%	4.37%	6.86%	6.89%	7.39%	5.95%	6.92%
% Change in near (125%) poverty		-20.66%	-13.27%	-1.91%	-43.72%	-11.71%	-11.40%	-4.94%	-23.43%	-10.98%
Income < 150% of poverty	11.39%	9.99%	10.62%	11.29%	8.49%	10.86%	10.88%	11.17%	9.92%	10.72%
% Change in near (150%) poverty		-12.24%	-6.79%	-0.88%	-25.43%	-4.69%	-4.46%	-1.91%	-12.89%	-5.88%

Source: Authors' tabulations from the Urban Institute's *DYNASIM3* (run id is 432)

Appendix Table 4. Time Paths of the Alternatives: Expenditures as a Percent of Current Law Benefits Under Each of the Options, 2010 to 2050

Percent of Current Law Benefits										
Year	Current Law Reduced	Poverty Bend Point	Standard Wage-Indexed	Standard Price-Indexed	Generous Wage-Indexed	Generous Price-Indexed	Computation Years plus Standard Wage-Indexed	COLA Cut plus Standard Wage-Indexed	Shield Lowest Formula Factor plus Standard Wage-Indexed	Standard Wage-Indexed No DI Pro-Rating
2010	97.850%	98.211%	97.846%	98.040%	98.251%	98.749%	97.656%	97.799%	98.047%	97.864%
2020	91.688%	92.042%	91.331%	91.913%	91.615%	93.061%	91.081%	91.558%	91.562%	91.460%
2030	88.925%	89.105%	88.456%	89.023%	88.414%	89.768%	88.247%	88.711%	88.590%	88.588%
2040	87.986%	87.992%	87.697%	88.015%	87.541%	88.342%	87.612%	87.732%	87.710%	87.745%
2050	87.666%	87.674%	87.666%	87.639%	87.672%	87.648%	87.655%	87.634%	87.644%	87.661%

Source: Authors' tabulations from the Urban Institute's *DYNASIM3* (run id is 432)