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Projections of Economic Well-Being for Social Security Beneficiaries in 2022 and 2062

by Barbara A. Butrica, David B. Cashin, and Cori E. Uccello

Summary

Policymakers considering potential changes to the Social Security program need to be able to assess how such changes would affect the economic wellbeing of future retirees. The first step to understanding these effects is to determine the well-being of future retirees under the current Social Security system. To this end, this article projects the retiree populations aged 62 or older in 2022 and 2062 using the Social Security Administration's MINT (Modeling Income in the Near Term) model and assesses their well-being. Because no one measure can fully capture whether future retirees will have adequate resources to meet their needs, we employ several indicators to assess retirement prospects. In addition, because current-law Social Security promises cannot be financed from current-law taxes, we project an alternative 2062 baseline that adjusts Social Security benefits downward to reflect the amounts that current-law taxes can support.

Our results illustrate the importance of using several measures when assessing the well-being of future Social Security beneficiaries. When using **absolute measures**, retirement well-being will

improve for Social Security beneficiaries in 2062 compared with those in 2022. Median per capita income of Social Security beneficiaries is projected to increase by a third (in real terms) between 2022 and 2062, with a corresponding decline in projected poverty rates. In addition, median financial wealth will increase between 2022 and 2062. **Relative measures** of well-being, however, suggest a decline in well-being between Social Security beneficiaries in 2022 and those in 2062. The share of beneficiaries who have low income relative to their peers, measured as the share whose income-to-needs ratio is less than half of the median ratio, will increase over time. In addition, income replacement rates are projected to fall between 2022 and 2062, indicating a decline in how well-being during retirement compares with that during the working years. And although median financial wealth will increase between 2022 and 2062, it will actually fall relative to economy-wide average wages. Projected improvements over time would lessen, and declines would be exacerbated, if instead of assuming the payment of currently scheduled Social Security benefits we assumed that benefits would be reduced according to what is payable under current-law taxes.

Regardless of which measure of well-being is used, certain groups fare worse than others, including beneficiaries who never married, nonwhites, beneficiaries without a high school degree, and those with fewer years of labor force experience and low lifetime earnings. These vulnerable groups are likely to be more dependent on Social Security benefits for their retirement income. As a result, they fare particularly poorly under the assumption that Social Security benefits are reduced to reflect what is payable under current-law taxes.

Introduction

What are the economic prospects for future retirees? Will economic well-being improve or worsen for future generations? How could Social Security's anticipated inability to pay full scheduled benefits affect retirees' well-being? To help answer these questions, this article projects the retiree populations aged 62 or older in 2022 (the year by which most baby boomers will have retired) and 2062 (22 years after the Social Security Trust Fund is expected to become exhausted). We use projections of the following measures to assess their well-being:

- Total retirement income;
- Poverty rates, to assess whether retirees' income will be enough to maintain a basic standard of living;
- Income replacement rates, to compare the standard of living achievable in retirement with that during working years;
- Financial wealth; and
- Retirees' dependence on Social Security and pension benefits.

Taken together, these measures provide insights into the well-being of future retirees and how well-being can vary across demographic and economic groups and over time. Even so, these measures may not completely capture well-being. Most important, we do not estimate the dollar value of access or improvements to health care. In addition, our measures of poverty, income, and wealth are based on pretax cash values and do not take into account in-kind transfers (for example, food stamps) or the effects of taxation.

The baseline projections for 2022 and 2062 assume that Social Security benefits are paid according to what is scheduled under current law. Using current law as a baseline, however, may overstate the well-being of future retirees. Because the Social Security system is out of long-term actuarial balance, current-law Social Security benefits are unsustainable in the future. To address this concern, we project an alternative 2062 baseline that adjusts Social Security benefits downward to reflect the

amounts that current-law taxes can support. We model current-law payable benefits as 70.4 percent of scheduled benefits—the benefit reduction that the Social Security Administration's Office of the Chief Actuary (OCACT) estimates will restore solvency in 2062 (Board of Trustees 2004).

We take no position on how the projected shortfall in the Social Security system should or will be addressed by policymakers. Increased taxes, general revenue transfers, or other changes would be necessary to support benefit levels under the current-law scheduled benefits baseline. If no changes are made, the system can only pay a level of benefits that can be supported by tax revenue once the trust funds are exhausted. The two baselines therefore provide a reasonable bound on possible benefit outcomes for future retirees. The payable and scheduled baselines have been used in other research on future beneficiary populations (see, for example, Nichols, Clingman, and Wade 2005).²

This analysis is based on projections of the major sources of retirement wealth and income from the Social Security Administration's Modeling Income in the Near Term (MINT) model. MINT is a useful tool for gaining insights into what we expect to happen to the retirement income of future retirees. It projects Social Security benefits and other important sources of income in retirement. MINT also accounts for major changes in the growth of economy-wide real earnings, the distribution of earnings between and within birth cohorts, and the composition of the retiree population. All these factors will affect the retirement income of future retirees.

MINT starts with data from the U.S. Census Bureau's Survey of Income and Program Participation (SIPP) matched to the Social Security Administration's administrative records on earnings, benefits, and mortality. MINT then projects each individual's changes in marital status, mortality, entry to and exit from the Social Security Disability Insurance (DI) rolls, and age of first receipt of Social Security retirement benefits. It also projects Social Security benefits, pension benefits, income from financial assets, earnings, Supplemental Security Income (SSI), imputed rent, and income from nonspouse, coresident family members. Projections regarding macroeconomic factors such as price growth and real wage growth reflect the assumptions in the 2004 Annual Report of the Federal Old-Age and Survivors and Disability Insurance Trust Funds (Board of Trustees 2004). The methods, assumptions, and data associated with MINT have been reviewed by various technical panels. (For more information on MINT, see Smith, Cashin, and Favreault 2005; Toder and others 2002; Butrica and others 2001; Panis and Lillard 1999; and Toder and others 1999.)

The projections in this report are based on MINTEX, an enhancement over previous versions of MINT that allows for analysis beyond the "near term." MINTEX extends the MINT data file to capture additional birth cohorts and their retirement prospects. It also adjusts the baseline wealth in the MINT data file to more closely match wealth in the Survey of Consumer Finances (SCF). In addition, MINTEX updates the MINT macroeconomic assumptions to reflect the intermediate assumptions in the 2004 Trustees Report.³ Interested readers can find a detailed description of the enhancements to MINT in Smith, Cashin, and Favreault (2005).

This analysis is a first look at what the future may hold for the aged population in 2062; that is, these projections are still undergoing review and validation. In contrast, we feel fairly confident about the 2022 projections, because similar analyses have used MINT to consider the retirement prospects of older Americans around this time period. However, by design, all projections are sensitive to their underlying assumptions and represent potential, not actual, outcomes.⁴

One of the primary aims of this article is to assess the retirement prospects for future retirees under two alternative Social Security benefit structures—current-law scheduled and current-law payable benefits. Therefore, the analysis focuses primarily on Social Security beneficiaries rather than on the entire aged population. Before turning to our analyses of the adequacy of retirement resources, we first describe the characteristics of future retirees in 2022 and 2062 and project their retirement income.

Characteristics of Future Social Security Beneficiaries

Shifting demographic and labor force participation characteristics could contribute to different retirement outcomes for future retirees. In general, MINT projects that Social Security beneficiaries in 2062 are more likely to be never married, more racially diverse, more highly educated, and to have more years in the labor force and higher lifetime earnings, compared with beneficiaries in 2022 (Table 1).

Table 1.

Projected characteristics of Social Security beneficiaries aged 62 or older, 2022 and 2062

	All		Fema	le	Male	
Characteristic	2022	2062	2022	2062	2022	2062
Total percent	100	100	100	100	100	100
	į	Percentage	e distributio	n, by chara	cteristic	
Marital status						
Never married	5	10	5	11	5	9
Married	60	51	49	41	75	65
Widowed	19	23	28	33	7	9
Divorced	16	16	18	15	13	17
Race and ethnicity						
Non-Hispanic white	79	63	78	64	79	62
Non-Hispanic black	9	11	10	12	8	11
Hispanic	8	18	8	17	8	20
Asian and Native American	4	8	4	8	5	7
Education						
High school dropout	10	9	11	9	10	9
High school graduate	61	56	64	54	58	59
College graduate	28	35	25	37	32	32
	Mean values					
Years in the labor force	42	43	38	42	45	45
Shared lifetime earnings ^a (thousands of 2004 dollars)	37	54	35	52	40	57

SOURCE: Urban Institute tabulations of the expanded version of the Modeling Income in the Near Term model (MINTEX).

NOTE: Percentages in categories may not add to 100 percent because of rounding.

a. Shared lifetime earnings are the average of wage-indexed shared earnings between ages 22 and 62. Shared earnings are computed by assigning each individual half of the total earnings of the couple in the years when the individual is married and his or her own earnings in years when not married.

MINT projects shifts over time from married beneficiaries to never-married and widowed beneficiaries. In 2062, 51 percent of retirees will be married, down from 60 percent in 2022. In contrast, the share of never-married individuals will double from 5 percent to 10 percent, and the share who are widowed will increase from 19 percent to 23 percent. Marital status has important implications for the economic well-being of future retirees because of the higher poverty rates among current nonmarried retirees, especially those who never married (SSA 2005).

The racial composition of Social Security beneficiaries is projected to shift as minority group representation increases over time. Beneficiaries in 2062 are more likely than retirees in 2022 to be black, Hispanic, or other minority (including Asian and Native American). And by 2062, Hispanics will probably overtake blacks as the predominant minority group among beneficiaries. The shift in representation of minority groups is expected to affect the retirement income and economic well-being of future retirees, because current retirees who are black or Hispanic are much more likely to be poor than whites (SSA 2005).

Social Security beneficiaries in 2062 are also more likely to be college educated and less likely to lack a high school diploma than in 2022. The increases in education appear to coincide with increases in labor force experience, at least among women. On average, Social Security beneficiary women aged 62 or older in 2062 will have spent about 4 more years working than those in 2022. Increased time spent in the labor force, in turn, leads to higher average lifetime earnings among beneficiaries in 2062. Our measure of lifetime earnings reflects average per capita shared earnings between ages 22 and 62; per capita shared earnings are measured as half the total earnings of the couple in the years when the individual is married and as his or her own earnings in years when not married.⁶ Average lifetime earnings among Social Security beneficiaries, in constant dollars, are projected to increase by more than half between 2022 and 2062.

Retirement Income

Projected median per capita income for Social Security beneficiaries in 2022 and 2062 is shown in Table 2. We define income to include Social Security benefits, defined benefit pensions, income from financial assets and retirement accounts, earnings, SSI, and income from nonspouse, coresident family members. All income projections are reported in 2004 dollars and are presented at the individual level. However, income projections for married individuals include the income of both spouses and are presented on a per capita basis.

MINT projects a median income for beneficiaries in 2022 of \$33,000. Median income increases by one-third in 2062 to \$44,000, assuming the payment of Social Security benefits scheduled under current law. Median income is projected to increase even if Social Security benefits are reduced to reflect the levels payable under current-law taxes, but to only \$39,000 in 2062. The increase in median income between 2022 and 2062 (under both scenarios) reflects a number of factors, including an increase in education, labor force experience, and earnings over time. It also reflects the assumption of positive real wage growth. Wages are projected to more than quadruple between 2022 and 2062, but prices are projected to only triple.

In 2022, per capita median income is fairly similar across age, sex, and marital status. In 2062, however, wider variations in median income by marital status become apparent, with married and widowed beneficiaries receiving higher income than never-married and divorced beneficiaries. Regardless of the year, blacks, Hispanics, and less educated beneficiaries are projected to have lower income. In the next sections, we assess the adequacy of the projected income of Social Security beneficiaries.

Poverty Rates and Low Relative Welfare Rates

The share of Social Security beneficiaries with low income in 2022 and 2062, by various demographic and economic characteristics, is examined using two definitions of low income. We first project poverty rates, that is, the share of individuals with income below the federal poverty threshold. Poverty rates reflect the share of individuals with income too low to meet their basic needs, including food and shelter. We also present low relative welfare rates, which assess well-being relative to the aged population. Specifically, we define low relative welfare rates as the share of the individuals whose income-to-needs ratio (that is, the ratio of income to the federal poverty line) is less than half the median ratio of the entire population aged 62 or older.

The poverty thresholds used in this analysis come from the Census Bureau. These thresholds vary with family size and age and increase annually with increases in prices as measured by the consumer price index. For our analyses we use the poverty thresholds for persons aged 65 or older. When calculating poverty rates, the Census income measure includes only money income. In contrast, using MINT we calculate a measure of income that also includes annuitized income from financial assets but excludes certain income sources such as workers' compensation, unemployment insurance, and veterans'

Table 2.

Projected median per capita income among Social Security beneficiaries aged 62 or older, 2022 and 2062 (in thousands of 2004 dollars)

		2062		
	Г	Benefits scheduled	Benefits payable	
Characteristic	2022	under current law	under current law	
All aged 62 or older	33	44	39	
Age				
62–64	33	47	42	
65–69	34	44	39	
70–79	33	44	38	
80–89	31	42	36	
90 or older	31	48	43	
Sex				
Female	32	43	37	
Male	34	46	41	
Marital status				
Never married	32	38	34	
Married	33	45	40	
Widowed	33	48	41	
Divorced	32	43	36	
Race and ethnicity				
Non-Hispanic white	35	51	45	
Non-Hispanic black	23	32	27	
Hispanic	23	34	29	
Asian and Native American	35	49	42	
Education				
High school dropout	18	24	19	
High school graduate	29	38	32	
College graduate	51	76	69	
Labor force experience				
Less than 20 years	22	25	21	
20–29 years	25	29	25	
30 or more years	35	48	42	
Shared lifetime earnings, by income quintile ^a				
Lowest	15	20	16	
2nd	23	32	26	
3rd	30	42	36	
4th	40	60	53	
Highest	68	120	113	

a. Shared lifetime earnings are the average of wage-indexed shared earnings between ages 22 and 62. Shared earnings are computed by assigning each individual half of the total earnings of the couple in the years when the individual is married and his or her own earnings in years when not married. Quintile thresholds reflect the entire population aged 62 or older.

benefits.⁸ As a result, our projected poverty rates will differ somewhat from those projected using the Census definition.⁹

The share of Social Security beneficiaries aged 62 or older whose income falls below the federal poverty threshold is projected to decrease from 2.6 percent in 2022 to 0.9 percent in 2062, assuming Social Security benefits scheduled under current law (Table 3). In other words, in 2062, nearly all Social Security beneficiaries are projected to have income that is high enough to meet their basic needs. As was the case with median income, the change in poverty rates reflects a number of factors. Individuals will grow out of poverty because their earnings, and consequently their Social Security benefits and pensions, will increase more rapidly than the poverty thresholds (which are indexed to price growth).

The reduction in poverty rates between 2022 and 2062 also depends on the payment of Social Security benefits scheduled under current law. Paying only benefits that current-law taxes can support would result in a 2.9 percent poverty rate in 2062, nearly equal to the rate projected for 2022.

A decline in low-income retirees is not projected, even under currently scheduled Social Security benefits, when low income is defined relative to the overall aged population. Assuming payment of scheduled benefits, the share of retirees whose income-to-needs ratio falls below half of the median ratio increases from 20.1 percent in 2022 to 21.7 percent in 2062. Assuming payable benefits, the share increases further, to 24.0 percent, in 2062. These results indicate that the distribution of income will become more unequal over time. In particular, the income of people at the low end of the income distribution is growing more slowly than the income of people at the top of the income distribution.

Regardless of which measure we use to define low-income individuals, particular groups are consistently worse off. Groups with projected poverty rates in 2022 that are higher than average include women, nonmarried beneficiaries, racial and ethnic minorities, and beneficiaries lacking a high school degree. Individuals in these groups are more likely to have fewer years of labor force experience and lower earnings, which are in turn associated with higher poverty rates. Poverty rates are 10.6 percent for beneficiaries with fewer than 20 years of labor force experience and 6.7 percent for beneficiaries with 20–29 years. Individuals in the lowest quintile of shared earnings have a poverty rate of 13.5 percent.

Projected poverty rates decline for all groups by 2062 (assuming Social Security benefits scheduled under current law), and many of the gaps in poverty rates between groups narrow. This narrowing probably reflects a convergence in labor force experience and earnings

over time. Nevertheless, certain groups will remain vulnerable to higher-than-average poverty rates, including individuals who never married, nonwhites, individuals without a high school degree, and those with fewer years of labor force experience and low lifetime earnings. Notably, these groups also have the biggest differences in poverty rates when Social Security income is based on benefits that are payable, rather than scheduled, under current law. For instance, projected poverty rates among never-married individuals in 2062 are 4.2 percent under the scheduled benefits scenario compared with 11.5 percent under the payable benefits scenario (Chart 1, p. 15). Other groups with much higher poverty rates under the payable benefits scenario include non-Hispanic blacks (5.3 percentage points higher), individuals with fewer than 20 years of work experience (7.6 percentage points higher), and those in the lowest quintile of shared lifetime earnings (9.0 percentage points higher).

Many Social Security reform proposals include provisions aimed to address the comparatively high poverty rates of certain groups. For instance, many proposals would increase Social Security benefits to widowed and/ or divorced individuals—groups that are at greater risk of poverty, especially among women. However, nevermarried men and women are at even greater risk of poverty. They, along with other vulnerable groups such as those with low educational attainment and low lifetime earnings, might benefit from other benefit enhancements aimed at low earners. For instance, some proposals would increase benefit payments or institute minimum benefits for workers with at least 20 years of labor force experience.

Although the focus of this analysis is the well-being of future Social Security beneficiaries, it is also instructive to examine nonbeneficiaries. Poverty rates are especially high for individuals who do not receive Social Security benefits. Nonbeneficiaries are projected to have a poverty rate of 20.4 percent in 2022 and 13.8 percent in 2062 (not shown in table). This finding considerably understates the problem, however, because individuals who have merely delayed receipt of Social Security benefits are classified as nonbeneficiaries. The poverty rate for nonbeneficiaries aged 70 or older, when all workers eligible for Social Security benefits would have begun collecting benefits, exceeds 40 percent, even in 2062. For the most part, these nonbeneficiaries are made up of late-arriving immigrants who neither earned 40 quarters of coverage nor are entitled to spouse or survivor benefits.

Enhancing Social Security benefits for low-income workers will not solve the problem of high poverty rates among nonbeneficiaries and other low-income individuals who may not meet a potential benefit enhancement's

Table 3.

Projected poverty rates and low relative welfare rates for Social Security beneficiaries aged 62 or older, 2022 and 2062 (in percent)

-			2062			
			Benefits scheduled		Benefits	payable
	20	22	under current law		under current law	
		Low relative		Low relative		Low relative
Characteristic	Poverty rate	welfare rate ^a	Poverty rate	welfare rate ^a	Poverty rate	welfare rate a
All aged 62 or older	2.6	20.1	0.9	21.7	2.9	24.0
Age						
62–64	2.7	19.3	1.1	17.1	2.5	19.0
65–69	2.4	17.7	0.9	18.7	2.5	21.1
70–79	2.6	19.7	0.9	21.2	2.9	23.8
80–89	2.6	23.8	0.9	25.5	3.4	27.6
90 or older	3.6	26.6	0.8	24.7	2.8	26.7
Sex						
Female	3.2	23.5	0.9	24.7	3.1	27.1
Male	1.8	15.4	0.8	17.2	2.6	19.4
Marital status						
Never married	8.6	34.6	4.2	42.5	11.5	44.2
Married	1.2	11.8	0.3	11.2	0.9	13.1
Widowed	3.4	31.4	0.5	28.4	3.0	31.4
Divorced	4.8	33.3	1.1	32.2	3.5	35.2
Race and ethnicity						
Non-Hispanic white	1.8	16.4	0.5	16.7	1.7	18.8
Non-Hispanic black	6.2	36.4	2.1	37.1	7.4	40.1
Hispanic	5.9	36.1	1.3	30.2	4.5	32.8
Asian and Native American	4.2	23.1	1.2	19.7	1.8	22.1
Education						
High school dropout	10.5	47.9	3.6	46.4	8.0	49.5
High school graduate	2.1	21.0	1.0	26.1	3.5	29.3
College graduate	0.8	7.6	0.1	8.4	0.6	9.2
Labor force experience						
Less than 20 years	10.6	42.0	4.5	48.3	12.1	48.7
20–29 years	6.7	34.1	4.7	42.1	10.6	42.7
30 or more years	1.0	15.3	0.2	17.7	1.4	20.3
Shared lifetime earnings,						
by income quintile a						
Lowest	13.5	57.2	4.2	61.3	13.2	61.3
2nd	1.2	30.0	0.3	28.7	1.4	33.7
3rd	0.3	13.9	0	14.5	0.1	17.5
4th	0	4.2 1.2	0	4.2 1.2	0.1	6.7 1.9
Highest	0	1.2	0	1.2	0	1.9

a. The low relative welfare rate is the share of individuals whose income-to-needs ratio (the ratio of income to the federal poverty line) is less than half of the median ratio among individuals aged 62 or older.

b. Shared lifetime earnings are the average of wage-indexed shared earnings between ages 22 and 62. Shared earnings are computed by assigning each individual half of the total earnings of the couple in the years when the individual is married and his or her own earnings in years when not married. Quintile thresholds reflect the entire population aged 62 or older.

Table 4.

Projected rates of Supplemental Security Income (SSI) receipt among individuals aged 62 or older, 2022 and 2062 (in percent)

		2062		
Characteristic	2022	Benefits scheduled under current law	1 - 7	
All aged 62 or older	2.7	0.6	0.9	
Aged 90 or older	5.0	1.6	2.6	
Never married	9.7	2.5	3.7	
Non-Hispanic black	5.0	1.5	2.5	
Hispanic	5.7	0.5	1.1	
Asian and Native American	11.5	0.7	0.7	
High school dropout	11.0	1.3	2.0	
Nonbeneficiary	14.0	6.2	5.9	
Less than 20 years in labor force	15.7	6.3	7.1	
20-29 years in labor force	3.6	0.9	1.6	
Lowest quintile of shared lifetime earnings ^a	13.2	2.7	4.2	

requirements for years in the labor force. The Supplemental Security Income program, however, could help fill in the gap. SSI provides an income floor to elderly and disabled individuals (and couples) with limited assets. In 2022, 2.7 percent of the population aged 62 or older is projected to be enrolled in SSI (Table 4). This share is expected to decline to less than 1 percent in 2062. As expected, SSI participation is greatest among groups with the highest poverty rates, namely, those who are never married, nonwhite, less educated, lower earning, and/or have fewer years in the labor force. Nonbeneficiaries have especially high rates of SSI enrollment.

Not all low-income individuals are eligible to receive SSI. The maximum income for eligibility for federal SSI benefits falls below the poverty line, and even those who meet the income criteria must meet an asset test. In particular, the SSI asset test requires that eligible individuals have no more than \$2,000 in resources (\$3,000 for couples), not counting the primary residence or vehicle. The asset limit is not indexed, which could account for some of the decline in SSI enrollment by 2062, even after accounting for the decrease in poverty rates. Enhancing SSI benefits through increased benefits, expanded income eligibility, and/or relaxed asset tests (including indexing asset thresholds) could improve the income security of the most at-risk groups. See Davies and Favreault (2004) for a fuller examination of options to enhance SSI eligibility and benefits.

Retirement Income Replacement Rates

Income replacement rates of Social Security beneficiaries provide information regarding well-being during retirement years relative to well-being during preretirement years. ¹⁰ We compute replacement rates as the ratio of per capita family income in 2022 and 2062 to average shared earnings between ages 22 and 62. ¹¹ We exclude coresident income (the resources of coresiding family members other than a spouse) from per capita family income because this income flow—unlike Social Security and pensions, for example—is not derived from preretirement earnings.

The median income replacement rate is projected to be 86 percent in 2022 (Table 5). In other words, per capita family income in 2022 will replace 86 percent of earnings during the working years. Assuming Social Security benefits scheduled under current law, the overall replacement rate is projected to decline slightly, to 84 percent in 2062. Income replacement rates decline between the two periods because retirement incomes are not projected to increase as fast as earnings. This finding suggests that relative to their preretirement living standards, typical retirees in 2062 will be somewhat worse off than those in 2022. Replacement rates would decrease even further, to 72 percent, if Social Security benefits were reduced to reflect benefits payable under currently-law taxes.

a. Shared lifetime earnings are the average of wage-indexed shared earnings between ages 22 and 62. Shared earnings are computed by assigning each individual half of the total earnings of the couple in the years when the individual is married and his or her own earnings in years when not married. Quintile thresholds reflect the entire population aged 62 or older.

Table 5.

Projected median replacement rates for Social Security beneficiaries aged 62 or older, 2022 and 2062 (in percent)

		2062		
		Benefits scheduled	Benefits payable	
Characteristic	2022	under current law	under current law	
All aged 62 or older	86	84	72	
Age				
62–64	97	98	88	
65–69	89	88	77	
70–79	82	84	71	
80–89	81	79	66	
90 or older	90	80	69	
Sex				
Female	87	83	71	
Male	86	86	74	
Marital status				
Never married	85	87	71	
Married	85	84	73	
Widowed	95	90	74	
Divorced	80	79	66	
Race and ethnicity				
Non-Hispanic white	87	86	75	
Non-Hispanic black	74	78	64	
Hispanic	84	80	68	
Asian and Native American	109	89	78	
Education				
High school dropout	87	86	71	
High school graduate	83	81	68	
College graduate	96	92	83	
Labor force experience				
Less than 20 years	119	129	113	
20–29 years	98	105	84	
30 or more years	82	81	69	
Shared lifetime earnings, by income quintile ^a				
Lowest	119	109	87	
2nd	81 	78	64	
3rd	77	73	63	
4th	79	75	67	
Highest	89	94	88	

NOTE: Replacement rates are calculated as the ratio of per capita family income in 2022 and 2062 to average shared earnings between ages 22 and 62. Coresident income is excluded from per capita family income. Shared earnings are computed by assigning each individual half of the total earnings of the couple in the years when the individual is married and his or her own earnings in years when not married.

a. Shared lifetime earnings are the average of wage-indexed shared earnings between ages 22 and 62. Shared earnings are computed by assigning each individual half of the total earnings of the couple in the years when the individual is married and his or her own earnings in years when not married. Quintile thresholds reflect the entire population aged 62 or older.

Our replacement rates compare retirement income to preretirement earnings. Some economically disadvantaged individuals can achieve high income replacement rates because they have relatively low earnings but relatively high Social Security benefits (because of the progressivity of the Social Security system) and SSI benefits (because SSI is a means-tested entitlement program). Indeed, we find that replacement rates are highest for a number of economically vulnerable groups, including beneficiaries with less than 20 years in the labor force and those in the lowest quintile of shared lifetime earnings. Both of these groups are projected to achieve replacement rates of nearly 120 percent in 2022. High income replacement rates do not necessarily indicate adequate retirement income, however, because these groups are projected to have particularly high poverty rates (see Table 3).

Other groups have high replacement rates despite having high preretirement earnings. College graduates, for example, are projected to achieve replacement rates of 96 percent in 2022. College graduates are more likely to have retirement income from private pension plans and other private savings than are beneficiaries with less education, thereby improving their replacement rates.

In general, replacement rates are lower among older beneficiaries, probably reflecting, at least in part, a lower likelihood of having earnings during retirement. In 2022, however, replacement rates are significantly higher for beneficiaries aged 90 or older compared with those aged 70–89. Two factors probably contribute to the high replacement rates among the oldest age group. First, those who survive to this age tend to be economically advantaged, thereby increasing the numerator in the replacement rate calculation. Second, the average lifetime earnings of this age group, which represents the 1926–1932 birth cohort, are significantly lower than those of later birth cohorts, thereby decreasing the denominator in the replacement rate calculation. ¹²

In the 2062 payable benefits scenario, all beneficiaries are subject to the same proportional cut in Social Security benefits. However, the decline in replacement rates is largest among some vulnerable groups, including those with less education and fewer years in the labor force. Replacement rates are also projected to decline significantly for retirees with low lifetime earnings (Chart 2, p. 16).¹³ These are the same groups who in the previous section were shown to be more likely to suffer high poverty rates under the payable benefits scenario. As will be explored further below, these groups are among those who depend on Social Security for a greater share of their retirement income.

Financial Wealth

Nonpension financial wealth can provide an important resource for retirees and is another gauge of how well individuals will fare in retirement. Investment returns on financial assets can be used to supplement other income sources, and the principal can also be drawn down to meet expenses. Table 6 presents projected median financial wealth for Social Security beneficiaries in 2022 and 2062, in both 2004 dollars and as a percentage of the economy-wide average wage. Financial wealth includes nonpension financial assets only; it does not include account-based retirement assets from defined contribution plans or individual retirement accounts. Projections are presented at the individual level. However, financial wealth projections for married individuals include the financial wealth of both spouses and are presented on a per capita basis.

Median financial wealth for Social Security beneficiaries aged 62 or older is projected to climb from \$58,000 in 2022 to \$80,000 in 2062. This result suggests that the generation of beneficiaries in 2062 will be better off, at least with respect to financial wealth, than the generation of retirees in 2022. Real wage growth over time, as well as other factors, may allow for greater wealth accumulation in constant 2004 dollars. However, it is also important to examine the well-being of beneficiaries relative to that of workers. Median financial wealth is not projected to increase relative to average wages. Median financial wealth is projected to be 1.33 times the average wage in 2022, compared with only 1.19 times the average wage in 2062. In other words, financial wealth will outpace inflation but will grow more slowly than wages between 2022 and 2062.

Interestingly, the medians vary by age. In 2022, median financial wealth increases from \$53,000 among those aged 62–64 to \$60,000 among those aged 65–79. It then declines slowly, to \$58,000 among those aged 80–89 and to \$52,000 among those aged 90 or older. These results reflect a cross-sectional sample; individuals are not followed over time. Therefore, trends in financial assets by age reflect not only how wealth accumulation and decumulation vary by age but also different starting values of wealth by birth cohort and different demographic compositions by age. Nevertheless, this pattern by age suggests that individuals continue to accumulate wealth through age 79 and then begin decumulating wealth at ages 80 and older.

Median financial wealth also varies by other demographic and economic groups, in the expected ways. Median financial wealth is lower among women and nonmarried individuals. Wealth is especially low among blacks and Hispanics and those without a high school

Table 6. Projected median per capita financial wealth for Social Security beneficiaries aged 62 or older, 2022 and 2062

	Median financial we in thousands of 2004 o		Median financial wealth as a peconomy-wide average	
Characteristic	2022	2062	2022	2062
All aged 62 or older	58	80	1.33	1.19
Age				
62–64	53	79	1.21	1.17
65–69	60	76	1.36	1.14
70–79	60	83	1.37	1.23
80–89	58	82	1.32	1.22
90 or older	52	78	1.18	1.17
Sex				
Female	55	78	1.24	1.16
Male	63	85	1.44	1.27
Marital status				
Never married	34	40	0.77	0.59
Married	65	90	1.47	1.34
Widowed	56	81	1.28	1.20
Divorced	45	75	1.02	1.12
Race and ethnicity				
Non-Hispanic white	75	113	1.72	1.68
Non-Hispanic black	13	24	0.29	0.36
Hispanic	19	43	0.43	0.64
Asian and Native American	53	95	1.22	1.42
Education				
High school dropout	12	27	0.27	0.41
High school graduate	47	55	1.07	0.82
College graduate	176	234	4.02	3.49
Labor force experience				
Less than 20 years	26	41	0.59	0.61
20–29 years	41	42	0.94	0.63
30 or more years	66	90	1.51	1.34
Shared lifetime earnings,				
by income quintile ^a				
Lowest	13	23	0.29	0.34
2nd	31	43	0.71	0.64
3rd	49	63	1.13	0.94
4th	88	130	2.00	1.93
Highest	262	478	5.97	7.12

NOTE: Financial wealth includes nonpension financial assets only.

a. Shared lifetime earnings are the average of wage-indexed shared earnings between ages 22 and 62. Shared earnings are computed by assigning each individual half of the total earnings of the couple in the years when the individual is married and his or her own earnings in years when not married. Quintile thresholds reflect the entire population aged 62 or older.

degree. These groups are more likely to have fewer years in the labor force and lower lifetime earnings, both of which are correlated with lower financial wealth.

Dependence of Retirees on Social Security and Pension Benefits

The share of total income (including coresident income) from Social Security benefits and pension benefits for Social Security beneficiaries is shown in Table 7.¹⁴ We refer to these measures as the Social Security dependence ratio and the pension dependence ratio.¹⁵ Groups with high Social Security dependence ratios would be more sensitive to changes in Social Security benefits.

The median Social Security dependence ratio is projected to be 39 percent in 2022. Since the primary goal of the Social Security program is to supplement retirement income, it is encouraging to learn that the majority of retirees will not count on Social Security benefits for their entire income. Indeed, only 37 percent of all retirees will rely on Social Security for at least half of their total family income and only 8 percent for 90 percent or more (not shown in table). Reliance on Social Security benefits in 2062 is projected to increase slightly, to 41 percent, under the scheduled benefits scenario but to decrease to 33 percent under the payable benefits scenario. If beneficiaries receive payable benefits instead of scheduled benefits, only 32 percent would be dependent on Social Security for at least 50 percent of their income and only 6 percent for 90 percent or more (not shown in table).

Social Security benefits tend to comprise a larger share of total income for less advantaged retirees. For instance, in 2022, higher-than-average median dependence ratios are projected for widowed and divorced beneficiaries (45 percent and 44 percent, respectively), non-Hispanic blacks (51 percent), Hispanics (47 percent), high school dropouts (54 percent), beneficiaries with fewer than 20 years in the labor force (44 percent), and those in the two lowest quintiles of shared lifetime earnings (48 percent and 52 percent). These groups also have the largest declines in Social Security dependence ratios when moving from scheduled to payable Social Security benefits in 2062. For example, dependence on Social Security for retirees in the lowest quintile of shared lifetime earnings is projected to fall from 62 percent of total income in 2062 under the scheduled benefits scenario to only 53 percent under the payable benefits scenario (Chart 3, p. 17). In contrast, retirees in the highest quintile will experience a much smaller decline from 21 percent to 16 percent.

Pension dependence ratios help gauge the extent to which individuals have another source of retirement income that can help reduce their reliance on Social Security benefits. To calculate pension dependence ratios, we include projected pension income from both defined benefit and defined contribution plans. 16 Although pension coverage has risen dramatically in recent years, particularly among women, the share of the population with pensions is much lower than is the share with Social Security. Furthermore, pension benefits are directly proportional to one's earnings—people with low earnings will receive relatively low pension benefits and vice versa. In contrast, Social Security benefits provide higher replacement rates for low earners and lower replacement rates for high earners. As a result of these differences, the median pension dependence ratio in 2022—10 percent—is only about one-quarter the size of the Social Security dependence ratio. Only 51 percent of all retirees are projected to depend on pension benefits for at least 10 percent of their total family income, and only 6 percent will depend on pensions for 50 percent or more of their income (not shown in table). The median pension dependence ratio is projected to decrease slightly, to 9 percent, in 2062, under the scheduled benefits scenario. This ratio would increase slightly, to 11 percent, under the payable benefits scenario, because Social Security benefits would contribute less to total family income.

In contrast to Social Security benefits, pension benefits tend to comprise a small share of total income for less advantaged retirees. Instead, pension benefits are more highly concentrated among individuals with more education, more labor force experience, and higher earnings.

An earlier analysis using MINT (Butrica, Iams, and Smith 2003/2004) examined *combined* retirement income (Social Security plus pension income) for middle-income families. At age 67, retirement income among these families accounted for about 63 percent of per capita family income for current retirees and about 58 percent for late baby-boomer retirees. Income from assets accounted for about 12 percent of income. Other important sources of income were earnings and income from coresident family members.¹⁷

Discussion of the Findings

Our findings illustrate the need to employ several measures when assessing the well-being of future Social Security beneficiaries. When using absolute measures, well-being in retirement will improve for Social Security beneficiaries in 2062 compared with those in 2022. Total income of Social Security beneficiaries is projected to increase by a third between 2022 and 2062, with a

Table 7.

Projected median Social Security and pension dependence ratios for Social Security beneficiaries aged 62 or older, 2022 and 2062

			2062			
			Benefits scheduled		Benefits payable	
	20	22	under current law		under current law	
Characteristic	Social Security	Pension	Social Security	Pension	Social Security	Pension
All aged 62 or older	39	10	41	9	33	11
Age						
62–64	32	7	31	6		7
65–69	38	9	40	8	31	9
70–79	42	12	44	10		12
80–89	40	12	45	11	37	13
90 or older	36	11	38	11	30	12
Sex						
Female	41	9	43	9		11
Male	36	12	38	10	30	11
Marital status						
Never married	38	6	42	3		3
Married	36	13		12	30	14
Widowed	45	7	44	9		10
Divorced	44	6	48	6	40	6
Race and ethnicity						
Non-Hispanic white	38	12	38	12		13
Non-Hispanic black	51	8	51	7	44	9
Hispanic	47	3	50	5	40	6
Asian and Native American	30	5	37	7	30	7
Education						
High school dropout	54	0	58	1	49	1
High school graduate	42	10	47	7		9
College graduate	29	15	30	16	23	18
Labor force experience						
Less than 20 years	44	1	53	0		0
20–29 years	42	4	47	3		4
30 or more years	38	13	40	11	32	13
Shared lifetime earnings,						
by income quintile ^a						
Lowest	52		62	0		0
2nd	48	5		6		7
3rd	43			12		14
4th	37	18		16		19
Highest	25	18	21	19	16	21

NOTE: The Social Security dependence ratio is the ratio of family Social Security benefits to total family income. The pension dependence ratio is the ratio of family pension income to total family income. Tabulations include only individuals whose family income is greater than zero.

a. Shared lifetime earnings are the average of wage-indexed shared earnings between ages 22 and 62. Shared earnings are computed by assigning each individual half of the total earnings of the couple in the years when the individual is married and his or her own earnings in years when not married. Quintile thresholds reflect the entire population aged 62 or older.

corresponding decline in projected poverty rates. In addition, median financial wealth will increase between 2022 and 2062.

By contrast, relative measures of well-being suggest that the well-being of Social Security beneficiaries will decline between 2022 and 2062. For instance, the share of beneficiaries who have low income relative to their peers, measured as the share whose income-to-needs ratio is less than half of the median ratio, will increase between 2022 and 2062. In addition, replacement rates are projected to fall over time, indicating a decline in well-being during retirement relative to that during the working years. And although median financial wealth will increase between 2022 and 2062, it will actually fall relative to economy-wide average wages. Projected improvements over time would lessen, and declines would be exacerbated, if instead of assuming the payment of Social Security benefits scheduled under current law we assume that benefits would be reduced according to what is payable under current-law taxes.

Although this article focuses only on future retiree populations, some of the general findings are relevant in discussing the well-being of current retirees. Butrica and Iams (2005) find that current retirees have higher poverty rates than future retirees are likely to experience, a result due to projected real wage growth. In contrast, the authors find that the share of the current elderly population whose retirement income is less than half of the median income of all adults aged 65 or older is slightly below the share that can be expected for future retiree populations. These results are consistent with our findings on how economic well-being changes over time, and they support the importance of using several measures when assessing the well-being of future Social Security beneficiaries.

Fairly consistently across the different measures of well-being, certain groups fare worse than others, including never-married beneficiaries, nonwhites, beneficiaries without a high school degree, and those with fewer years of labor force experience and low lifetime

earnings. The one measure in which some of these groups appear to do better, however, is replacement rates, but that is only because their preretirement earnings were relatively low and their Social Security benefits are relatively high. These vulnerable groups are likely to be more dependent on Social Security benefits for their retirement income. As a result, they fare particularly poorly under the assumption that Social Security benefits are reduced to reflect what is payable under current-law taxes.

These projections provide guidance with respect to where Social Security reform proposals could target benefit increases (or minimize benefit reductions). The payable benefits scenario reduces all scheduled benefits in a given year by the same share. A more progressive method of reducing benefits, however, would increase poverty rates less for the most vulnerable groups. For instance, scheduled benefits could be reduced by decreasing the primary insurance amount (PIA) formula factor for the third bendpoint range but retaining the factors for the first two ranges. Additionally, the most atrisk groups might also benefit from increased income targeted toward the elderly through SSI, which could be accomplished by increasing benefits, income and resource limits, or both.

Finally, we acknowledge a couple of limitations of MINT that may affect the results. First, although MINTEX models behavioral responses to changes in Social Security policy for the main MINT cohorts (those born between 1926 and 1972), it may fail to fully capture changes in retirement behavior among the 1973–2017 cohorts. However, the extent to which the retirement behavior of these cohorts is misrepresented is not clear, because only significantly large changes in Social Security wealth have an impact on retirement behavior in the MINT retirement model.¹⁸

Second, the current methodology for generating additional birth cohorts understates the size of the future retiree population because it does not fully account for future immigration among the 1973–2017 cohorts.¹⁹

Chart 1.

Projected poverty rates for Social Security beneficiaries aged 62 or older, by marital status, 2022 and 2062 (in percent)

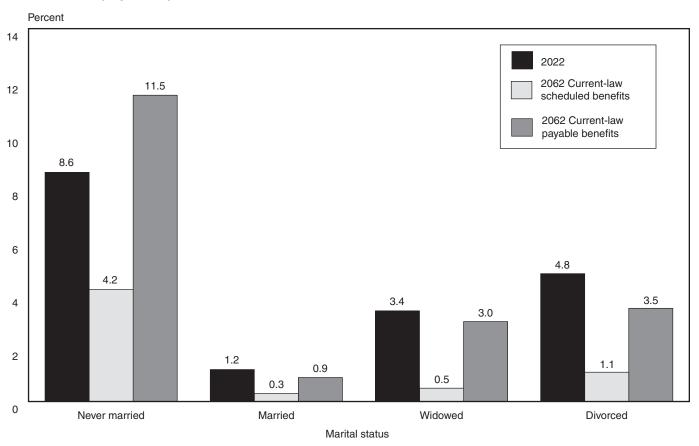


Chart 2.

Projected median income replacement rates for Social Security beneficiaries aged 62 or older, by quintile of shared lifetime earnings, 2022 and 2062 (in percent)

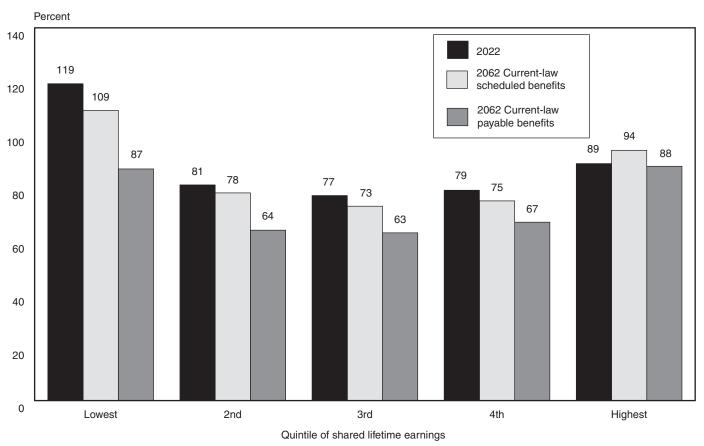
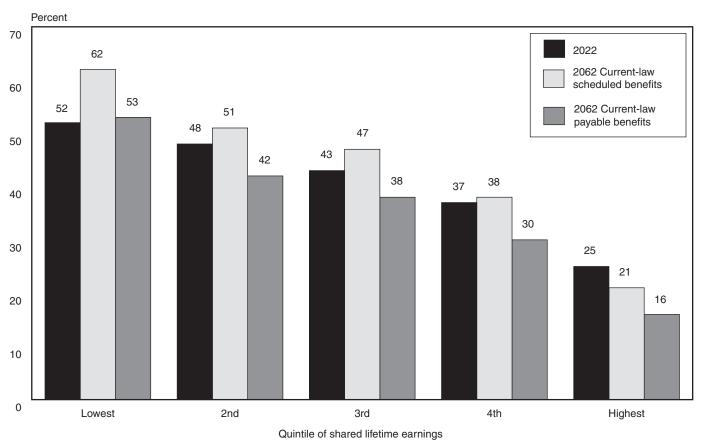


Chart 3.

Projected median Social Security dependence ratios for Social Security beneficiaries aged 62 or older, by quintile of shared lifetime earnings, 2022 and 2062 (in percent)



Acknowledgments: The authors thank Mike Anzick, Chris Chaplain, Ed DeMarco, Susan Grad, Howard Iams, Paul Van de Water, Alice Wade, and David Weaver for carefully reading the manuscript and providing helpful comments.

The research for this study was funded by the Social Security Administration, Office of Policy, Office of Research, Evaluation, and Statistics, Division of Policy Evaluation (Task Order No. 0440-03-52348). The findings and conclusions expressed in this article are those of the authors and do not necessarily represent the views of their affiliated institutions.

- ¹ Based on the 2006 Annual Report of the Board of Trustees of the Federal Old-Age and Survivors Insurance and Disability Insurance Trust Funds (Board of Trustees 2006).
- ² Nichols, Clingman, and Wade (2005), also use a third baseline, namely, one that increases payroll taxes to a level that allows for payment of scheduled benefits. Although such a baseline is relevant for that study, which examined rates of return on payroll taxes, it is not relevant for this analysis because our focus is on retirement income, not taxation.
- ³ The Trustees also develop low- and high-cost assumptions, but the intermediate set is thought to be the best guide to future outcomes.
- ⁴ We do not provide standard errors of the estimates in this paper, which is a complex undertaking in simulation models. However, no estimates reported in this paper are based on sample sizes smaller than 100 observations.
- ⁵ MINT projects that retirees will live longer than what the Office of the Chief Actuary forecasts. In addition, the differential in life expectancy between women and men is larger for MINT than for OCACT. As a result, MINT projects more widows in the future than does OCACT. To test the sensitivity of MINT's results to its mortality assumptions, Toder and others (2002, chapter 8) calibrated MINT's mortality projections to match OCACT's 2002 forecasts. These adjustments reduced life expectancy in MINT and reduced the size of the retired population.
- ⁶ Our measure of lifetime earnings differs from Social Security's average indexed monthly earnings (AIME), which is based on the highest 35 years of wage-indexed earnings. Social Security's AIME may be based on less than 35 years of earnings for Social Security DI beneficiaries, depending on the age at which they became disabled. In contrast, our measure of average lifetime earnings is based on 41 years of earnings for all individuals. In addition, our measure, unlike the AIME, includes earnings not covered by Social Security and earnings above the Social Security taxable maximum.
- ⁷ In each year from retirement until death, MINT takes the stock of wealth in retirement accounts and nonpension, nonhousing assets and (1) reduces it on the basis of age/ wealth patterns in the SIPP to represent the spend-down of assets in retirement and (2) converts it into income by calculating the annuity a couple or individual could buy if they annuitized 80 percent of their total wealth. Thus, asset income is derived from a series of annuity estimates based on a declining stock of wealth in retirement.

- ⁸ The Census Bureau measures income from financial assets directly. As stated earlier, MINT imputes income from financial assets by determining the real (price-indexed) annuity a family could buy if it annuitized 80 percent of its financial assets including assets in retirement accounts.
- ⁹ Specifically, poverty rates in MINT may be somewhat lower than those based on the Census definition. Toder and others (1999, Table 7-17) found that the MINT definition yielded a poverty rate of 8.0 percent for beneficiaries in the early 1990s whereas the Census definition yielded a rate of 8.8 percent.
- Definitions of replacement rates vary depending on whether the focus is on Social Security income alone or on all retirement income. This analysis focuses on all retirement income. Thus, our replacement rates are higher than those in other studies, where the focus is on the extent to which Social Security income replaces average career earnings. Based on the 2006 Trustees Report, a worker retiring in 2005 with medium career earnings would receive Social Security benefits that replaced about 41 percent of average earnings (Board of Trustees 2006, Table VI.F10).
- ¹¹ To calculate replacement rates, we compute the average of wage-indexed shared earnings between ages 22 and 62. That is, we average shared earnings over 41 years for all individuals. Consequently, replacement rates will be inflated for individuals with years out of the labor force, including DI beneficiaries.
- ¹² Previous MINT reports and studies (for example, Butrica, Smith, and Toder 2002) have confirmed that average lifetime earnings increase for retirees in each successive birth cohort through about 1950 and then decrease slightly thereafter.
- ¹³ Replacement rates decline between 2022 and 2062 because retirement incomes are not projected to increase as fast as earnings. In contrast, those in the highest quintile of shared lifetime earnings are projected to have higher replacement rates in 2062 under the scheduled benefits scenario and virtually the same replacement rates under the payable benefits scenario. The reason is that their retirement income, especially income from financial assets, will increase more than their preretirement earnings.
- ¹⁴ For this analysis, we include only individuals whose family income is greater than zero.
- ¹⁵ MINT does not capture the Social Security benefits of family members other than a spouse, if married. As a result, the Social Security dependence ratio could be understated for those living in extended families.
- ¹⁶ Separate modules in MINT impute defined benefit pension coverage and benefits and defined contribution pension coverage and wealth at retirement. The pension projections start with the self-reported pension coverage information in the SIPP. MINT then uses data from the Policy Simulation Group's PENSIM model to impute future job changes and pension coverage on future jobs. PENSIM simulates job histories using job tenure models estimated from the SIPP and applied to a synthetic data set. PENSIM also simulates pension coverage using Form 5500 data augmented by CPS data for public-sector workers. Next, MINT projects

pension benefits from past, current, and future jobs. Defined benefit pensions are projected using the defined benefit plan formulas in the Pension Benefit Guaranty Corporation's Pension Insurance Modeling System (PIMS). Retirement account (that is, defined contribution, IRA, and Keogh plans) balances are projected using self-reported information in the SIPP regarding account balances and contribution rates, along with assumptions regarding asset allocations and future contribution rates. MINT projects the wealth from these accounts by accumulating the balances to the retirement date, along with any new contributions and interest earnings.

¹⁷ MINT does not disaggregate coresident family income into its components (Social Security, pension income, and so on). Middle-income families are defined in the Butrica, Iams, and Smith (2003/2004) study as families in the 45th–55th income percentiles.

¹⁸ The reason is that family wealth (including defined benefit and defined contribution pension wealth from current and past jobs, Social Security wealth, and other financial wealth such as stocks, bonds, and checking accounts) has a small positive effect on the decision to retire, but individual retirement incentives (measured by the maximum increase in pension wealth associated with continued work, in excess of the value implied by the current wealth accrual) have a small negative effect on the decision to retire. To some extent, these effects cancel each other out, resulting in little or no behavioral response to changes in Social Security benefits.

¹⁹ Individuals in the 1973–2017 birth cohorts come from the Current Population Survey (CPS) and the Census population projections. Although the methodology accounts for immigrants represented in the CPS survey and the Census, it does not represent people who immigrated after these surveys and those who are projected to arrive in the United States after age 38. See Smith, Cashin, and Favreault (2005) for more information.

References

Board of Trustees of the Federal Old-Age and Survivors Insurance and Disability Insurance Trust Funds. 2004. 2004 Annual Report of the Board of Trustees of the Federal Old-Age and Survivors Insurance and Disability Insurance Trust Funds Washington, DC. Available at http:// www.socialsecurity.gov/OACT/TR/TR04/tr04.pdf.

——. 2006. 2006 Annual Report of the Board of Trustees of the Federal Old-Age and Survivors Insurance and Disability Insurance Trust Funds Washington, DC. Available at http://www.socialsecurity.gov/OACT/TR/TR06/tr06.pdf.

Butrica, Barbara A., Howard M. Iams, James Moore, and Mikki Waid. 2001. *Methods in Modeling Income in the Near Term (MINT)*. ORES Working Paper No. 93. Washington, DC: Office of Research, Evaluation, and Statistics, Office of Policy, Social Security Administration.

Butrica, Barbara A., Karen E. Smith, and Eric J. Toder. 2002. Projecting Poverty Rates in 2020 for the 62 and Older Population: What Changes Can We Expect and Why? Working Paper No. 2002-03. Chestnut Hill, MA: Center for Retirement Research at Boston College.

Butrica, Barbara A., Howard M. Iams, and Karen E. Smith. 2003/2004. "The Changing Impact of Social Security on Retirement Income in the United States." *Social Security Bulletin* 65(3): 1–13.

Butrica, Barbara A, and Howard M. Iams. 2005. "The Economic Well-Being of the Aged Population in the Early 1990s, 2025, and 2060: An Analysis of Social Security Benefits and Retirement Income." Paper presented at the annual meeting of the Population Association of America, Philadelphia, March 31–April 12.

Davies, Paul S., and Melissa M. Favreault. 2004. *Interactions Between Social Security Reform and the Supplemental Security Income Program for the Aged*. Working Paper No. 2004-02. Chestnut Hill, MA: Center for Retirement Research at Boston College.

Nichols, Orlo, Michael Clingman, and Alice Wade. 2005. Internal Rates of Return under the OASDI Program for Hypothetical Workers. Actuarial Note No. 2004.5 (March). Baltimore, MD: Office of the Chief Actuary, Social Security Administration. Available at http://www.socialsecurity.gov/ OACT/NOTES/ran5/an2004-5.html.

Panis, Constantijn, and Lee Lillard. 1999. *Near Term Model Development*. Final report prepared under SSA Contract No. 600-96-27335. Santa Monica, CA: RAND.

Smith, Karen E., David B. Cashin, and Melissa M. Favreault. 2005. *Modeling Income in the Near Term 4*. Final report prepared under SSA Contract No. 600-01-60123. Washington, DC: Urban Institute.

[SSA] Social Security Administration 2005. *Income of the Population 55 or Older, 2002*. Washington, DC: Office of Research, Evaluation, and Statistics, Office of Policy, Social Security Administration.

Toder, Eric, Cori Uccello, John O'Hare, Melissa Favreault, Caroline Ratcliffe, Karen Smith, Gary Burtless, and Barry Bosworth. 1999. *Modeling Income in the Near Term-Projections of Retirement Income Through 2020 for the 1931–1960 Birth Cohorts*. Final report prepared under SSA Contract No. 600-96-27332, Task Order No. 0440-98-33515. Washington, DC: Urban Institute.

Toder, Eric, Lawrence Thompson, Melissa Favreault, Richard Johnson, Kevin Perese, Caroline Ratcliffe, Karen Smith, Cori Uccello, Timothy Waidmann, Jillian Berk, and Romina Woldemariam. 2002. *Modeling Income in the Near Term: Revised Projections of Retirement Income Through 2020 for the 1931–1960 Birth Cohorts*. Final report prepared under SSA Contract No. 600-96-27332, Task Order No. 0440-00-39422. Washington, DC: Urban Institute.