Examining Social Security Benefits as a Retirement Resource for Near-Retirees, by Race and Ethnicity, Nativity, and Disability Status

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This article analyzes Social Security benefits as a retirement resource for selected subgroups of recent cohorts of near-retirees. The analysis therein examines the distribution of benefits among subgroups by (1) race and ethnicity, (2) nativity, and (3) disability status. We use improved data (actual earnings histories) to produce more accurate measures of benefits. We look at how the average values of several benefit measures, such as Social Security wealth and earnings replacement rates, differ among the selected subgroups and discuss reasons for these differences. This study finds that substantial differences in earnings levels and/or mortality levels among these subgroups interact with Social Security program provisions to produce sizable differences in the values of our benefit measures.

Summary

This article provides an in-depth examination of one component of retirement resources, Social Security benefits, for specific subgroups of recent near-retirees. It examines the distribution of benefits among (1) several race/ethnic subgroups that include non-Hispanic whites, non-Hispanic blacks, Asians, and Hispanics; (2) the native-born and the foreign-born; and (3) disability-status subgroups. Our choices of subgroups are driven by the long-standing interest by policymakers in many of these subgroups as well by the need to address the conflicting or missing empirical evidence with regard to these subgroups.

This study considers benefits for people who turn age 61 during the 1993–2007 period. Age 61 is chosen because it is the last age before the age of first eligibility for Social Security retired-worker and spouse benefits, which is 62. We compute a variety of benefit measures (Social Security wealth (SSW), annualized benefit payouts, and earnings replacement rates), some of which have not been used in previous studies. We rely primarily on actual earnings history data in computing streams of benefits. The use of observed earnings histories allows us to capture the large variation in these histories, unlike methods that estimate earnings histories based on a single earnings equation. The study uses Modeling Income in the Near Term (MINT) data files, which include Social Security Administration (SSA) administrative earnings and benefit history records exact-matched to the 1990–1993 panels of the Census Bureau's Survey of Income and Program Participation (SIPP). Measuring benefits in innovative ways and using improved data, this analysis explores in detail the benefits of subgroups who command considerable interest.

What are the effects of various economic, demographic, and Social Security program factors on the differences in benefit measures of these subgroups?

Selected Abbreviations

AIME	average indexed monthly earnings
CPS	Current Population Survey
DI	Disability Insurance
MINT	Modeling Income in the Near Term
OASDI	Old-Age, Survivors, and Disability Insurance

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Selected Abbreviations—*Continued*

OASI	Old-Age and Survivors Insurance
SIPP	Survey of Income and Program Participation
SSA	Social Security Administration
SSW	Social Security wealth

Some of our results have been reported in the literature. For example, we report that whites receive the highest amounts of SSW and annualized payouts among race/ethnic subgroups, because of their higher indexed taxable earnings. Taxable earnings replacement rates are the lowest for whites and higher for minority race/ethnic subgroups because of the progressivity of the Social Security benefit formula. Immigrants in all race/ethnic subgroups, on average, receive lower SSW and annualized payouts than the native-born as a whole, primarily because of their lower indexed taxable earnings. Disabled near-retirees, as defined in this article, receive considerably less in median amounts of SSW than other near-retirees, because of their markedly shorter lives.

In addition, some other interesting findings emerge from our study of these subgroups. For example, comparing the youngest to the oldest near-retirees we find that the relative increases in SSW are considerably smaller for Hispanics than for any of the other race/ethnic subgroups. A key underlying variable is the growth in earnings. Median indexed taxable earnings increases are considerably smaller for Hispanics than for the other three race/ethnic subgroups. For immigrants, the taxable earnings replacement rate is not a very good measure of how effective Social Security is in replacing average career earnings; this is especially so for Asians who have the highest average age of entry into the United States. Immigrants who enter before age 23 have benefits similar to those of the native-born. We also find that compared with the other race/ethnic subgroups, a larger share of black beneficiaries receives disability benefits.

Introduction

Social Security benefits are the major retirement resource (wealth and income) for retirees in the United States. In 2004, 66 percent of aged beneficiary units (those aged 65 or older) received at least one-half of their income from Social Security benefits. These benefits accounted for at least 90 percent of income for 34 percent of these units. These benefits were especially important for low earners and for certain population subgroups such as race/ethnic minorities. Moreover, benefits are now almost universal. The proportion of the aged units receiving Social Security benefits rose from 69 percent in 1962 to 89 percent in 2004.[1]

This article analyzes Social Security benefits as a retirement resource for selected subgroups of interest among the population of near-retirees. The subgroups that are considered to be vulnerable when studying the economic well-being of the older population have, in many instances, been racial and ethnic minorities, immigrants, and disabled persons. How they fare under Social Security is of interest to policymakers and researchers who seek to understand the well-being of the elderly. Also, the benefit outcomes for these subgroups acquire additional importance when the program is projected to become financially insolvent. Change and reform to current law in response to the long-term solvency outlook or other considerations should gain from understanding the benefit outlook for these at-risk subgroups under current Social Security law.

This study examines the distribution of benefits for near-retirees among (1) several race/ethnic subgroups that include non-Hispanic whites, non-Hispanic blacks, Asians, and Hispanics; (2) the native-born and the foreign-born; and (3) disability-status subgroups.[2] The article examines benefits for recent cohorts of near-retirees. The near-retirees in this study are people who turn age 61 during the 1993–2007 period. We choose age 61 because it is the last age before the age of first eligibility for Social Security retired-worker and spouse benefits, which is 62. The analysis examines how the average values of several benefit measures (SSW, annualized benefit payouts, and earnings replacement rates) differ among the selected subgroups. These measures include only benefits received by persons when they are aged 62 or older. We look at some reasons for these differences and discuss the effects of various economic, demographic, and Social Security program factors on these benefit measures.

The Social Security program provides monthly benefits to qualified retired and disabled workers and to their dependents and survivors. To qualify for benefits, a worker must have at least a specified amount of work in covered employment. (The worker pays payroll taxes on these earnings.) For those who qualify for benefits, the benefit amount increases, but less than proportionally, with lifetime taxable earnings

in covered employment. In other words, the benefit formula is progressive. Benefit payments to near-retirees usually continue until these beneficiaries die. Although under Social Security law a person's benefits do not depend on his or her race, ethnicity, nativity, or sex, substantial differences in earnings levels and/or mortality levels by these characteristics can produce sizable differences in Social Security benefit levels among these subgroups.

Our choices of subgroups are driven by the long-standing interest by the policymaking community in these subgroups. They are also driven by our desire to address the conflicting claims made with regard to some subgroups—as with race/ethnic minorities, as well as by the lack of sufficient empirical evidence for other subgroups—as with immigrants. We briefly provide some information about our chosen subgroups.

With regard to race/ethnic subgroups, a common theme in distributional analyses is that Social Security benefits are important to most race/ethnic minorities. For example, according to a report based on a Census Bureau survey in 2004, about half of black and Hispanic aged beneficiary units received 90 percent or more of their income from Social Security.[3] Studies have shown that these particular race/ethnic subgroups tend to have lower earnings, on average, and thus are helped by the progressivity of the Social Security benefit formula. Some minority subgroups, for example blacks, participate to a greater extent than other race/ethnic subgroups in Social Security's Disability Insurance (DI) program. Yet, it has been pointed out that blacks, on average, have shorter life spans, thus meaning fewer years of benefit receipt.

Another issue is how the foreign-born fare under Social Security when compared with the native-born. Little research has been done on this issue. A worker's Social Security benefit depends on the worker's lifetime taxable earnings in employment covered by Social Security. In computing an immigrant's lifetime taxable earnings, the work years spent outside the United States are treated under Social Security law, in the great majority of cases, as years in noncovered employment and hence as years of zero taxable earnings. Because many immigrants have considerable earnings outside the United States, this program feature lowers the benefits of the immigrant subgroup relative to those of the native-born subgroup. However, the progressivity of the benefit formula partially offsets the effect of this zero-earnings feature. The importance of this feature depends on the age at which immigrants enter the country. This issue is particularly relevant for the large Hispanic minority and the smaller Asian minority, both of which have substantial shares of foreign-born persons.

Social Security provides benefits to distinct beneficiary categories. Among adults, the program provides benefits to disabled workers, retired workers, spouses of these workers, and surviving spouses of these workers. How disabled people fare in their retirement years has been of increasing concern as policymakers advocate reforming the current Social Security program.

The focus here is the availability of Social Security benefits to various subgroups as a retirement resource and not on issues related to money's worth, which concerns the relationship of benefits received to taxes paid. This article builds on our previous work that focused on intercohort differences in Social Security benefits of near-retirees, but which did not disaggregate results for the subgroups described above.[4] The benefit measures used here are affected primarily by lifetime earnings, marital histories, mortality, and benefit rules. Because many of the differences in Social Security benefit outcomes for the selected subgroups are associated with these underlying factors, an attempt will be made to assess the role that these factors play in driving these differences. The sizeable overlaps among these various subgroups are considered in the analysis.

This article attempts to provide clear and comprehensive answers regarding only one component of retirement resources, that is, Social Security benefits. We compute a variety of benefit measures, some of which have not been used in previous studies. We rely primarily on actual earnings history data in computing streams of benefits. The use of observed earnings histories allows us to capture the large variation in these histories, unlike methods that estimate earnings histories based on a single earnings equation. The study uses MINT data files, which include SSA administrative earnings and benefit history records exact-matched to the 1990–1993 panels of the Census Bureau's SIPP. Because of the extensive content of this data set, we are able to use fewer imputations and projections than have a number of other studies. Any imputations and projections that were required were done by MINT modelers using sophisticated analytical methods. Measuring benefits in innovative ways and using improved data, this study is able to explore in detail the benefits for specific subgroups of recent near-retirees who command considerable interest.

The article is arranged as follows. The next section discusses the data and is then followed by an explanation of the various benefit measures that are used here. In the next three sections, we present empirical analyses for the selected subgroups. Our concluding observations are given in the last section.

Data

We use data from the MINT project,[5] a large-scale effort that has been underway since the late 1990s. Much of the developmental work was done for SSA by analysts at the Urban Institute, RAND Corporation, and Brookings Institution. The starting sample is from the 1990, 1991, 1992, and 1993 panels of the Census Bureau's SIPP. In this survey of the noninstitutionalized population, interviews were conducted once every 4 months for 28–36 months. The initial SIPP interviews were conducted in 1990–1993, and almost all of the final SIPP interviews were conducted during the 1992–1995 period. The SIPP collected information on income and wealth components, mortality, marital histories, institutionalization, immigration, various demographic and socioeconomic factors (for example, race, ethnicity, nativity, and education), and many other variables.

As part of the MINT project, SSA administrative records were exact-matched to SIPP data for sample members born during the 1926–1965 period. These administrative records include earnings histories, benefit histories, and death information through 1999.[6] The records also include information on sex and date of birth. Exact-matches were made for about 92 percent of these persons, and administrative records were imputed by MINT modelers for the remaining 8 percent. Thus, we have SIPP data from 1992 through 1995 and SSA administrative data through 1999. For years subsequent to this time period, the MINT model projects institutionalizations, marital histories, dates of death, earnings histories, and benefit histories, using information from both SSA administrative records and the SIPP. In addition, persons are projected to enter the sample by means of immigration. These various projections were designed to be generally consistent with the intermediate assumptions of the 2002 Old-Age, Survivors, and Disability Insurance (OASDI) Trustees Report.[7] Additional information about MINT imputations and projections is given in Appendix A of Bridges and Choudhury (2005). For a detailed description and evaluation of the MINT3 model and its data, see Toder and others (2002). Also see Panis and Lillard (1999) for a detailed description and evaluation of the MINT projections of marital histories, disability status, and mortality.

The data set used in this study has notable strengths. We use the subset of the MINT sample members born during the 1932–1946 period. First, longitudinal administrative data are available through 1999. Thus, actual earnings history data are available through age 53 for the youngest birth cohort analyzed (those born in 1946) and through age 67 for the oldest birth cohort (born in 1932). Actual benefit record information is available for the great majority of members of the three oldest cohorts (born 1932–1934) and for many members of the next three cohorts (born 1935–1937). Second, the combined SIPP panels provide a large sample. Each of our single-year birth cohorts is represented by a sample of more than 1,000 persons. Studies of retirement resources of near-retirees typically use much smaller samples.

Definitions of Empirical Constructs

This section discusses the empirical constructs of the study: the definitions of cohorts of near-retirees, the benefit measures (SSW, annualized payout, and earnings replacement rates), and Social Security taxpayers and beneficiaries.

Cohorts of Near-Retirees

The unit of analysis is the *person* and not some larger unit such as a marital unit or family. In studies that use longitudinal data, the person is often the unit of analysis. The composition of the larger units changes over time. For example, the marital status of most persons changes one or more times during their adult lifetime.

This analysis looks at 15 single-year cohorts, that is, those persons attaining age 61 during the period from calendar year 1993 through calendar year 2007. Each single-year cohort consists of all persons who reach age 61 during that year and are members of the noninstitutionalized population at the end of that year, that is, at the beginning of the year most of them can first receive Social Security retirement benefits. Each of the four SIPP panels (1990–1993) includes persons from each of our 15 single-year cohorts.

To facilitate the presentation of results and to avoid small sample sizes for certain subgroups, the 15 single-year cohorts are combined into three groups of five single-year cohorts. The first and oldest cohort of near-retirees, the 1993 cohort, combines the five single-year cohorts of persons who reach age 61 during the 1993–1997 period. The 1998 cohort combines

the persons who reach 61 during the 1998–2002 period, and the last cohort, the 2003 cohort, consists of the persons reaching age 61 during the 2003–2007 period. *From this point forward, the term cohort refers to these 5-year groups. When we refer to single-year cohorts we will use the term single-year cohort*. Benefits of cohort members are evaluated as of January 1 of the year these persons reach age 62.[8] To increase comparability among subgroups within a cohort and among cohorts, benefits of all members of a particular cohort are evaluated as of the year these persons reach a given age (62) rather than as of a given year (for example, 1993). All measures are in 2002 constant dollars.

Benefit Measures

In our study all benefit amounts are those payable under actually enacted Social Security law. In our benefit calculations we assume that the program provisions in effect in future years are those scheduled under current law. The most recent significant change in Social Security law, a change in the earnings test, was enacted in 2000.

Our benefit concept is *shared benefits*. For each year a person is married, the person's shared benefit equals half the benefits received by the couple. It is our view that shared benefit is superior to individual benefit received as a measure of the income support the person receives from the OASDI program. The individual benefits of husband and wife often are quite different. However, most married couples share their incomes.[9] For each year a person is not married, the person's shared benefit equals the benefits received by the person.[10]

Our benefit measures, such as SSW, include benefits received in the year the person attains age 62 and in all later years. Our measures do not include any benefits received before the year the person attains age 62. We focus on the support provided by Social Security to persons during the post-age-61 years. For those who receive benefits earlier than age 62 (for example, many DI beneficiaries), we do not attempt to measure the support provided over a person's lifetime. Our measures include the benefits paid from the Old-Age and Survivors Insurance (OASI) and DI Trust Funds to a worker, spouse, divorced spouse, surviving spouse, or surviving divorced spouse.

Social Security Wealth. For each person with benefits, we compute SSW as the present value of shared benefits evaluated as of January 1 of the year the person reaches age 62. Real SSW is expressed in January 1, 2002, dollars.[11] Our annual discount rate series consists of the rates of return on OASI Trust Fund assets.[12] Projected values of the Consumer Price Index for Urban Wage Earners and Clerical Workers and trust fund interest rates are based on the intermediate assumptions of the 2002 Trustees Report.

SSW is a measure of the total support provided by Social Security to a person over the period from the year the person attains age 62 until his or her actual or projected death. The value of a person's SSW depends importantly on the person's longevity and past and future (projected) marital history.[13]

Annualized SSW Payout. For each person with benefits, we compute an annualized SSW payout, which is equal to the constant real annual payment over all the person's potential benefit years that has a present value equal to the person's SSW. In other words, the person's SSW is converted into a stream of constant real annual payments. As with SSW, annualized payout is expressed in January 1, 2002, dollars. All years from the year the person reaches age 62 through the last year before the year of death are potential benefit years.[14,15] The person's number of potential benefit years is the maximum number of years (starting with the year the person reaches age 62) that he or she could receive benefits. After 1999, the year of death is the one projected by the MINT model.

Annualized payout is a useful measure of the average *annual support* provided by Social Security after age 61.[16] It is less affected by differences within cohorts or increases over cohorts in longevity than is the SSW measure.[17] We use annualized payout as the numerator of our earnings replacement rates.

Earnings and Earnings Replacement Rates. There are a number of possible replacement rate measures. For example, replacement rates have been defined as the percent of average earnings for the last few years before benefit receipt that is replaced by benefits. Instead, our replacement rates measure the extent to which average *career* earnings are replaced by benefits. Before we go on to describe our two earnings replacement rates, we discuss how we arrive at our two career-earnings measures—average wage-indexed shared taxable earnings and average wage-indexed shared less-censored earnings.

The annual taxable earnings (wages and self-employment income) of a worker is that part of the worker's total earnings from employment covered by Social Security, which is at or below the legislated taxable maximum (the maximum amount of annual

earnings that is subject to Social Security payroll tax and is included in the calculation of benefits). For each year after 1981, the legislated taxable maximum has been indexed by SSA's U.S. average annual wage series. Therefore, since 1983 the ratio of the legislated taxable maximum to the average annual wage has been roughly constant at about 2.3 to 2.5. The ratio was 2.3 to 2.4 during the 1983–1989 period and 2.4 to 2.5 during the 1990s. Before 1983, this ratio was always below 2.3 and varied substantially. The ratio was 1.0 to 1.7 during the 1951–1978 period and 2.0 to 2.2 during the 1979–1982 period.[18]

We also compute a measure of earnings that is less censored than taxable earnings and that unlike taxable earnings has censoring limits that are a constant percentage of average annual wage series amounts. The annual less-censored earnings of a worker is the part of the worker's total earnings from employment covered by Social Security that is estimated to be at or below a hypothetical taxable maximum, which for each year was set at about 2.45 times the average annual wage. The SSA earnings records included in our MINT data file contain annual amounts of taxable earnings, but not amounts of total covered earnings. For years before 1990, the MINT model estimates covered earnings in excess of the legislated taxable maximums using SSA administrative data on quarters of coverage and Current Population Survey (CPS) wage data.[19] The 1951–1989 hypothetical maximums are then applied to these estimated earnings to get less-censored earnings. For years after 1989, less-censored earnings are simply set equal to taxable earnings; for these years the legislated taxable maximums were 2.4–2.5 times the average annual wage. For each year of the 1951–1989 period, the hypothetical maximum exceeds the legislated maximum, and less-censored earnings are less censored than taxable earnings. We believe that less-censored earnings are superior to taxable earnings in approximating relative differences in total earnings both within cohorts among subgroups and across cohorts.

We compute average wage-indexed shared taxable earnings as follows. For each person, shared taxable earnings for every year of the computation period are indexed, using the average wage series, to the wage level at the beginning of the year the person reaches age 62. For each year a person is married, his or her shared earnings equals one-half the earnings of the couple. For each year a person is not married, shared earnings equals his or her own earnings. The indexed earnings are then averaged over the person's computation period. Finally, this average is expressed in January 1, 2002, dollars, to obtain our measure of average wage-indexed shared taxable earnings.[20] *For average wage-indexed shared taxable earnings, we often will use the term indexed taxable earnings*. The computation period for these indexed taxable earnings begins with 1951 or the year the person reaches age 22, whichever comes later, and ends with the year the person reaches age 61.[21] In the computation of indexed taxable earnings for immigrants who enter the United States after 1950 and after they reach age 22, all years before the year of immigration are treated as years of zero earnings. Projected average annual wages in the MINT data file are based on the intermediate assumptions of the 2002 Trustees Report.

Average wage-indexed shared less-censored earnings are computed in a somewhat analogous way.[22] *For average wage-indexed shared less-censored earnings, we often will use the term indexed less-censored earnings*. Indexed shared less-censored earnings differs from indexed taxable earnings in two respects: (1) the annual earnings measure used (less-censored instead of taxable), and (2) the computation period used. The computation period for indexed less-censored earnings begins with 1951, or the year the person reaches age 22, or the year the person immigrates to the United States, whichever comes later; it ends with the year the person reaches age 61. Thus, except for immigrants who enter the United States after 1950 and after the year they reach age 22, the computation periods for indexed less-censored earnings are the same as those for indexed taxable earnings. For such immigrants, the computation periods for indexed less-censored earnings are shorter than those for indexed taxable earnings.

For each person with some shared earnings, we calculate two earnings replacement rates—one for average wage-indexed shared taxable earnings and another for average wage-indexed shared less-censored earnings. *For these replacement rates, we will use the terms taxable earnings replacement rate and less-censored earnings replacement rate*. Given that the numerator of our earnings replacement rates, annualized payout, is a shared benefit measure, we need shared earnings measures for the denominators of these replacement rates. A reason for selecting measures of average wage-indexed career earnings for the replacement rate measures is because one goal of the Social Security program is to provide benefits that replace a portion of a measure of average wage-indexed career earnings. In addition, for a

given single-year cohort, average wage-indexed career earnings provides a useful indicator of a worker's average position over their career in the economy's earnings distribution. We present results for the taxable earnings replacement rate because this rate and the replacement rate measure implicit in OASDI law have some similar features (discussed below). The less-censored earnings replacement rate is our proxy for a total earnings replacement rate; it is superior to the taxable earnings replacement rate as a measure of the adequacy of Social Security benefits because its denominator is a better proxy for the person's average preretirement standard of living.

A person's taxable earnings replacement rate is the person's annualized payout expressed as a percent of the person's indexed taxable earnings. The following features are common to our taxable earnings replacement rate and the replacement rate measure implicit in Social Security (or OASDI) law. Under that law, a person's initial benefit is determined as a percent of his or her average indexed monthly earnings (AIME), and over time the person's initial benefit is kept constant in real terms. The numerator of the taxable earnings replacement rate is the annualized payout, which is a constant real benefit and is related to the price-indexed OASDI initial benefit. The denominator of the taxable earnings replacement rate is average indexed taxable earnings from age 22 through age 61. Indexed taxable earnings and OASDI's AIME have some similar features, but differ in several ways. Both are indexed using the SSA average annual wage series, and their averaging periods are similar.[23] The same AIME computation procedure applies to all of our cohorts of near-retirees.

The less-censored earnings replacement rate is the percentage of indexed less-censored earnings replaced by Social Security benefits and is our proxy for a total earnings replacement rate; it is superior to the taxable earnings replacement rate as a measure of the adequacy of Social Security benefits. For both foreign-born and native-born persons, the denominator of this earnings replacement rate—indexed less-censored earnings—is a better proxy for the person's average standard of living over their work career because it includes earnings up to a constant relative taxable maximum and is less censored than indexed taxable earnings. In addition, for immigrants the average less-censored measure has the advantage that its computation period does not include any years before the year of immigration, which are treated as years of zero earnings. Bear in mind, however, that indexed less-censored earnings of immigrants who enter the United States at quite different ages cover quite different portions of these immigrants' work lives.

Both the taxable and less-censored earnings replacement rates are age-62 replacement rates, that is, they give the percentages of a person's earnings wage-indexed to January 1 of the year the person reaches age 62 that are replaced by the person's constant real annualized payout. As average real economy-wide earnings increase in the years after age 61, the person's annualized payout declines relative to average economy-wide earnings.

Social Security Taxpayers and Beneficiaries

In this article, Social Security taxpayers are near-retirees with some shared earnings (that is, with positive indexed taxable earnings), and those with no shared earnings are nontaxpayers. Social Security beneficiaries are those with both shared indexed earnings *and* shared benefits (that is, with positive SSW and annualized payouts). For each of the three cohorts, 95.2 percent to 95.6 percent of Social Security taxpayers are beneficiaries. The very small group of nontaxpayers (about 1 percent of our sample) is excluded entirely from this analysis. In our results for race/ethnic subgroups and for the foreign- and native-born, we include Social Security taxpayers regardless of whether they have shared benefits, that is, our tables include taxpayers who have taxable earnings but receive no benefits—nearly always because of employment histories that are not strong enough to qualify them for benefits or because they die before claiming benefits. On the other hand, the tables for persons classified by disability status provide data for beneficiaries only; Social Security taxpayers with no shared benefits are excluded from these tables.

Findings by Race/Ethnic Subgroups

We present results for selected race/ethnic subgroups and are able to classify near-retirees into a larger number of race/ethnic subgroups than is typically available. Of particular note is our inclusion of a category for Asians. Hispanics, who may be of any race, are a separate category. Thus, our subgroups are: (1) whites (non-Hispanic whites); (2) blacks (non-Hispanic blacks); (3) Asians (non-Hispanic Asians and Pacific Islanders); (4) Hispanics; and (5) others (non-Hispanic American Indians, Eskimos, and Aleuts).

This section's tables present data for Social Security taxpayers. This article's analysis deals only with persons who live to at least age 61 and only with the

shared benefits they receive after the year they reach age 61.

We briefly examine a few demographic characteristics of our near-retiree sample (Table 1). Whites account for 79–81 percent of near-retirees (81 percent of the 1993 cohort, 81 percent of the 1998 cohort, and 79 percent of the 2003 cohort). Blacks, Asians, Hispanics, and "others" account for 9 percent, 3–4 percent, 7–8 percent, and less than 1 percent, respectively. In our tables, the "other" subgroup is not shown separately, but is included in calculating numbers for the totals that combine all subgroups.

Looking into characteristics by race/ethnicity, we see that the percentage of men is lowest for blacks (42–44 percent) and a bit higher for whites, Asians, and Hispanics at 48–49 percent, 48–53 percent, and 48–50 percent, respectively (Table 1). The percentages married at age 62 are higher for Asians (76–86 percent) and whites (73–76 percent) than for Hispanics (70–73 percent) and blacks (58–61 percent). As expected, large percentages of Asians (77–79 percent) and Hispanics (41–48 percent) immigrated to the United States—most of them as adults; the comparable percentages for whites (5–6 percent) and blacks (5–7 percent) are much smaller.[24,25] We will discuss the impact of these subgroup differences in immigration on our results.

The percentage of taxpayers who are beneficiaries, although quite high for all groups, is highest among whites and lowest among Asians and Hispanics, as seen in Table 1. The latter two groups have larger shares of immigrants who have employment histories that are not strong enough to qualify them for benefits.

Social Security Wealth

SSW is the present value at age 62 of Social Security benefits received from age 62 until death. For the 1993, 1998, and 2003 cohorts, projected deaths account for 94 percent, nearly 100 percent, and 100 percent, respectively, of all deaths. Thus, SSW depends importantly on projected longevity. Among the variables used in projecting MINT mortality beyond 1999 are sex, earnings, education, marital status, disability benefit status, and race (white and black). The Hispanic

Table 1.
Selected characteristics of near-retirees, by race/ethnicity and cohort

Characteristic and cohort	All	White	Black	Asian	Hispanic
Men (%)					
1993	48	49	42	51	49
1998	48	48	42	53	50
2003	48	49	44	48	48
Foreign-born (%)					
1993	10	6	5	77	41
1998	10	5	7	79	48
2003	12	6	7	77	48
Entered United States at age 23 or older (%)					
1993	7	3	4	68	30
1998	6	2	5	67	34
2003	8	3	4	66	34
Married at age 62 (%)					
1993	74	76	58	83	70
1998	73	74	61	86	73
2003	71	73	59	76	71
Beneficiary (%)					
1993	96	96	94	92	92
1998	95	96	93	83	92
2003	96	96	95	91	91
Total number of near-retirees (thousands)					
1993	10,033	8,123	898	268	674
1998	11,115	9,032	960	296	752
2003	13,911	11,030	1,250	521	1,045

SOURCE: Authors' calculations using data from Modeling Income in the Near Term (MINT3).

and other race/ethnic (mostly Asian) classifications are used only in projecting deaths before age 65. Thus, MINT-based estimates of longevity and of SSW may not be as accurate for Hispanics and Asians as for whites and blacks.[26]

Median SSW is highest for whites primarily because they have the highest median indexed taxable earnings (Table 2).[27] For example, the wealth levels of blacks are 72–74 percent of those for whites. In addition, whites live longer than blacks. High indexed taxable earnings produce high annual benefits. Longer lives result in more years of benefit receipt. The other two subgroups have median indexed taxable earnings equal to 51–71 percent of those for whites. Among the minority subgroups for the two youngest cohorts, Hispanics have the lowest indexed taxable earnings and blacks have the highest. Blacks have mean numbers of potential benefit years equal to 84–89 percent of those for whites.[28]

Other things being equal, subgroups with higher proportions of immigrants will have lower median indexed taxable earnings for beneficiaries and higher proportions of Social Security taxpayers who are nonbeneficiaries. Table 1 shows that the Asian and Hispanic subgroups contain very high proportions of immigrants. For each cohort, the median indexed taxable earnings of foreign-born Asians and Hispanics are substantially lower (for the 2003 cohort,

Table 2.
Social Security benefit measures and related measures for near-retirees, by race/ethnicity and cohort

Measure and cohort	All	White	Black	Asian	Hispanic
Social Security wealth (median, 2002 $)					
1993	122,258	129,451	93,772	92,589	90,689
1998	147,003	156,568	116,291	116,134	99,231
2003	164,961	178,168	129,261	126,076	99,980
Annualized payout (median, 2002 $)					
1993	6,338	6,463	5,756	5,020	5,456
1998	7,487	7,676	6,712	5,504	5,778
2003	8,292	8,588	7,578	6,019	5,959
Taxable earnings replacement rate (median, %)					
1993	33.9	33.2	41.0	35.6	38.4
1998	32.2	31.4	37.0	32.4	38.6
2003	31.0	30.0	37.3	34.3	38.0
Less-censored earnings replacement rate (median, %)					
1993	30.6	29.7	38.9	24.3	35.2
1998	30.0	29.5	35.7	23.6	33.4
2003	29.5	28.8	36.3	25.6	34.9
Taxable earnings (median, 2002 $)					
1993	18,454	19,676	13,032	13,519	13,919
1998	22,915	24,305	17,084	15,970	14,178
2003	26,198	28,534	18,913	17,433	14,578
Less-censored earnings (median, 2002 $)					
1993	20,276	21,743	13,645	19,313	14,657
1998	24,437	25,997	17,555	20,482	15,799
2003	27,237	29,581	19,631	21,985	16,426
Benefit receipt years (mean)					
1993	20.2	20.8	17.9	17.9	17.6
1998	20.6	21.2	18.0	18.9	17.8
2003	21.0	21.7	18.2	19.8	17.6
Potential benefit years (mean)					
1993	21.5	21.9	19.4	20.8	19.3
1998	22.0	22.4	19.7	22.7	20.0
2003	22.3	22.9	19.3	22.9	19.9

SOURCE: Authors' calculations using data from Modeling Income in the Near Term (MINT3).

about one-third lower for each subgroup) than those of native-born Asians and Hispanics. A reason that immigrants have lower median indexed taxable earnings than the native-born is that for many immigrants, their computation periods for indexed taxable earnings begin before they immigrate; in the computation of indexed taxable earnings, all such years before the year of immigration are treated as years of zero earnings. The computation period for indexed taxable earnings begins with the later of either 1951 or the year the person reaches age 22. For example, immigrants who entered the United States in 1989 at age 35 will have their earnings for ages 22–34 set to zero. These 13 years of zero earnings are included in computing their average lifetime indexed taxable earnings. The majority of immigrants (62–66 percent) enter the United States after the year they reach age 22.

When we look at changes from the 1993 cohort to the 2003 cohort, the percentage increase in median SSW is much smaller for Hispanics than the increases for the other three racial/ethnic subgroups. A key underlying variable shows similarly large differences. The percentage increase in median indexed taxable earnings for Hispanics is much smaller than the increases for the other subgroups.[29] The growth of taxable earnings is relatively slow for both native- and foreign-born Hispanics. Among the native-born, the growth rate of indexed taxable earnings of Hispanics is lower than those of the other three subgroups. In addition, among immigrants, the growth rate of indexed taxable earnings of Hispanics is lower than that of Asians, the other subgroup with a high proportion of foreign-born. We also find that for each cohort, the proportions of foreign-born Asian and Hispanic taxpayers who are nonbeneficiaries are markedly higher than those for native-born Asians and Hispanics.

Annualized SSW Payout

Our annualized payout is a measure of the average annual support in real dollars provided by Social Security over the post-age-61 years. It is computed by spreading SSW over all potential benefit years. The effects of errors in the mortality projections for Hispanics and Asians on estimates of annualized payout for these subgroups should be relatively small because errors in SSW should be largely offset by errors in the number of potential benefit years.

Again, as with SSW, the median annualized payout is highest for whites, driven primarily by their higher indexed taxable earnings. For the remaining subgroups, annualized payouts are 69–89 percent of those for whites. Blacks have the second highest annualized payouts (87–89 percent of those for whites), and Hispanics and Asians have the lowest. From the 1993 cohort to the 2003 cohort, the increase in median annualized payout is much smaller for Hispanics than for whites and blacks, as shown in Table 2.[30]

Taxable Earnings Replacement Rate

Our taxable earnings replacement rate measures the extent to which annualized payout replaces average indexed taxable earnings. As explained earlier, the rate is somewhat similar to the replacement rate measure implicit in OASDI law.[31]

Median taxable earnings replacement rates are lowest for whites, and those for the other subgroups are 103–127 percent of those for whites (Table 2).[32] Asians have the second lowest taxable earnings replacement rates, and blacks and Hispanics have the highest. Note that median indexed taxable earnings of whites are much higher than those of the other subgroups. Differences in median indexed taxable earnings among the other subgroups are usually not large. Thus, the progressivity of the Social Security benefit formula is an important reason why the taxable earnings replacement rates of whites are lower than those of the other subgroups.[33,34]

From the 1993 cohort to the 2003 cohort, median taxable earnings replacement rates of whites and blacks decline considerably, by 10 percent and 9 percent, respectively; rates are almost unchanged for Hispanics.[35] We have seen that over this period the percentage increase in median indexed taxable earnings for Hispanics is much smaller than the increases for the other race/ethnic subgroups. This differential earnings growth interacted with Social Security's progressive benefit formula to produce much of the above difference in intercohort movement of earnings replacement rates.

Less-Censored Earnings Replacement Rate

Our measure of less-censored earnings replacement rates tells us the extent to which annualized payout replaces average indexed less-censored earnings, our proxy for total earnings. Median less-censored replacement rates are lowest for Asians, ranging from 24–26 percent (Table 2). They are second lowest for whites, ranging from 29–30 percent. Thus, less-censored earnings replacement rates of Asians are 80–89 percent of those for whites; those of blacks

and Hispanics are higher at 121–131 percent and 113–121 percent of those for whites.[36]

Why are less-censored earnings replacement rates for Asians low relative to those of the other race/ethnic subgroups? One can look at how less-censored earnings replacement rates compare with taxable earnings replacement rates. The ratio of less-censored earnings replacement rate to taxable earnings replacement rate is only .68 to .75 for Asians compared with .87 to .97 for the other three subgroups. That is, the two earnings replacement rates are quite different from each other for Asians. This is driven by the relatively large difference between their indexed less-censored earnings and indexed taxable earnings. The ratio of median indexed less-censored earnings to median indexed taxable earnings is much higher for Asians (1.26 to 1.43) than for the other three subgroups (1.03 to 1.11). Immigrating after age 22 is a key reason why indexed less-censored earnings are greater than indexed taxable earnings; the computation of indexed less-censored earnings does not include years before immigration. About two-thirds of Asian near-retirees are *adult* immigrants. Only 2–5 percent of whites and blacks are *adult* immigrants. Of Hispanic near-retirees, about a third are *adult* immigrants. Therefore, for Asians in particular, because of the wedge between their indexed less-censored and indexed taxable earnings, the taxable earnings replacement rate measure is not a very good measure of how effective Social Security is in replacing average career earnings.[37]

Section Summary

We find that because of their higher indexed taxable earnings, whites, as a subgroup, receive more SSW and annualized payout than other race/ethnic subgroups. The lower indexed taxable earnings of Asians and Hispanics are due, in large part, to the fact that many of them immigrate to the United States as adults; program rules assign zero earnings to years before immigration. In addition, whites have more years of benefit receipt than blacks because they live longer on average. Certain aspects of the Social Security program, such as the progressive benefit formula, advantage those with lower lifetime earnings. Thus, blacks, Hispanics, and Asians have higher taxable earnings replacement rates than whites because those groups have lower lifetime taxable earnings than whites. For Asians (a group with a very high proportion of immigrants), this taxable earnings replacement rate measure is not a very good measure of how effective Social Security is in replacing average career total earnings. This is because the indexed taxable earnings of Asians are particularly low relative to their indexed less-censored earnings—our proxy for indexed total earnings—because of the large number of years with earnings before entering the United States that are treated as years of zero taxable earnings. Other race/ethnic subgroups do not exhibit such large differences between the two earnings replacement rates as do Asians.

From the 1993 cohort to the 2003 cohort, the increases in SSW and annualized payouts are much smaller for Hispanics than for the other race/ethnic subgroups. On the other hand, over this period the taxable earnings replacement rates of whites and blacks decline considerably, but are almost unchanged for Hispanics.

Findings by Immigrant Status

In this section, we consider the following: How do immigrants fare under Social Security compared with the native-born? How do Social Security outcomes for immigrants differ among race/ethnic subgroups? How does age at time of immigration affect Social Security outcomes for immigrants?[38]

The starting MINT sample is from the 1990, 1991, 1992, and 1993 panels of the SIPP. Members of this starting sample were asked their year of immigration and source country. In addition, persons are projected to enter the MINT sample by means of immigration in the years *after* the end of the SIPP interview. Imputed immigrants account for roughly 3 percent of immigrants in the 1993 cohort of near-retirees, 9 percent in the 1998 cohort, and 15 percent in the 2003 cohort.[39] We believe that our sample of immigrant near-retirees consists almost entirely of persons with legal permanent residence status.[40]

This section's tables show results for Social Security taxpayers. Nontaxpayers (near-retirees with no shared taxable earnings) account for less than 0.5 percent of the native-born, but for 6–10 percent of immigrants. Immigrants account for 10–12 percent of all Social Security taxpayers.

Among immigrants, about 50 percent are Asian or Hispanic whereas these subgroups comprise only about 5 percent of our native-born population (Table 3). Correspondingly, among immigrants about 39–47 percent are white and 5–6 percent are black compared with about 85 percent and 9 percent among the native-born. The compositions by sex of the immigrant and native-born subgroups are quite similar.

Table 3.
Selected characteristics of near-retirees, by nativity and cohort

Characteristic	Immigrant			Native-born		
	1993	1998	2003	1993	1998	2003
Men (%)	48	50	49	48	47	48
Married at age 62 (%)	77	79	76	74	73	71
Race/ethnicity (%)						
White	47	42	39	85	86	85
Black	5	6	5	9	9	9
Asian	21	20	25	1	1	1
Hispanic	27	31	31	4	4	4
Education (%)						
Dropout	36	32	29	24	17	13
High school graduate	40	42	44	58	62	59
College graduate	24	26	28	19	21	27
Age at U.S. entry (%)						
Up to 23	34	38	35	100	100	100
23–32	27	25	26	0	0	0
33–42	21	17	19	0	0	0
43–52	12	12	13	0	0	0
52–61	5	9	7	0	0	0
Beneficiary (%)	91	89	89	96	96	96
Total number of near-retirees (thousands)	996	1,151	1,610	9,037	9,964	12,301

SOURCE: Authors' calculations using data from Modeling Income in the Near Term (MINT3).

For immigrants, the proportions married are slightly higher and the proportions divorced are lower. Relative to the native-born, a larger share of immigrants are high school dropouts or college graduates. This means that a smaller share of immigrants are in the middle category of being only high school graduates. In other words, immigrants have several characteristics that are distinct from those in the general native-born population.

A little over a third of immigrants enter the United States before they reach age 23. Less than 10 percent enter the country after age 53. Table 3 shows that the majority of immigrants in our cohorts enter the United States during their prime working years. The percentage of Social Security taxpayers who are beneficiaries is somewhat smaller for immigrants than it is for the native-born.

Social Security Wealth

Immigrants have much lower median indexed taxable earnings than the native-born, resulting in median SSW of immigrants falling short of that of the native-born (Table 4).[41] The relative shortfall has increased over time.[42] For the 1993, 1998, and 2003 cohorts, median indexed taxable earnings of immigrants are 20 percent, 33 percent, and 44 percent lower than those of the native-born. We have seen that one reason immigrants have lower indexed taxable earnings is that for many immigrants their computation periods for indexed taxable earnings begin before they immigrate.[43] We have seen that relatively more immigrants have employment histories that are insufficiently strong to qualify them for benefits.

Among immigrants, whites have greater median SSW than the other subgroups (Table 5). It is highest for whites because they have the highest median indexed taxable earnings and because they live longer on average than most other race/ethnic subgroups. The other subgroups have median indexed taxable earnings equal to 48–80 percent of those for whites. Median SSW of white immigrants falls a bit short of that of the native-born (all race/ethnic subgroups combined).

From the 1993 cohort to the 1998 cohort, median SSW of immigrants increases substantially for whites and Asians, but is virtually unchanged for Hispanics. For the 1993–2003 period, the percentage increases in median SSW are larger for whites and Asians than for Hispanics.[44]

Table 4.
Social Security benefit measures and related measures for near-retirees, by nativity and cohort

Measure	Immigrant			Native-born		
	1993	1998	2003	1993	1998	2003
Social Security wealth (median, 2002 $)	99,838	109,737	108,101	125,681	151,789	172,338
Annualized payout (median, 2002 $)	5,456	6,018	5,849	6,403	7,601	8,478
Taxable earnings replacement rate (median, %)	34.8	33.9	33.9	33.8	32.1	30.7
Less-censored earnings replacement rate (median, %)	27.0	26.0	27.2	31.2	30.4	29.7
Taxable earnings (median, 2002 $)	14,981	15,757	15,274	18,802	23,596	27,723
Less-censored earnings (median, 2002 $)	19,064	19,937	19,420	20,394	24,859	28,294
Benefit receipt years (mean)	18.6	18.4	18.7	20.4	20.9	21.3
Potential benefit years (mean)	21.2	21.4	21.6	21.5	22.0	22.4

SOURCE: Authors' calculations using data from Modeling Income in the Near Term (MINT3).

Among immigrants, median SSW declines markedly as age at entry into the United States increases (Table 6).[45] For example, median SSW is zero for the subgroup with age at entry of 53–61, indicating that *at least* 50 percent of this subgroup have no SSW. Median indexed taxable earnings decreases as age at entry increases.[46] As age at entry increases there is a corresponding increase in the number of years in the computation period for indexed taxable earnings that are treated as years of zero earnings. The share of Social Security taxpayers with some shared benefits falls from 95–98 percent for those who enter before age 33, to 39–44 percent for those who enter at ages 53–61. Note that median SSW of immigrants who enter the United States before age 23 is similar to that of the native-born.

Annualized SSW Payout

Just as with SSW, the lower median indexed taxable earnings of immigrants causes the median annualized payout of immigrants to fall short of that for the native-born (Table 4). This relative gap has also increased over time. For the 1993, 1998, and 2003 cohorts, median annualized payouts of immigrants are 15 percent, 21 percent, and 31 percent lower than those of the native-born. For these cohorts, median indexed taxable earnings of immigrants are 20 percent, 33 percent, and 44 percent lower than those of the native-born.

Among immigrants, whites have the highest median indexed taxable earnings and correspondingly receive the largest median annualized payouts (Table 5). Payouts of the other race/ethnic subgroups are 65–77 percent of those of whites. When comparing white immigrants with the native-born, we find that median annualized payouts of immigrants are less than those of the native-born population (all race/ethnic subgroups combined) by 3–12 percent. Across time, from the 1993 cohort to the 2003 cohort, the percentage increases in median annualized payouts are larger for white and Asian immigrants than for Hispanic immigrants.

The importance of the age at entry into the United States is highlighted in Table 6. Among immigrants, median annualized payouts decline markedly as age at entry increases. For those who immigrate before age 23, annualized payouts are similar to those of the native-born.

Taxable Earnings Replacement Rate

Median taxable earnings replacement rates of immigrants slightly exceed those of the native-born, and the relative difference has increased a bit over time (Table 4). For the 1993, 1998, and 2003 cohorts, median replacement rates for immigrants are 3 percent, 6 percent, and 12 percent higher than for the native-born.[47,48] We have seen that the median indexed taxable earnings of immigrants are less than those of the native-born, and that this relative difference has increased over time. These differences in indexed taxable earnings operate through the progressive benefit formula to produce higher taxable earnings replacement rates for immigrants.

Table 5.
Social Security benefit measures and related measures for near-retiree immigrants, by race/ethnicity and cohort

Measure and cohort	White	Black	Asian	Hispanic
Social Security wealth (median, 2002 $)				
1993	118,566	85,235	84,424	71,664
1998	140,795	72,433	104,593	70,876
2003	143,061	70,801	113,717	76,649
Annualized payout (median, 2002 $)				
1993	6,178	4,578	4,437	4,476
1998	7,202	5,311	5,105	4,850
2003	7,430	5,702	5,294	4,805
Taxable earnings replacement rate (median, %)				
1993	34.1	31.6	34.1	36.9
1998	31.1	37.8	34.2	42.5
2003	30.5	32.0	36.2	40.6
Less-censored earnings replacement rate (median, %)				
1993	27.5	24.5	23.0	29.9
1998	25.8	24.7	23.1	29.5
2003	26.1	26.5	24.8	31.8
Taxable earnings (median, 2002 $)				
1993	18,294	14,576	11,423	11,495
1998	21,824	12,207	12,672	10,965
2003	22,297	13,581	14,579	10,768
Less-censored earnings (median, 2002 $)				
1993	22,536	18,395	18,879	13,778
1998	26,003	19,674	19,483	13,849
2003	26,066	19,639	20,558	14,407
Benefit receipt years (mean)				
1993	20.2	17.1	17.5	16.9
1998	20.3	17.5	18.6	15.9
2003	21.0	15.7	19.2	15.8
Potential benefit years (mean)				
1993	22.3	20.3	21.1	19.6
1998	22.7	20.4	22.8	19.0
2003	23.4	17.8	22.9	18.9

SOURCE: Authors' calculations using data from Modeling Income in the Near Term (MINT3).

We stated earlier that relatively more immigrants than the native-born have U.S. employment histories that are insufficient to qualify them for benefits. Generally, a person needs at least 10 years of U.S. earnings to establish eligibility for retirement benefits for one's self or for one's spouse. The ratios of beneficiaries to program participants (those with some shared indexed taxable earnings) are 96 percent for the native-born and 89–91 percent for immigrants.[49]

Table 5 shows that when we focus on immigrants alone, the 1998 and 2003 cohorts' median taxable earnings replacement rates are lowest for whites (31 percent) and highest for Hispanics (41–43 percent). The primary reason for this pattern is the progressivity of the Social Security benefit formula. For these two cohorts, median indexed taxable earnings of Hispanics are 48–50 percent of those for whites.

Among immigrants, median taxable earnings replacement rates generally increase as age at entry increases from "under 23" to "43–52" (Table 6). A primary reason for this pattern is the progressivity of the benefit formula. Median indexed taxable earnings decrease as age at entry increases over this age-at-entry range.

Table 6.
Social Security benefit measures and related measures for near-retiree immigrants, by age at U.S. entry and cohort

Measure and cohort	Age at U.S. entry				
	Under 23	23–32	33–42	43–52	53–61
Social Security wealth (median, 2002 $)					
1993	129,171	108,507	101,214	39,473	0
1998	158,459	120,244	116,599	40,502	0
2003	159,154	134,555	88,070	38,236	0
Annualized payout (median, 2002 $)					
1993	6,608	5,769	5,368	3,078	0
1998	7,411	6,709	5,208	2,881	0
2003	7,747	7,241	4,709	2,326	0
Taxable earnings replacement rate (median, %)					
1993	36.0	33.1	35.9	36.3	0
1998	32.9	35.0	38.4	45.8	0
2003	32.7	33.6	39.1	40.8	0
Less-censored earnings replacement rate (median, %)					
1993	32.3	27.5	23.6	22.6	0
1998	31.1	30.4	24.1	19.2	0
2003	31.9	29.2	26.7	19.8	0
Taxable earnings (median, 2002 $)					
1993	19,250	17,376	13,409	7,199	1,052
1998	23,553	19,103	12,981	5,401	999
2003	23,165	20,518	11,477	4,658	1,020
Less-censored earnings (median, 2002 $)					
1993	20,678	20,691	19,313	11,476	4,876
1998	24,636	21,330	19,937	13,618	5,782
2003	23,757	24,154	16,755	12,210	5,857
Benefit receipt years (mean)					
1993	21.1	18.9	19.2	14.7	7.8
1998	20.8	20.1	20.1	13.6	6.2
2003	21.6	20.8	17.6	14.5	6.7
Potential benefit years (mean)					
1993	22.1	20.9	21.0	19.7	22.1
1998	22.1	21.3	22.1	19.9	19.7
2003	22.5	22.1	20.3	20.9	20.2

SOURCE: Authors' calculations using data from Modeling Income in the Near Term (MINT3).

Less-Censored Earnings Replacement Rate

Median less-censored earnings replacement rates of immigrants fall short of those of the native-born (Table 4).[50] The shortfall is 8–14 percent. How do our two earnings replacement rates compare between the native-born and immigrants? We find that for the native-born, their less-censored earnings replacement rates are 3–8 percent lower than taxable earnings replacement rates because their indexed less-censored earnings are larger than their indexed taxable earnings. The less-censored maximums often exceed the legislated taxable maximums. Thus, some earnings that are above the legislated maximums are below the less-censored maximums. For immigrants, their less-censored earnings replacement rates are considerably lower (20–23 percent) than their taxable earnings replacement rates primarily because their indexed less-censored earnings are far greater than their indexed taxable earnings, more so than for the native-born. This is because their computation periods for indexed less-censored earnings are often shorter than those for indexed taxable earnings.

Table 5 shows that among immigrants, median less-censored earnings replacement rates are lowest

for Asians (23–25 percent) and highest for Hispanics (30–32 percent). This pattern differs from that for taxable earnings replacement rates where whites had the lowest replacement rates. This is because our subgroups vary in how their indexed taxable earnings compare with their indexed less-censored earnings. Note that in the calculation of the earnings replacement rates, the denominators of the taxable earnings replacement rate and the less-censored earnings replacement rate are indexed taxable earnings and indexed less-censored earnings, respectively; but both replacement rates have the same numerator, namely, annualized payout. The differences in the two earnings replacement rates arise because of differences in the denominator. Asians have a relatively low ratio of indexed taxable earnings to indexed less-censored earnings, in part because they have the highest average age at entry; late entry tends to reduce median indexed taxable earnings, relative to median indexed less-censored earnings.

Among immigrants, median less-censored earnings replacement rates *decrease* as age at entry increases from "under 23" to "43–52" (Table 6). Taxable earnings replacement rates generally *increase* over this age-at-entry range. This difference results because as age at entry increases over this range, median indexed taxable earnings decline markedly relative to median indexed less-censored earnings.

Section Summary

Primarily because of their lower indexed taxable earnings, immigrants of every race/ethnic subgroup, on average, receive lower SSW and annualized payouts than the native-born (all race/ethnic subgroups combined). Despite having some earnings, a larger share of immigrants, compared with the native-born, have earnings histories that are insufficient to qualify them for any benefits. Age at entry plays a very important role in determining benefit levels, with our results showing a strong negative association between immigrants' benefit levels and age at entry into the country. The importance of age at entry is strengthened by our finding that immigrants who enter before age 23 have benefits that are similar to those of the native-born.

However, immigrants as a whole have somewhat higher taxable earnings replacement rates than the native-born. Note the relatively high taxable earnings replacement rates for Hispanic and Asian immigrants, especially for Hispanic immigrants. On the other hand, for certain immigrants, particularly Asians, the taxable earnings replacement rate measure is not a very good measure of Social Security benefits as a percentage of an immigrant's average standard of living over their work career. Because only earnings after immigrating to the United States are used in the computation of indexed less-censored earnings, for this purpose and for immigrants in particular, the less-censored earnings replacement rate measure is better. We find that less-censored earnings replacement rates for immigrants as a whole are somewhat lower than those of the native-born.

Findings by Disability Status

How do near-retirees affected by disability fare under Social Security compared with other beneficiaries? How are these differences associated with sex? In this section, we present results by disability status and discuss some reasons for these differences.

We classify beneficiaries, that is, Social Security taxpayers with post-age-61 shared benefits, into disability-status subgroups: the disability-affected and other beneficiaries. Our disability-affected subgroup is composed of persons for whom disability benefits constitute a major part of their shared post-age-61 benefits. Because this article focuses on shared benefits, our classification by disability status depends on the types of benefits received by the person and his or her spouse. In determining the type of benefit, we do not convert disabled-worker beneficiaries to retired-worker beneficiaries at the full retirement age. Later in our discussion, we describe more fully how the definition of our subgroup of disability-affected near-retirees differs from typical definitions of the disabled population.

The two disability-status categories are classified as follows. First, for each year of benefit receipt after the year the person reaches age 61 until the person's death, we determine the benefit type of the person and the benefit type of his or her spouse. Second, using the yearly benefit type information, we determine the longest-held benefit type from age 62 until death of the person and of his or her spouse. Third, using the longest-held benefit types of the person and of his or her spouse, we determine the person's disability-status subgroup.

This article's benefit measures include worker, spouse, divorced spouse, surviving spouse, and surviving divorced spouse benefits paid from the OASI and DI Trust Funds. We classify these benefits into four broad benefit types: retired-worker only, disabled-worker only, spouse (spouse and divorced spouse), and survivor (surviving spouse and surviving divorced spouse). Note that for years after 1999, benefit types are projected by the MINT model.

A person's benefit type for a given year is the type of their own benefit for that year; the person's spouse may receive a different type of benefit. A dually entitled beneficiary is one who is entitled to a worker benefit and to a larger spouse or survivor benefit. Here we treat the dually entitled as spouse or survivor beneficiaries.[51] For a person who is a disabled-worker beneficiary (worker only or dually entitled) in the year just before the year he or she reaches the full retirement age, we treat any worker-only benefit that the person receives in a later year as a disabled-worker benefit.

We determine the benefit type of the person and the benefit type of the person's spouse for each year of benefit receipt after the year the person reaches age 61 until his or her death. Because many beneficiaries change benefit types during their retirement years, we decided it would be useful to determine a longest-held benefit type for each person and for his or her spouse. A person's longest-held benefit type is their most common yearly benefit type for the period that starts with the year the person reaches age 62 and ends with his or her death.[52]

Because this analysis focuses on shared benefits, we use both the person's benefit-type code and the spouse's benefit-type code in determining a person's disability status. The disability-affected are disabled-worker beneficiaries or those having spouses who are disabled-worker beneficiaries. The disability-affected categories consist of the following three groups of persons:

1. All persons whose longest-held benefit type is disabled-worker only (65–67 percent),[53]
2. All persons whose longest-held benefit type is spouse or survivor and whose spouse's longest-held benefit type is disabled-worker only (19–24 percent);[54] and
3. Some persons whose longest-held benefit type is retired-worker only and whose spouse's longest-held benefit type is disabled-worker only. With regard to this third category, we only include such persons as disability-affected if the person's number of years of receiving retired-worker-only benefits is less than or equal to the spouse's number of years of receiving disabled-worker only benefits (11–15 percent).[55]

In considering our results in this section it is important to keep in mind the following facts about the subgroup we call disability-affected. First, our disability-affected subgroup includes not only disabled workers, but also persons with spouses who are disabled workers. Second, persons for whom disability benefits constitute only a minor part of their post-age-61 shared benefits are not part of our disability-affected subgroup. Third, in determining a person's longest-held benefit type, we do not convert disabled-worker beneficiaries to retired-worker beneficiaries when they reach the full retirement age. Fourth, members of our disability-affected subgroup all live to at least age 61. This is important to note given that many disability beneficiaries die before reaching age 61. Fifth, in determining disability status we do not consider the person's shared benefits received before age 62. Sixth, on average, our disability-affected subgroup first receive disability benefits when in their mid-to-late fifties. For all disability beneficiaries, the average age of first receipt of benefits is well below the midfifties. Thus, it is clear that our subgroup of disability-affected near-retirees differs in a number of ways from typical disability populations.

As stated above, we find that those whose own longest-held benefit type is disabled-worker only account for about 65–67 percent of these shared-record disability-affected subgroup members (Table 7). The remaining 33–35 percent of our disability-affected are persons who do not receive disabled-worker-only benefits themselves but have a spouse who receives such benefits. Shared-record disability-affected persons account for 14–15 percent of all beneficiaries, 16–18 percent of male beneficiaries, and 12–13 percent of female beneficiaries. The 4–5 percent of Social Security taxpayers with no shared benefits are not dealt with in this section.

Looking at the demographics of our subgroup of disability-affected near-retirees, we find some 54–57 percent of the disability-affected are men compared with 46–47 percent of other beneficiaries (Table 7). Most disability-affected men (86–89 percent) are persons whose person-record longest-held benefit type is disabled-worker only. In contrast, most disability-affected women (57–68 percent) are persons whose own longest-held benefit type is not disabled-worker only, but who have a spouse with a longest-held benefit type of disabled-worker only.

The shares of blacks and Hispanics in our disability-affected subgroup are larger than their shares in the population of other beneficiaries. About 21–24 percent of the disability-affected are blacks and Hispanics compared with 14–15 percent of other beneficiaries. The disability-affected subgroup includes a larger share of black beneficiaries (22–25 percent) than of any other race/ethnic subgroup.

Table 7.
Selected characteristics of near-retiree beneficiaries, by disability status and cohort

Characteristic	Disability-affected			Other beneficiaries		
	1993	1998	2003	1993	1998	2003
Reason for disability-affected status (%)						
Both person and spouse are disabled workers	7	5	5	0	0	0
Only person is a disabled worker	58	60	61	0	0	0
Only spouse is a disabled worker	35	34	34	0	0	0
Neither is a disabled worker	0	0	0	100	100	100
Men (%)	57	54	55	46	46	47
Foreign-born (%)	9	9	10	10	10	11
Married at age 62 (%)	82	79	78	74	73	71
Race/ethnicity (%)						
White	77	77	72	82	83	81
Black	12	14	16	8	7	8
Asian	1	1	3	3	3	4
Hispanic	9	7	8	6	6	7
Total number of beneficiaries (thousands)	1,463	1,582	1,846	8,119	9,003	11,447

SOURCE: Authors' calculations using data from Modeling Income in the Near Term (MINT3).

NOTE: Disability status determination is based on an individual's and spouse's benefit types. For details, see the "Findings by Disability Status" section of the text.

Immigrants account for 9–10 percent of the disabled and 10–11 percent of other beneficiaries. The percentages married at age 62 are higher for the disabled (78–82 percent) than for other beneficiaries (71–74 percent).

We discuss in the sections below empirical estimates of SSW and of annualized payouts by disability status, but not any replacement rate estimates. Because many of the disability-affected near-retirees start to receive benefits a number of years before they reach age 62, our standard replacement rate measures may not be appropriate for this subgroup.[56]

Social Security Wealth

Our measure of SSW focuses on benefits for near-retirees and therefore does not include benefits received before the year the person reaches age 62. Yet, the great majority of the near-retiree disability-affected subgroup start to receive disability benefits before reaching age 62.

Our disability-affected subgroup has fewer years of benefit receipt because, on average, they die younger. Therefore, it is not surprising that median SSW of this subgroup is considerably less than for other beneficiaries (Table 8). For the disability-affected, median SSW is 28–31 percent lower and mean number of years of benefit receipt is 25–29 percent lower than for other beneficiaries.

When men and women are looked at separately, we find that median SSW is 35–43 percent lower for disability-affected men than for men of other beneficiary types, and the mean number of benefit receipt years is 30–35 percent lower; the corresponding figures for women are 8–29 percent and 15–24 percent.[57]

As with other beneficiaries, median SSW is considerably larger for women than for men among the disability-affected. The main causes of this difference are (1) that women have much higher average number of years of benefit receipt, and (2) our use of a shared concept of wealth rather than an individual concept. Most married women receive smaller annual benefits (auxiliary or worker) than their husbands. Thus, shared benefit is greater than individual benefit for most married women and less than individual benefit for most married men.[58]

Table 9 gives estimates of SSW for (1) disabled workers, and (2) nondisabled persons with disabled spouses. The median SSW of disabled workers is only 49–55 percent of that of nondisabled persons with disabled spouses. Disabled workers have only 56–59 percent as many years of benefit receipt because they die younger.[59]

Table 8.
Social Security benefit measures for near-retiree beneficiaries, by disability status, sex, and cohort

Measure and cohort	Disability-affected			Other beneficiaries		
	All	Women	Men	All	Women	Men
Social Security wealth (median, 2002 $)						
1993	95,618	140,001	63,381	133,132	152,434	111,799
1998	111,277	133,575	87,438	162,297	187,398	134,116
2003	125,316	163,731	96,001	179,414	208,788	152,080
Annualized payout (median, 2002 $)						
1993	6,967	6,890	7,111	6,341	6,476	6,213
1998	8,012	7,746	8,250	7,552	7,609	7,493
2003	8,713	8,689	8,741	8,395	8,426	8,364
Benefit receipt years (mean)						
1993	16.4	21.0	12.2	22.0	24.8	18.8
1998	16.1	22.0	13.0	22.6	25.8	18.9
2003	16.7	20.0	13.3	22.9	26.2	19.1
Potential benefit years (mean)						
1993	16.5	22.1	12.3	23.0	25.7	19.9
1998	16.3	20.1	13.2	23.6	26.6	20.1
2003	16.9	21.0	13.6	23.8	27.0	20.3

SOURCE: Authors' calculations using data from Modeling Income in the Near Term (MINT3).

NOTE: Disability status determination is based on an individual's and spouse's benefit types. For details, see the "Findings by Disability Status" section of the text.

Table 9.
Social Security benefit measures for disability-affected near-retiree beneficiaries, by unit type, sex, and cohort

Measure and cohort	Person is a disabled worker			Only spouse is a disabled worker		
	All	Women	Men	All	Women	Men
Social Security wealth (median, 2002 $)						
1993	72,123	102,877	64,214	147,186	158,356	80,281
1998	85,789	90,517	85,395	156,610	160,296	152,035
2003	96,001	118,700	86,680	176,422	186,013	154,966
Annualized payout (median, 2002 $)						
1993	6,944	6,741	7,034	6,818	6,860	6,524
1998	7,910	6,693	8,223	8,001	7,991	8,215
2003	8,717	8,705	8,737	8,638	8,638	8,705
Benefit receipt years (mean)						
1993	13.0	17.5	11.9	22.9	24.4	15.7
1998	13.0	15.5	12.2	22.4	22.8	20.3
2003	13.5	16.5	12.3	23.0	24.2	19.1
Potential benefit years (mean)						
1993	13.1	17.6	12.0	23.0	24.5	16.1
1998	13.2	15.6	12.3	22.6	23.0	20.9
2003	13.7	16.7	12.6	23.3	24.4	19.8

SOURCE: Authors' calculations using data from Modeling Income in the Near Term (MINT3).

NOTE: Disability status determination is based on an individual's and spouse's benefit types. For details, see the "Findings by Disability Status" section of the text.

Annualized SSW Payout

Annualized payouts of the disability-affected exceed those of other beneficiaries by 4–10 percent. For men and women, these amounts are higher by 5–14 percent and 2–6 percent.[60]

This small difference in annualized payouts is the result of the following offsetting factors.

1. A factor that markedly increases annualized payouts of the disability-affected relative to other beneficiaries is that non-DI benefits are reduced for early benefit receipt, that is, early retirement. For a full retirement age of 66, these reductions can be as large as 25 percent for retired-worker benefits, 30 percent for spouse benefits, and 19 percent for surviving spouse benefits. There are no comparable reductions for DI benefits.
2. A factor that decreases annualized payouts of the disability-affected relative to those of other beneficiaries is the difference in the indexing of retired-worker benefits and disabled-worker benefits. Retired-worker benefits are based on earnings that are wage-indexed to wage levels as of the year the beneficiary reaches age 60. Cost-of-living adjustments (that is, price-indexing) to these retirement benefits begin at the end of the year the person reaches age 62. By contrast, disabled-worker benefits are based on earnings that are wage-indexed to wage levels of the year that is 2 years before the year of first receipt of disability benefits. The cost-of-living adjustments to disability benefits start at the end of the year of first disability benefit receipt. For near-retiree disabled-worker-only beneficiaries, the median age of first receipt of disability benefits is 57 or 58.

   Because the average wage measure usually increases at a faster percentage rate than the price index, these differences in indexing usually cause the annualized payouts of the disability-affected to decrease relative to the payouts of other beneficiaries. For the 1998 cohort, this indexing difference decreases annualized payouts of disabled-worker-only beneficiaries by about 10 percent relative to those of retired-worker-only beneficiaries.
3. Even if disabled-worker and retired-worker benefits were wage-indexed to the same age and price-indexed from the same age, disabled-worker benefits would tend to be lower because the earnings of disabled workers, averaged over their relatively shorter computation periods, tend to be lower than those of retired workers.

   We checked this by calculating average relative earnings (earnings relative to SSA average annual wages).[61,62] Our estimates of the median average relative earnings of disabled-worker-only beneficiaries are 9–14 percent less than those of retired-worker-only beneficiaries.[63]

Differences by sex in median annualized payouts are quite small. The ratios of median annualized payouts for women to those for men are .94 to .99 for the disability-affected and 1.01 to 1.04 for other beneficiaries.[64]

The median annualized payouts of disabled workers are very similar to those of nondisabled persons with disabled spouses (Table 9). This is also generally true for both women and men.[65]

Section Summary

Our definition of the disabled is somewhat different from the definition of disabled workers used by SSA. It is an expanded definition in one sense because in determining who is disability-affected, we take into account the disability status of one's spouse. On the other hand, because our focus is on near-retirees, all our disability-affected live to at least age 61, and we measure their post-age-61 shared benefits. About two-thirds receive disabled-worker benefits themselves and the remaining one-third have spouses who receive such benefits. On average, they do not start receiving disability benefits until their mid-to-late fifties. In determining a person's longest-held benefit type, we do not convert disabled-worker benefits to retired-worker benefits at the full retirement age.

Our near-retiree disability-affected are, as expected, different from other near-retirees. Men account for a larger proportion, and blacks and Hispanics, especially blacks, make up a larger share of our specific definition of the disabled.

By one measure, namely SSW, we find that because our disability-affected subgroup die sooner, they receive considerably less in median amounts than other beneficiaries. These differences in SSW exist for both men and women, although, women receive more than men. However, it is very important to note that had we considered all benefits that our disability-affected subgroup received before the year they reached age 62, the nature of these differences may have been quite different. But because the focus of this study is near-retirees, including disability-affected near-retirees, we examine Social Security benefits only from the year they reach age 62.

Using another measure of benefits, namely annualized payouts, we find that median amounts for the disability-affected are slightly higher than amounts for other beneficiaries. This small excess is the result of a number of offsetting factors:

1. Old-age benefits are reduced for early retirement; there are no comparable reductions for disability benefits.
2. Wage-indexing for disability benefits usually stops before a person reaches age 60, which serves to reduce benefits of the disability-affected relative to the benefits of other beneficiaries.
3. The average relative earnings of disabled-worker beneficiaries over their computation periods appear to be less than those of retired-worker beneficiaries over their longer computation periods. For both benefit types, earnings are measured relative to SSA average annual wages. This lower amount of earnings for disabled workers reduces annualized payouts of the disability-affected relative to the payouts of other beneficiaries, even if both types of benefits were indexed in the same way.

Annualized payouts for the disability-affected are a bit larger than payouts for other beneficiaries for both women and men, with no appreciable differences by sex in payout amounts.

Concluding Remarks

Our results provide substantial empirical evidence on Social Security benefits as a retirement resource for select subgroups of near-retirees, namely race/ethnic subgroups, immigrants and the native-born, and disability-status subgroups. It is important to study how particular subgroups fare, especially if they are considered economically vulnerable and/or may be subject to program changes. A major strength of the results lies in their being based on mostly actual earnings histories, an advantage shared by very few studies on the subject.

Some of our results for near-retirees may be unsurprising. For example, we report that among race/ethnic subgroups, because of their higher indexed taxable earnings, whites receive the highest amounts of SSW and annualized payouts. Taxable earnings replacement rates, on the other hand, are the lowest for whites and higher for minority race/ethnic subgroups, which is due to the progressivity of the Social Security benefit formula. Immigrants of all race/ethnic subgroups, on average, receive lower SSW and annualized payouts than the native-born as a whole primarily because of their lower indexed taxable earnings. Our disability-affected near-retirees, as defined in this article, receive considerably less in median amounts of SSW than other beneficiaries because of markedly shorter lives and the fact that we consider Social Security benefits only if received after age 61.

We are also able to point to other interesting findings from our study of these subgroups. For example, over time Hispanics have very slow growth in SSW compared with that of the other race/ethnic subgroups. A key underlying variable is the growth in earnings. Median indexed taxable earnings increases are considerably smaller for Hispanics than for the other three race/ethnic subgroups. For immigrants, the taxable earnings replacement rate is not a very good measure of how effective Social Security is in replacing average career total earnings; this is especially so for Asians whose indexed taxable earnings are particularly low relative to their indexed less-censored earnings (our proxy for indexed total earnings). This is in considerable part because Asians have the highest average age at entry into the United States. Age at entry into the country is an important variable. Immigrants who enter before age 23 have benefits similar to those of the native-born.

Under Social Security law, a person's benefits do not depend on his or her race, ethnicity, nativity, or sex. That notwithstanding, this article has highlighted the fact that substantial differences in earnings levels and/or mortality levels by these characteristics produce sizable differences in Social Security benefit levels among these subgroups of near-retirees.

Notes

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[1] SSA (2006).

[2] Bridges and Choudhury (2007a) examine the distribution of benefits among type of benefit subgroups, namely, worker, spouse, and survivor beneficiaries.

[3] According to SSA (2006), 2004 poverty rates for persons aged 65 or older are much higher for blacks (23.5 percent) and Hispanics (18.7 percent) than for whites (8.3 percent).

[4] See Bridges and Choudhury (2005, 2007b) for more information on previous work.

[5] We use MINT3 data files created in April 2003.

[6] The administrative records contain amounts of annual taxable earnings beginning with 1951.

[7] Two key economic assumptions of trustees reports are those with regard to inflation and the growth of average earnings. The Board of Trustees (2002) report uses actual historical data on average wages through calendar year 2000 and on consumer price levels through early 2002.

[8] In our benefit calculations, earnings after age 61 can affect benefit amounts.

[9] To some extent the incomes of the members of a couple are a product of joint decision-making.

[10] Given the content of the MINT data file, the sharing of benefit income within a larger unit, such as the family, could not be considered.

[11] Through the price index of January 1, 2002, the price index for January 1 of a given year is the average of the published price index for January of that year and the published price index for December of the previous year. For years after 2002, the price index value for January 1 of a given year is the average of the projected price index for that year and the projected price index for the previous year.

[12] From the perspective of Social Security beneficiaries, the trust fund interest rate can be viewed as a proxy for a U.S. government bond rate series because the trust fund interest rate is based on marketable Treasury obligations. From the perspective of the Social Security program, the trust fund interest rate is the rate at which the trust fund is able to transform funds over time.

One can argue for using an interest rate lower or higher than the trust fund rate. Using a lower or higher interest rate would of course change the levels of the estimated SSW for subgroups, but within a cohort this would be expected to usually leave unchanged the rankings of the subgroups in terms of the size of SSW; for example, SSW of whites is greater than that of blacks.

[13] As stated above, we calculate SSW using realized longevity, that is, using actual or projected date of death. Sometimes SSW is calculated using forward-looking survival probabilities, for example, looking forward from age 62. For individual persons, these two approaches can produce quite different estimates of SSW. However, for subgroup averages (for example, median SSW for blacks) the results of the two approaches are much less different.

[14] The number of potential benefit years equals 0 for persons who die in the year they reach age 62, equals 1 for persons who die in the year they reach age 63, and so on.

[15] For the year of a person's death, the MINT benefit calculator does not credit the person with any individual or shared benefits. For example, in the case of a beneficiary who dies in July 2000, the MINT calculator does not credit the person with any benefits for calendar year 2000. For the year the person begins to receive benefits, the benefit calculator credits the person with 12 months of benefits unless that is the year in which the person dies.

[16] A similar measure is used in Smith, Toder, and Iams (2003/2004). See their "Overall Approach" section. One could develop alternative measures of such annual support.

[17] The cohort or cohort subgroup with greater average longevity than another such group can be said to have additional potential benefit years—most of which will also be years in which the beneficiaries receive real annual benefits that are at least as large as those received in their earlier years. These additional benefits result in additional SSW. To compute annualized payout of this longer-lived group, its greater SSW is spread over a larger number of potential benefit years. Thus, increased longevity usually causes a smaller percentage increase in annualized payout than in SSW.

[18] The proportion of all workers (of any age) in covered employment with covered earnings at or above the legislated taxable maximums was 6 percent during the 1983–1989 period and 5–6 percent during the 1990s. Corresponding figures for the 1951–1978 and 1979–1982 periods were 15–36 percent and 7–10 percent, respectively.

[19] For each year of the 1951–1977 period, the MINT model uses information from SSA administrative records on the quarter in which the person's earnings reached the legislated taxable maximum to assign a person to a covered-earnings interval. Means for each interval were derived from the earnings data collected by the Census Bureau's CPS. Each person is assigned the mean earnings for their interval.

For the 1978–1989 period, the administrative records do not contain information on the quarter in which an individual's earnings reached the legislated taxable maximum. For this later period, covered earnings above the legislated taxable maximum were set at the CPS average of earnings above the legislated taxable maximum for each year.

See Butrica and others (2001) for additional information on the MINT estimation method for less-censored earnings. MINT modelers coined the phrase "less-censored earnings."

[20] Because the numerator of the replacement rate, annualized payout, is expressed in January 1, 2002, dollars, we need to express the denominator of the replacement rate, indexed taxable earnings, in January 1, 2002, dollars.

P_{2002} is the Consumer Price Index (CPI) as of January 1, 2002, and P_T is the CPI as of January 1 of year T (the year the person reaches age 62). AE_T is average wage-indexed shared taxable earnings, indexed to the average wage level prevailing as of January 1 of year T, and TX-EARN is indexed taxable earnings in January 1, 2002, dollars.

$$\text{TX-EARN} = (P_{2002} / P_T)\, AE_T$$

[21] As stated earlier, earnings after age 61 can affect our calculated benefit amounts.

[22] SSW is evaluated as of January 1 of the year the person reaches age 62. Annualized payout, the numerator of our replacement rates, is derived from SSW. Thus, we want to wage-index less-censored earnings—the denominator of the less-censored earnings replacement rate—to the wage level at the beginning of the year the person reaches age 62. Making the timing of its numerator and denominator consistent makes the less-censored earnings replacement rate a better measure of the adequacy of Social Security benefits. We chose to wage-index taxable earnings to the same date as that used for wage-indexing less-censored earnings.

[23] For purposes of determining retired-worker benefits, the worker's AIME is determined as follows. Annual taxable earnings through age 60 are indexed, using the average wage series, to wage levels of the year the worker reaches age 60; annual earnings after age 60 are not wage-indexed. The sum of the 35 highest annual earnings amounts is divided by 420 (35 x 12) to get the AIME. For disabled workers, the calculation of AIME usually employs a shorter computation period (less than 35 years). Given that we use a shared benefit measure, annualized payout, we needed a shared earnings measure. For various conceptual and data reasons, we could not compute a shared AIME measure.

[24] Persons are projected to enter the MINT sample by means of immigration in the years after the end of the SIPP interviews. A hot-deck imputation procedure is used for this purpose.

[25] Some 66–68 percent of Asians and 30–34 percent of Hispanics enter the United States after the year they reach age 22; the comparable figures for whites and blacks are 2–3 percent and 4–5 percent, respectively.

[26] There is considerable evidence that, other things being equal, mortality rates for Hispanics are lower than those for non-Hispanic whites (Franzini, Ribble, and Keddie 2001; Liao and others 1998). Thus the MINT-based estimates of Hispanic longevity and SSW are likely to be too low. There is some evidence that mortality rates for Asians, other things being equal, may be lower than those for non-Hispanic whites (Rogers and others 1996).

[27] Haveman and others (2006), Wolff (2002), and Liu and Rettenmaier (2003) are three recent studies that present some estimates of SSW by race/ethnic subgroups. Their data sets differ from each other and from our data set. The focus of each of these studies is rather different from the focus of our study. Each study uses only two race/ethnic subgroups.

Haveman and others (2006) use samples from the New Beneficiary Survey and from the Health and Retirement Study to examine the overall retirement income adequacy of persons who retired in the early 1980s and in the mid-1990s. One of their findings is that the average SSW of whites exceeds that of nonwhites.

Wolff (2002) uses samples from three Surveys of Consumer Finances to estimate the overall retirement income adequacy of persons aged 59–64 in 1983, 1989, and 1998. One of his findings is that the average SSW of non-Hispanic whites exceeds that of the combined group of blacks and Hispanics.

Liu and Rettenmaier (2003) use a set of hypothetical workers in their study of the money's worth of Social Security for workers born from 1935 through 1980. One of their findings is that the average SSW of whites exceeds that of blacks.

We see that the findings of these three studies are generally consistent with ours.

[28] The preceding general patterns also hold for each sex; for example, among women and among men. SSW is highest for whites. The tables in this section do not present data on benefit measures by sex. In addition, we find that for each race/ethnic subgroup, SSW is greater for women than for men because (1) women have many more years of benefit receipt, and (2) we use a shared concept of wealth. We also find that the ratio of SSW of women to that of men is highest for Hispanics.

[29] Our tables somewhat overstate the growth rates for SSW, annualized payouts, indexed taxable earnings, and indexed less-censored earnings. This overstatement resulted because we use projections of the SSA annual average wage series from the 2002 Trustees Report, which overstated the growth of this series over the 2000–2004 period.

[30] We find that these general patterns hold for both women and men. For race/ethnic subgroups, we find that the annualized payouts of women and men are similar.

[31] The replacement rate measures are modestly sensitive to how earnings are averaged for persons who are disabled-worker beneficiaries. Under OASDI law for disabled-worker beneficiaries, the year they become disabled and later years are usually disregarded in determining the AIME. In determining indexed taxable earnings (and indexed less-censored earnings), we include such years if they are earlier than the year the worker attains age 62. Many of the near-retirees who receive disability benefits start receiving them before reaching age 62. For our near-retirees, the median age of first receipt of disability benefits is 57 or 58. Approximately 15 percent of Social Security taxpayers receive shared disability benefits. Including such post-disability years in the computation of indexed taxable earnings and indexed less-censored earnings for disability beneficiaries causes modest increases in taxable earnings replacement rates and less-censored earnings replacement rates for the race/ethnic subgroups and for immigrant-status subgroups.

[32] The impact of the lack of precision of mortality projections on estimates of taxable earnings replacement rates and less-censored earnings replacement rates should be relatively small for Hispanics and Asians aged 65 or older. This is because in estimates of the annualized payouts (the numerators of the replacement rates), the errors in

SSW should be largely offset by errors in the numbers of potential benefit years.

[33] We find that taxable earnings replacement rates for whites, blacks, and Hispanics are considerably higher for women than for men.

[34] For beneficiaries only (those with positive SSW), replacement rates are lowest for whites, and those of the other subgroups are 110–133 percent of those for whites.

[35] The overstatement of the 2000–2004 growth of the average annual wage (referred to in note 29) should have only small effects on our estimates of median taxable earnings replacement rates and less-censored earnings replacement rates. This overstatement of wage growth causes offsetting overstatements of the numerator and denominators of our replacement rates.

[36] For beneficiaries only, earnings replacement rates of Asians are 85–94 percent of those for whites; those of blacks and Hispanics are higher at 123–135 percent and 116–123 percent of those for whites.

[37] We find that the general patterns of race/ethnic differences in less-censored earnings replacement rates also hold for each sex. For example, among women and men, less-censored earnings replacement rates are lowest for Asians and second lowest for whites.

[38] An analysis that deals with immigrants and Social Security in a somewhat different way is Cohen and Iams (2007).

[39] A hot-deck imputation procedure is used in selecting post-interview immigrants from a donor pool of immigrants from the SIPP sample. The imputation is done so as to approximate estimated control totals of immigrants by time period, sex, age at immigration, and source region. The records of the selected donors are then updated to the year of projected immigration. All imputed immigrants enter the United States as adults. Berk and Smith (2003) believe their immigrant projections could contain considerable error.

[40] The SIPP panels contain to an unknown degree, undocumented or illegal immigrants; the SIPP interviewers do not attempt to determine the legal status of immigrants. We believe that our sample of immigrant near-retirees does not contain more than a small number of undocumented immigrants. The SIPP coverage rate for the undocumented is probably quite low relative to those of legal immigrants and of the native-born. The estimated control totals for immigrant imputations do not include the undocumented. For our analysis, MINT's treatment of the undocumented causes very little problem; most of the undocumented enter the United States before age 35, and most of them stay in the country less than 10 years. See the discussion in Duleep and Dowhan (2008).

[41] Gustman and Steinmeier (1998) use the Health and Retirement Study sample to examine Social Security's treatment of natives and immigrants born from 1931 through 1941. One of their findings is that the average SSW of the native-born exceeds that of immigrants.

[42] There is some evidence that, other things including race/ethnicity being the same, mortality rates may be lower for immigrants than for the native-born; for example, see Rogers and others (1996).

[43] For the small minority of immigrants whose benefits are based on totalization agreements, their benefits are not computed under the usual OASDI rules. In 2004, about 100,000 immigrants, emigrants, and others received some U.S. OASDI benefits under totalization agreements.

[44] Blacks account for only 5–6 percent of immigrants.

[45] Gustman and Steinmeier (1998) find that the average SSW of immigrants generally is lower the later the year of immigration.

[46] For beneficiaries only (those with positive SSW), median SSW and median indexed taxable earnings also generally decrease as age at entry increases.

[47] For beneficiaries only, median taxable earnings replacement rates for immigrants for the 1993, 1998, and 2003 cohorts are 5 percent, 14 percent, and 20 percent higher than those for the native-born.

[48] Gustman and Steinmeier (1998) also find that immigrants have relatively high replacement rates for taxable earnings.

[49] The number of legal permanent residents of the United States who leave the country to reside elsewhere is about 25 percent as many as the number admitted each year with legal permanent resident status. Many immigrants enter the United States at young ages, work in covered jobs while in the country, but leave after fairly short times, often earning no rights to later benefits, or never filing to receive benefits for which they might have become entitled. This behavior of immigrants also tends to offset the effect on the trust fund balance of the relatively "good deal" that immigrant beneficiaries get because of the progressivity of the benefit formula.

[50] For beneficiaries only, median less-censored earnings replacement rates for immigrants are 2–12 percent lower.

[51] Weaver (1997) presents estimates of average benefit amounts by type of benefit. In defining benefit types, he treats dual beneficiaries as auxiliary beneficiaries, as we do. However, his estimates are for individual benefits and are thus not comparable to our estimates of shared benefits.

[52] The person's and spouse's longest-held benefit types are for the same time period, namely, the period that starts with the year the person reaches age 62 and ends with the person's death.

[53] The spouses of these disabled workers have the following longest–held benefit types: (a) disabled-worker only (5–7 percent of the disability-affected), (b) retired-worker only (18–23 percent of the disability-affected), (c) spouse (14–15 percent of the disability-affected), and (d) no benefit

type; either there is no spouse or the spouse received no benefits (23–25 percent of the disability-affected). For more than 99 percent of the persons in category (b) the person's number of years of receiving disabled-worker-only benefits is greater than or equal to the spouse's number of years of receiving retired-worker-only benefits. In other words, almost all the persons in category (b) are persons for whom disability benefits constitute a major part of the person's shared benefits.

[54] Persons who are spouse beneficiaries account for 11–15 percent of the disability-affected; survivor beneficiaries account for 11–13 percent. Survivor beneficiaries whose benefits are based on the earnings of a disabled worker are not classified as disability-affected in cases in which the disabled worker dies before the survivor beneficiary reaches age 62; survivor beneficiaries who are classified as disability-affected outnumber such cases about 10 to 1.

[55] This article's definition of the disability-affected differs from the definition of disabled in Bridges and Choudhury (2007a).

[56] See note 31.

[57] For whites, blacks, and Hispanics, SSW of the disability-affected is considerably less than that of other beneficiaries. The tables in this section do not present data on benefit measures by race and ethnicity.

[58] Again, as with those not affected by disability, SSW for the disability-affected is larger for whites than for the group of minorities in part because whites have higher average number of years of benefit receipt.

[59] Among nondisabled persons with disabled spouses, median SSW of retired-worker beneficiaries is a bit lower than that of auxiliary beneficiaries. These retired-worker beneficiaries have only 81–84 percent as many years of benefit receipt.

[60] For whites, blacks, and Hispanics, these amounts for the disability-affected are higher by 4–11 percent, 7–12 percent, and 15–20 percent, respectively.

[61] Under Social Security law, the determination of AIME computation periods for disabled-worker benefits differs from that for retired-worker benefits. In our calculations of average relative individual taxable earnings of disabled- and retired-worker beneficiaries, we approximate computation periods as follows. For both types of benefits, our computation period starts with 1951 or the year the person reaches age 22, whichever comes later. For retired-worker benefits, the period ends with the year the person reaches age 61. For disabled-worker benefits, the computation period ends with the year before the year of first receipt of disability benefits.

[62] This measure (average relative individual taxable earnings) is not used anywhere else in this article.

[63] Disabled workers who survive to age 61 have higher average earnings than those who die before age 61.

[64] Among the disability-affected, race/ethnic differences in median annualized payouts are a bit larger than are differences by sex. For both the disability-affected and other beneficiaries, annualized payouts of blacks and Hispanics are less than those of whites.

[65] Among nondisabled persons with disabled spouses, the median annualized payouts of retired-worker beneficiaries are a bit higher than those of auxiliary beneficiaries.

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