CHAPTER 7

PROJECTING RETIREMENT INCOMES TO 2020

I. OVERVIEW

This chapter brings together all components of income and assets at the age of initial Social Security receipt. It then projects total annual family income for all remaining years of life, for every person on the merged SIPP-SER files in the 1931-1960 birth cohorts, through the year 2020. The projection of total family income allows us to estimate family well-being of Social Security recipients born between 1931 and 1960 from 1997 through the year 2020.

The predictions of income and assets from early retirement until death use as inputs the results of previous chapters in this report and the demographic projections by RAND. They use RAND's demographic projections to determine marital status and mortality. They use the earnings projections from Chapter 2 to determine Adjusted Indexed Monthly Earnings (AIME) and Social Security benefits. They use the projections of income at retirement from defined benefit (DB) plans and characteristics of DB plans from Chapter 3 to project DB plan income, including any cost-of-living adjustments, throughout retirement. They use the projections of defined contribution (DC) pension balances and IRA balances from Chapter 3 and the projections of housing and other financial wealth reported in Chapter 4 to determine initial stocks of housing wealth and "non-annuitized" financial wealth at retirement. They use the starting age of Social Security benefits from Chapter 5 to determine the date of retirement and the projection of partial retirement earnings from Chapter 6 to determine income from earnings of Social Security beneficiaries.

The inputs from earlier chapters, combined with an assumption that housing wealth remains constant in real terms, gives us the path in retirement of all sources of income except income from non-annuitized financial assets. To obtain the latter, we need to know the rate at which the stock of these assets changes in retirement, which depends on the decisions of individuals and couples on how much to consume and how much to save. We project changes in the stock of post-retirement financial wealth using a reduced-form model of the rate of decline of financial assets with age for older Americans. This model is estimated from a synthetic panel consisting of multiple panels (1984 and 1990-93) of Survey of Income and Program Participation (SIPP) data merged with earnings data from the Summary Earnings Records (SER) and Social Security entitlement and mortality data from the Master Beneficiary Records (MBR). Finally, we convert the stock of financial assets into income by calculating the annuity the individual or couple could purchase from 80 percent of these assets. This model allows families to save from their income or borrow from their assets.

The projections we report show that unmarried individuals and nonwhites are becoming an increasing proportion of the aged population. Because these groups have a relatively high incidence of poverty, we estimate that poverty rates among the aged will increase. We find that the poverty rate of later cohorts is higher than the poverty rate of earlier cohorts, and that per capita income is becoming less evenly distributed over time. About 10 percent of the youngest Social Security beneficiaries will be in poverty in the year 2020, compared to about 8 percent of similarly aged Social Security beneficiaries in 1990. High school dropouts and individuals who never marry are increasingly in poverty in retirement in 2020 compared to 1990.

The organization of this chapter is as follows. In section II, we summarize our statistical estimates of the changes in financial assets as people age and describe the data we used in the estimation. In section III, we describe our methodology for decaying income from assets over time and our methodology for calculating family income in retirement. In section IV, we describe the change in the composition of initial Social Security recipients by cohort. We focus on the compositional changes by cohort that are important for our model of the decay of financial assets in retirement. We then describe family income of Social Security beneficiaries at first benefit receipt. We do this separately for husbands, wives, and single individuals, and then for all individuals on a per capita basis. Then we describe the distribution of income by gender and cohort. In section V, we first describe the characteristics of our projection sample in the year 2020 and show their projected income as a percent of poverty. Next, we describe the changes in poverty rates among the aged in the year 2020. We then compare characteristics and income of the 1990 aged population with the 2020 aged population. Finally, in section VI, we present our conclusions.

II. ESTIMATES OF POST-RETIREMENT CHANGES IN FINANCIAL ASSETS WITH AGE

We estimated a reduced-form model of the rate of decline of financial assets for older Americans. These estimates are based on a cohort analysis of multiple panels of Survey of Income and Program Participation (SIPP) data merged with earnings data from the Summary Earnings Records (SER) and Social Security entitlement and mortality data from the Master Beneficiary Records (MBR).

1. Description of the Estimating Equation

The rate of decline of financial assets for aged families is represented as a function of demographic variables, birth cohort, past earnings, current Social Security benefit and DB pension income, and mortality. The equation estimates the curvature of the age-wealth profile for various population subgroups and should capture the rate of saving or dissaving of retired individuals as they age. The form of the equation is as follows:

$$\mathrm{Ln}(W) = \beta_0 + \beta_1 X + \beta_2 Y(\mathrm{age}) + \epsilon$$

where, W is financial assets, Ln is the natural logarithmic transformation, β_0 is an intercept term, X is a vector of covariates expected to influence financial wealth, Y is a vector of covariates interacted with age, the β_is are parameters to be estimated, and ϵ is a random error term.

The X vector includes the following explanatory variables: family Social Security benefit, DB pension income, average indexed annual earnings from age 50 to age 60, gender, marital status, race, educational attainment, natural logarithm of home equity for homeowners, an indicator for the last 27 months of life, and birth cohort. The Y vector includes interaction terms (slope parameters) between age and dummy variables for race, homeownership, presence of a high earner in the household, defined benefit pension coverage indicator, and widowhood. In all cases, we express income and wealth as a percentage of the economy-wide average wage. While other characteristics might also explain changes in financial wealth in old age, we are limited to those variables available in the MINT model. Therefore, we cannot include explanatory variables such as health status, health insurance coverage, living arrangement, farm ownership, or business ownership, among others in our model.[1]

Individuals differ greatly in both their ability to accumulate assets into retirement and their willingness to spend them post-retirement. The estimates in this section reflect this heterogeneity.

Our model allows families to increase or reduce their financial wealth in retirement. Figures 7-1 and 7-2 illustrate two different patterns of wealth change. Figure 7-1 displays the amount and composition of total wealth for a man expected to live until age 83, who might be characterized as a "financial asset saver" because he consumes less than his income from financial assets. (He still consumes more than his total economic income because the bulk of his total wealth is in the form of annuitized assets, which permits him to consume from principal as well as income.) Ignoring the impact of cost-of-living adjustments, he gets an annual Social Security benefit of 30 percent of the economy-wide average wage, a defined benefit pension of 40 percent of the average wage, and employment earnings at age 65 to age 67 of 50 percent of the average wage. The remainder of his wealth is in other financial assets. At age 65, this amounts to three times the average wage. Each year he can consume from his total wealth. Since he is a saver, even though his total wealth is declining, the value of his financial assets (deflated by the average wage) increases. In contrast, Figure 7-2 displays the amount and composition of wealth for a man with the same initial wealth and life expectancy, who might be characterized as a "permanent income dissaver" because he consumes more than his permanent income. His other financial assets are essentially depleted by age 75, and he lives his surviving days on his Social Security benefit and defined benefit pension.

Figure 7-1
Amount and Composition of Wealth by Age
Financial Asset Saver

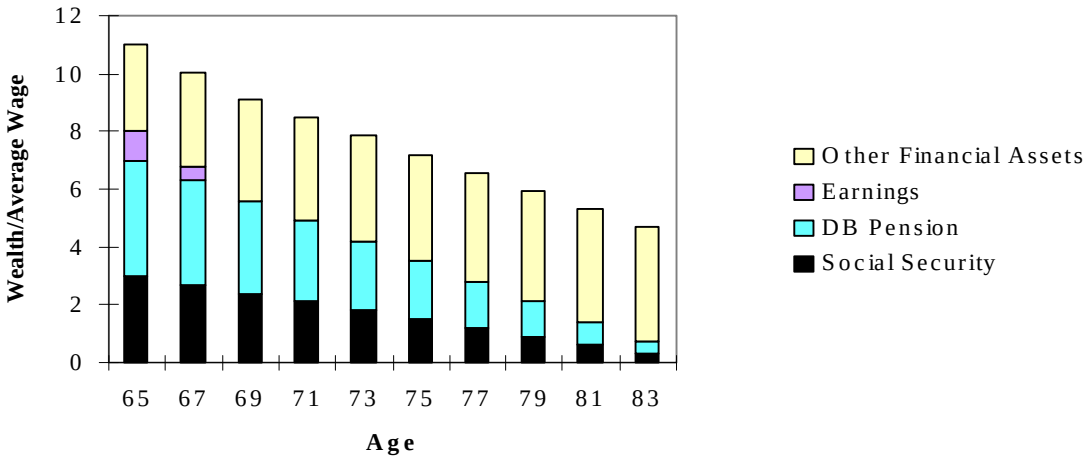
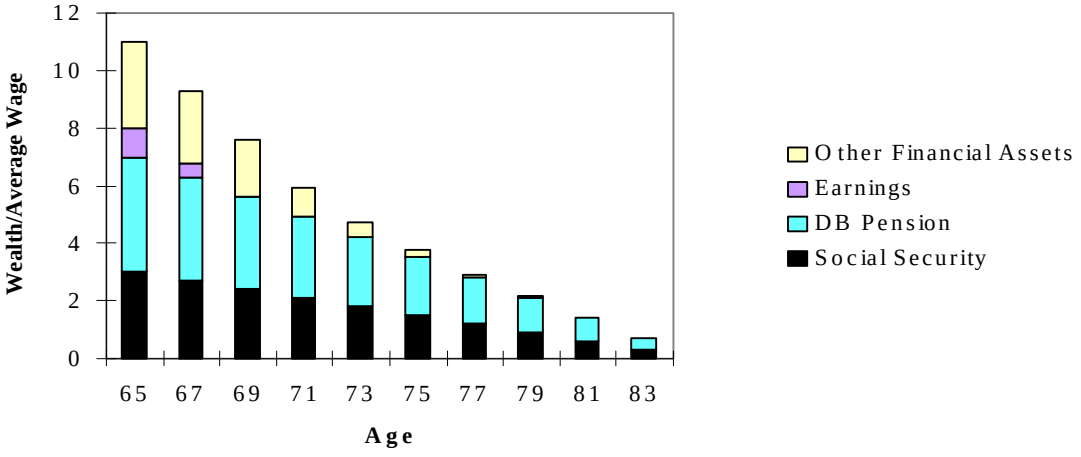


Figure 7-2
Amount and Compostion of Wealth by Age
Permanent Income Dissaver



2. Data

We constructed a sample of families from the 1984, 1990, 1991, 1992 and 1993 SIPP panels including the pension and wealth topical module information. From the SIPP, we obtain demographic data including age, gender, marital status, educational attainment, race, and birth date. The SIPP also reports DB pension incomes from private payers, state and local government, the military, and other federal government. From the pension plan coverage topical modules, we obtain IRA, Keogh, and 401(k) balances, information on joint and survivor pension participation, and an indicator for whether pensions receive a cost-of-living adjustment.[2] The wealth topical modules report home, vehicle, other real estate, and farm and business equity (value - debt). The SIPP also shows stock, mutual fund, and bond values, checking, saving, money market, and certificate of deposit account balances, and unsecured debt (credit card and doctor bills).

Our measure of financial assets is the sum of family IRA, Keogh, and 401(k) balances; vehicle, other real estate, and farm and business equity (value - debt); stock, mutual fund, and bond values; checking, saving, money market, and certificate of deposit account balances, less unsecured debt. For simplicity, we call this sum "financial assets," but it really represents a more general definition of wealth.

The Bureau of the Census matched each of these SIPP panels to the Social Security Administration Summary Earnings Records (SER) and the Social Security Administration Master Beneficiary Records (MBR). The SER has information on Social Security covered earnings and the number of covered quarters per year from 1951 to 1996. The MBR contains the Social Security monthly benefit amount (MBA), primary insurance amount (PIA), and type of benefit paid, for three different periods. The three different periods vary by SIPP panel. Table 7-1 shows the dates that the MBR records cover by SIPP panel. For 62-year-olds in 1984, we can observe their Social Security benefit even if they don't start receiving it until age 73. It also has the date of current entitlement, date of initial entitlement, date of birth, and date of death. For beneficiaries who die, the MBA is set to zero, but the PIA is left intact. For beneficiaries who die after the SIPP survey but before the first MBR observation, we calculate the MBA from the PIA. Individuals who never receive a Social Security benefit do not have an MBR record. This includes uncovered workers and individuals who are below the retirement age and not collecting disability or survivors' benefits.

Social Security income is included as an explanatory variable in our model of post-retirement financial assets. At the time of the SIPP survey, however, some of the individuals in our sample are not receiving Social Security yet. Their Social Security wealth, however, influences both their accumulation and rate of decay of these assets. For individuals not

Table 7-1
Date of Master Beneficiary Record Information by SIPP Panel

SIPP Panel	First MBR Date	Second MBR Date	Third MBR Date
1984	1991	1992	1995
1990	1991	1992	1995
1991	1992	1993	1995
1992	1993	1994	1998
1993	1994	1995	1998

Source: Social Security Administration.

receiving Social Security benefits at the SIPP interview, but who will receive Social Security in the future, we assign their Social Security income to be their future Social Security income discounted for the number of years until they begin to receive Social Security. This effectively turns Social Security income in the regression into a measure of price adjusted lifetime earnings.

Consistent with other tasks in the MINT project, we measure financial wealth in any year by its value relative to the average annual wage of Social Security covered employees in that year. Consequently, changes in wealth are measured relative to changes in the average wage. For example, if the average wage increases by two percent per year and nominal wealth increases by one percent per year over the same period, our measure would show wealth *declining* by approximately one percent per year.

Table 7-2 compares growth rates in the average wage and in the price level, as measured by the CPI-U, over years spanning the estimation period (1983-93) and the projection period (1997-2020). In most 5-year periods, wages grew (and are projected to grow) faster than prices -- that is, the real wage was increasing, although for two of the 5-year periods (1980-84 and 1990-94), real wages declined slightly. Because wages are rising slightly faster than prices throughout the projection period (by almost one percent per year after 2010), real wealth will decline slightly less, or increase slightly more, than our measure of wealth (which is a multiple of the average wage).

We limited our sample to families that include individuals born in or before 1922. For married couples, we retained all the information about the spouse regardless of his or her age. For the 1984 panel, individuals born in 1922 were 62 years old. In the 1990 panel, individuals born in 1922 were 68 years old. By the 1993 panel, they were 71 years old. Combining the SIPP panels in this fashion creates a synthetic panel. While we do not follow specific individuals over time, we can observe the characteristics and wealth of samples of the aged as they age.

Table 7-2
Average Annual Growth in Average Wage and CPI-U--1980 to 2019

	Average Annual Growth		Real Wage
Year	**Average Wage**	**CPI-U**	**Growth**
1980 - 1984	7.1%	7.3%	-0.3%
1985 - 1989	4.5%	3.2%	1.2%
1990 - 1994	3.4%	3.9%	-0.5%
1995 - 1999	4.0%	2.4%	1.6%
2000 - 2004	3.9%	3.5%	0.4%
2005 - 2009	4.4%	3.5%	0.8%
2010 - 2014	4.4%	3.5%	0.9%
2015 - 2019	4.4%	3.5%	0.9%
1997 - 1999	3.6%	2.1%	1.5%

Source: Historical CPI-U growth rates are from the Bureau of Labor Statistics.

Average Wage growth rates and projected CPI-U are from the 1998 Social Security Administration OASDI Trustees' Report.

3. Estimation Results

We estimated financial wealth for married couples and single individuals separately. In estimating financial wealth for married couples, we included explanatory variables for both the husbands' and wives' characteristics. We omitted two families with exceptionally high values of financial assets (over 100 times the average wage) from the couple estimation sample. Including these observations might bias the results towards showing a higher average wealth in the year in which these individuals were included relative to the sample years that did not include any very high-wealth individuals.

Single individuals are a diverse group. They include widows from historically high earning families and from low earning families, as well as individuals who are divorced or never married. While we have historical earnings information for individuals in our sample, we do not have data on the historical earnings of former spouses who were absent or deceased at the time of the SIPP panel. Because many women in our estimation cohorts have little or no earnings, their earnings could be a poor predictor of financial assets at retirement, which would depend more on earnings of former spouses. Therefore, for single people, we omit the earnings explanatory variable and depend on family Social Security benefit to control for lifetime earnings. This provides the best, though imperfect, available indicator of the combined lifetime earnings of the individual and any former long-time spouses.

The regression results are displayed in Table 7-3. For married couples, other financial wealth is positively correlated with increased Social Security benefit, home value, pension income, and average indexed earnings between ages 50 and 60. The husband's level of education is positively related to wealth. For the husband, completion of a high school education increases estimated financial wealth by about 44 percent and completion of a college education increases estimated financial wealth by about 66 percent, compared to high school dropouts (the omitted education category in the regressions). The return for women's education is not as large as for men's education, but it is still positive. Compared with high school dropouts, wives' completion of a high school education increases the couple's estimated financial wealth by about 43 percent and their completion of a college education increases estimated financial wealth by about 45 percent.

Age of initial Social Security entitlement increases the estimated value of other financial wealth. Most families that postpone retirement continue to work and presumably also save. Postponing retirement also increases the Social Security benefit, both due to the effect of the actuarial reduction for early retirement and to the inclusion of a potentially higher level of earnings in the AIME calculation. For a husband, estimated other financial assets increase one percent for every year he waits to collect Social Security. For a wife, estimated other financial assets increase about two percent for every year she waits to collect Social Security.

Financial assets vary among cohorts, but in a complicated way. The first earnings observation we have for any individual is 1951. Therefore, we have fewer earnings observations for each earlier birth cohort. For earlier birth cohorts, the 1951 earnings are for late in the career, and therefore higher on average. These high earnings were subject to a lower taxable maximum, because the taxable maximum was considerably lower in the 1950s than in the 1980s (see Figure 7-3). Social Security beneficiaries first entitled after 1978 (born before 1917) were based on an average monthly wage calculation (AMW). Beginning in 1979, the formula for calculating Social Security benefits was changed to be based on the average indexed monthly earnings (AIME). This effectively reduced the Social Security entitlement for those born in 1917 or later. As a political gesture, Congress phased in the effect of the AMW to AIME switch for individuals first entitled to Social Security between 1979 and 1983 (born between 1917 and 1921).

We included cohort identifiers in the model to control for these complex changes. Our results show that husbands born between 1906 and 1910 have about 11 percent lower estimated financial assets compared to husbands born before 1906. Husbands born between 1911 and 1916 have 29 percent lower estimated financial assets compared to husbands born before 1906, and those born after 1917 have 44 percent lower estimated financial assets. These figures indicate the expected wealth in any cohort, controlling for fixed amounts of other independent variables. While not all of the cohort parameter estimates are individually statistically significant at the 95 percent confidence level, the group of cohort parameters estimates is statistically significant.

One reason that later cohorts have lower wealth, relative to the other predictors is that they have higher covered earnings than earlier cohorts, reflecting increased Social Security taxes and

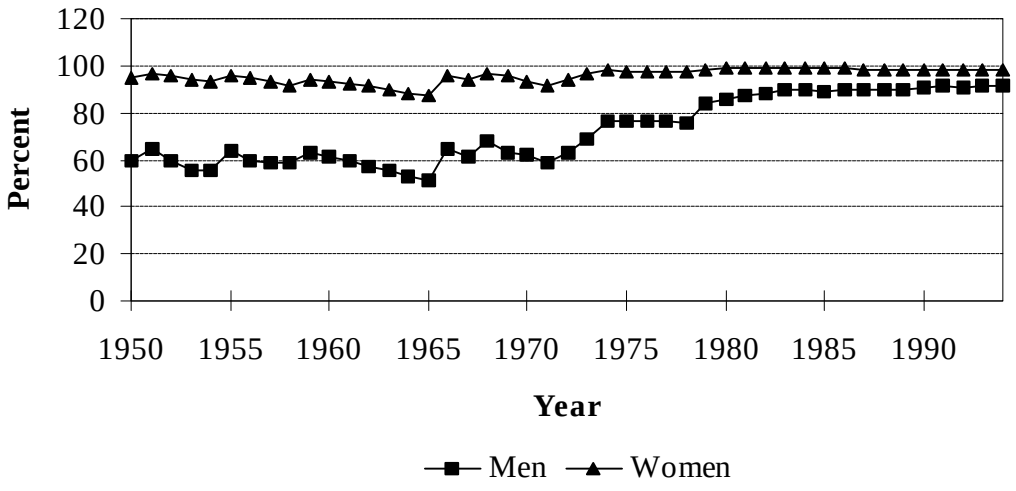
Table 7-3
OLS Regression Results by Marital Status for Dependent Variable Log Financial Assets

Variable	Couples		Singles	
	Parameter Estimate	Standard Error	Parameter Estimate	Standard Error
Intercept terms				
Intercept	**-2.523**	0.772	**-1.790**	0.516
Social Security benefit	**1.130**	0.184	**2.524**	0.203
Log of home wealth	**0.405**	0.033	**0.342**	0.032
Head DB pension	**0.726**	0.094	**1.374**	0.117
Wife DB pension	**0.376**	0.228	.	.
Head average earn age 50 to 60	**0.400**	0.073	.	.
Wife average earn age 50 to 60	0.026	0.079	.	.
Male	.	.	0.063	0.062
Divorced	.	.	**-0.366**	0.103
Widow	.	.	**1.924**	0.585
Black	.	.	**-0.904**	0.220
Hispanic	.	.	-0.317	0.189
Head high school	**0.438**	0.064	**0.498**	0.053
Wife high school	**0.426**	0.063	.	.
Head college	**0.658**	0.099	**0.937**	0.096
Wife college	**0.450**	0.119	.	.
Head age initial entitlement	0.011	0.010	**0.016**	0.007
Wife age initial entitlement	**0.019**	0.007	.	.
1906<=head born<=1910	-0.106	0.121	**-0.277**	0.082
1911<=head born<=1916	**-0.290**	0.111	**-0.405**	0.085
1917<=head born+	**-0.437**	0.115	**-0.588**	0.102
Head or wife dies within 27 months	**-0.207**	0.079	**-0.256**	0.085
Slope terms				
Head age by homeowner	**-0.019**	0.003	**-0.016**	0.002
Head age by black	-0.004	0.003	.	.
Head age by white	**0.009**	0.002	**0.007**	0.003
Head age by family get pension	**-0.003**	0.001	.	.
Head age by high earnings			**0.004**	0.001
Head age by widowed			**-0.027**	0.008

Source: The Urban Institute tabulations of the SIPP merged with SER and MBR data.

Notes: Bolded parameter estimates are statistically significant at the 5 percent level.

Figure 7-3
Percent of Workers With Earnings Below the Taxable Maximum for Men and Women by Year



Source: Social Security Administration Annual Statistical Supplement 1998.

benefits over time. This occurs because Social Security replaces a larger percent of high earnings (determined by the taxable maximum) for younger than for older cohorts in the estimation sample. Despite the negative parameter estimates for wealth for the later cohorts, *holding other explanatory variables constant*, later cohorts have on average a higher estimated ratio of financial assets to the average wage than do earlier cohorts.

We controlled for the effect of mortality on wealth by including in the model a term for whether a person is in the last 27 months of life. If poorer families systematically die younger, then the average wealth for younger families will be low compared to the average value of just the survivors. Educational attainment, race, and earnings control for much of the wealth variation attributed to mortality. Additionally, Lubitz, Beebe and Baker (1995) found that health care spending in the last year of life is very high. From the MBR, we can observe mortality up until age 73. Our model shows that other financial wealth declines by about 20 percent as either the husband or wife

nears death. The dramatic decline in estimated financial wealth may be in part due to the high out-of-pocket spending families incur near death for health and long-term care. But a full explanation of the factors that cause household wealth to decline dramatically in the last year or two of life is beyond the scope of this report.

The key parameter of interest for our projections is the relationship between age and financial wealth. We included four variables in the model for married couples that capture the interaction between age and other characteristics: age of head times a dummy for homeownership status, age of head times a dummy indicating whether the head is black, age of head times a dummy indicating whether the head is white, and age of head times a dummy indicating whether the family receives a pension. Separate terms for age and age-squared did not significantly affect the level of financial wealth, once the age-interaction terms are included in the equation. Also, age interacted with a positive earnings indicator and age interacted with age of death indicators did not have significant effects.

The estimates show that financial assets decline for married homeowners as they age. At the same time, the value of a home has a large positive effect on the predicted level of wealth. The combined effect of these two coefficients is that homeowners begin retirement with substantially higher estimated financial wealth than renters, but experience a larger decline in wealth as their age increases past retirement. The home provides the family some precautionary saving. Therefore, homeowners can consume more of their financial assets relative to renters and maintain the same level of precautionary saving as renters.

The story is similar for individuals with defined benefit pensions. Other financial wealth declines faster with age for these pensioners than for nonpensioners. Pensioners also begin retirement with substantially higher estimated financial wealth than nonpensioners.

The age slope coefficient for blacks is negative, but positive for whites. This indicates that blacks reduce their financial assets more quickly than whites, and in fact whites may increase their financial assets as they age. Given the shorter life expectancy of blacks relative to whites, a steeper slope for blacks is a logical result.

The combination of homeownership, pension receipt, and race generates 12 separate slope estimates for married couples. Table 7-4 shows the approximate percent change in financial assets per year of age and the standard error of the estimates for these 12 categories. Combined with the mortality parameter, we estimate 24 separate wealth slopes for couples. For example, black, married, homeowners with a pension reduce financial assets on average by about 2.56 percent per year until the year the husband or wife dies. In this year, their financial assets decline by about 21 percent.[3]

Table 7-4
OLS Regression Results for Married Couples for Dependent Variable Log Financial Assets Percent Change in Financial Assets and Standard Error Per Year of Age

		Race		
		Black	**White Nonhispanic**	**White Hispanic**
		Percent Change in Financial Assets Per Year of Age[1]		
Home Status	**Pension Status**			
Homeowner	**Pension**	**-2.56%**	**-1.21%**	**-2.15%**
	No Pension	**-2.29%**	**-0.93%**	**-1.87%**
Renter	**Pension**	**-0.69%**	**0.66%**	**-0.28%**
	No Pension	-0.42%	**0.94%**	**0.00%**
Percent Change in Financial Assets in the Last Year of Life				**-20.7%**
		Standard Error of the Percent Change Per Year of Age		
Homeowner	**Pension**	0.447	0.303	0.266
	No Pension	0.359	0.299	0.257
Renter	**Pension**	0.266	0.217	0.088
	No Pension	0.257	0.204	0.000
Percent Change in Financial Assets in the Last Year of Life[2]				7.842

Source: The Urban Institute projections.

Note: Bolded percent changes are statistically significant at the 95 percent confidence interval.

1/ Parameter estimates are in a logarithmic scale and are approximations of percent change for small values.

2/ Standard error for a black, home owning couple with a pension.

Estimates for single individuals show a similar pattern as for married couples (see Table 7-3). For single individuals, the omitted group is nonwhite, never married, high school dropouts, born before 1906. Estimated financial wealth is positively correlated with Social Security benefits, home value, and pension income. Being male raises financial wealth by about six percent compared with women. Being widowed approximately doubles financial wealth compared with individuals who never married, and being divorced reduces financial wealth by about 37 percent relative to individuals who never married. Controlling for other determinants of wealth, blacks have about 90 percent less financial wealth than nonblacks, and Hispanics have about 32 percent less financial wealth than nonhispanic whites. As with married couples, the return to education is substantial. Compared with high school dropouts, a high school education increases financial assets by about 50 percent and a college education raises financial assets of individuals by about 94 percent.

As with married couples, the partial effect of belonging to a later birth cohort on wealth is negative. Controlling for other determinants of wealth, cohorts born after 1906 have less financial wealth than individuals born before 1906 -- 28 percent less for individuals born between 1906 and 1910, 41 percent for individuals born between 1911 and 1916, and 59 percent for individuals born after 1917. However, because later cohorts have higher covered earnings, they, on average, also have higher estimated financial assets than earlier cohorts.

As with couples, age of initial Social Security entitlement increases the estimated value of financial wealth for single individuals. Postponing Social Security retirement increases estimated financial assets by about two percent per year. Estimated financial assets decline by about 26 percent in a single individual's last year of life. This is slightly higher than the decline for married couples.

We included four slope parameters (age terms) in the model for single individuals: age by homeownership, age by white, age by high earnings (average earnings between age 50 and 60 greater than 1.2 times the average wage), and age by widowhood. As in the model for married couples, age terms by themselves are not statistically significant when the age-demographic interaction terms are included in the equation.

Estimated financial assets decline for homeowners as single individuals age. Combined with the large estimated positive coefficient on the value of a home, homeowners have substantially higher estimated financial wealth at retirement than renters, although their wealth falls more rapidly. The parameter estimate for whites is positive, indicating that whites have higher financial assets compared to blacks. The slope parameter estimate for single blacks was not significantly different than zero. The slope parameter estimate for single whites is positive, suggesting whites may increase financial assets as they age. The insignificant coefficient for blacks occurs largely because the observations in our estimation sample have very few financial

assets and continue to have few financial assets as they age. Finally, the slope parameter for widows is negative, indicating that widows' estimated financial assets decline as they age.

The combination of homeownership, earning status, race, and marital status generates 16 separate slope estimates for single individuals. Table 7-5 shows the approximate percent change in financial assets per year of age and the standard error of the estimates for these 16 categories. Combined with the mortality parameter, we estimate 32 separate wealth slopes for single individuals. For example, white, widowed, low earning homeowners reduce financial assets on average by about 3.65 percent per year until their last year of life. In this year, their financial assets decline by about 25 percent.[4]

In conclusion, the regression results indicate that other financial assets relative to wages decline with age for most groups, but the rate of decline varies among groups. Other financial assets declines the fastest for groups with the highest level of other financial wealth at retirement -- homeowners, people with pensions, and widows. Whites on average save more of their other financial wealth in retirement than do blacks.

III. METHODOLOGY

1. Projecting Changes in Financial Wealth

We calculate total financial assets at the date of initial Social Security receipt. Total financial assets is the sum of predicted financial assets from Chapter 4 and DC pension balances and IRA/Keogh account balances from Chapter 3. In MINT, initial receipt of Social Security retirement benefits is between ages 62 and 67 (with some individuals collecting disability or survivors benefits earlier) based on a model of Social Security retirement as described in Chapter 5. If the individual retires at age 62 or younger, we calculate the total financial assets at age 62. Otherwise we calculate the total financial assets at age 67. For each year after initial Social Security receipt, we update the balance of financial assets based on the characteristics of the family in each year. Each change is measured as a percentage change in financial assets relative to the previous year's balance.

We predict the annual percentage change in financial assets, using the reduced-form model of the rate of decline of financial assets by demographic characteristic and age as described in the previous section, and shown in Table 7-3. We apply the age-interaction coefficients to the starting level of financial assets to calculate these assets in the post retirement

Table 7-5
OLS Regression Results for Single Individuals for Dependent Variable Log Financial Assets Percent Change in Financial Assets and Standard Error Per Year of Age

		Race by Marital Status			
		White Nonhispanic		Other	
		Widowed	Divorced or Never Married	Widowed	Divorced or Never Married
		Percent Change in Financial Assets Per Year of Age[1]			
Home Status	**Earnings Age 50-60**				
Homeowner	**Low Earner**	**-3.65%**	**-0.94%**	**-4.31%**	**-1.60%**
	High Earner	**-3.28%**	**-0.56%**	**-3.94%**	**-1.23%**
Renter	**Low Earner**	**-2.05%**	**0.66%**	**-2.71%**	**0.00%**
	High Earner	**-1.68%**	**1.04%**	**-2.34%**	**0.37%**
Percent Change in Financial Assets in the Last Year of Life					**-25.6%**
		Standard Error in Percent Change Per Year of Age			
Homeowner	**Low Earner**	0.763	0.371	0.763	0.225
	High Earner	0.734	0.398	0.772	0.266
Renter	**Low Earner**	0.724	0.304	0.759	0.000
	High Earner	0.732	0.334	0.766	0.137
Percent Change in Financial Assets in the Last Year of Life[2]					8.454

Source: The Urban Institute projections.

Note: Bolded percent changes are statistically significant at the 95 percent confidence interval.

1/ Parameter estimates are in a logarithmic scale and are approximations of percent change for small values.

2/ Standard error for a black, home owning couple with a pension.

years. In effect, we introduce an individual-specific error term for each observation in the regressions so that predicted wealth from the equation equals projected wealth at retirement from the earlier MINT tasks. This error term is maintained throughout retirement; that is, as individuals age they maintain the same percentage difference above or below the regression line as in the initial year of retirement. For the projections, the regression equations give us the *rate of decline* in wealth, but not the initial level at retirement.

For a white, married, home owning couple with a pension, for example, the rate of decline of financial assets as a percent of the average wage is about 1.2 percent per year (see Table 7-4). This is the sum of the slope parameters for a married couple with these characteristics from Table 7-3. A white, renting couple without a pension increases its financial assets by almost 1 percent per year. In each case, we calculate the predicted financial assets relative to the prior year's value. Given an initial value, the rate of decline of assets is determined by the family's demographic characteristics, marital status change, and mortality.

We assume that, upon the death of a married spouse, the survivor inherits all of the financial assets and the home equity, and the survivor gets half of the deceased spouse's DB pension. Upon divorce of a married couple, each partner retains half of the financial assets, half of the home, and half of the combined DB pension income. Each partner's financial assets decline at the divorced rate. For a married couple, financial assets first decline at the married rate. In the year of the first partner's death, financial assets decline at the married, last year of life rate. Financial assets then decline at the widow's rate, and finally, financial assets decline at the widowed, last year of life rate.

2. Measuring Income

We calculate income from financial assets by determining the annual annuity amount the family could buy if it annuitized 80 percent of its financial assets. Financial assets are updated annually based on our model of the decay of these assets. The annuity calculation is simply a method of transforming these assets into income to measure well-being. This allows us to say that families with more financial assets are better off than families with fewer assets, and that families with long life expectancy must make these assets last longer than families with shorter life expectancy.

The annuity value is a function of both life expectancy and a rate of return on assets. We use RAND's life expectancy projections based on the individual's age, gender, race, and educational attainment. For married couples, we use the joint life expectancy and assume a 50 percent survivor annuity. We assume a real rate of return of three percent per year and CPI growth of 3.5 percent per year. While the annuity assumes a fixed annual per capita income over the individual's or couple's lifetime, we update income from assets annually for both changes in wealth amounts, based on our model of wealth decumulation, and changes in life expectancy, given that the person attained an additional year of age. Because the annuity value takes into account life expectancy, given the same starting asset amount, individuals with longer life expectancy will have lower income from assets than individuals with shorter life expectancy.

Total annual income in any year is the sum of projected income from financial assets, Social Security benefit income, earned income, and defined benefit pension income. For homeowners, we also include in total income an imputed rental income based on a three percent

per year rate of return on home equity. Income derived in this manner gives us one measure of the well-being of Social Security recipients for different cohorts and demographic groups.

In all cases, income is calculated as a percentage of the economy-wide average wage. While this metric standardizes the comparison of incomes in different years, it complicates the story a bit for describing post-retirement Social Security benefits because post-retirement benefits are indexed to changes in the CPI instead of changes in the wage level. Thus, in an economy with growing real wages, Social Security benefits of retirees will decline relative to the average wage as the retirees age. Over the projection period (1997-2020), the Social Security Administration actuaries are projecting average wage increases to be higher than price increases by varying amounts that stabilize at a difference of 0.9 percent per year after 2010 (see Table 7-2). As a consequence, even though Social Security benefits are updated for price changes, our measure of Social Security income will decline each year relative to average wages (except, for example, when an event like death of a spouse triggers a change in benefit level). This relative income decline is also true for DB pensions and imputed rental income because DB pensions are indexed, if at all, at most to CPI growth, and housing values are assumed to remain constant in inflation-adjusted terms.

IV. RESULTS OF PROJECTIONS - CHARACTERISTICS AND INCOME AT FIRST YEAR OF BENEFIT RECEIPT

1. Universe for First Benefit Analysis

In MINT, we project pensions, saving, and partial retirement earnings for Social Security beneficiaries at age 62 and at age 67. We also project the age at first Social Security benefit receipt. This age can range from age 62 to age 67, or before age 62 in the case of disability or survivors benefits. Social Security benefits at all ages are consistent with the projected age of initial benefit receipt. Initial total income, however, is constrained to ages 62 or 67 because of the methods we used in the models of pensions, saving, and partial retirement earnings.

The age 62 beneficiary population for this analysis includes all individuals projected to receive Social Security benefits at or before age 62, provided they survive to age 62. This includes individuals who receive Social Security disability and survivor benefits that start before age 62. The age 62 beneficiary population also includes individuals who are not entitled to Social Security benefits even with their work and marriage histories up to age 67. We included this latter group to allow for changes in Social Security policy that might subsequently change their Social Security eligibility. Including them also allows for more complete income and poverty analysis of the aged population.

The age 67 beneficiary population includes all individuals projected to receive Social Security benefits after age 62. Individuals who are eligible for Social Security, but who die before receiving benefits are not included in this analysis.

The new beneficiary population includes the age 62 plus the age 67 populations. Total new beneficiary income for the age 62 population is the sum of projected DB pension income, asset income, Social Security, and earnings at age 62. Total new beneficiary income for the age 67 population is the sum of the same projected values at age 67. For each year after initial benefit receipt until death, we update their income sources for COLAs and consumption of assets.

2. Characteristics of the Population at First Benefit Receipt

Several rather dramatic demographic changes have occurred among the cohorts born between 1931 and 1960. These demographic changes affect both the accumulation of income to retirement and the projected path of income in retirement. These changes include increases in the size of cohorts, increases in educational attainment, increases in the proportion of nonwhites, increases in the proportion of the population entering retirement divorced and never married, and increases in life expectancy.

The Baby Boom is a result of a rise in birth rates after World War II. The effect of this is an increase in the size of later cohorts as they enter retirement. For the 1931 to 1960 birth cohorts, those born between 1931 and 1935 are 11 percent of new beneficiaries (see Table 7-6). This proportion increases with each cohort, and those born between 1956 to 1960 are 23 percent of new beneficiaries. In addition to the increase in the size of later cohorts, the general composition of cohorts has changed.

Educational attainment was increasing over time, but has decreased recently. About 19 percent of the earliest cohort, those born between 1931 and 1935, have some college education. This proportion increases to 31 percent for those born between 1946 and 1950, but then declines to 27 percent for those born between 1956 and 1960. A quarter of the earliest cohort never completed high school, but only 10 percent of the latest cohorts never completed high school. This change is significant because initial wealth is highly correlated with educational attainment. College educated individuals accumulate more wealth over their lifetimes compared to less educated individuals.

Nonwhites are becoming a larger proportion of the total population. About 87 percent of new beneficiaries born between 1931 and 1935 are white, but this declines to only 83 percent of new beneficiaries born between 1956 and 1960. This is significant because initial wealth and the rate of decline of financial assets are highly correlated with race. Nonwhites accumulate less wealth over their lifetime compared with whites and experience greater proportional declines in financial wealth in retirement.

Table 7-6
Percent of Individuals at Initial Social Security Receipt by Individual Characteristic and Cohort

		Cohort					
	All	1931-1935	1936-1940	1941-1945	1946-1950	1951-1955	1956-1960
				Percent of Social Security Recipients[1]			
All Social Security Recipients	100%	11%	12%	15%	19%	21%	23%
				Percent of Individuals			
Total	100%	100%	100%	100%	100%	100%	100%
Educational Attainment							
High School Dropout	13%	25%	19%	15%	10%	9%	10%
High School Graduate	60%	57%	60%	59%	58%	61%	63%
College	26%	19%	21%	26%	31%	29%	27%
Race							
White	85%	87%	87%	86%	85%	84%	83%
Black	11%	10%	10%	10%	10%	12%	12%
Asian, Native American	4%	3%	3%	4%	5%	4%	4%
Gender							
Female	54%	54%	54%	54%	54%	54%	54%
Male	46%	46%	46%	46%	46%	46%	46%
Marital Status by Gender							
Never Married	6%	4%	4%	5%	6%	7%	7%
Married	68%	72%	68%	68%	68%	67%	66%
Widowed	11%	14%	13%	12%	10%	10%	10%
Divorced	16%	10%	14%	16%	17%	16%	17%

Source: The Urban Institute projections.

1/ These percents include individuals not eligible of Social Security by age 67.

Individuals from later cohorts are less likely to be married at initial Social Security receipt compared to those from earlier cohorts. About 72 percent of individuals born between 1931 and 1935 are married at first receipt. This proportion declines to only 66 percent for those born between 1956 and 1960. Life expectancy is increasing for later cohorts, so fewer from the later cohorts are widowed at first benefit receipt. Members of later cohorts are also more likely to be divorced than members of earlier cohorts. For example, only 10 percent of the earliest cohort is divorced at first benefit receipt, but 17 percent of those born between 1956 and 1960 are. This is significant because both wealth accumulation and the rate of decline of financial assets are correlated with marital status.

Our model of the rate of decline of financial assets varies with homeownership, DB pension receipt, race (black, white, other), being a high earning single, marital status, and mortality. Each individual starts their accumulation or decline in financial assets based on their initial wealth and their characteristics at first entitlement. Changes in marital status or mortality then change the slope of the individual's trajectory.

The average age at initial entitlement is fairly constant across cohorts, while the average age of death is monotonically increasing for later cohorts (see Table 7-7). These are both important because they determine the number of years of life the financial assets will have to support. Also, with the scheduled increase in the normal retirement age, individuals from later cohorts who retire early, will receive lower benefits relative to earlier cohorts retiring at the same age.[5] The average age of Social Security retirement is between 63.5 and 63.7 for all cohorts. Our projected average age of death for the earliest cohort is 84 years old, but this increases to over 86 years old for the latest cohort. Along with increased overall age of death, the age at widowhood is also increasing. Average age of widowhood is increasing from a little under 79 for the earliest cohort to over 80 for the latest cohort. The increased longevity of the later cohorts means that members of later cohorts have to make their financial assets last about two and one half years longer than the members of the earlier cohorts. In our projections, we continue to decay the financial assets at the same rate over their longer life-spans. As a consequence, later cohorts draw off a smaller share of income from these assets each year, but for more years.

Homeownership rates are declining among later cohorts. We predict a 1.6 percent per year reduction in financial assets for single homeowners, independent of race, earnings, and widowhood. Eighty-four percent of unmarried individuals at first benefit receipt are homeowners in the earliest cohort, but only 76 percent of later cohorts are homeowners. This is significant because both the initial value of wealth is higher and the rate of decline of financial assets is greater for homeowners. With more of the later cohorts being single and fewer of the them owning a home, a larger proportion of the later cohorts will have less initial wealth in retirement. On the other hand, based on our wealth in retirement model, renters actually may increase their wealth in retirement. We predict a 1.9 percent per year reduction in financial assets for married homeowners, independent of race and pension status. Homeownership rates for

Table 7-7
Sources of Changes in Projected Financial Assets by Individual Characteristic at Initial Social Security Benefit Receipt and Cohort

	Cohort						
	All	1931-1935	1936-1940	1941-1945	1946-1950	1951-1955	1956-1960
				Mean Value			
All Families							
Age of Initial Benefit Receipt	63.6	63.7	63.6	63.5	63.5	63.5	63.6
Age of Death	85.7	84.0	85.2	85.5	86.1	86.0	86.4
Age of Widowhood	80.2	78.8	80.1	80.4	80.7	80.4	80.4
				Percent of Individuals			
Single Individuals							
Homeownership Rates	0.80	0.84	0.83	0.83	0.81	0.80	0.76
Family Gets Pension	0.42	0.45	0.42	0.42	0.42	0.40	0.41
White	0.84	0.86	0.86	0.85	0.85	0.84	0.82
Black	0.16	0.15	0.14	0.15	0.15	0.16	0.18
High Earner	0.21	0.17	0.19	0.21	0.24	0.22	0.20
Married Couples							
Homeownership Rates	0.96	0.98	0.98	0.96	0.97	0.96	0.94
Family Gets Pension	0.51	0.55	0.51	0.50	0.51	0.51	0.51
White	0.91	0.92	0.92	0.92	0.92	0.91	0.90
Black	0.09	0.08	0.08	0.08	0.08	0.09	0.10

Source: The Urban Institute projections.

married couples are also declining for later cohorts. About 98 percent of married couples born between 1931 and 1935 own homes. This rate declines to 94 percent for couples born between 1956 and 1960. As with unmarried individuals, married renters may increase their wealth in retirement.

A larger proportion of later cohorts, both married and single, are black compared to earlier cohorts. We predict that whites increase their financial assets independent of other characteristics. Single whites increase their financial assets 0.7 percent per year, while single blacks, independent of other characteristics, keep their financial assets constant, relative to the

average wage, as they age. Fifteen percent of singles born between 1931 and 1935 are black, rising to 18 percent for those born between 1956 and 1960. A smaller proportion of whites in later cohorts will yield a smaller share of singles increasing their assets as they age. For married couples, we predict a rate of decline of financial assets for blacks of about 0.4 percent per year and white couples increase their financial wealth, independent of other characteristics, by 0.9 percent per year. As the proportion of black married couples increases for later cohorts, we would expect a higher proportion of married couples with lower income from assets.

A larger proportion of single individuals in later cohorts have high earnings (average earnings between age 50 and 60 greater than 1.2 times the average wage). We predict that high earning singles, independent of other characteristics, increase their financial assets by 0.4 percent per year. Seventeen percent of singles born between 1931 and 1935 have high earnings. This proportion rises to 24 percent for singles born between 1946 and 1950 and then declines to 20 percent for singles born between 1956 and 1960. As a larger proportion of singles enter retirement with high earnings, more of them will increase financial assets as they age. These increased financial assets will peak for those born between 1946 and 1950.

A smaller proportion of married couples in later cohorts have a DB pension compared to early cohorts. We predict that couples with DB pensions reduce their financial assets 0.3 percent per year, independent of other characteristics. Fifty-five percent of couples born between 1931 and 1935 have DB pensions, and only 51 percent of couples born between 1956 and 1960 have. The reduction in DB pension coverage will increase financial assets (or slow the rate of decline) of married couples in later cohorts compared to earlier cohorts. Of course, lack of a DB pension is also correlated with lower initial wealth.

3. Composition of Income in First Year of Social Security Benefit Receipt

In this section, we look at total income and the amount of income from Social Security, financial assets, DB pensions, earnings, and imputed rental income at first Social Security receipt by various characteristics. This pulls together the separate components projected from the prior sections. We look at composition of income separately for married men, married women, and unmarried individuals at first benefit receipt.

Assessing family income of married couples in the first year of benefit receipt is complicated by the fact that married couples are two people. They may each have different employment and Social Security benefit statuses at different points in time. In this analysis, we evaluate income at each individual's initial year of Social Security receipt. For married couples, the husband, for example, may start collecting Social Security at age 62 and work in partial retirement for a couple of years until the wife retires when she reaches age 62. Alternatively, the husband may work until he is 67 and retire when his wife is eligible for Social Security benefits. Thus, the year of first benefit receipt may differ for the husband and wife.

The average family income of new Social Security beneficiary husbands is about 1.68 times the average wage (see Table 7-8). Average family income increases as educational attainment increases. For example, family income of high school dropout husbands is at the average wage (1.0), but, for college-educated husbands, family income is more than twice the average wage (2.26). Family income at husband's first benefit receipt is about 32 percent higher for white families than for black families (1.73 versus 1.31). Family income increases by cohort until the 1946 to 1950 birth cohort, rising from 1.69 to 1.75 times the average wage. After the 1950 birth cohort, family income declines to 1.58 times the average wage for those born between 1956 and 1960.

Average family income generally increases as average indexed monthly earnings (AIME) increases. An individual's AIME, however, does not tell the whole story. Individuals never working in Social Security covered employment or working fewer than forty covered quarters have an AIME of zero, but when these individuals are married to high earning partners or are working in high paying noncovered work, they could well have relatively high income in retirement. We calculated AIME quintiles for all individuals by cohort in our projection sample. We then use these AIME quintile breaks to distribute income at first benefit receipt. Average family income for married men with wages in the bottom AIME quintile is higher than average family income for married men with wages in the second AIME quintile. Many individuals in the bottom AIME quintile have high DB pension income, so they clearly have strong noncovered labor force attachment and earnings.

About 30 percent of total family income at the husband's initial receipt of Social Security is from Social Security itself (see Table 7-9). Social Security benefits are a larger proportion of total income for families with less educated husbands than for families with more educated husbands. Social Security makes up about 42 percent of total income for families with high school dropout husbands, but only 24 percent of total income for families with college educated husbands. Social Security income as a percent of the average wage increases from earlier to later cohorts. Earlier cohorts had more of their earnings, especially late career earnings, subject to the Social Security taxable maximum. This causes Social Security to replace less income for earlier cohorts relative to later cohorts. Later cohorts are adversely affected by the increase in the normal retirement age and the actuarial reduction. Despite the increase in the normal retirement age, Social Security as a percent of total income is increasing for all later cohorts. Husbands born between 1931 and 1935 receive about 30 percent of their total income from Social Security, and husbands born between 1956 and 1960 receive about 32 percent of their total income from Social Security.

Table 7-8
Percent of Husbands and Average Family Income Divided by the Average Wage at the Husband's Initial Social Security Benefit Receipt by Individual Characteristic and Income Source

		Family Income Source					
	Percent of Husbands	Total Income	Social Security	Financial Income	DB Pension Income	Earned Income	Imputed Rental Income
		Average Family Income/Average Wage					
Total	100%	1.68	0.51	0.52	0.17	0.37	0.11
Educational Attainment							
High School Dropout	13%	1.00	0.42	0.20	0.07	0.23	0.07
High School Graduate	57%	1.53	0.50	0.42	0.16	0.36	0.10
College	30%	2.26	0.55	0.86	0.24	0.47	0.14
Race							
White	87%	1.73	0.52	0.55	0.18	0.37	0.11
Black	9%	1.31	0.46	0.27	0.16	0.36	0.07
Asian, Native American	4%	1.55	0.44	0.48	0.12	0.41	0.11
Cohort							
1931-1935	12%	1.69	0.51	0.43	0.28	0.36	0.11
1936-1940	12%	1.72	0.50	0.46	0.23	0.42	0.11
1941-1945	14%	1.72	0.49	0.52	0.19	0.42	0.11
1946-1950	19%	1.75	0.52	0.56	0.17	0.40	0.11
1951-1955	21%	1.67	0.52	0.55	0.13	0.36	0.11
1956-1960	22%	1.58	0.51	0.55	0.11	0.32	0.09
AIME Quintile of Husband							
1	9%	1.23	0.22	0.37	0.28	0.27	0.10
2	11%	1.09	0.35	0.27	0.09	0.30	0.08
3	17%	1.24	0.45	0.30	0.08	0.33	0.08
4	27%	1.54	0.55	0.41	0.13	0.36	0.09
5	37%	2.27	0.62	0.82	0.24	0.45	0.14
Per Capita Income Quintile							
1	19%	0.52	0.33	0.07	0.02	0.05	0.06
2	21%	0.94	0.49	0.15	0.09	0.13	0.08
3	21%	1.34	0.54	0.29	0.17	0.25	0.10
4	21%	1.91	0.57	0.53	0.24	0.45	0.12
5	19%	3.41	0.58	1.46	0.32	0.90	0.16

Source: The Urban Institute projections.

Table 7-9
Percent of Total Family Income by Family Income Source at Husband's Initial Social Security Benefit Receipt for Married Couples by Individual Characteristic and Income Source

	Family Income Source					
	Total Income	Social Security	Financial Income	DB Pension Income	Earned Income	Imputed Rental Income
	Percent of Total Family Income by Income Source					
Total	100%	30%	31%	10%	22%	6%
Educational Attainment						
High School Dropout	100%	42%	20%	7%	23%	7%
High School Graduate	100%	33%	27%	10%	23%	6%
College	100%	24%	38%	11%	21%	6%
Race						
White	100%	30%	32%	10%	22%	6%
Black	100%	35%	20%	12%	27%	5%
Asian, Native American	100%	28%	31%	8%	26%	7%
Cohort						
1931-1935	100%	30%	25%	17%	21%	7%
1936-1940	100%	29%	27%	13%	24%	7%
1941-1945	100%	29%	30%	11%	24%	6%
1946-1950	100%	29%	32%	10%	23%	6%
1951-1955	100%	31%	33%	8%	21%	6%
1956-1960	100%	32%	35%	7%	20%	6%
AIME Quintile of Husband						
1	100%	18%	30%	23%	22%	8%
2	100%	32%	25%	9%	27%	7%
3	100%	36%	24%	7%	26%	7%
4	100%	36%	27%	8%	23%	6%
5	100%	27%	36%	11%	20%	6%
Per Capita Income Quintile						
1	100%	64%	13%	4%	9%	11%
2	100%	52%	16%	9%	14%	8%
3	100%	40%	22%	12%	19%	7%
4	100%	30%	28%	12%	24%	6%
5	100%	17%	43%	9%	26%	5%

Source: The Urban Institute projections.

Ignoring the bottom AIME quintile, which includes noncovered workers, Social Security is a higher share of total family income for families with husbands who have lower lifetime earnings than for families with husbands who have higher lifetime earnings. For example, Social Security accounts for about 32 percent of total income for families with husbands in the second AIME quintile, but only 27 percent of family income for families with husbands in the highest AIME quintile.

One of the biggest changes in the components of income across cohorts is a systematic shift in the share of income from DB pensions to other financial assets. This is due to a shift in pension types over time from DB to DC. The earliest cohort receives about 17 percent of its total family income from DB pensions at husband's first benefit, but this proportion declines to only 7 percent for the latest cohort. This decline corresponds directly to an increase in the proportion of income from financial assets, which includes the additional DC pension assets. The increase in financial asset income, however, is not as large as the decrease in DB pension income. DB pension income declines by 0.17 times the average wage from the earliest cohort to the latest cohort, but financial asset income increases only 0.12 times the average wage for the same cohorts. Of course, Social Security taxes have increased along with the increase in the taxable maximum, and this has an impact on later cohorts' ability to save for retirement compared to earlier cohorts.

Average family DB pension income for new Social Security beneficiary husbands is about 0.17 times the average wage (see Table 7-8). Families with college educated and high earning husbands have higher DB pension income. Families with college educated husbands receive about 24 percent of the average wage from DB pensions, while families with high school dropout husbands receive only 7 percent of the average wage from DB pensions. Families with white husbands get about 18 percent of the average wage in DB pensions compared to about 16 percent of the average wage for families with black husbands. Interestingly, the group with the highest DB pension income is families with husbands in the lowest AIME quintile. The men in this quintile are largely noncovered workers who receive other, more generous DB pensions instead of Social Security. Many are federal government employees and noncovered state and local government workers.

Average family income from financial assets for families with new Social Security beneficiary husbands is about 0.52 times the average wage. Families with higher educated husbands have substantially more financial asset income than families with less educated husbands. Families with college educated husbands receive about 38 percent of their initial post-retirement income from financial assets, compared to about 20 percent for families with high school dropout husbands. They receive more than four times the income from financial assets as families with high school dropout husbands (0.86 versus 0.20). Men with a college education live longer, on average, than men with less education. If we remove the effect of this longer life expectancy on husbands' annuitized income from financial assets, families with college educated husbands would

have almost five times the financial income as families with high school dropout husbands. Families with white husbands have about twice as much income from financial assets as families with black husbands, and financial asset income amounts to a larger share of their total family income. Families with white husbands receive about 32 percent of total family income from financial assets compared with only 20 percent for families with black husbands.

Families with high earning husbands have considerably more income from financial assets than families with low earning husbands. Once again, ignoring the bottom AIME quintile, which has noncovered Social Security workers, the average income from financial assets for families with husbands in the second AIME quintile is about 27 percent of the average wage, but families with husbands in the top AIME quintile have financial asset income equal to about 82 percent of the average wage (more than three times as much).

Average family income from earnings for families with new Social Security beneficiary husbands is 0.37 times the average wage. Family earnings income is complicated for married couples because some of the earnings can be from a non-retired spouse. We find that higher earnings is positively correlated with higher educational attainment. Families with college educated husbands have earned income equal to about 47 percent of the average wage, while families with high school dropout husbands have earned income of only 23 percent of the average wage. Families with husbands in the bottom AIME quintile receive earned income equal to about 27 percent of the average wage, while families with husbands in the top AIME quintile receive about 45 percent of the average wage in earned income. These earnings drop off fairly quickly after initial Social Security retirement (see the Appendix to Chapter 6), but they are a sizeable share of total income at initial retirement.

Average imputed rental income for families with new Social Security beneficiary husbands is 0.11 times the average wage. As with other income sources, imputed rental income is higher for families with college educated husbands than for families with less educated husbands. It is higher for whites than for blacks. It is very evenly distributed across cohorts, but with a notable drop in the last cohort (0.11 to 0.09). The decline for the last cohort is symptomatic of a general decline in projected income from all sources.

Among families with new Social Security beneficiary husbands, those families in the lowest per capita income quintile have very few resources other than Social Security benefits. Their Social Security benefits are only 33 percent of the average wage, and their total income is only 52 percent of the average wage. Families in the highest per capita income quintile have higher income from all sources, especially income from financial assets and earnings. Their total income is about 3.4 times the average wage. Over 40 percent of this income comes from financial assets and about 26 percent comes from earnings.

Table 7-10
Percent of Wives and Average Family Income Divided by the Average Wage at the Wife's Initial Social Security Benefit Receipt by Individual Characteristic and Income Source

		Family Income Source					
	Percent of Wives	Total Income	Social Security	Financial Income	DB Pension Income	Earned Income	Imputed Rental Income
		Average Family Income/Average Wage					
Total	100%	1.60	0.54	0.50	0.17	0.28	0.11
Educational Attainment							
High School Dropout	12%	0.93	0.44	0.18	0.08	0.15	0.08
High School Graduate	64%	1.50	0.54	0.44	0.16	0.26	0.10
College	23%	2.25	0.61	0.86	0.24	0.41	0.14
Race							
White	87%	1.65	0.55	0.53	0.17	0.29	0.11
Black	9%	1.17	0.50	0.24	0.16	0.20	0.07
Asian, Native American	4%	1.48	0.49	0.45	0.15	0.27	0.12
Cohort							
1931-1935	12%	1.65	0.58	0.42	0.27	0.27	0.12
1936-1940	12%	1.57	0.54	0.42	0.22	0.28	0.11
1941-1945	15%	1.60	0.54	0.47	0.19	0.30	0.11
1946-1950	19%	1.64	0.54	0.53	0.16	0.30	0.11
1951-1955	21%	1.62	0.54	0.54	0.14	0.29	0.11
1956-1960	22%	1.56	0.54	0.56	0.12	0.25	0.09
AIME Quintile of Wife							
1	29%	1.29	0.43	0.41	0.16	0.19	0.10
2	28%	1.36	0.49	0.40	0.12	0.25	0.10
3	21%	1.59	0.59	0.46	0.16	0.28	0.10
4	14%	2.04	0.68	0.63	0.23	0.38	0.11
5	7%	2.96	0.77	1.15	0.32	0.57	0.15
Per Capita Income Quintile							
1	19%	0.51	0.33	0.07	0.02	0.03	0.06
2	22%	0.94	0.53	0.16	0.08	0.09	0.08
3	21%	1.34	0.60	0.30	0.17	0.17	0.10
4	20%	1.90	0.62	0.56	0.25	0.34	0.13
5	17%	3.38	0.61	1.48	0.33	0.79	0.16

Source: The Urban Institute projections.

Average family income of new Social Security beneficiary wives is 1.6 times the average wage (see Table 7-10). This is slightly lower than the average family income of new Social Security beneficiary husbands. These are, by and large, the same couples, but at different points in time. Because wives are on average younger than their husbands, by the time the wife retires, the couple is older, the husband has generally left the labor force, and they have begun consuming their retirement savings. All three factors lead to a lower family income for new beneficiary wives than for new beneficiary husbands. At wife's initial Social Security receipt, family income from Social Security increases relative to at husband's initial receipt, but only by 6 percent (from 0.51 to 0.54 times the average wage) and family income from earnings decreases by 24 percent (from 0.37 to 0.28 times the average wage).

Families with new Social Security beneficiary wives are projected to experience a lower income from DB pensions for later cohorts than for earlier cohorts. As with new beneficiary husbands, this decline for later cohorts is somewhat offset by a corresponding increase in financial asset income, which includes DC pension income. Average family DB pension income at first benefit receipt for wives born between 1931 and 1935 is 0.27 times the average wage. For wives born between 1956 and 1960, this amount drops to only 0.12 times the average wage (a reduction of 0.15). At the same time, financial asset income increased from 0.42 times the average wage for new beneficiary wives born between 1931 and 1935 to 0.56 times the average wage for wives born between 1956 and 1960 (an increase of 0.14)

At first benefit receipt, married women are much more likely to be in the lower AIME quintiles than married men. For example, 29 percent of married women are in the bottom AIME quintile, but only 9 percent of married men are. Only 7 percent of married women are in the top AIME quintile, but 37 percent of married men are. Total family income is higher at wife's first benefit receipt than at husband's first benefit receipt for all AIME quintiles as wives' Social Security income becomes available. Total family income, however, is considerably higher for families where the wife does work and has lifetime earnings above the bottom quintile. Family income for new beneficiary wives in the highest AIME quintile is 30 percent higher than family income for husbands in the highest earning quintile at first benefit receipt. For example, the average family income for married women in the top AIME quintile is almost 3 times the average wage at wife's first benefit, while the family income for married men in the top AIME quintile is only 2.27 times the average wage at husband's first benefit receipt.

For unmarried individuals at initial Social Security benefit receipt, average family income is 0.83 times the average wage. This is a little less than half of the family income of married couples at husband's first benefit receipt (see Tables 7-8 and 7-11). Compared with couples at husband's first benefit receipt, unmarried individuals receive on average a lower share of their income from earnings because they never have a spouse contributing to those earnings.

Table 7-11
Percent of Single Individuals and Average Family Income Divided by the Average Wage at Single Individual's Initial Social Security Benefit Receipt by Individual Characteristic and Income Source

		Income Source					
	Percent of Singles	Total Income	Social Security	Financial Income	DB Pension Income	Earned Income	Imputed Rental Income
		Average Family Income/Average Wage					
Total	100%	0.83	0.31	0.24	0.11	0.10	0.07
Educational Attainment							
High School Dropout	15%	0.42	0.22	0.07	0.04	0.04	0.04
High School Graduate	60%	0.75	0.31	0.19	0.09	0.10	0.06
College	25%	1.24	0.37	0.45	0.18	0.16	0.09
Race							
White	81%	0.88	0.32	0.27	0.11	0.11	0.07
Black	16%	0.56	0.26	0.09	0.09	0.08	0.04
Asian, Native American	4%	0.79	0.29	0.25	0.09	0.09	0.07
Gender							
Female	67%	0.78	0.30	0.21	0.10	0.11	0.06
Male	33%	0.93	0.34	0.31	0.13	0.09	0.07
Marital Status by Gender							
Widowed Male	7%	1.03	0.36	0.34	0.16	0.10	0.08
Widowed Female	27%	0.83	0.32	0.24	0.12	0.09	0.07
Divorced Male	18%	0.94	0.35	0.30	0.13	0.10	0.07
Divorced Female	30%	0.73	0.30	0.18	0.08	0.12	0.06
Never Married Male	8%	0.80	0.28	0.29	0.08	0.08	0.06
Never Married Female	10%	0.75	0.26	0.21	0.11	0.12	0.06
Cohort							
1931-1935	10%	0.81	0.31	0.17	0.17	0.09	0.08
1936-1940	12%	0.81	0.32	0.19	0.13	0.10	0.07
1941-1945	14%	0.83	0.32	0.23	0.11	0.11	0.07
1946-1950	19%	0.86	0.32	0.26	0.11	0.11	0.07
1951-1955	22%	0.83	0.31	0.25	0.10	0.11	0.06
1956-1960	24%	0.81	0.30	0.28	0.08	0.10	0.05
AIME Quintile at Age 62							
1	23%	0.49	0.17	0.12	0.10	0.05	0.05
2	22%	0.57	0.26	0.14	0.05	0.07	0.06
3	22%	0.73	0.32	0.18	0.08	0.10	0.06
4	19%	1.05	0.41	0.30	0.13	0.15	0.07
5	14%	1.61	0.48	0.61	0.24	0.19	0.10
Per Capita Income Quintile							
1	27%	0.24	0.17	0.03	0.01	0.01	0.03
2	21%	0.46	0.30	0.06	0.03	0.03	0.05
3	18%	0.67	0.34	0.11	0.08	0.07	0.07
4	16%	0.95	0.38	0.21	0.16	0.11	0.08
5	18%	1.94	0.42	0.82	0.28	0.32	0.11

Source: The Urban Institute projections.

Unmarried individuals also receive slightly higher Social Security benefits per capita than married couples at husband's first benefit receipt because, for couples, it is often the case that the benefit does not include the wife's benefit (when the wife is too young to collect benefits) or it includes a spousal benefit that is smaller than the average benefit of workers.

Among unmarried new Social Security beneficiaries, men have more income than women, those with a college education have more income than high school dropouts, and whites have more income than nonwhites. As with married couples, there is shift of income from DB pensions to financial income for the later cohorts. Unlike new beneficiary husbands and wives, the increase in financial asset income, which captures the increased DC pension balances, more than offsets the decrease in DB pension income for later cohorts. Women are a larger share of unmarried new beneficiaries (67 percent versus 33 percent), and they are more likely to be in jobs covered by a DC pension than a DB pension. More women in later cohorts work, and later cohorts are more likely to have DC than DB pensions.

Widowed and divorced men have about 25 percent more initial retirement income than widowed and divorced women, respectively. Interestingly, though, at initial Social Security receipt, never married men have only 7 percent more initial retirement income than never married women -- 80 and 75 percent of the average wage respectively.

As with married couples, total income of unmarried individuals rises slightly from the earliest cohorts to the middle cohorts and then declines for the latest cohorts. The decline in total income of the latest cohorts is particularly significant because the proportion of the population who are unmarried at first retirement is increasing over time.

In order to compare incomes of married couples with unmarried individuals, we calculate per capita income--that is, couple income divided by two for married couples, and individual income for unmarried individuals. Using this measure, husbands and wives share income from all sources equally, and a couple would need twice the income of an unmarried individual to have the same per capita income. Using our measure of per capita income, if a husband has employment income, for example, and the wife does not, we say that they both have employment income. Appendix Table 7-A-2 shows the population percent and average per capita income at first Social Security benefit for the MINT sample by selected characteristics. Appendix Table 7-A-3 shows the percent of individuals receiving family income by income source and selected characteristics.

The incomes reported in Tables 7-8, 7-10 and 7-11 include zeros. While virtually all individuals have some source of income, the specific combination of sources varies. If we look at the specific sources of income, there are a few items of interest.

First, Social Security coverage has increased over time. For new beneficiaries born between 1931 and 1935, 95 percent have some Social Security income. This share increases to

98 percent for new beneficiaries born between 1956 and 1960 (see Table 7-A-3). This increase in coverage is mostly due to more universal Social Security coverage from employment rather than an increase in labor force participation. Our analysis of income of new beneficiaries includes noncovered workers. Some of these noncovered workers have earnings, but in jobs not covered by Social Security. Other noncovered workers do not have the required number of covered quarters to be eligible for Social Security. These two noncovered populations are very different in their financial resources.

Second, 19 percent of new beneficiaries in the bottom per capita income quintile have employment income. Many of these low income workers work because they have no retirement pension including Social Security. Almost seventy percent of new beneficiaries in the top per capita income quintile have employment income. Many of these high income new beneficiaries work despite having high incomes from other sources including Social Security.

Finally, we do not project Supplemental Security Income (SSI). While SSI is an important source of income for the elderly poor, SSI benefits are not enough to raise them out of poverty. SSI as a percent of the average wage is very low and its omission does not substantially change our results.

4. Distribution of Income at First Benefit Receipt

Per capita income is becoming increasingly less equally distributed over time-- that is, the rich are getting richer, and the poor are getting poorer. The average per capita income at initial benefit receipt for all individuals in the MINT sample is 0.824 times the average wage (see Table 7-12). The average per capita income for individuals in the bottom fifth of the income distribution is 0.249 times the average wage, and the average per capita income for individuals in the top fifth of the income distribution is 1.778 times the average wage. For those in the bottom fifth of the income distribution, average per capita income is declining from 0.267 times the average wage for those born between 1931 and 1935 to 0.221 for those born between 1956 and 1960. That is a 17 percent reduction in average income for those in the bottom fifth of the income distribution. Women are disproportionately among the income losers. They suffer a 20 percent decline in per capita income from the earliest cohort to the latest cohort.

For those in the top fifth of the income distribution, average per capita income is increasing from 1.723 times the average wage for those born between 1931 and 1935 to 1.810 times the average wage for those born between 1956 and 1960. That is a 5 percent increase in average income for those in the top fifth of the income distribution. Women are also disproportionately among the income winners. They enjoy a 8 percent increase in per capita income from the earliest cohort to the latest cohort.

Table 7-12
Average Per Capita Income as a Percent of the Average Wage at Initial Social Security Benefit Receipt by Gender, Cohort, and Per Capita Income Quintile

		Per Capita Income Quintile					
		All	1	2	3	4	5
		Average Per Capita Income/Average Wage					
Total	**Cohort**						
	All	0.824	0.249	0.469	0.670	0.951	1.778
	1931-1935	0.827	0.267	0.499	0.691	0.959	1.723
	1936-1940	0.822	0.268	0.486	0.684	0.963	1.709
	1941-1945	0.832	0.263	0.485	0.687	0.959	1.766
	1946-1950	0.852	0.254	0.490	0.705	0.992	1.819
	1951-1955	0.823	0.245	0.461	0.667	0.955	1.786
	1956-1960	0.794	0.221	0.423	0.618	0.898	1.810
Percent Change[1]		-4%	-17%	-15%	-11%	-6%	5%
Women							
	All	0.792	0.245	0.469	0.669	0.948	1.783
	1931-1935	0.785	0.268	0.498	0.689	0.959	1.707
	1936-1940	0.773	0.263	0.488	0.682	0.961	1.698
	1941-1945	0.794	0.260	0.485	0.683	0.958	1.773
	1946-1950	0.816	0.246	0.492	0.705	0.988	1.800
	1951-1955	0.801	0.244	0.461	0.666	0.952	1.793
	1956-1960	0.774	0.215	0.423	0.616	0.896	1.840
Percent Change		-1%	-20%	-15%	-11%	-7%	8%
Men							
	All	0.861	0.254	0.468	0.672	0.954	1.774
	1931-1935	0.877	0.265	0.500	0.692	0.959	1.737
	1936-1940	0.879	0.275	0.485	0.686	0.965	1.717
	1941-1945	0.876	0.268	0.483	0.692	0.961	1.759
	1946-1950	0.894	0.264	0.489	0.705	0.996	1.838
	1951-1955	0.849	0.246	0.462	0.668	0.959	1.779
	1956-1960	0.817	0.230	0.424	0.619	0.902	1.778
Percent Change		-7%	-13%	-15%	-11%	-6%	2%

Source: The Urban Institute projections.

1/ Percent change is the average per capita income of the 1956 to 1960 cohort compared to the 1931 to 1935 cohort.

Women's income has become more unevenly distributed than men's income, reversing an historic trend. At initial Social Security receipt, women born between 1931 and 1935 who are in the top fifth of the income distribution at retirement had 6.4 times the income of those in the bottom fifth of the income distribution. For those born between 1956 and 1960, this difference has risen to 8.6 times the income. Men born between 1931 and 1935 who are in the top fifth of the income distribution at retirement had 6.6 times the income of those in the bottom fifth of the income distribution. For those born between 1956 and 1960, this difference has risen to 7.7 times the income.

V. RESULTS OF PROJECTIONS: CHARACTERISTICS AND INCOME OF THE RETIRED POPULATION IN THE YEAR 2020

1. Characteristics of the Retired Population in 2020

So far, we have only looked at the characteristics of 1931 to 1960 birth cohorts at initial Social Security receipt. In 1997, the first year of our projections, only those born between 1931 and 1935 are eligible for aged Social Security retirement benefits. In each succeeding year, an additional cohort becomes eligible for Social Security, and all of the beneficiaries receiving Social Security become one year older. By the year 2020, members of the cohort born in 1931 will be 89 years old and members of the cohort born in 1960 will be 60 years old. The earliest cohort will have been spending down their financial assets for as many as 25 years, and the latest cohort will not have started receiving Social Security retirement benefits yet. In 2020, our projection sample is made up of 60- to 89-year-olds. While this is a large proportion of the Social Security beneficiaries in 2020, we are missing all beneficiaries age 90 and older (about 5.6 percent of the 65 and older population). These oldest beneficiaries are, of course, the most vulnerable.

Of individuals receiving Social Security in 2020, only 7 percent are between ages 85 and 90 (born between 1931 and 1935, see Table 7-13). This proportion increases with succeeding cohorts, reflecting both the increasing number of survivors in younger age groups and the increasing size of subsequent cohorts. The highest proportion of Social Security beneficiaries in 2020 are those born between 1951 and 1955, who will then be between 65 and 69 years old. They are a larger share because mortality has not taken a major toll on this group and because they are a larger birth cohort in general. There are fewer beneficiaries in the 1956-1960 cohort because, even though they are a bigger group than the 1951-1955 cohort, many of them have not yet begun to receive benefits. Note that, in the MINT model, we calculate income as of first Social Security benefit, but this is restricted to age 62 or age 67. Individuals who did not take up Social Security benefits at age 62 are then assigned incomes at age 67. Social Security benefits

Table 7-13
Percent of Social Security Recipients in Year 2020 by Individual Characteristic and Cohort

		Cohort					
	All	1931-1935	1936-1940	1941-1945	1946-1950	1951-1955	1956-1960
			Percent of Social Security Recipients				
All Social Security Recipients	100%	7%	11%	17%	25%	26%	14%
			Percent of Beneficiaries Receiving Social Security in 2020				
All Individuals	66%	43%	62%	76%	88%	83%	40%
			Percent of Social Security Recipients by Cohort				
Total	100%	100%	100%	100%	100%	100%	100%
Educational Attainment							
High School Dropout	12%	18%	15%	13%	10%	9%	11%
High School Graduate	61%	61%	62%	60%	59%	62%	63%
College	27%	21%	23%	27%	32%	29%	25%
Race							
White	86%	89%	88%	86%	85%	85%	84%
Black	10%	8%	9%	10%	10%	11%	12%
Asian, Native American	4%	3%	3%	4%	5%	4%	4%
Gender							
Female	58%	68%	63%	60%	56%	55%	56%
Male	42%	32%	37%	40%	44%	45%	44%
Marital Status							
Never Married	6%	3%	4%	5%	6%	7%	8%
Married	58%	42%	50%	55%	61%	63%	64%
Widowed	19%	43%	31%	23%	16%	14%	12%
Divorced	17%	12%	16%	17%	18%	17%	16%

Source: The Urban Institute projections.

Note: This table includes all individuals age 67 or older in 2020 or age 62 to 66 receiving Social Security and individuals not eligible for Social Security.

and earnings are calculated year-by-year, but pensions and wealth are only projected to age 62 or age 67. Therefore our post retirement income is restricted to starting at age 62 or age 67. Individuals born in 1959 and 1960 are ages 61 and 60 respectively and, despite any Social Security disability status, are not considered Social Security recipients in 2020. For those born between 1954 and 1958 (age 63 to 66 in 2020), our 2020 population only includes those who accept Social Security at age 62. For example, only 43 percent of Social Security beneficiaries born between 1931 and 1935 are projected to survive to 2020, and only 40 percent of those born between 1956 and 1960 are projected to receive Social Security in 2020.

For the oldest Social Security recipients in our projection sample (those born between 1931 and 1935), about 68 percent are female and about 43 percent are widowed. These proportions are both substantially higher than for the youngest Social Security recipients (those born between 1956 and 1960). Of the youngest recipients, only 56 percent are female and 12 percent are widowed. Except for the differential effect of mortality, the proportions of Social Security beneficiaries by educational attainment, race, gender and marital status for each cohort in 2020 are the same as at first benefit receipt (Table 7-6), but the differential effects of mortality matter for the earlier cohorts. Women, whites, and college educated all have higher life expectancy. Therefore, for those born between 1931 and 1935, these groups are projected to be a higher proportion of the cohort in 2020 than their respective shares at first Social Security benefit receipt.

2. Sources of Income of Retirees in 2020

Average per capita income in 2020 of Social Security beneficiaries born between 1931 and 1960 is projected to be 0.76 times the average wage (see Table 7-14). On average, Social Security and returns from financial assets each account for about 40 percent of this income, but this varies dramatically by income and demographic group. Social Security accounts for more than half of the income of high school dropouts (0.22 versus 0.41 times the average wage), but only a third of the income of college graduates (0.33 versus 1.05 times the average wage). In contrast, income from financial assets accounts for only a quarter of the income of high school dropouts and almost half (45 percent) of the income of college graduates. White Social Security recipients in 2020 have about 50 percent higher per capita income than black recipients (0.79 versus 0.52).

Generally, average per capita income of Social Security beneficiaries in 2020 decreases as age increases. This reflects the combined effect of some sources of incomes not keeping up with average wage growth and cohort effects in the original accumulation of wealth. Two notable exceptions, however, are the youngest and the oldest cohorts. The youngest cohort of Social Security beneficiaries are really a bimodal group. They include both relatively poor individuals,

Table 7-14
Average Per Capita Income as a Percent of the Average Wage in 2020 by Individual Characteristic and Income Source

		Per Capita Income/Average Wage by Income Source								
								Financial Asset Income[1]		
	Percent of Individuals	Total	Social Security	Financial Income	DB Pension Income	Earnings	Imputed Rental Income	DC Pension	IRA	Saving
Total	100%	0.76	0.29	0.28	0.08	0.04	0.06	0.11	0.03	0.14
Educational Attainment										
High School Dropout	12%	0.41	0.22	0.10	0.03	0.02	0.04	0.03	0.01	0.07
High School Graduate	61%	0.69	0.29	0.24	0.07	0.04	0.05	0.10	0.03	0.12
College	27%	1.05	0.33	0.47	0.12	0.06	0.07	0.19	0.05	0.23
Race										
White	86%	0.79	0.30	0.31	0.08	0.04	0.06	0.12	0.03	0.15
Black	10%	0.52	0.26	0.12	0.07	0.04	0.04	0.06	0.01	0.05
Asian, Native American	4%	0.71	0.26	0.27	0.07	0.04	0.06	0.10	0.03	0.14
Gender										
Female	58%	0.72	0.29	0.26	0.08	0.03	0.06	0.10	0.03	0.13
Male	42%	0.80	0.29	0.32	0.08	0.05	0.06	0.13	0.03	0.16
Marital Status by Gender										
Never Married	6%	0.70	0.25	0.28	0.08	0.03	0.06	0.11	0.03	0.14
Married	58%	0.76	0.29	0.30	0.08	0.05	0.05	0.11	0.03	0.15
Widowed	19%	0.78	0.31	0.27	0.10	0.02	0.08	0.11	0.03	0.13
Divorced	17%	0.73	0.30	0.26	0.08	0.04	0.06	0.12	0.03	0.11
Age										
85 and Older	7%	0.77	0.29	0.30	0.10	0.00	0.07	0.05	0.01	0.25
80 to 84	11%	0.72	0.29	0.28	0.09	0.00	0.06	0.08	0.02	0.18
75 to 79	17%	0.72	0.29	0.29	0.08	0.00	0.06	0.11	0.03	0.16
70 to 74	25%	0.76	0.30	0.29	0.09	0.02	0.06	0.13	0.03	0.13
65 to 69	26%	0.78	0.30	0.28	0.08	0.08	0.06	0.13	0.04	0.11
62 to 64	14%	0.76	0.27	0.27	0.06	0.11	0.05	0.13	0.04	0.10
AIME Quintile at Age 62										
1	20%	0.57	0.20	0.20	0.09	0.02	0.05	0.06	0.02	0.12
2	20%	0.58	0.25	0.19	0.05	0.03	0.05	0.06	0.03	0.11
3	20%	0.65	0.29	0.21	0.06	0.04	0.05	0.08	0.03	0.11
4	20%	0.81	0.34	0.29	0.08	0.05	0.06	0.13	0.04	0.13
5	20%	1.17	0.38	0.53	0.13	0.06	0.08	0.24	0.05	0.24
Per Capita Income Quintile										
1	20%	0.24	0.17	0.03	0.01	0.00	0.03	0.00	0.00	0.03
2	20%	0.44	0.28	0.07	0.03	0.01	0.04	0.02	0.01	0.05
3	20%	0.60	0.31	0.14	0.07	0.03	0.05	0.04	0.02	0.07
4	20%	0.85	0.34	0.28	0.12	0.05	0.07	0.10	0.04	0.13
5	20%	1.65	0.36	0.90	0.18	0.12	0.09	0.40	0.08	0.42

Source: The Urban Institute projections.

1/ This allocation of financial asset income assumes proportionate consumption of initial assets by type of asset over time.

for whom Social Security provides a high replacement rate on earnings, and wealthier individuals who have chosen to retire early. Members of the oldest cohort in 2020 are systematically individuals with long life expectancy. Longer life expectancy is generally correlated with higher income, so not surprisingly, we find that the oldest old have on average higher per capita income than the younger old. Selective mortality affects income in all age groups, but is most notable in the oldest group.

Despite the fact that later cohorts have higher financial assets than earlier cohorts at first Social Security benefit, the proportion of income that comes from financial assets is increasing with increased age. For example, the youngest Social Security beneficiaries in 2020 receive about 35 percent of their per capita income from financial assets (0.27/0.76). This proportion increases for the older ages, and the oldest beneficiaries in 2020 receive about 40 percent of their income from financial assets (0.30/0.77). Two main factors contribute to this anomaly. First, those who survive to old age are more likely to be wealthy, which increases the average wealth of survivors, and second, our model of the rate of dissaving from wealth predicts that families do not reduce their financial assets as fast as a full annuity model would predict. This means that potential annuity income from non-annuitized wealth increases as people age. Both factors contribute to the build up in the share of income that comes from financial assets by age.

Projected average per capita income of Social Security beneficiaries in the highest fifth of the income distribution in 2020 is more than six and a half times higher than for those in the lowest fifth of the income distribution. The sources of income vary dramatically among income quintiles. Those in the bottom fifth of the distribution rely almost solely on Social Security, and those in the top fifth of the income distribution have high income from a variety of sources. The top income group receives on average about a quarter of its income from Social Security and over half from financial assets (including DC pensions). Interestingly, for the top income recipients, earned income is still a significant share (seven percent) of total income, though these earnings are almost entirely among the youngest beneficiaries.

The composition of financial assets changes by age group. Our model for the rate of dissaving from financial assets does not distinguish dissaving by asset source. If, however, individuals and families dissave from each asset source at the same rate over time, the share of financial assets from IRAs and DC balances increases for younger beneficiaries compared with older beneficiaries along with a decrease in other financial wealth (wealth outside of retirement accounts).

3. Changes in Poverty Rates of Retirees

Besides per capita income, an additional measure of well-being is family income relative to the family poverty threshold. The poverty thresholds attempt to account for the economies of shared resources including accommodations that married couples enjoy and the lower expenses

that those over age 65 (and presumably not working) enjoy. In 1997, the poverty threshold for a married couple under age 65 was $10,805. For a married couple age 65 and older, the poverty threshold was $9,712. For a single individual under age 65, the poverty threshold was $8,350, and for a single individual age 65 and older, the poverty threshold was $7,698. These poverty thresholds are updated each year for increases in the CPI-U. Imputed rental income is not included in the Census measure of poverty, so we omit it in the income measure for these calculations. Otherwise, our income measure in the next two tables is the same as those used earlier in the chapter.

The effect of the higher threshold for families and individuals under age 65 is that it systematically reduces the income to poverty threshold of the youngest retirees, making the under 65 population look worse off relative to the older population. To make the poverty rates for the under 65 Social Security beneficiaries comparable to the 65 and over beneficiaries, we have calculated poverty thresholds for the younger group using the older group thresholds.

In 2020, the average income of Social Security beneficiaries is projected to be about 3.8 times the poverty threshold (see Table 7-15). Family income relative to poverty is higher for later cohorts (younger retirees) than for earlier cohorts (older retirees). We project that the income of the oldest beneficiaries, those born between 1931 and 1935, will be about 3.6 times poverty, and the income of the youngest beneficiaries, those born between 1956 and 1960 using the over age 65 thresholds, will be about 4 times poverty. This difference, in part, reflects the decline in incomes after retirement which older retirees (but not younger ones) have experienced. Note that, unlike per capita income, the income to poverty ratio for those born between 1931 and 1935 (age 85 and older) exceeds the income to poverty ratio of those born between 1936 and 1940. This is because many more individuals are widowed in this higher age group, which means that their incomes are measured relative to the single person poverty threshold. Before accounting for changes in income, becoming widowed amounts to a doubling of income on a per capita basis, but only a 26 percent increase in income on a poverty threshold basis.

As with per capita income, college educated beneficiaries have substantially higher income relative to poverty than beneficiaries with lower educational attainment in all age groups. White beneficiaries have higher income relative to poverty than nonwhites in all age groups. Males have higher income relative to poverty than females in all age groups, but the difference between males and females is less among younger retirees, possibly reflecting the smaller number of younger retired females who are widowed.

For many subgroups of the population, the ratio of income to poverty in 2020 is higher for younger beneficiaries. For divorced and never married individuals in 2020, however, this is not true. For Social Security beneficiaries who never married, the average ratio of income to

Table 7-15
Average Family Total Income as a Percent of Poverty in 2020 by Individual Characteristic and Cohort

	Cohort							
	All	1931-1935	1936-1940	1941-1945	1946-1950	1951-1955	1956-1960	1956-1960[1]
	Average Total Family Income as a Percent of Poverty							
Total	3.80	3.55	3.48	3.62	3.86	4.06	3.77	4.04
Educational Attainment								
High School Dropout	1.96	2.13	2.02	1.94	1.92	1.95	1.84	1.97
High School Graduate	3.43	3.37	3.24	3.22	3.47	3.62	3.44	3.67
College	5.38	5.30	5.12	5.33	5.19	5.66	5.50	5.89
Race								
White	3.96	3.70	3.63	3.77	4.03	4.24	3.96	4.24
Black	2.52	2.34	2.08	2.33	2.60	2.78	2.46	2.63
Asian, Native American	3.57	2.56	3.12	3.44	3.59	3.86	3.84	4.07
Gender								
Female	3.46	3.14	3.05	3.24	3.52	3.81	3.54	3.75
Male	4.27	4.43	4.20	4.19	4.30	4.37	4.07	4.40
Marital Status								
Never Married	2.59	3.54	2.62	2.31	2.62	2.89	2.06	2.23
Married	4.55	4.59	4.39	4.42	4.54	4.72	4.46	4.75
Widowed	2.83	2.73	2.60	2.56	3.00	3.19	2.93	3.18
Divorced	2.71	2.95	2.56	2.77	2.75	2.78	2.47	2.68
AIME Quintile at Age 62								
1	2.80	3.07	3.02	2.98	2.82	2.79	2.27	2.40
2	2.82	2.66	2.67	2.57	2.92	2.94	2.88	3.07
3	3.18	3.06	2.74	3.14	3.25	3.40	3.08	3.28
4	4.06	3.53	3.61	3.64	4.17	4.42	4.27	4.59
5	6.13	5.43	5.38	5.76	6.16	6.73	6.37	6.85
Per Capita Income Quintile								
1	1.14	1.14	1.14	1.16	1.18	1.15	1.00	1.07
2	2.15	2.05	2.03	2.03	2.22	2.27	2.05	2.17
3	3.05	2.76	2.75	2.88	3.17	3.29	2.99	3.18
4	4.30	3.83	3.80	4.00	4.38	4.75	4.33	4.61
5	8.36	8.01	7.70	8.03	8.37	8.83	8.52	9.16

Source: The Urban Institute projections.

Note: Total family income excludes imputed rental income.

This table includes all individuals age 67 or older in 2020 or age 62 to 66 receiving or not eligible for Social Security.

1/ Poverty rate calculated with the age 65 and over poverty thresholds for all families.

poverty is 3.5 for the oldest retirees, but is only 2.1 for the youngest retirees. For divorced beneficiaries, the average ratio of income to poverty is 3.0 for older retirees and 2.5 for younger retirees. Married couples have higher ratios of income to poverty in all cohorts compared with single individuals. Their ratio of income to poverty is lower for younger than for older retirees, but only by a small amount.

We project that about 8.5 percent of Social Security beneficiaries in our sample will be in poverty in the year 2020, but the proportion varies considerably by educational attainment, race, gender, marital status, and age (see Table 7-16). A little over 3 percent of college graduates will be in poverty in 2020, compared with over 25 percent of high school dropouts. The impact of a lack of education on poverty is expected to increase over time. For example, we project that 19 percent of the oldest high school dropouts will be in poverty in 2020, while about 27 percent of the youngest dropouts will be in poverty.

Blacks are more likely to be in poverty in 2020 than whites. In 2020, we project that about 20 percent of black Social Security beneficiaries will be in poverty, while only a little under 7 percent of white beneficiaries will be. The poverty impact of being both black and under-educated is projected to increase over time. For example, among black, high school dropouts, we project about 27 percent of those born between 1931 and 1935 will be in poverty, compared with over 44 percent of those born between 1956 and 1960 (using the over 65 thesholds).

We project much higher poverty rates for unmarried individuals than for married couples. About 2.8 percent of married couples will be in poverty in the year 2020, while almost 30 percent of never married retirees, about 13 percent of widows, and 17 percent of divorced retirees will be in poverty.

The analysis of Social Security beneficiaries in 2020 by age is complicated by the fact that our universe includes only beneficiaries (and individuals not eligible for benefits) and only those who survive to 2020. As described in Section V.1 of this chapter, this group faces selection in two dimensions. First, the youngest beneficiaries are all early retirees, and second, the oldest beneficiaries all have long life expectancy. To facilitate cross age comparisons, we compare our projected income and poverty rates of the 2020 Social Security beneficiaries with Social Security beneficiaries in the early 1990s.

We generated income and poverty statistics for the early 1990s by combining the 1990 to 1993 SIPP panels. Annual family income is the sum of family income for the first 12 months of the panel, and family poverty threshold is the sum of the monthly poverty thresholds divided by 12.[6] To be consistent with the MINT population, we included only current Social Security recipients among those ages 62 and 66 and all individuals age 67 or older. The family income on the SIPP is the sum of Social Security and other transfer income, pension income, earned

Table 7-16
Percent of Individuals in Poverty in 2020
by Individual Characteristic and Cohort

	Cohort							
	All	1931-1935	1936-1940	1941-1945	1946-1950	1951-1955	1956-1960	1956-1960[1]
	Percent of Individuals in Poverty in 2020							
Total	8.5%	8.3%	8.6%	8.1%	7.9%	8.3%	10.3%	9.2%
Educational Attainment								
High School Dropout	25.1%	19.1%	20.9%	22.0%	26.5%	29.7%	29.5%	27.2%
High School Graduate	7.8%	6.7%	7.6%	7.1%	7.5%	7.5%	10.1%	8.7%
College	3.1%	4.0%	3.4%	3.4%	3.1%	3.0%	2.2%	2.2%
Race								
White	6.8%	6.7%	7.3%	6.8%	6.3%	6.7%	7.8%	6.8%
Black	19.6%	19.0%	19.6%	17.4%	19.2%	17.7%	26.1%	24.5%
Asian, Native American	15.0%	29.4%	15.8%	13.5%	13.1%	14.8%	14.6%	13.4%
Race by Education								
Non-Black								
High School Dropout	22.7%	17.9%	18.5%	20.4%	24.4%	27.1%	25.4%	23.2%
High School Graduate	6.6%	5.9%	6.8%	6.2%	6.5%	6.5%	7.8%	6.4%
College	2.7%	3.5%	3.4%	3.0%	2.5%	2.7%	2.1%	2.0%
Black								
High School Dropout	36.0%	26.7%	32.1%	29.4%	36.6%	40.0%	47.2%	44.4%
High School Graduate	17.3%	17.5%	16.3%	14.5%	16.4%	14.7%	25.9%	24.2%
College	8.5%	10.4%	3.8%	9.5%	12.6%	7.8%	3.4%	3.4%
Gender								
Female	10.7%	10.2%	11.8%	10.8%	10.4%	10.1%	12.0%	10.9%
Male	5.3%	4.4%	3.3%	4.0%	4.8%	6.0%	8.2%	6.9%
Marital Status								
Never Married	29.4%	26.1%	27.6%	29.2%	28.9%	27.6%	35.0%	34.8%
Married	2.8%	2.8%	2.1%	2.2%	2.3%	2.9%	4.2%	3.6%
Widowed	12.6%	10.6%	13.6%	12.2%	12.9%	11.6%	16.3%	13.2%
Divorced	16.5%	14.9%	14.6%	15.6%	16.0%	17.7%	18.5%	16.2%

Source: The Urban Institute projections.

Notes: Total family income excludes imputed rental income.

1/ Poverty rate calculated with the age 65 and over poverty thresholds for all families.

income, and income from assets. The SIPP measure of income from assets is the sum of interest, dividends, rental income, and royalties. The MINT measure of income from assets is based on the annuity the individual or couple could purchase with 80 percent of their financial assets. These two measures could be very different. Our measure includes some consumption of asset principal -- Census's measure does not. Our measure does not vary with varying annual rates of return on assets -- Census's measure does. Our measure includes some income from nonincome generating assets, such as cars -- Census's measure does not. To facilitate comparing incomes, we calculated family income for the 1990s Social Security beneficiaries using the MINT measure of income from assets.

As we have seen earlier in this chapter, educational attainment of Social Security recipients in 2020 is higher than in the early 1990s. Twelve percent of beneficiaries had a college education in the early 1990s, compared with 27 percent of beneficiaries in 2020 (see Table 7-17). The proportion of nonwhite Social Security beneficiaries is increasing. Ninety percent of beneficiaries in the early 1990s were white, while only 86 percent of beneficiaries in 2020 will be. The proportion of divorced Social Security beneficiaries is increasing and the proportion of widowed beneficiaries is decreasing. Six percent of beneficiaries in the early 1990s were divorced, while 17 percent of beneficiaries in 2020 will be, and 32 percent of beneficiaries in the early 1990s were widowed, while only 19 percent of beneficiaries in 2020 will be. This is the cumulative effect of increased life expectancy, which reduces the number of widows, and the increasing number of beneficiaries entering retirement divorced. The share of young Social Security beneficiaries is increasing. Eleven percent of the beneficiaries in the early 1990s were ages 62 to 64, while 14 percent of beneficiaries in 2020 will be. Despite increasing longevity, the sheer size of the younger cohorts in 2020 overwhelms the longevity effect.

Comparing the Census income measure to the MINT income measure in the 1990s shows that the MINT measure is higher (column 3 and 4 on Table 7-17). Average family income using the Census measure is 3.1 times the poverty threshold. The MINT income measure increases income by about 10 percent to 3.4 times the poverty threshold. The MINT definition raises measured income in all groups. Income is higher in the MINT measure because it includes some return of principal and income from assets (cars for example) that are not counted in the Census measure, which counts only cash income.

The projected ratio of average income to poverty for Social Security beneficiaries is higher in 2020 than in the early 1990s. Comparing the MINT measure of income for the two groups, average income to poverty is 10 percent higher in 2020 than in the early 1990s (3.80 versus 3.44). Interestingly, though, average income to poverty is lower for all education groups in 2020 than in the early 1990s and is especially low for high school dropouts. Average income to poverty is about 20 percent lower for high school dropouts in 2020 compared to the early 1990s, and it is about 7 percent lower for high school and college graduates. The increasing level of education of the population causes average incomes to increase even though the income of

Table 7-17
Percent of Retirees, Average Family Income as a Percent of Poverty, and Percent of Retirees Below Poverty by Individual Characteristic in the Early 1990s and 2020

			Census Measure	UI Measure		Census Measure	UI Measure	
	Early 1990s	2020	Early 1990s	Early 1990s	2020	Early 1990s	Early 1990s	2020
	Percent of Retirees		Average Family Income / Poverty Threshold			Percent of Retirees Below Poverty		
Total	100%	100%	3.12	3.44	3.80	8.8%	8.0%	8.5%
Educational Attainment								
High School Dropout	41%	12%	2.23	2.44	1.96	15.5%	14.5%	25.1%
High School Graduate	47%	61%	3.38	3.72	3.43	4.4%	3.9%	7.8%
College	12%	27%	5.22	5.77	5.38	2.2%	2.1%	3.1%
Race								
White	90%	86%	3.23	3.57	3.96	7.1%	6.3%	6.8%
Black	8%	10%	2.00	2.08	2.52	25.9%	25.3%	19.6%
Asian, Native American	2%	4%	2.94	3.18	3.57	11.5%	12.8%	15.0%
Gender								
Female	59%	58%	2.89	3.14	3.46	11.5%	10.6%	10.7%
Male	41%	42%	3.45	3.86	4.27	5.0%	4.4%	5.3%
Marital Status								
Never Married	5%	6%	2.63	2.76	2.59	17.4%	16.2%	29.4%
Married	57%	58%	3.64	4.07	4.55	2.7%	2.4%	2.8%
Widowed	32%	19%	2.43	2.60	2.83	15.5%	14.4%	12.6%
Divorced	6%	17%	2.27	2.42	2.71	22.3%	21.2%	16.5%
Age								
62 to 64	11%	14%	3.17	3.41	3.77	7.9%	7.9%	10.3%
62 to 641	11%	14%	3.50	3.77	4.04	6.8%	6.7%	9.2%
65 to 69	28%	26%	3.44	3.76	4.06	6.5%	5.9%	8.3%
70 to 74	24%	25%	3.18	3.50	3.86	7.9%	7.2%	7.9%
75 to 79	18%	17%	3.01	3.33	3.62	9.6%	9.0%	8.1%
80 and Older2	19%	18%	2.63	2.96	3.51	13.0%	11.8%	8.5%

Source: The Urban Institute projections.
Note: Total family income excludes imputed rental income.
This table includes all individuals age 67 or older in 2020 or age 62 to 66 receiving or not eligible for Social Security.
The early 1990s is the first 12 months of the 1990, 1991, 1992, and 1993 SIPP panels combined.
The alternate income measure replaces property income with financial asset annuity income.
1/ Poverty rate calculated with the age 65 and over poverty thresholds for all families.
2/ The oldest retirees in the MINT database in 2020 are 89 years old. The 1990 poverty numbers include all retirees over age 89.

each education group is falling. In contrast, average income to poverty is higher for all race categories in 2020 than in the early 1990s, with blacks doing significantly better in the 2020s than in the early 1990s. The ratio of average income to poverty increased by over 20 percent for blacks and by about 11 percent for whites. Divorced Social Security beneficiaries have about 12 percent higher income to poverty ratios in 2020 than those in the early 1990s, but never married beneficiaries have about six percent lower income to poverty ratios than those in the early 1990s. Average income to poverty is also higher for all age groups in 2020 compared to the early 1990s. The youngest beneficiaries have about 10 percent higher ratios of income to poverty in 2020 than the youngest beneficiaries in the early 1990s. The oldest beneficiaries have about a 18 percent higher ratio of income to poverty in 2020 than the oldest beneficiaries in the early 1990s, although this statistic is not completely comparable, because the 1990 population includes individuals age 90 and older (about three percent of Social Security beneficiaries) and the 2020 population does not.

While family income relative to the poverty threshold is increasing from the early 1990s compared to 2020, the proportion of the population with income below poverty is also increasing. Using the MINT definition of asset income, eight percent of Social Security beneficiaries were in poverty in the early 1990s, and we project that 8.5 percent of beneficiaries will be in poverty in 2020. The poverty rate of the under-educated is increasing. For example, 14.5 percent of high school dropout beneficiaries were in poverty in the early 1990s, but we project that a much higher 25.1 percent of the 2020 dropouts will be. There are fewer dropouts in 2020 (12 percent in 2020 compared to 41 percent in 1990), but those without higher education in 2020 are much more likely to end up in poverty than less-educated retirees in the early 1990s.

While the poverty rate for blacks continues to be higher than the poverty rate for whites, black Social Security beneficiaries in 2020 are doing better than those in the early 1990s. A little over 25 percent of blacks were in poverty in the early 1990s, and 20 percent will be in poverty in 2020. Poverty rates for both men and women are higher in 2020 than in the early 1990s, but more so for men than for women. On the other hand, women are a larger share of the aged population and have about twice the poverty rate as men in both 1990 and 2020.

Social Security beneficiaries who never married are much more likely to be in poverty in 2020 than in the early 1990s. Sixteen percent of the never married beneficiaries were in poverty in the early 1990s, and over 29 percent are projected to be in poverty in 2020. Divorced beneficiaries, on the other hand, are less likely to be in poverty in 2020 compared to the early 1990s. Twenty-one percent of the early 1990 divorced beneficiaries were in poverty, and only 16.5 percent of the 2020 divorced beneficiaries will be. Married beneficiaries continue to have a low probability of being in poverty, but the poverty rate among them is rising slightly.

Younger Social Security beneficiaries are more likely to be in poverty in 2020 than they were in the early 1990s. Using the over age 65 poverty thresholds, over 9 percent of the 62- to 64-year-old beneficiaries will be in poverty in 2020, compared with just 6.7 percent in the early 1990s. Poverty rates are higher for all age groups in 2020 compared to the early 1990s up until age 75 and older, at which point the poverty rates of the oldest retirees is lower in 2020 than in 1990. The combined effect of MINT missing the oldest old and increased longevity means that the oldest beneficiaries in 2020 have not confronted the dramatic decline in financial assets that occurs in the last year of life. Both of these factors reduce the poverty rates of the oldest beneficiaries in 2020 compared to the early 1990s. Also, we assumed that all DB pensions are joint and survivor pensions. Although pension plans are required to allow spouses to elect a joint and survivor annuity, some people may still choose a single survivor annuity, especially if the spouse has other sources of income. To the extent that some DB beneficiaries do not choose joint and survivor pensions, our estimates overstate the incomes of the oldest beneficiaries in our sample and understate the incomes of the younger beneficiaries. If no married DB beneficiaries choose joint and survivor pensions, the poverty rate from assuming no joint and survivor annuities of the oldest beneficiaries in 2020 would increase modestly from 8.5 percent to 9.1 percent, which would still be much lower than the poverty rate for the oldest beneficiaries in the early 1990s. The impact on poverty is even smaller for younger beneficiaries because mortality has not had as big an impact on them and a lower proportion of younger beneficiaries have DB pensions.[7]

About 55 percent of the MINT population in 2020 who are not entitled to Social Security benefits are in poverty, but this percent varies by age. These are individuals who do not have enough quarters of covered employment to be eligible for a retired worker benefit and who also do not qualify for a spouse or survivor benefit. About 78 percent of survivors between age 62 and 64 in 2020 who are never eligible for Social Security benefits are in poverty compared to about 46 percent of those age 80 and older. This difference reflects both the higher mortality rates of poorer individuals and the higher share of beneficiaries entering retirement with no entitlement to Social Security. Higher divorce rates for later cohorts causes more former wives to enter retirement with no entitlement to their former spouse's Social Security. While those not eligible for Social Security are a small proportion of the aged (about 4.5 percent) they are very likely to be in poverty. While SSI, which we do not project, would provide some income to these beneficiaries, SSI income is not high enough to lift them out of poverty. They are still a very vulnerable group. Appendix Table 7-A-4 shows the percent of the 2020 population with income from each income source. Those without Social Security entitlement are more likely to be black, under educated, and never married.

VI. CONCLUSIONS

In this chapter, we have estimated changes in income and wealth as people age after retirement, compared incomes of different cohorts and demographic groups at retirement, and projected income of retirees of the 1931 to 1960 birth cohorts to the year 2020. We have

examined trends in the distribution of income among successive cohorts of retirees and compared the population of Social Security recipients in 2020 with those in the early 1990s.

The rate of change of financial wealth for single and married retirees varies by age and other economic and demographic characteristics, including homeownership, race, presence of a pension, presence of high earnings, widowhood status, and mortality. For most groups, financial wealth declines with age. The decline in financial wealth with age is relatively larger for homeowners compared with renters, blacks compared with whites, families with pensions compared with those without them, individuals outside of the highest earning group compared with high earners, and widows compared with divorced people and those never married.

The proportion of Social Security beneficiaries who are nonwhite and unmarried is increasing over time. This change leads to an increase in the proportion of Social Security beneficiaries with lower incomes over time. At the same time, educational attainment and female labor force participation are increasing over time. This change leads to an increase in the proportion of Social Security beneficiaries with higher incomes over time. These demographic changes along with increases in life expectancy and the sheer size of the Baby Boom cohorts will change the fundamental composition of Social Security beneficiaries over time. These changes affect both the accumulation of assets and the rate of consumption from these assets for successive cohorts of Social Security beneficiaries out to the year 2020 and beyond.

For new retirees, Social Security and income from financial assets (other than DB pensions) are the two most important components of income, with Social Security being only a slightly higher share of total income. Social Security benefits are about 28 percent of the average wage on average and they account for about 34 percent of total income at initial retirement. Social Security is a more important source of total income for blacks and lower educated individuals then for whites and those with a college education.

Financial assets are an important source of income for those Social Security beneficiaries with financial assets, but financial assets are very unevenly distributed. College educated beneficiaries and whites have the bulk of these assets. Nonwhites and high school dropouts have comparatively little savings at retirement. Earnings are an important source of income for many of the elderly at initial Social Security receipt. Earnings are a relatively more important source of income for individuals with the highest incomes. Overall, Social Security benefits are the most important income source for lower income groups and financial assets and earned income the most important source for people in the top income quintile.

Total income at first retirement will peak for Social Security beneficiaries born between 1946 and 1950 and is projected to decline for post 1950 birth cohorts. Social Security and income from financial assets (including income from DC plans) are increasing as a share of income

for more recent birth cohorts, and DB pension income is decreasing as a share of income for more recent cohorts.

Per capita income of Social Security recipients at initial receipt is quite unevenly distributed, with individuals in the highest income quintile having about 7.1 times as much income as individuals in the lowest quintile. Over time, this differential is increasing. Incomes are increasing in the highest quintile and decreasing in the lowest quintile.

Older Social Security beneficiaries in 2020 are more likely to be widowed women than younger Social Security beneficiaries. Older beneficiaries, because of the differential impact of mortality, are also more likely to be white, higher educated, and higher income.

Comparisons of projected Social Security beneficiaries in 2020 with those in the early 1990s show that the average income of future beneficiaries is projected to increase, but poverty rates will also increase. This occurs because incomes are becoming more unevenly distributed. Family well-being is highly correlated with marital status, educational attainment, and race. Married couples have more income than single individuals, higher educated individuals have more income than lower educated individuals, and whites have more income than nonwhites.

Educational attainment of Social Security beneficiaries in 2020 is higher than that of Social Security beneficiaries in the early 1990s. Higher educated beneficiaries are more likely to be wealthy. Social Security beneficiaries in 2020 are more likely to be nonwhite, divorced, and or never married compared to beneficiaries in the early 1990s. These groups are more likely to be poor. These demographic changes are contributing to higher incomes for those better off and higher poverty rates for those worse off. Those most at risk in 2020 are the less educated single beneficiaries. These groups are an increasing proportion of the youngest beneficiaries in 2020. Many of them will begin their retirement in poverty, and, if the past is a guide, the incidence of poverty in this cohort will increase as they age.

APPENDIX A

TABLE 7-A-1
Increases in Full Retirement Age and Delayed Retirement Credits, with Resulting Benefit, As a Percent of Primary Insurance Amount [PIA], Payable at Selected Ages, for Persons Born in 1924 or Later

Year of birth	Age 62 attained in--	"Normal retirement age"	Credit for each year of delayed retirement after normal retirement age	Benefit, as a percent of PIA, beginning at age--				
				62	65	66	67	70
1924	1986	65	3	80	100	103	106	115
1925-26	1987-88	65	3 1/2	80	100	103 1/2	107	117 1/2
1927-28	1989-90	65	4	80	100	104	108	120
1929-30	1991-92	65	4 1/2	80	100	104 1/2	109	122 1/2
1931-32	1993-94	65	5	80	100	105	110	125
1933-34	1995-96	65	5 1/2	80	100	105 1/2	111	127 1/2
1935-36	1997-98	65	6	80	100	106	112	130
1937	1999	65	6 1/2	80	100	106 1/2	113	132 1/2
1938	2000	65, 2 mo.	6 1/2	79 1/6	98 8/9	105 5/12	111 11/12	131 5/12
1939	2001	65, 4 mo.	7	78 1/3	97 7/9	104 2/3	111 2/3	132 2/3
1940	2002	65, 6 mo.	7	77 1/2	96 2/3	103 1/2	110 1/2	131 1/2
1941	2003	65, 8 mo.	7 1/2	76 2/3	95 5/9	102 1/2	110	132 1/2
1942	2004	65, 10 mo.	7 1/2	75 5/6	94 4/9	101 1/4	108 3/4	131 1/4
1943-54	2005-16	66	8	75	93 1/3	100	108	132
1955	2017	66, 2 mo.	8	74 1/6	92 2/9	98 8/9	106 2/3	130 2/3
1956	2018	66, 4 mo.	8	73 1/3	91 1/9	97 7/9	105 1/3	129 1/3
1957	2019	66, 6 mo.	8	72 1/2	90	96 2/3	104	128
1958	2020	66, 8 mo.	8	71 2/3	88 8/9	95 5/9	102 2/3	126 2/3
1959	2021	66, 10 mo.	8	70 5/6	87 7/9	94 4/9	101 1/3	125 1/3
1960 or later	2022 or later	67	8	70	86 2/3	93 1/3	100	124

Source: Table 1-8 from Committee on Ways and Means U.S. House of Representatives, Green Book (1996).

Table 7-A-2
Percent of Individuals and Average Per Capita Income as a Percent of the Average Wage at the Individual's Initial Social Security Benefit Receipt by Income Source and Income Source

		Family Income Source								
								Financial Asset Income		
	Percent of Individuals	Total Income	Social Security	Financial Income	DB Pension Income	Earned Income	Imputed Rental Income	DC Pension Income	IRA Income	Saving Income
		Average Per Capita Income/Average Wage by Income Source								
Total	100%	0.82	0.28	0.25	0.09	0.15	0.06	0.11	0.03	0.12
Educational Attainment										
High School Dropout	13%	0.46	0.22	0.09	0.04	0.08	0.04	0.03	0.00	0.06
High School Graduate	60%	0.76	0.28	0.21	0.08	0.14	0.05	0.09	0.02	0.10
College	26%	1.16	0.31	0.44	0.14	0.20	0.07	0.18	0.05	0.20
Race										
White	85%	0.86	0.28	0.27	0.10	0.15	0.06	0.11	0.03	0.13
Black	11%	0.59	0.25	0.11	0.08	0.11	0.03	0.06	0.01	0.04
Asian, Native American	4%	0.77	0.25	0.24	0.07	0.15	0.06	0.10	0.03	0.12
Gender										
Female	54%	0.79	0.28	0.23	0.09	0.13	0.06	0.10	0.03	0.11
Male	46%	0.86	0.27	0.27	0.10	0.17	0.06	0.11	0.03	0.13
Marital Status by Gender										
Never Married Female	3%	0.75	0.26	0.21	0.11	0.12	0.06	0.10	0.02	0.10
Never Married Male	2%	0.80	0.28	0.29	0.08	0.08	0.06	0.12	0.03	0.15
Married Women	32%	0.80	0.27	0.25	0.09	0.14	0.05	0.10	0.03	0.13
Married Men	35%	0.84	0.25	0.26	0.09	0.19	0.05	0.10	0.03	0.13
Widowed Female	9%	0.83	0.32	0.24	0.12	0.09	0.07	0.13	0.04	0.07
Widowed Male	2%	1.03	0.36	0.34	0.16	0.10	0.08	0.18	0.04	0.12
Divorced Female	10%	0.73	0.30	0.18	0.08	0.12	0.06	0.09	0.02	0.07
Divorced Male	6%	0.94	0.35	0.30	0.13	0.10	0.07	0.15	0.03	0.12
Cohort										
1931-1935	11%	0.83	0.28	0.20	0.15	0.14	0.06	0.03	0.01	0.16
1936-1940	12%	0.82	0.28	0.21	0.12	0.15	0.06	0.06	0.02	0.14
1941-1945	15%	0.83	0.28	0.24	0.10	0.16	0.06	0.09	0.02	0.13
1956-1950	19%	0.85	0.28	0.27	0.09	0.15	0.06	0.12	0.03	0.12
1951-1955	21%	0.82	0.28	0.27	0.08	0.14	0.06	0.12	0.04	0.11
1956-1960	23%	0.79	0.27	0.28	0.07	0.13	0.05	0.15	0.04	0.09
AIME Quintile										
1	20%	0.58	0.18	0.17	0.10	0.08	0.05	0.05	0.02	0.10
2	20%	0.62	0.24	0.17	0.05	0.11	0.05	0.05	0.02	0.09
3	20%	0.72	0.28	0.19	0.07	0.13	0.05	0.07	0.02	0.09
4	20%	0.91	0.33	0.26	0.10	0.17	0.06	0.12	0.03	0.11
5	20%	1.29	0.36	0.48	0.15	0.23	0.08	0.23	0.05	0.21
Per Capita Income Quintile										
1	20%	0.25	0.17	0.03	0.01	0.01	0.03	0.00	0.00	0.03
2	20%	0.47	0.27	0.07	0.04	0.05	0.04	0.02	0.01	0.05
3	20%	0.67	0.30	0.14	0.08	0.10	0.05	0.04	0.02	0.07
4	20%	0.95	0.32	0.26	0.13	0.18	0.07	0.10	0.04	0.12
5	20%	1.78	0.34	0.76	0.20	0.39	0.09	0.36	0.07	0.33

Source: The Urban Institute projections.

Table 7-A-3
Percent of Individuals Receiving Family Income by Income Source at the Individual's Initial Social Security Benefit Receipt

		Family Income Source								
								Financial Asset Income		
	Percent of Individuals	Total Income	Social Security	Financial Income	DB Pension Income	Earned Income	Imputed Rental Income	DC Pension Income	IRA Income	Saving Income
		Percent of Individuals Receiving Family Income by Income Source								
Total	100%	1.00	0.96	0.94	0.48	0.46	0.91	0.36	0.30	0.91
Educational Attainment										
High School Dropout	13%	0.99	0.91	0.89	0.33	0.33	0.84	0.17	0.10	0.87
High School Graduate	60%	1.00	0.97	0.94	0.49	0.46	0.91	0.35	0.27	0.91
College	26%	1.00	0.97	0.97	0.55	0.54	0.94	0.46	0.49	0.94
Race										
White	85%	1.00	0.97	0.96	0.49	0.48	0.93	0.37	0.33	0.93
Black	11%	0.99	0.94	0.85	0.46	0.36	0.78	0.25	0.09	0.81
Asian, Native American	4%	1.00	0.94	0.89	0.42	0.45	0.86	0.31	0.25	0.85
Gender										
Female	54%	1.00	0.96	0.94	0.48	0.41	0.90	0.34	0.30	0.90
Male	46%	1.00	0.97	0.95	0.49	0.53	0.92	0.38	0.31	0.93
Marital Status by Gender										
Never Married Female	3%	0.98	0.85	0.87	0.38	0.28	0.66	0.26	0.19	0.83
Never Married Male	2%	0.98	0.86	0.88	0.33	0.26	0.65	0.22	0.23	0.82
Married Women	32%	1.00	0.96	0.97	0.51	0.47	0.96	0.39	0.35	0.95
Married Men	35%	1.00	0.97	0.97	0.51	0.60	0.96	0.41	0.34	0.95
Widowed Female	9%	1.00	0.98	0.88	0.52	0.32	0.87	0.25	0.26	0.83
Widowed Male	2%	1.00	0.98	0.90	0.54	0.28	0.87	0.28	0.24	0.85
Divorced Female	10%	1.00	0.97	0.88	0.34	0.32	0.80	0.25	0.18	0.83
Divorced Male	6%	1.00	0.96	0.89	0.40	0.28	0.82	0.28	0.21	0.83
Cohort										
1931-1935	11%	1.00	0.95	0.94	0.52	0.45	0.94	0.23	0.42	0.91
1936-1940	12%	1.00	0.95	0.94	0.48	0.46	0.93	0.33	0.38	0.91
1941-1945	15%	1.00	0.95	0.95	0.48	0.47	0.92	0.36	0.34	0.92
1956-1950	19%	1.00	0.96	0.95	0.48	0.47	0.91	0.39	0.31	0.92
1951-1955	21%	1.00	0.97	0.94	0.48	0.47	0.90	0.38	0.27	0.91
1956-1960	23%	1.00	0.98	0.94	0.47	0.45	0.88	0.38	0.21	0.91
AIME Quintile										
1	20%	0.99	0.81	0.90	0.38	0.32	0.85	0.22	0.21	0.87
2	20%	1.00	1.00	0.92	0.39	0.38	0.87	0.26	0.23	0.89
3	20%	1.00	1.00	0.95	0.48	0.44	0.90	0.34	0.26	0.91
4	20%	1.00	1.00	0.97	0.55	0.53	0.94	0.42	0.33	0.93
5	20%	1.00	1.00	0.99	0.61	0.64	0.98	0.53	0.48	0.97
Per Capita Income Quintile										
1	20%	0.99	0.89	0.84	0.19	0.19	0.76	0.09	0.06	0.82
2	20%	1.00	0.98	0.94	0.43	0.35	0.90	0.22	0.17	0.90
3	20%	1.00	0.98	0.97	0.57	0.49	0.94	0.35	0.30	0.93
4	20%	1.00	0.98	0.98	0.62	0.60	0.96	0.48	0.43	0.95
5	20%	1.00	0.98	0.99	0.60	0.69	0.97	0.64	0.56	0.97

Source: The Urban Institute projections.

Table 7-A-4
Percent of Individuals with Family Income by Income Source in 2020 by Individual Characteristic and Income Source

		Per Capita Income/Average Wage by Income Source								
								Financial Asset Income[1]		
	Percent of Individuals	Total	Social Security	Financial Assets	DB Pension	Earnings	Imputed Rent	DC Pension	IRA	Saving
		Percent of Individuals with Family Income by Income Source								
Total	100%	1.00	0.97	0.95	0.53	0.15	0.91	0.37	0.32	0.92
Educational Attainment										
High School Dropout	12%	0.99	0.92	0.89	0.35	0.09	0.84	0.18	0.09	0.88
High School Graduate	61%	1.00	0.98	0.94	0.53	0.15	0.91	0.36	0.28	0.91
College	27%	1.00	0.98	0.98	0.60	0.18	0.94	0.47	0.51	0.94
Race										
White	86%	1.00	0.98	0.96	0.53	0.16	0.93	0.38	0.35	0.93
Black	10%	0.99	0.94	0.86	0.50	0.14	0.78	0.27	0.10	0.81
Asian, Native American	4%	0.99	0.94	0.91	0.46	0.16	0.87	0.33	0.27	0.86
Gender										
Female	58%	1.00	0.97	0.94	0.52	0.12	0.91	0.35	0.31	0.90
Male	42%	1.00	0.97	0.96	0.54	0.20	0.92	0.40	0.33	0.93
Marital Status by Gender										
Never Married	6%	0.98	0.84	0.89	0.36	0.10	0.67	0.25	0.22	0.84
Married	58%	1.00	0.98	0.98	0.58	0.20	0.97	0.43	0.36	0.96
Widowed	19%	1.00	0.98	0.92	0.54	0.07	0.91	0.29	0.32	0.88
Divorced	17%	1.00	0.96	0.89	0.38	0.10	0.82	0.28	0.21	0.84
Age										
85 and Older	7%	1.00	0.97	0.95	0.59	0.00	0.94	0.25	0.46	0.92
80 to 84	11%	1.00	0.97	0.95	0.55	0.01	0.93	0.34	0.40	0.91
75 to 79	17%	1.00	0.97	0.95	0.54	0.01	0.92	0.37	0.35	0.92
70 to 74	25%	1.00	0.97	0.95	0.54	0.06	0.92	0.39	0.32	0.92
65 to 69	26%	1.00	0.97	0.94	0.51	0.27	0.91	0.39	0.27	0.91
62 to 64	14%	1.00	0.97	0.94	0.48	0.47	0.88	0.37	0.23	0.91
AIME Quintile at Age 62										
1	20%	0.99	0.86	0.90	0.42	0.11	0.86	0.24	0.23	0.87
2	20%	1.00	1.00	0.92	0.43	0.13	0.88	0.26	0.25	0.89
3	20%	1.00	1.00	0.95	0.53	0.15	0.91	0.36	0.27	0.91
4	20%	1.00	1.00	0.97	0.60	0.17	0.94	0.44	0.35	0.94
5	20%	1.00	1.00	0.99	0.66	0.20	0.98	0.55	0.49	0.97
Per Capita Income Quintile										
1	20%	0.99	0.90	0.84	0.23	0.06	0.77	0.08	0.05	0.81
2	20%	1.00	0.99	0.94	0.47	0.11	0.91	0.22	0.17	0.90
3	20%	1.00	0.99	0.98	0.62	0.15	0.95	0.35	0.32	0.94
4	20%	1.00	0.99	0.99	0.69	0.19	0.97	0.51	0.45	0.96
5	20%	1.00	0.98	1.00	0.63	0.25	0.98	0.68	0.60	0.97

Source: The Urban Institute projections.

1/ This allocation of financial asset income assumes equal consumption of initial assets by type of asset over time.

CHAPTER 7: REFERENCES

Lubitz, Jim, J. Beebe, and C. Baker, "Longevity and Medicare Expenditures," *New England Journal of Medicine*, April 13, 1995.

McNeil, Jack, and Enrique Lamas, 1988. "Year-Apart Estimates of Household Net Worth From the Survey of Income and Program Participation," Bureau of the Census, No. 8804.

Smith, Karen and Eric Toder, "Subtask 7.2 - Test Alternatives for Projecting Retirement Income and Assets From Early Retirement Age Until Death," Letter Report, March 31, 1999.

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CHAPTER 7: ENDNOTES

1. This model specification does not include wealth in the base period, as described in our letter report 7.1 to SSA. McNeil and Lamas (1988) found that the annual variation in reported wealth between the two financial asset topical modules was not reliable. Therefore, we rejected using a fixed-effects specification.

2. The SIPP wealth topical modules for the 1990s ask about 401(k) balances. Our sample, however, is limited to families with heads age 62 or older in 1984. 401(k) plans did not start being popular until the mid-1980s. By then, most of our sample would have retired, and would not have had an opportunity to accumulate any savings in them.

3. The parameter estimates are in the logarithmic scale and are close approximations of percent change for small values (less than five percent). The parameter estimate for the last year of life (-23.26=-20.7-2.56) in the nominal scale is 20.7 percent per year of age.

4. The parameter estimates are in the logarithmic scale and are close approximations of percent change for small values (less than five percent). The parameter estimate for the last year of life (-29.25=-25.6-3.65) in the nominal scale is 25.3 percent per year of age.

5. Beginning with individuals born after 1937, the “normal retirement age” is scheduled to increase from age 65 by two months for every year until it reaches age 66 for the 1943 cohort. It remains at

age 66 until it again increases for cohorts born after 1954 by two months for every year until it reaches age 67 for the 1960 cohort. Along with the increase in the age of normal retirement, the actuarial reduction will increase by 5/12 of one percent for every month in excess of 36 months. This gradually increases the maximum reduction from 20 percent for the 1938 cohort to 30 percent for the 1960 cohort.

The delayed retirement credit is also increasing over time, but at later ages. See Appendix 7-A-1 for more information in the impact of legislated changes in Social Security by cohort.

6. The SIPP reports annual poverty thresholds for each month. A family is in poverty in a particular month if its monthly family income is less than the annual poverty threshold divided by 12. A family is in poverty in a year if its annual income is below their average annual poverty threshold.

7. If no DB beneficiaries chose joint and survivor pensions, projected poverty rates would be 10.1 percent for 62- to 64-year-olds (using the over 65 thresholds), 8.1 percent for the 65- to 69-year-olds, 8.3 percent for the 70-to-74-year-olds, 9.2 percent for the 75- to 79-year-olds, and 9.1 percent for those age 80 and older.