

Are There  
Opportunities to Increase  
Social Security Progressivity  
despite Underfunding?

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## **Are There Opportunities to Increase Social Security Progressivity despite Underfunding?**

Social Security is a crucial source of income for many elderly Americans, especially low-wage workers, women, and people of color. The program was intended to keep elderly Americans out of poverty, and, for the most part, it is quite effective. However, some individuals, including disproportionate shares of African Americans and Hispanics, continue to fall through the cracks and spend all or part of their retirement in or near poverty.

Social Security's benefit formula provides higher replacement rates for lower earners, yet returns on contributions for many low-wage groups, including African Americans, are not much better than those for higher-wage groups. This paper reviews why Social Security fails to lift more elderly low-wage workers and minorities out of poverty or provide a greater return on their contributions. It first examines the payroll tax and the benefit formula. It then reviews what is known about Social Security outcomes by race, gender, and earnings level. Finally, it describes how mortality, earnings, disability, childbearing, immigration/emigration, and marriage patterns differ significantly across racial and ethnic groups in the United States, and it highlights why these differences are important for Social Security outcomes.

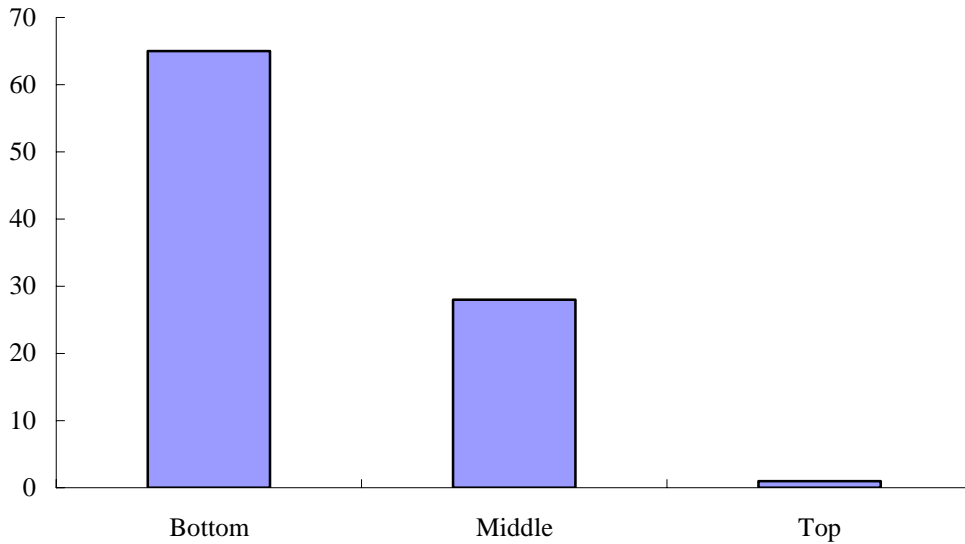
The paper then uses the Urban Institute's Dynamic Simulation of Income Model (DYNASIM) to examine lifetime Social Security redistribution under current law and a package of trust fund-neutral reforms that might enhance the system's progressivity more broadly and improve outcomes for some of the groups most vulnerable to poverty in retirement. A series of incremental changes to the program can reduce poverty and improve equity along certain dimensions. Naturally, there are trade-offs associated with these changes.

### **Background**

Social Security is a crucial resource for low-income retirees and racial and ethnic minorities. While many retirees can significantly supplement their Social Security benefits with earnings, pensions, or asset income, most low-income retirees cannot. Social Security makes up 90 percent or more of income for adults age 65 and older in the bottom income quintile compared with 28 percent for the middle quintile and 5 percent for the top quintile (figure 1). Among Social Security beneficiaries, nonmarried adults and nonwhites are more likely to depend almost exclusively on Social Security than married adults and whites. Among beneficiaries age 65 and older, Social Security accounts for 90 percent or more of income for 43 percent of nonmarried adults compared with 21 percent for married adults. About half of blacks and Hispanics rely on Social Security for nearly all of their retirement income as opposed to about a third of whites (figure 2).

While Social Security is the most important source of retirement income for low-income groups, it may not be as progressive as these figures suggest. While the program's benefit formula favors low-income workers, it has a regressive annual payroll tax. And differences across the population in mortality, marriage, and disability rates have important effects on the distribution of Social Security outcomes. To see how these opposing factors play out, one needs data on a full lifetime of work and marriage experiences, and such data have become available only recently.

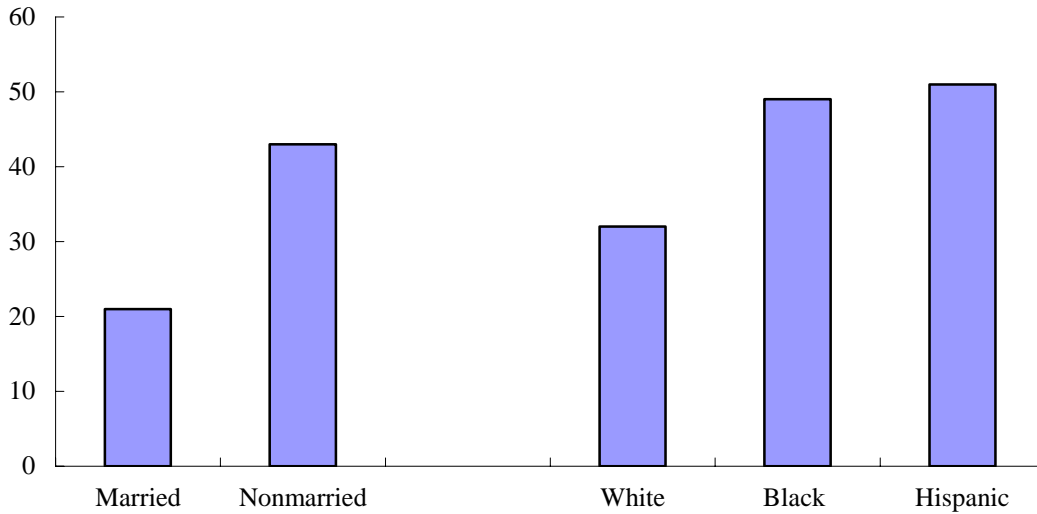
**Figure 1. Percent of Retirees Age 65 and Older Receiving 90 Percent or More of Their Income from Social Security by Earnings Quintile, 2004**



*Source:* Results from Current Population Survey in Social Security Administration (2006).

*Notes:* Observations are either single adults age 65 and older or married couples with one spouse age 65 and older.

**Figure 2. Percent of Social Security Beneficiaries Age 65 and Older Receiving 90 Percent or More of Their Income from Social Security by Marital Status and Race/Ethnicity, 2004**



*Source:* Results from Current Population Survey in Social Security Administration (2006).

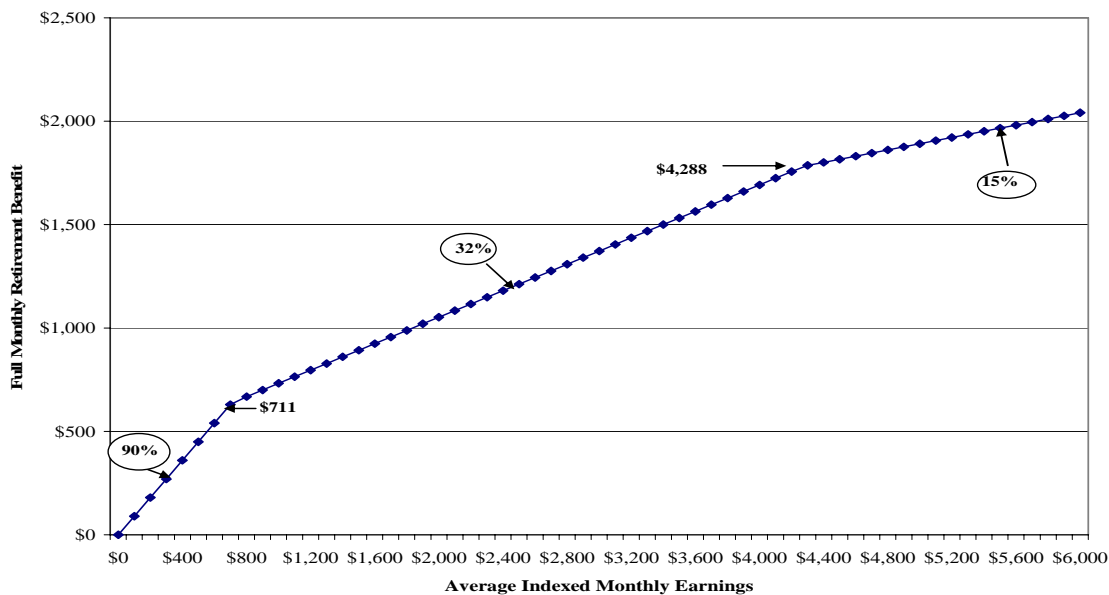
*Notes:* Observations are either single adults age 65 and older or married couples with one spouse age 65 and older.

## Redistributive Features of the Current System

Social Security has a number of features that redistribute income. The Social Security payroll tax is levied at a flat rate of 6.2 percent of covered earnings each for employers and employees. Most economists believe that employees ultimately pay both halves of the tax through reduced salaries. At a point in time, the payroll tax is regressive, as workers only pay OASDI payroll tax on earnings up to a ceiling, set at \$102,000 a year for 2008, slated to increase to \$106,800 in 2009, and wage indexed thereafter.<sup>1</sup> For about 44 percent of individuals, the employee share of payroll taxes (including the 1.45 percent contribution for Medicare) exceeds personal income taxes.<sup>2</sup> This figure increases to 66 percent with higher payroll taxes if we include both the employer and employee components of the tax.

While the payroll tax is regressive, Social Security pays worker benefits progressively. For those first becoming eligible for benefits in 2008, the program replaces 90 percent of the first \$711 of average indexed monthly earnings (AIME).<sup>3</sup> For the next \$3,577, OASDI replaces 32 percent of AIME; it then replaces 15 percent of AIME over \$4,288, the second bend point (figure 3). Consistent with the cap on the payroll tax, workers earn no benefits on their earnings over the taxable maximum (i.e., these earnings do not figure into the average).

**Figure 3. Social Security Benefit Formula under Current Law, 2008  
(with replacement percentages [in circles] and bend points)**



<sup>1</sup> We use the terms OASDI and Social Security interchangeably.

<sup>2</sup> See Tax Policy Center, “Distribution of Federal Payroll and Income Taxes by Cash Income Class, 2006,” <http://www.taxpolicycenter.org/numbers/displayatab.cfm?DocID=1517>.

<sup>3</sup> The AIME is converted to primary insurance amount (PIA), the benefit amount a worker receives if first collecting benefits at the normal retirement age.

Another potential redistributive aspect of the Social Security benefit formula is that the AIME on which the base retirement benefit depends counts only the highest 35 years of a worker's earnings. This restriction can have important distributional implications given variation in who works more or less than 35 years in their career (Favreault and Steuerle 2008).

Social Security offers special protection to workers who become disabled, a large fraction of the program's beneficiaries. About 9 percent of men are receiving Disability Insurance (DI) benefits when they reach age 62, Social Security's minimum age for early retirement benefits. Fractions of women receiving disability benefits at age 62 are a bit lower (closer to 5 percent) but are expected to climb as women increasingly attain insured worker status.<sup>4</sup>

The Social Security program also pays benefits to workers' spouses, dependent children, and survivors without requiring any additional payroll tax contributions. Spouse benefits equal half a worker's benefit while he or she is alive, and convert to 100 percent of the worker's benefit after his or her death. (If a spouse qualifies for a benefit on his or her own earnings record as well as the spouse's, then the benefit is the higher of these two amounts.) As a result, these benefits are typically more valuable to couples in which earnings are less evenly divided. For example, a two-earner couple in which both spouses earn the same amount would receive no spouse or survivor benefits, while these benefits could be quite large for a one-earner couple or a couple in which one spouse earns much more than the other. Over a lifetime, this can amount to a difference of hundreds of thousands of dollars in benefits, even for couples who pay the same amount in payroll taxes.

### **Annual Outcomes: Benefits, Replacement Rates, and Poverty Rates**

The simplest way to see how these different aspects of Social Security play out is to examine annual benefits at a point in time. When we do this, we see that average benefits differ markedly by the race of the annuitant. Figure 4 shows average Social Security benefits in 2006, by race and selected benefit types. For all three benefit types examined, blacks have lower average benefits than whites.<sup>5</sup> The ratio of black to white benefits is lowest for nondisabled widows and widowers (about 78 percent) and highest for disabled workers (almost 90 percent).

The composition of OASDI benefits by type of payment (retired worker, spouse/survivor, or disabled worker) also differs markedly by race. Figure 5 shows the distribution of beneficiaries by benefit type for blacks and whites, again for 2006. Two striking differences appear: a greater fraction of blacks receives DI benefits, and a greater fraction of whites receives retired spouse and survivor benefits. These differences are partly attributable to differences in the population age distribution by race (the median age in 2006 was 30.1 for blacks, compared with 40.5 for non-Hispanic whites).<sup>6</sup> They also reflect very different patterns by race and ethnicity in

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<sup>4</sup> To qualify for benefits from DI, a worker must meet both quantity and recency of work tests.

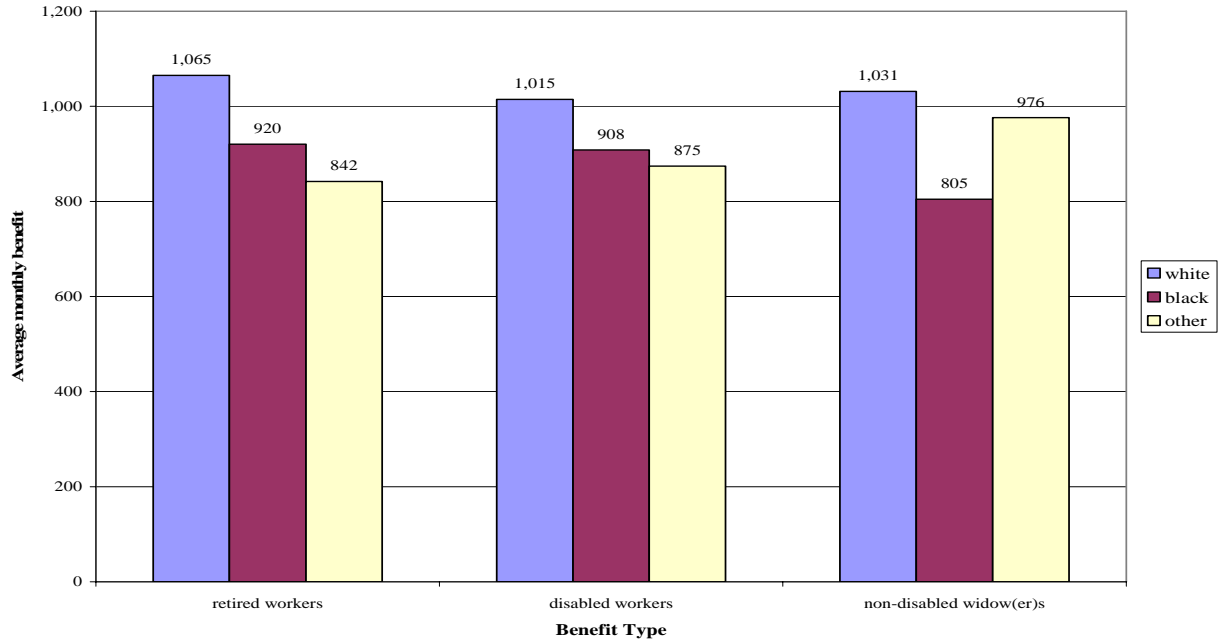
<sup>5</sup> The "other" group, which represents Asians, Pacific Islanders, and Native Americans, also has substantially lower average retired and disabled worker benefits than whites or blacks. This group has higher nondisabled widower benefits than blacks, but the benefits are still lower than those for whites.

<sup>6</sup> Disabled worker benefits "convert" to retired worker benefits when a worker reaches the normal retirement age.



a wide array of life-course processes (disability, marriage/divorce, absolute earnings, and relative earnings of husbands and wives).

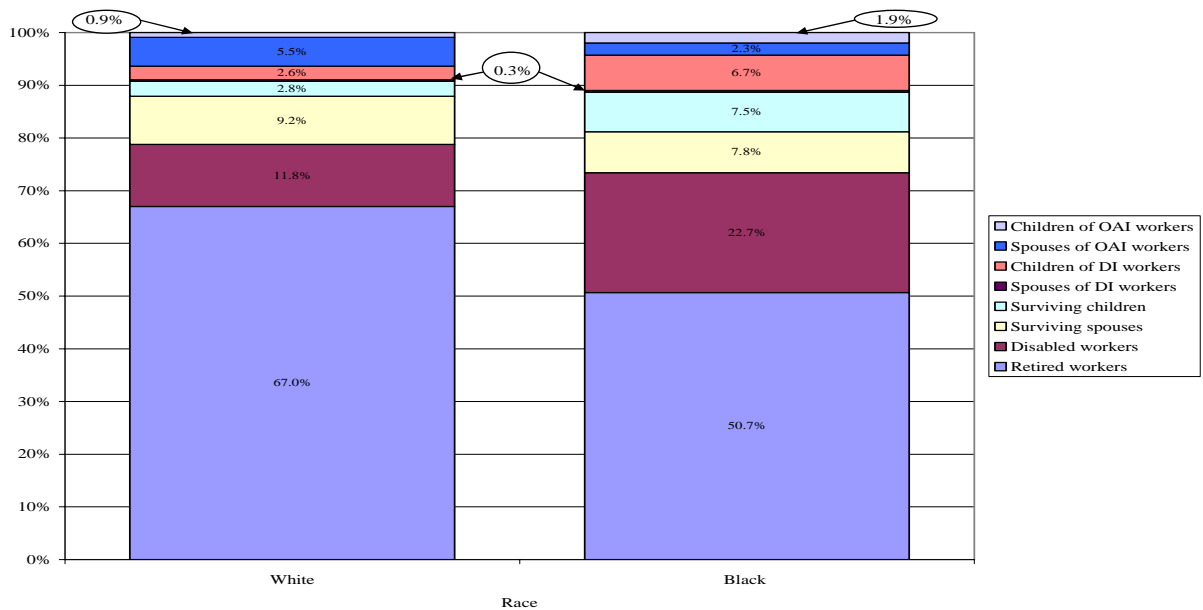
**Figure 4. Average Monthly Social Security Benefits by Race and Type of Benefit, 2006**



Source: Social Security Administration (2007), table 5.A1.

Notes: "Other" reflects primarily Asian Americans and Native Americans.

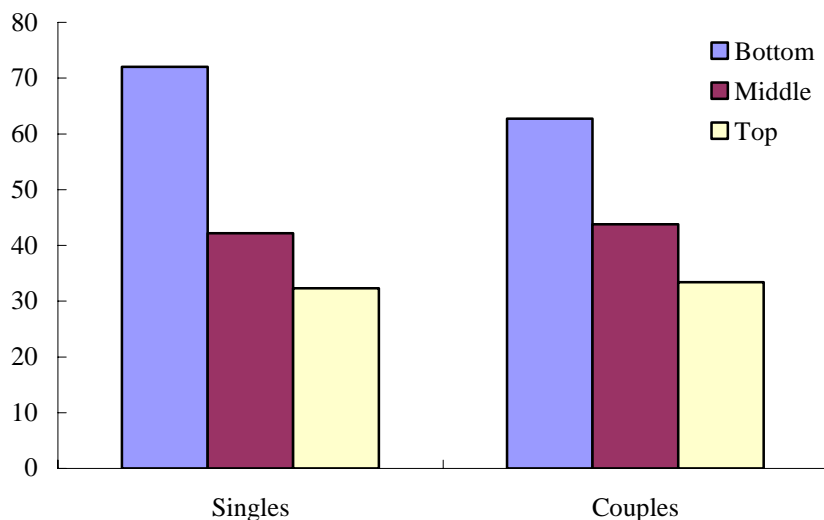
**Figure 5. Distribution of Social Security Beneficiaries by Race and Type of Benefit, 2006**



Source: Social Security Administration (2007), tables 5.A1.1 and 5.A1.2.

While lower-earning groups receive lower Social Security benefits, the program replaces a greater share of their pre-retirement earnings. Replacement rates—usually defined as benefits divided by a measure of pre-retirement earnings—indicate the degree to which Social Security allows workers to maintain their pre-retirement standard of living. As one would expect given its progressive benefit formula, Social Security provides higher replacement rates for lower earners than for higher earners. Figure 6 shows replacement rates from a study examining single adults and couples in the Health and Retirement Study (Munnell and Soto 2005). For singles, Social Security replaces 72 percent of average lifetime earnings for the bottom earnings quintile as opposed to 32 percent for the top quintile. For couples, replacement rates are 63 percent for the bottom quintile compared with 33 percent for the top quintile.

**Figure 6. Median Social Security Replacement Rates in Retirement Year by Household Average Lifetime Earnings Quintile, 1931–40 Birth Cohorts**



*Source:* Analysis of Health and Retirement Study in Munnell and Soto (2005).

*Notes:* For couples, the analysis includes spouse benefits and the retirement year is the first year that both spouses are receiving benefits. Earning quintiles are based on average indexed monthly earnings.

In addition to providing higher replacement rates for lower earners, Social Security provides higher replacement rates for single-earner couples who may or not be low income. Within income groups, Social Security spouse and survivor benefits favor married couples with a primary earner over single workers and married couples with relatively equal earners. Figure 7 shows replacement rates from a study that created typical earnings profiles based on a household survey matched to Social Security administrative earnings records (Bosworth, Burtless, and Steuerle 1999). The replacement rate for single-earner couples is 70 percent, compared with 54 percent for two-earner couples, 50 percent for single women, and 47 percent for single men.

**Figure 7. Replacement Rates for Typical Middle-Wage Workers, 1931–35 Birth Cohorts**



*Source:* Bosworth, Burtless, and Steuerle (1999).

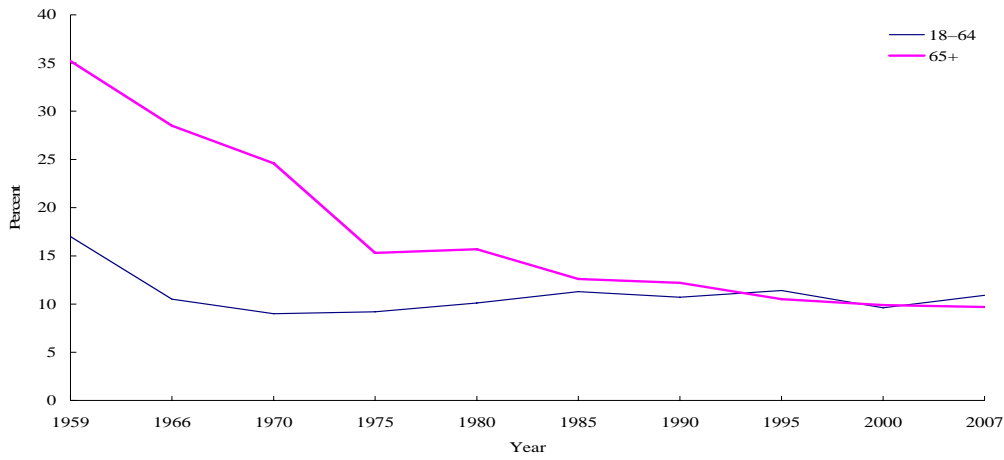
*Notes:* Typical earners based on Survey of Income and Program Participation matched to Social Security administrative earnings records. Analysis includes spouse and survivor benefits.

Ensuring adequate income in retirement has always been a primary goal of Social Security (GAO 2002). In many ways, the program has succeeded in that goal, as poverty rates among retirees have declined markedly since the program’s early years. In 1959, the poverty rate among adults age 65 and older was over 35 percent, more than twice as high as the rate for adults age 18–64. By 2006, the poverty rate among adults age 65 and older was less than 10 percent, slightly lower than the rate among working-age adults (figure 8). The Social Security Administration estimates that program benefits lifted 12 million retirees out of poverty in 2000, reducing the poverty rate among adults age 65 and older from 48 to 8.5 percent (SSA 2002).<sup>7</sup>

While Social Security has made great strides in ensuring retirement income adequacy, some groups still have alarmingly high poverty rates at older ages. Poverty rates are significantly higher for single adults age 65 and older than for married adults in the same age group (figure 9). About 16 percent of older single adults live in poverty compared with less than 5 percent of older married couples. Poverty rates are particularly high for never-married adults and divorced women. Over 21 percent of older never-married men, never-married women, and divorced women have incomes below the poverty level. Poverty rates are also substantially higher for older blacks and Hispanics than for whites. About 24 percent of older blacks and 19 percent of older Hispanics live in poverty, compared with 8 percent of whites (figure 10). The poverty rate for black women, 28 percent, is especially high. When considering black women who live alone, the rate reaches about 40 percent (He et al. 2005).

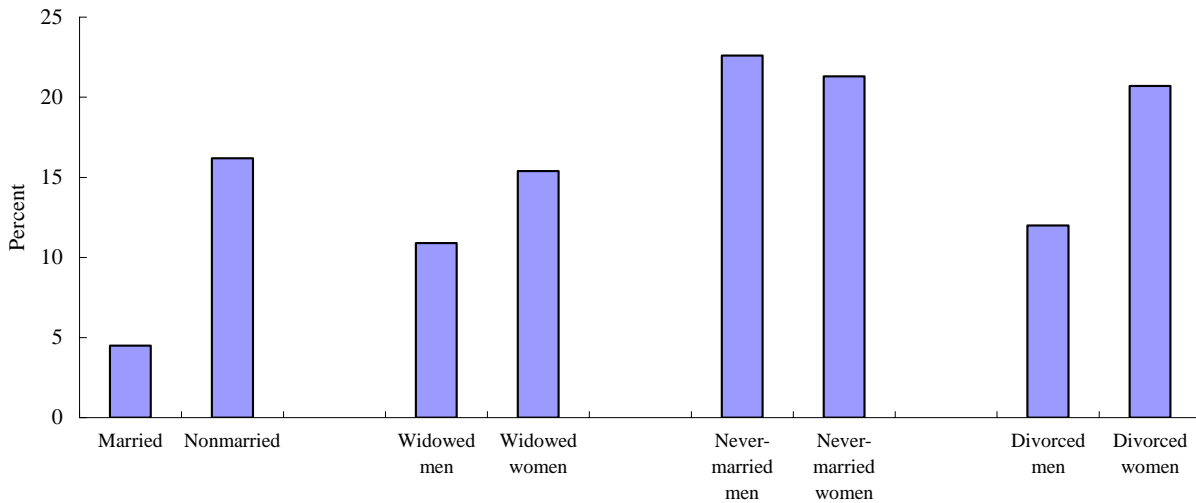
<sup>7</sup> This estimate likely overstates the impact of Social Security benefits on poverty rates, as it does not consider likely changes in workers’ behavior if there were no program.

**Figure 8. U.S. Poverty Rates by Age, 1959–2007**



Source: U.S. Census Bureau, <http://www.census.gov/hhes/www/poverty/hstpov/hstpov3.xls>.

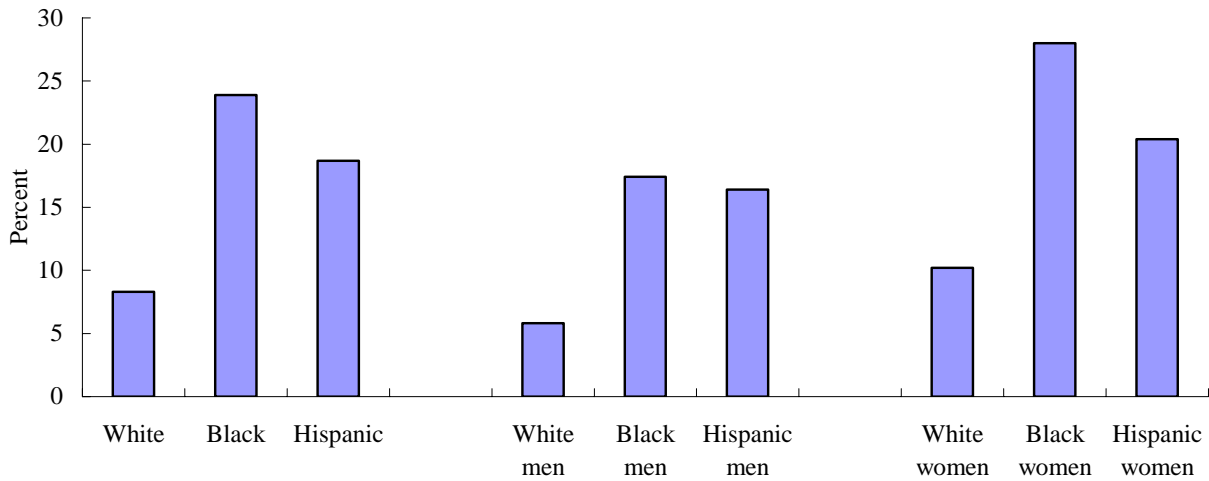
**Figure 9. Poverty Rates among Adults Age 65 and Older by Marital Status**



Source: Results from Current Population Survey in Social Security Administration (2006).

Note: Observations are either single adults age 65 and older or married couples with one spouse age 65 and older.

**Figure 10. Poverty Rates among Adults Age 65 and Older by Race and Ethnicity**



*Source:* Results from Current Population Survey in Social Security Administration (2006).

*Note:* Observations are either single adults age 65 and older or married couples with one spouse age 65 and older.

### **Lifetime Perspective**

Examining Social Security benefits, replacement rates, and poverty rates assesses how Social Security treats subpopulation at a point in time. But individuals pay Social Security taxes over their entire working lives. And some workers do not survive until retirement while others receive benefits for many years. Incorporating the impact of payroll taxes and differential mortality rates requires examining lifetime measures.

Several useful lifetime measures of how well Social Security treats low-income families and racial/ethnic minorities compare the lifetime value of taxes workers pay into the system with the lifetime benefits they receive. Over the past 20 years, researchers have examined how money's worth measures such as internal rates of return on Social Security contributions,<sup>8</sup> lifetime benefit-to-tax ratios, and net lifetime benefit-to-earnings ratios vary across population subgroups. In addition to capturing redistribution from the progressive benefit formula, these measures capture the regressive nature of the payroll tax as well as the impact of differential mortality and disability rates. Many of the early studies focused on redistribution across birth cohorts and found that early generations received net transfers from the system while later generations paid more than they received (Moffitt 1984; Steuerle and Bakija 1994; for an update, see Leimer 2007). More recent studies have examined how Social Security redistributes income within generations.<sup>9</sup> While the results of these recent studies are highly sensitive to assumptions, outcome measures, income definitions, and program components studied, some findings are consistent.

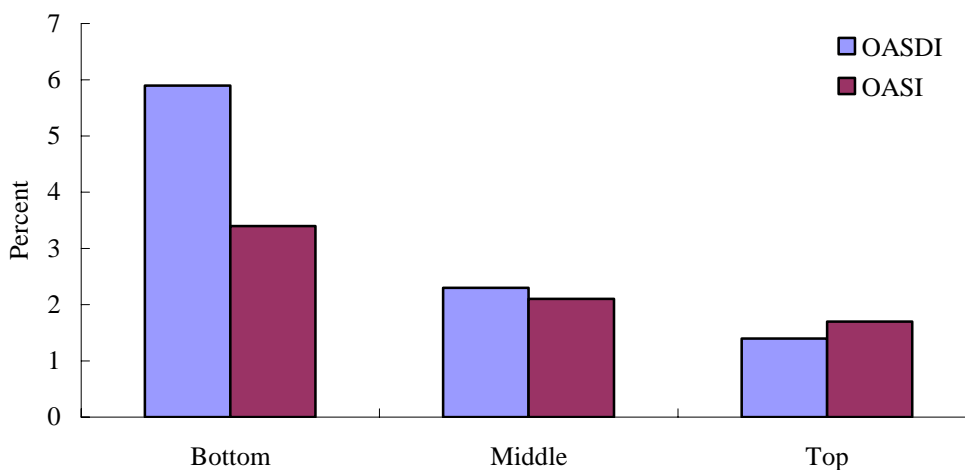
<sup>8</sup> The internal rate of return in Social Security is the interest rate that equates the present discounted value of taxes paid with the present discounted value of benefits received.

<sup>9</sup> Aaron (1977) was one of the first authors to examine this question empirically.

As one would expect given its progressive benefit formula, Social Security provides greater return on contributions to lower lifetime earners than higher lifetime earners (Brown, Coronado, and Fullerton 2006; Duggan, Gillingham, and Greenlees 1993; GAO 2004; Gustman and Steinmeier 2001). According to one study of adults in the Panel Study of Income Dynamics, the median net lifetime benefit-to-earnings ratios for adults in the bottom earnings quintile is 22 percent as opposed to -6.8 percent for the top quintile (Brown et al. 2006). While most Social Security money’s worth studies do not include disability benefits, those that do find the disability program significantly increases progressivity (Cohen, Steuerle, and Carasso 2002; GAO 2003, 2004; Harris and Sabelhaus 2005). Using a microsimulation model based on the Survey of Income and Program Participation, Cohen, Steuerle, and Carasso (2002) find that including disability benefits almost doubles the projected rate of return for men in the bottom lifetime earnings quintile men while reducing the projected return for men in top quintile of men by 18 percent (figure 11).

However, much of Social Security’s redistribution goes to low individual earners in high-income households (GAO 2004; Gustman and Steinmeier 2001; Harris and Sabelhaus 2005; Liebman 2001; Smith and Toder 2003/2004). Many of the low **individual** earners helped by spouse and survivors benefits and the progressive benefit formula are married to high earners. When examining rates of return by **household** lifetime earnings, Social Security still favors lower earners but by significantly less than when classifying by individual lifetime earnings (figure 12). Transfers to well-off, low-earnings spouses will likely decline in the future as differences in lifetime earnings among older men and women decline and fewer adults are married at retirement (Smith and Toder 2003/2004).

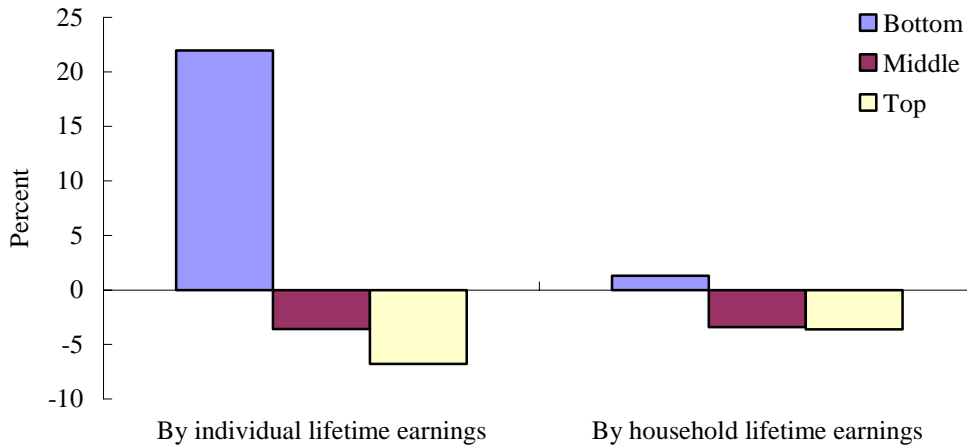
**Figure 11. Real Internal Rate of Return by Lifetime Earnings Quintile among Men Born between 1956 and 1964 in MINT3**



Source: Analysis of MINT3 in Cohen, Steuerle, and Carasso (2002).

Notes: Lifetime benefits and contributions are based on shared annual amounts; shared annual benefits and contributions include an individual’s entire value in years he or she is single and half the couple’s value in years he or she is married. Analysis includes retired worker, spouse, survivor, and disability benefits. Estimates are based on survey data (matched to administrative records) through 1999 and projections thereafter. The projections take into account socioeconomic differentials in key outcomes (e.g., mortality, disability, earnings, and benefit claiming).

**Figure 12. Lifetime Net OASI Benefits as Share of Earnings by Lifetime Earnings Quintile among Adults in the Panel Study of Income Dynamics**



Source: Brown, Coronado, and Fullerton (2006).

Notes: Household lifetime earnings are based on shared annual amounts; shared annual earnings include an individual's entire value in years he or she is single and half the couple's value in years he or she is married. Individuals are credited with the benefits they receive including retired worker, spouse, and survivor benefits.

Differences in mortality across economic and demographic groups affect redistribution. Women's lower mortality rates significantly increase their return to contributions relative to men (Cohen, Steuerle, and Carasso 2001). Higher mortality rates for workers in lower earnings quintiles reduce their return on contributions relative to higher earnings quintiles, though studies disagree about the magnitude of the effect. Some studies have found differential mortality has a sizeable impact on money's worth measures by lifetime earnings (Cohen et al. 2002; Liebman 2001) while others have found relatively little impact (Brown et al. 2006; Harris and Sabelhaus 2005).

Because of transfers based on characteristics other than income such as marital status, disability status, and longevity, Social Security does not redistribute to lower earners as much as it might. Many adults in high earnings quintiles receive positive net transfers from the system (that is, lifetime benefits exceed lifetime taxes), while many adults in low earnings quintiles receive negative transfers (Brown et al. 2006; Liebman 2001). Because of these non-income-related transfers, many lower-earning groups receive returns on their contributions that are not substantially higher than returns for higher-earning groups (Cohen et al. 2002; Duggan et al. 1993; GAO 2003; Liebman 2001). For instance, Cohen and colleagues (2002) find that returns for men without high school degrees and African Americans are only modestly higher than for men with college degrees and whites (table 1). These findings in part reflect an intrinsic feature of Social Security's role as social insurance: those who experience the risks that the program is insuring against (disability, longevity, impoverishment of survivors) will receive more than those who do not.

**Table 1. OASDI Real Internal Rates of Return by Education and Race  
Adults in MINT3 Born between 1956 and 1964**

	Men	Women
Less than high school	2.3	4.0
High school graduate	2.0	3.2
College graduate	1.7	2.9
White	1.9	3.1
Black	2.3	3.5
Hispanic	2.2	3.6

*Source:* Results from MINT3 in Cohen, Steuerle, and Carasso (2002).

*Notes:* Lifetime benefits and contributions are based on shared annual amounts; shared annual benefits and contributions include an individual's entire value in years he or she is single and half of the couple's value in years he or she is married. Analysis includes retired worker, spouse, survivor, and disability benefits.

In many ways, Social Security treats low-income Americans well. It is a crucial source of income for low-income retirees and racial minorities, lifting many out of poverty in old age. It replaces a greater share of pre-retirement income and provides a higher rate of return on tax contributions for low-wage workers. Further, Social Security benefits receive preferential personal income tax treatment for lower-income beneficiaries. Still, the program does not redistribute to low-income families and minorities as effectively as it might. Given Social Security outlays approaching \$600 billion, poverty rates among older never-married adults, divorced women, and minority women are high relative to countries of comparable economic development. And some low-income groups, such as blacks and men with less education, only receive modestly higher rates of return on contributions than whites and the college educated. The next section explores further why Social Security does not help black and Hispanic workers as much as we might anticipate.

#### *Social and Economic Disparities and Social Security*

While Social Security applies the same rules to all workers, outcomes vary by race because of disparities in social, demographic, and economic outcomes.<sup>10</sup> Tables 2 and 3 present a selection of recent data on disparities in mortality, fertility, marriage/divorce, health status, and earnings, contrasting outcomes for whites with those for African Americans and Hispanics.<sup>11</sup> Data suggest analogous demographic disparities along various measures of socioeconomic status (for example, by education and lifetime earnings) in addition to the disparities along racial and ethnic lines.

The pervasiveness and depth of these disparities over a wide range of outcomes and throughout the life course is striking. For example, white men just old enough to start working

<sup>10</sup> For a further review of these factors by race see Smelser, Wilson, and Mitchell (2001) and DeNavas-Walt, Proctor, and Smith (2007).

<sup>11</sup> Some comparisons cross race and Hispanicity in the white and black columns, while others do not. Where non-Hispanic individuals are the reference, we designate this. In the case of census data, individuals may use multiple categories to designate their race. In these cases, we typically focus on comparisons for those listing a single race (so for example, we identify the comparison data as "black alone" or "white alone"). We do not include data on other racial and ethnic groups of interest (e.g., Native Americans and Asian-Americans, Pacific Islanders) because of more limited sample sizes.



can expect to live five and a half years longer than comparable blacks (table 2). Health disparities are enormous, with blacks about one and two-thirds and Hispanics one and a half times more likely than whites to report fair or poor health, after taking into account differences in these populations' age distributions (table 3). At older ages (65 plus), about 40 percent of blacks and 39 percent of Hispanics report fair or poor health, compared with closer to 25 percent of whites. Whites are more likely to marry than Hispanics, who in turn are more likely to marry than blacks. Hispanic women have more children than black women, who in turn have more children than white women. Over two-thirds of children born to black women in recent years were born outside marriage, compared with about half of Hispanic children and just over a quarter of non-Hispanic white children. Nativity differences across the population are also substantial, with Hispanics disproportionately foreign born.

**Table 2. Racial and Ethnic Differences and Disparities in Life-Course Processes Related to Social Security: Demographics**

Process	Outcome	Levels			
		Whites	Blacks	Hispanics	All
Age	Median age (2006)	40.5 (non-Hispanic)	30.1	27.4	36.4
Mortality	Life expectancy (2004 period)				
	At age 15	Female: 66.4 Male: 61.4	Female: 62.9 Male: 55.9	<sup>a</sup>	Female: 66.1 Male: 61.0
	At age 60	Female: 24.1 Male: 20.9	Female: 22.2 Male: 18.2	<sup>a</sup>	
	At age 65	Female: 20.0 Male: 17.2	Female: 18.6 Male: 15.2	<sup>a</sup>	Female: 20.0 Male: 17.1
Fertility	Total fertility rate (2006, preliminary data)	1.86 (non-Hispanic)	2.11 (non-Hispanic)	2.96	2.10
	Nonmarital birth percentage (2006, preliminary data)	26.6	70.7	49.9	38.5
Divorce/ Marriage	Percent age 55–64 (2006) who are:				
	Never married	5.7 (alone, non-Hispanic)	12.3 (alone)	9.6	6.7
	Married, spouse present	71.5	45.7	57.6	67.8
	Married, spouse absent	1.4	2.8	3.9	1.7
	Divorced	15.2	21.1	15.9	15.7
	Separated	1.1	7.4	7.7	2.1
	Widowed	5.3	10.5	5.2	6.0
Nativity	Percent foreign-born (2000)	6.3 (alone) 3.5 (alone, non-Hispanic)	6.1 (alone)	40.2	11.1

Sources: Vital Statistics (Hamilton et al. 2007; Mininio et al. 2007); authors' tabulations from <http://www.census.gov/population/www/socdemo/hh-fam/cps2006.html>, <http://www.census.gov/Press-Release/www/releases/archives/population/010048.html>, and <http://www.census.gov/prod/2003pubs/c2kbr-34.pdf>.

a. The literature is divided (see, for example, Palloni and Arias 2004).

Blacks and Hispanics earn considerably less than whites, even after taking into account differences in the education distribution across the groups (table 3). Lower earnings mean higher replacement rates for blacks and Hispanics because of the progressive benefit formula. Yet, this difference means that more whites will have earnings that exceed the taxable maximum and are thus not subject to OASDI payroll taxes. Employment histories vary across the groups as well, with black women more likely than white women to have worked a long career, while the

reverse is the case among men. Due their longer careers, all men, and especially white men, and black women are more likely not to have several years of their payroll taxes count toward their benefits because the program only counts the 35 highest years of earnings. In contrast, certain immigrants—disproportionately Hispanics—may benefit from ways in which the progressive benefit formula interacts with time outside the U.S. labor force (Gustman and Steinmeier 1998).

Many of the other disparities also feed directly into OASDI outcomes. Because Social Security pays benefits in the form of life annuities, those with longer life expectancies can expect to receive larger payouts than those likely to die earlier, all else equal. The program’s spouse and survivor benefits flow disproportionately to those with higher marriage rates and, among those who do have qualifying marriages, to those with less even earnings between husbands and wives. The literature suggests that spouse and survivor benefits tend to favor whites (relative to blacks and Hispanics), and projections suggest that this trend should continue, and indeed be exacerbated, in coming decades (Harrington Meyer 1996; Harrington Meyer, Wolf, and Himes 2005; Ozawa and Kim 2001).

On the other hand, the higher disability rates among black and Hispanic workers imply that this aspect of the program’s protection will be especially valuable to these groups. Benefits to children go disproportionately to black and Hispanic children because they are more likely to lose a parent or have a parent experience a disability (Newcombe 2003/2004).

**Table 3. Racial and Ethnic Differences and Disparities in Life-Course Processes Related to Social Security: Earnings and Health/Disability**

Process	Outcome	Levels			
		Whites	Blacks	Hispanics	All
Health/ Disability	Health status fair or poor (2000–05, NHIS)				
	All ages, age-adjusted	8.6	14.4	13.2	9.2
	Age 18 and over, age-adjusted	11.0	18.4	16.8	11.8
	Age 65 and over	24.8	40.3	39.0	26.3
Earnings	Mean earnings of workers age 15 and older (2005)				
	< high school graduates	\$20,264	\$17,216	\$19,294	\$19,915
	High school graduates	30,569	23,904	25,659	29,488
	Some college	34,326	28,848	29,836	33,496
	Bachelor’s degree	55,785	47,101	45,933	54,689
	Advanced degree	81,697	63,664	70,916	79,946
Earnings, related to OASDI thresholds	Percent of earners with earnings above the taxable maximum (2000–03)	6.60	1.74	0.75	5.79
	Average number of years worked through age 60 (1935– 44 birth cohorts, four covered quarters definition, exclude DI/SSI, nonnative, with long-term uncovered employment)	Men: 40.5 Women: 27.8	Men: 36.8 Women: 30.9	Men: 37.2 Women: 26.2	Men: 40.0 Women: 28.0

Sources: Earnings, raw: <http://www.census.gov/population/socdemo/education/cps2006/tabA-3.xls>, unpublished estimates from Favreault and Steuerle (2008), <http://www.cdc.gov/nchs/data/hus/hus07.pdf>.

## Options for Increasing Progressivity

While much of the Social Security reform debate has focused on achieving solvency, analysts have proposed several options that would increase redistribution under Social Security.

### *Caregiver Credits*

Relative to pension benefits in other countries, low- and average-wage worker benefits in Social Security are relatively modest, so spouse and survivor benefits play a fairly important role in ensuring adequacy (Thompson and Carasso 2002). However, the lack of income testing for spouse and survivor benefits implies that these transfers are not as adequate or equitable as they might be. One direction for increasing the program's progressivity is thus to shift less progressive aspects of spouse and survivor benefits toward workers (especially lower-wage workers). This can be done in a number of ways. One approach would decouple supplemental benefits from marriage and direct them toward child care, or otherwise provide a supplement for caregiving. Several studies have shown that substituting all or part of the spousal benefit with caregiving credits, for example, would improve outcomes for women of color and have a generally progressive effect (Favreault and Steuerle 2007; Herd 2006). An alternative would simply raise worker benefits by the amount currently directed toward spouses, perhaps retaining spouse benefits below some given adequacy limit (e.g., capping the spousal benefit at the benefit generated by a worker earning the average wage).

### *Minimum Benefits and Benefit Formula Adjustments*

Another mechanism is to integrate minimum benefits (Favreault et al. 2007). Research indicates that design details—for example, the minimum number of work years required to qualify for a minimum benefit, the added benefit for each additional year of work, and whether a benefit level is wage- or price-indexed—help shape a minimum benefit's effectiveness. It also suggests that formula adjustments (e.g., adding a new bend point to the formula) could reduce poverty about as effectively as a minimum benefit. The main difference between these approaches turns out to be targeting, specifically how closely added benefits are related to years in the labor force.<sup>12</sup> The formula can adapt to meet different adequacy and equity goals (for an example of using the formula to improve efficiency, see Goda, Shoven, and Slavov 2006).

### *Payroll Tax Changes*

Changing the structure of payroll taxes is another way to increase system progressivity. Because high-income workers' earnings have grown faster in recent decades, the share of economy-wide earnings subject to the payroll tax has declined from 90 percent in 1982 to about 84 percent in recent years (SSA 2007). To address solvency issues and increase progressivity, some have suggested increasing maximum taxable earnings to a threshold closer to 90 percent of earnings (Diamond and Orszag 2004). Some proposals for increasing maximum taxable earnings would pay additional benefits for new earnings subject to tax, though the net effect would be progressive as the benefit formula replaces only 15 percent of AIME at high earnings levels. Other proposals only increase the earnings threshold for taxation and would not affect benefits.

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<sup>12</sup> Another targeting issue related to minimum benefits involves the treatment of those with limited earnings for reasons other than limited ability or opportunity (e.g., immigrants, secondary earners, and high-earning workers in employment not covered by Social Security).

Some of the 2008 Democratic presidential candidates proposed increasing maximum taxable earnings. Former candidate John Edwards proposed a variation of raising the maximum taxable earnings that would have ceased taxing earnings at the current maximum (\$102,000) but then continued taxing earnings beyond \$200,000. President-Elect Obama expressed support for a similar proposal during his campaign.

Another way of increasing progressivity on the tax side would be to reduce payroll taxes for low-income workers. During the policy debate over the 2001 Bush tax cuts, some analysts suggesting rebating the first \$500 of payroll taxes for low- and moderate-income workers (Sammartino 2001). President-Elect Obama has proposed a similar refundable credit in this year's presidential campaign, though more middle-class workers would qualify.<sup>13</sup>

#### *Period Certain or Lump Sum Benefits*

One way to address differences in mortality rates across and within demographic groups would be to guarantee benefit payments for a certain number of years. For example, Social Security could pay benefits for at least 10 years to all retirees with benefits going to surviving spouses or estates for those who die before the end of the period. Alternatively, the program could pay a portion of benefits as a lump sum at retirement or upon death of the beneficiary. Assuming that Congress would finance such a change to the benefit structure (rather than increase the long-term deficit), period certain benefits and lump sums could come at the cost of lower benefits for some. This could increase the chances of hardship at very old ages.

### **Prospective Changes to Social Security: Parameters for an Illustrative Simulation**

Table 4 presents simulation parameters for an illustrative reform package intended to increase Social Security progressivity without further eroding the system's long-term funding situation.<sup>14</sup> We do not claim that this is an ideal set of policies, but rather aim to demonstrate that there is room for increasing progressivity through modest, roughly trust fund-neutral policy changes even within the context of today's underfunded system.<sup>15</sup>

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<sup>13</sup> See Tax Policy Center, "2008 Presidential Candidates' Tax Proposals," [http://www.taxpolicycenter.org/taxtopics/election\\_issues\\_matrix.cfm](http://www.taxpolicycenter.org/taxtopics/election_issues_matrix.cfm) (accessed October 2008).

<sup>14</sup> Several aspects of the proposal are stylized. For example, credits are applied to the first qualifying credit years, rather than the most lucrative ones (based on sorting of the earnings years). Forthcoming work by Favreault uses more sophisticated assumptions.

<sup>15</sup> Determining long-term cost-neutrality is extremely complicated, requiring numerous controversial assumptions. We thus use a very rough approximation of neutrality in this simulation. We caution readers to interpret these results conservatively and bear in mind that the time paths of costs and benefits vary significantly between current law and the option (i.e., the option costs are more "backloaded" because the minimum benefit wage indexing becomes more important later in the simulation, while the taxable maximum increase is more proportional over time).

The first element of the option would substitute caregiver credits for the spousal benefit.<sup>16</sup> The second would increase funding for the system through increased contributions for those currently earning above the taxable maximum. This burden is relatively modest given that wage growth over recent decades has been disproportionately concentrated among higher-earners. We increase the maximum to \$113,500, just about 6 percent over what it would be otherwise (far less than most proposals to increase the cap would raise the value, closer to \$155,000). The third element is a wage-indexed minimum benefit equal to 60 percent of the poverty threshold for workers with 10 years of work, increasing by 2 percent of poverty for each additional work year, reaching a maximum of 120 percent of poverty for those who worked 40 years.

**Table 4. Parameters in a Simulation Aimed at Improving Social Security Progressivity**

Goal for the policy	Proposed change	Source(s) of cost offset
Increase equity for those who raise children outside marriage (or in short-term marriages)	Add a caregiver credit equal to half the average wage for up to 6 years in which person cares for a child under age 7 (7 total years if person has more than one child). Takes place effective for those reaching the early eligibility age (62) in 2009 and later (1947 and later cohorts). Must be living in U.S. to get credit.	Eliminate spouse benefit effective for the same cohorts (earlier cohorts retain current law benefits).
Increase progressivity, in part through a minimum benefit, in part by reducing payroll tax cross-sectional regressivity. Latter addresses the increasing fraction of earnings that highest earners have received over past few decades.	Add a minimum benefit equal to 60 percent of poverty with 10 years of work, increasing by 2 percent for each additional year of work until reaching 120 percent of poverty for those with 40 years (so those with 30 years receive a benefit equal to poverty). Benefit starts in 2009. Minimum levels are wage indexed starting in 2010.	Increase taxable maximum to \$113,500 effective in 2009 (current law level is set at \$106,800 in 2009), wage indexed thereafter (as under current law). Benefits are payable on additional contributions.

## Methods

We use the Urban Institute’s Dynamic Simulation of Income Model (DYNASIM) to project how Social Security tax and benefit distributions will change under the proposed system. DYNASIM starts with data from the 1990–93 panels of the Survey of Income and Program Participation (SIPP) and projects outcomes related to Social Security through 2082.<sup>17</sup> The forecasts include important differentials in the core processes (fertility, marriage/divorce, earnings, and disability) by gender, race and ethnicity, and nativity. Many important assumptions in the model are calibrated to the intermediate assumptions of the OASDI Trustees (2008).

<sup>16</sup> We present the “cost offsets” alongside the parameters to provide information on relative scopes of the elements. Bear in mind that there are important interaction effects among the parameters in the simulations. For example, after we integrate the minimum benefit, the effects of the caregiver credit are frequently eliminated (for example, because a worker receives a higher benefit based on the minimum than he or she would get based on the earnings history and the unadjusted formula with the credits).

<sup>17</sup> For information on an earlier version of the model, see Favreault and Smith (2004) or the Urban Institute, “The Dynamic Simulation of Income Model (DYNASIM3) Equation and Algorithm Documentation,” unpublished manuscript, 2005.

The outcomes we use to measure changes in the distribution include annual taxes and benefit shares and lifetime tax-benefit ratios.<sup>18</sup> We see how Social Security fits into total incomes, and we focus on poverty and near poverty. We compare outcomes under the simulation to current law scheduled (i.e., we do not take into account the system's long-term fiscal deficit). We focus on outcomes in 2038, 30 years from now. This horizon is far enough into the future for the proposal to be phased in (i.e., relatively few beneficiaries are grandfathered under current law), but not so far away that the forecasts are highly speculative. Also, at this point, scheduled benefits are fully payable under both OCACT and Congressional Budget Office projections. In the lifetime analyses, we concentrate on the 1965 to 1972 birth cohorts and thus rely more heavily on the projections into the distant future. (The assumption of scheduled rather than payable benefits is more important in these analyses.)

In implementing the simulations, we assume that individuals will not significantly alter their work, savings, or family formation/dissolution behavior as a result of the changes to Social Security. This assumption oversimplifies, but it is reasonable for a first estimate given the lack of consensus on the likely size of a response.

## Simulation Results

The fraction of aggregate benefits in 2038 going to groups with higher vulnerability levels increases under the option relative to current law (table 5). African Americans would see an increase in the share of benefits they receive compared with non-Hispanic whites, who see a decline. (Hispanics would also see an increase, though it is more modest than the increase for blacks.) Similarly, those in the bottom lifetime earnings quintile (defined here as shared indexed earnings averaged from age 22 to 62, including spouse earnings in years in which an individual is married) would see their benefits increase as a share of the total. Interestingly, those in the highest earnings quintile would see their share of the total benefits decline less than those in the middle quintiles. This is primarily a result of increased benefits awarded to those who now pay increased FICA tax on their earnings above the taxable maximum. It also illustrates the complexity of targeting.

The poverty and near-poverty effects of the option would be considerable (table 6).<sup>19</sup> Overall, poverty would decline by over 1.4 percentage points, reflecting 1.2 million beneficiaries removed from poverty. Women would experience a reduction in poverty of 1.55 percentage points, or about 35 percent of the level under current law. The poverty reduction would be particularly marked for non-Hispanic blacks, who see their poverty rates fall from 8.2 percent under current law to 5.3 percent with the changes in the option. Hispanics also would see a poverty drop of over 2.1 percentage points. Changes to near poverty (defined as income less than 125 percent of the poverty level) would be similar, with non-Hispanic blacks again seeing the most marked absolute reductions.

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<sup>18</sup> In calculating the lifetime tax-benefit ratios, we use a discount rate of 2 percent and evaluate as of age 65.

<sup>19</sup> We would expect poverty rates of Social Security beneficiaries to decline over time, because initial Social Security benefits are indexed to wages while the poverty threshold is indexed by prices. Given that wages tend to grow faster than prices (and we assume that this difference will continue into the future), all else equal poverty should decline among beneficiaries. Also, the OASDI beneficiary population excludes some of the neediest (i.e., those who never worked or married).

**Table 5. Aggregate Social Security Benefits for Various Groups under Current Law and the Option, 2038**

	Current law	Option
All	100.00	100.00
Hispanics	13.08	13.13
Non-Hispanic blacks	9.53	9.64
Non-Hispanic whites	70.73	70.63
Lowest lifetime earnings quintile	11.41	12.50
Second lifetime earnings quintile	16.18	16.15
Middle lifetime earnings quintile	19.99	19.72
Fourth lifetime earnings quintile	23.54	22.44
Highest lifetime earnings quintile	28.88	25.83

*Source:* Authors' tabulations from DYNASIM (run 592).

*Notes:* Sample is restricted to all beneficiaries age 62 and older plus disabled worker beneficiaries under age 62. Earnings quintile refers to average covered earnings credited between ages 22 and 62. Earnings include an individual's entire covered earnings in years he or she is single and half the couple's combined covered earnings in years he or she is married. Benefits refer to individual benefits rather than family benefits in married-couple households.

**Table 6. Poverty among Current Law Beneficiaries by Subgroup, Current Law and the Option, 2038**

	Poverty		Near Poverty	
	Current law	Option	Current law	Option
Total	4.32	2.88	7.89	6.54
Women	4.45	2.90	8.29	6.76
Men	4.13	2.78	7.36	6.25
Hispanics	8.07	5.40	13.94	10.99
Non-Hispanic blacks	8.24	5.29	14.84	11.56
Non-Hispanic whites	2.82	1.91	5.49	4.35

*Source:* Authors' tabulations from DYNASIM (run 592).

*Notes:* Sample is restricted to all beneficiaries age 62 and older plus disabled worker beneficiaries under age 62. Near poverty is defined as income less than 125 percent of the poverty level.

When we examine the how these cross-sectional changes in benefits, income, and poverty translate over a lifetime of work and benefit receipt, we receive a better sense of the trade-offs associated with these changes. The ratio of lifetime benefits to lifetime taxes for the 1965–72 birth cohorts would decline between current law and the option (table 7). For this table, we use the median ratio (rather than the mean) because the presence of individuals with extraordinarily high returns (for example, a spouse or survivor who paid next to nothing into Social Security but received benefits for a lengthy retirement) leads to very volatile means, especially across population subgroups.<sup>20</sup> Those in the lowest earnings quintile are the only ones that would see their lifetime benefit-tax ratios increase. Several factors are at play here, including minimum benefits primarily affecting the bottom of the earnings distribution for each population group as

<sup>20</sup> Means and aggregate values of these lifetime measures for the population subgroups are available on request.

opposed to the median, the increase in payroll tax for those with earnings above the taxable maximum, and the time path for changes in Social Security tax and benefits, which differs across cohorts.

**Table 7. Median Ratios of Lifetime Benefits to Taxes by Subgroup for the 1965–72 Birth Cohorts, Current Law and the Option**

	Current law	Option
All	1.13	1.10
Hispanics	1.31	1.29
Non-Hispanic blacks	1.12	1.11
Non-Hispanic whites	1.07	1.04
Lowest lifetime earnings quintile	1.59	1.75
Second lifetime earnings quintile	1.38	1.34
Middle lifetime earnings quintile	1.17	1.12
Fourth lifetime earnings quintile	1.08	1.04
Highest lifetime earnings quintile	0.90	0.87

*Source:* Authors' tabulations from DYNASIM (run 592).

*Notes:* Population includes all individuals who survived until at least age 30. Taxes and benefits are evaluated as of age 65 and use a 2 percent discount rate. Benefits do not include children's benefits. Earnings, benefits, and payroll taxes reflect an individual's entire covered earnings/benefit in years he or she is single and half the couple's combined covered earnings/benefit in years he or she is married.

The current law column in the table suggests that Social Security progressivity would continue to persist for the 1965–72 birth cohorts and that the difference between returns for median non-Hispanic whites and median non-Hispanic blacks would be less substantial than the earnings differences across the groups would imply. Hispanic returns appear to be significantly higher than those for non-Hispanics using this measure. This likely reflects the fact that a large fraction of the Hispanic workers in these cohorts were not born in the United States, and thus would benefit disproportionately because of the way that the formula treats years outside the U.S. labor force, rather than strictly reflecting the effects of the progressive features in Social Security. We caution again, however, that medians are limited measures that do not reflect important differences in the skew in the distributions of lifetime benefits and taxes across these subgroups.

## Conclusions

Although Social Security has had a tremendous effect on well-being in old age, it could be reformed to better serve lower-income beneficiaries, among whom women and people of color are overrepresented. As is well known, the Social Security program faces a substantial long-term fiscal deficit (OASDI Board of Trustees 2008). Congress will need to raise taxes, cut benefits, or—in all likelihood—do both. Given the extremely heavy reliance—indeed almost complete dependence—on Social Security by a substantial minority of the older population, the prospects of across-the-board cuts of any type are extremely troublesome.

However, given that some current-law Social Security benefit supplements are not consistently well targeted to beneficiary need, there is potential to mitigate the dangers facing low-earning beneficiaries. Our incremental results suggest that in some cases, poverty could go



down even when we reduce Social Security spending if we redirect these resources more on the basis of need. This would require difficult choices, in that many workers' returns to FICA tax contributions would decline. Some program advocates suggest that universality and attendant middle-class importance and support are vital to Social Security's survival as a major component of the U.S. social safety net. Given that large and persistent differences in a wide array of life-course processes offset some of the existing progressivity mechanisms, we argue that adding more progressivity to the system without fundamentally altering its character is still possible.

Our results are only illustrative, however. In the current highly constrained fiscal environment, designing changes to Social Security will require careful attention to trade-offs.

## References

- Aaron, Henry J., with the assistance of Philip Spevak. 1977. "Demographic Effects on the Equity of Social Security Benefits." In *The Economics of Public Services: Proceedings of a Conference Held by the International Economic Association at Turin, Italy*, edited by Martin. S. Feldstein and Robert. P. Inman (151–73). London: MacMillan.
- Bosworth, Barry, Gary Burtless, and C. Eugene Steuerle 1999. "Lifetime Earnings Patterns, the Distribution of Future Social Security Benefits, and the Impact of Pension Reform." Working Paper 1999-6. Chestnut Hill, MA: Center for Retirement Research at Boston College.
- Brown, Jeffrey R., Julia Lynn Coronado, and Don Fullerton. 2006. "The Progressivity of Social Security." Cambridge, MA: National Bureau of Economic Research Retirement Research Center.
- Cohen, Lee, Eugene Steuerle, and Adam Carasso. 2001. "Social Security Redistribution by Education, Race, and Income: How Much and Why?" Paper prepared for the third annual conference of the Retirement Research Consortium, Washington, D.C.
- . 2002. "The Effects of Disability Insurance on Redistribution within Social Security by Gender, Education, Race, and Income." Paper presented at the fourth annual conference of the Retirement Research Consortium, Washington, D.C.
- DeNavas-Walt, Carmen, Bernadette D. Proctor, and Jessica Smith. 2007. *Income, Poverty and Health Insurance Coverage in the United States: 2006*. Current Population Report P60-233. Washington, DC: U.S. Census Bureau.
- Diamond, Peter, and Peter Orszag. 2004. *Saving Social Security: A Balanced Approach*. Washington, DC: Brookings Institution Press.
- Duggan, James E., Robert Gillingham, and John S. Greenlees. 1993. "Returns Paid to Early Social Security Cohorts." *Contemporary Policy Issues* 11(October): 1–13.
- Favreault, Melissa M. Forthcoming. "A New Minimum Benefit for Low Lifetime Earners." Paper for the National Academy of Social Insurance.
- Favreault, Melissa M., and Karen E. Smith. 2004. "A Primer on the Dynamic Simulation of Income Model (DYNASIM3)." Retirement Project Discussion Paper. Washington, DC: The Urban Institute. <http://www.urban.org/url.cfm?ID=410961> (accessed December 2004).
- Favreault, Melissa M., and C. Eugene Steuerle. 2007. "Social Security Spouse and Survivor Benefits for the Modern Family." Working Paper 2007-07. Chestnut Hill, MA: Center for Retirement Research at Boston College.

- . 2008. “The Implications of Career Lengths for Social Security.” Working Paper 2008-05. Chestnut Hill, MA: Center for Retirement Research at Boston College.
- Favreault, Melissa M., Gordon B. T. Mermin, and C. Eugene Steuerle. 2007. “Minimum Benefits in Social Security.” In *Government Spending on the Elderly*, edited by Dimitri B. Papadimitriou (347–88). Basingstoke, UK: Palgrave/Macmillan Publishing.
- GAO. See U.S. General Accounting Office.
- Goda, Gopi Shah, John B. Shoven, and Sita Slavov. 2006. “Removing the Disincentives in Social Security for Long Careers.” Cambridge, MA: National Bureau of Economic Research (NBER). <http://www.nber.org/programs/ag/rrc/NB06-06%20Goda,%20Shoven,%20Slavov%20FINAL.pdf> (accessed July 2007).
- Gustman, Alan L., and Thomas L. Steinmeier. 1998. “Social Security Benefits of Immigrants and U.S. Born.” Working Paper 6478. Cambridge, MA: NBER.
- . 2001. “How Effective Is Redistribution under the Social Security Benefit Formula?” *Journal of Public Economics* 82(1): 1–28.
- Hamilton, Brady, Joyce A. Martin, and Stephanie J. Ventura. 2007. “Births: Preliminary Data for 2006.” National Vital Statistics Reports 56(7). Hyattsville, MD: National Center for Health Statistics. [http://www.cdc.gov/nchs/data/nvsr/nvsr56/nvsr56\\_07.pdf](http://www.cdc.gov/nchs/data/nvsr/nvsr56/nvsr56_07.pdf) (accessed December 2007).
- Harrington Meyer, Madonna. 1996. “Making Claims as Workers or Wives: The Distribution of Social Security Benefits.” *American Sociological Review* 61(3): 449–65.
- Harrington Meyer, Madonna, Douglas A. Wolf, and Christine L. Himes. 2005. “Linking Benefits to Marital Status: Race and Diminishing Access to Social Security Spouse and Widow Benefits.” *Feminist Economics* 11(2): 145–62.
- Harris, Amy Rehder, and John Sabelhaus. 2005. “How Does Differential Mortality Affect Social Security Finances and Progressivity?” Washington, DC: Congressional Budget Office.
- He, Wan, Manisha Sengupta, Viktoria A. Velkoff, and Kimberly A. DeBarros. 2005. *65+ in the United States*. Current Population Reports Special Studies P23-209. Washington, DC: U.S. Government Printing Office. <http://www.census.gov/prod/2006pubs/p23-209.pdf> (accessed April 2006).
- Herd, Pamela. 2006. “Crediting Care or Marriage? Reforming Social Security Family Benefits.” *Journals of Gerontology, Series B: Psychological and Social Sciences* 61:S24–34.
- Leimer, Dean R. 2007. “Cohort-Specific Measures of Lifetime Social Security Taxes and Benefits.” ORES Working Paper 110. Washington, DC: Social Security Administration. <http://www.socialsecurity.gov/policy/docs/workingpapers/wp110.pdf> (accessed March 2008).

- Liebman, Jeffrey B. 2002. "Redistribution in the Current U.S. Social Security System." In *The Distributional Aspects of Social Security and Social Security Reform*, edited by Martin Feldstein and Jeffrey B. Liebman (11–41). Chicago: University of Chicago Press.
- Mininio, Arialdi M., Melonie P. Heron, Sherry L. Murphy, and Kenneth D. Kochanek. 2007. "Deaths: Final Data for 2004." *National Vital Statistics Reports* 55(19). Hyattsville, MD: National Center for Health Statistics. [http://www.cdc.gov/nchs/data/nvsr/nvsr55/nvsr55\\_19.pdf](http://www.cdc.gov/nchs/data/nvsr/nvsr55/nvsr55_19.pdf) (accessed December 2007).
- Moffitt, Robert A. 1984. "Trends in Social Security Wealth by Cohort." In *Economic Transfers in the United States*, edited by Marilyn Moon (327–53). Chicago: University of Chicago Press.
- Munnell, Alicia H., and Mauricio Soto 2005. "What Replacement Rates Do Households Actually Experience in Retirement?" Working Paper 2005-10. Chestnut Hill, MA: Center for Retirement Research at Boston College.
- Newcombe, Chad. 2003/2004. "Demographic and Economic Characteristics of Children in Families Receiving Social Security." *Social Security Bulletin* 65(2): 28–48.
- Old-Age, Survivors, and Disability Insurance (OASDI) Board of Trustees. 2008. *2008 Annual Report of the Board of Trustees of the Federal Old-Age and Survivors Insurance and Disability Insurance Trust Funds*. Washington, DC: OASDI Board of Trustees.
- Ozawa, Martha N., and Hak-Ju Kim. 2001. "Money's Worth in Social Security Benefits: Black-White Differences." *Social Work Research* 25(1): 5–14.
- Palloni, Alberto, and Elizabeth Arias. 2004. "Paradox Lost: Explaining the Hispanic Adult Mortality Advantage." *Demography* 41(3): 385–415.
- Sammartino, Frank J. 2001. "Designing Tax Cuts to Benefit Low-Income Families." Tax Policy Issues and Options Brief 1. Washington, DC: The Urban Institute.
- Smelser, Neil J., William J. Wilson, and Faith Mitchell, eds. 2001. *America Becoming: Racial Trends and Their Consequences*. Washington, DC: National Academy Press.
- Smith, Karen, Eric Toder, and Howard Iams. 2003/2004. "Lifetime Distributional Effects of Social Security Retirement Benefits." *Social Security Bulletin* 65(1): 33–61.
- Social Security Administration (SSA). 2002. *Income of the Population 55 or Older, 2002*. Office of Policy. Washington, DC: SSA.
- . 2006. *Income of the Population 55 or Older, 2004*. Office of Policy. Washington, DC: SSA.
- . 2007. *Annual Statistical Supplement, 2006 to the Social Security Bulletin*. Washington, DC: SSA. <http://www.ssa.gov/policy/docs/statcomps/supplement/2006/> (accessed March 2008).

Steuerle, C. Eugene, and Jon M. Bakija. 1994. *Retooling Social Security for the 21st Century: Right and Wrong Approaches to Reform*. Washington, DC: Urban Institute Press.

Thompson, Lawrence H., and Adam Carasso. 2002. "Social Security and the Treatment of Families: How Does the United States Compare with Other Developed Countries?" In *Social Security and the Family: Addressing Unmet Needs in an Underfunded System*, edited by Melissa M. Favreault, Frank J. Sammartino, and C. Eugene Steuerle (123–77). Washington, DC: Urban Institute Press.

U.S. General Accounting Office (GAO). 2002. *Social Security: Program's Role in Helping Ensure Income Adequacy*. GAO-02-62. Washington, DC: GAO.

———. 2003. *Social Security and Minorities*. GAO-03-387. Washington, DC: GAO.

———. 2004. *Social Security: Distribution of Benefits and Taxes Relative to Earnings Level*. GAO-04-747. Washington, DC: GAO.