Social Security

Issue Paper

Income Taxes on Social Security Benefits

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Since 1984, Social Security beneficiaries with total income exceeding certain thresholds have been required to pay federal income tax on some of their benefit income. Because those income thresholds have remained unchanged while wages have increased, the proportion of beneficiaries who must pay income tax on their benefits has risen over time. A Social Security Administration microsimulation model projects that an annual average of about 56 percent of beneficiary families will owe federal income tax on part of their benefit income from 2015 through 2050. The median percentage of benefit income owed as income tax by beneficiary families will rise from 1 percent to 5 percent over that period. If Congress does not adjust income tax brackets upward to approximate the historical ratio of taxes to national income, the proportion of benefit income owed as income tax will exceed these projections.

Summary and Introduction

Since 1984, Social Security beneficiaries with total income exceeding certain thresholds have been required to claim part of their Social Security benefits as taxable income. The income thresholds for taxation of benefits have remained unchanged since Congress first established them but, because wages have increased, the proportion of Social Security beneficiaries who must pay federal income tax on their benefits has risen over time. In 1984, less than 10 percent of beneficiaries paid federal income tax on their benefits. A Social Security Administration (SSA) microsimulation model, Modeling Income in the Near Term (MINT), projects that 52 percent of families receiving Social Security benefits will pay income tax on their benefits in 2015. Most of these families will be in the upper half of the total-income distribution.

This issue paper presents MINT projections of the percentage of Social Security beneficiary families that will owe federal income tax on their benefits as well as the proportion of benefit income they will owe as income tax in selected years from 2015 to 2050, with comparative data for 2010. Although 13 states also tax Social Security income, the scope of this paper is restricted to federal income taxes.

In summary, MINT projects that an annual average of about 56 percent of beneficiary families will owe income tax on their benefits over the period 2015–2050. For 2015, MINT projects that beneficiary families will owe a median of less than 1 percent of benefits in income tax, but that one-fourth of those families will owe 11 percent or more of their benefits in income tax. The model projects that the median percentage of benefits owed as income tax by beneficiary families will rise to about 5 percent over the projection period. Among the 52 percent of families that are projected to owe federal income tax on their Social Security benefits in 2015, the median share of benefits owed as tax will be 11 percent. For those families, that proportion will remain close to 12 percent over the period 2020–2050.

Projecting taxation over a period of decades requires certain assumptions about future tax policy. For example, under current law, income tax brackets are indexed to the rate of growth of consumer prices. In the long run, incomes tend to rise faster than prices as labor productivity increases. If tax brackets continue to be indexed to prices, the share of benefit income paid as taxes eventually will rise above its historical average. Long-term tax estimates must assume either that income tax brackets will continue to be price-indexed or that Congress will act to adjust the brackets upward.[1] The estimates in this paper incorporate the key assumption that Congress will act before 2025 to adjust the tax-bracket thresholds upward. MINT assumes that the provisions of the tax code that currently stipulate the use of price indexing will change to require wage indexing after 2023. If tax brackets continue to be indexed to

Selected Abbreviations

AGI	adjusted gross income
AWI	average wage index
CBO	Congressional Budget Office
IRS	Internal Revenue Service
MINT	Modeling Income in the Near Term
OBRA 93	Omnibus Budget Reconciliation Act of 1993
SIPP	Survey of Income and Program Participation
SSA	Social Security Administration

prices indefinitely, the proportion of Social Security benefit income that beneficiaries owe as income tax will be higher than the estimates shown in this paper for years after 2023.

Another important caveat about the estimates in this paper is that they apply only to Social Security beneficiaries who are modeled in MINT. Adjusted by sample weights, the beneficiary population modeled by the current version of MINT represents 54.3 million persons in 2015, or 92 percent of the average monthly beneficiary population of 59.0 million for January–June 2015 (SSA 2015b). As a result, MINT simulations differ from administrative estimates produced by other federal agencies. As explained in Box 1, the difference is attributable mainly to certain income characteristics that typify the beneficiaries not simulated in MINT more strongly than they represent beneficiaries overall. Additionally, MINT simulations reflect *scheduled benefits* under current law. However, because Social Security's Board of Trustees (2015) estimates that the trust funds will be depleted in 2034—after which, Social Security payroll tax revenue would be sufficient to pay only about 75 percent of scheduled benefits—Congress will presumably take remedial action before then. Thus, the long-term continuation of scheduled benefits under current law is uncertain, as is the timing of any substantial changes.

Background

The first Social Security benefits were paid in 1940. From that time until 1984, benefits were exempt from federal income tax, as authorized by Treasury Department rulings issued in 1938 and 1941 (SSA n.d.). Because other forms of retirement income (such as private- and public-sector pensions) were subject to income tax, policymakers eventually reconsidered the tax exemption for Social Security benefits. Both the 1979 Advisory Council on Social Security (1979) and the National Commission on Social Security Reform (1983) recommended that some Social Security benefits be included in taxable income.

Box 1.
How MINT simulations differ from other federal estimates of Social Security benefit taxation

Each year, the Treasury Department's Office of Tax Analysis (OTA) estimates the amount of revenue generated by the taxation of Social Security benefits. The Treasury uses those estimates to credit income tax revenue to the Social Security trust funds. For 2015, OTA estimates that federal income taxes on Social Security benefits will equal about 5.9 percent of aggregate benefit income, in contrast with the 7.2 percent figure estimated by MINT. The difference between the two estimates stems in large part from the difference between the actual number of Social Security beneficiaries and the number of beneficiaries simulated in MINT. For example, for January–June 2015, the monthly number of Social Security beneficiaries averaged 59.0 million. MINT simulates a 2015 beneficiary population of 54.3 million, or 92 percent of the actual number of beneficiaries. MINT excludes beneficiaries born before 1926, child beneficiaries, disabled beneficiaries younger than age 31, and beneficiaries who reside in nursing homes.

According to data from the Census Bureau's March 2014 Current Population Survey, the beneficiaries excluded from MINT are generally less likely to owe income tax on their benefits than are those included in the model simulations. In 2013, for example, 52 percent of child beneficiaries and 45 percent of beneficiaries aged 80 or older lived in families with incomes lower than 200 percent of the federal poverty threshold, compared with only 30 percent of beneficiaries aged 60–79 (who comprise nearly two-thirds of the beneficiary population). On average, nursing home residents are older and poorer than other aged beneficiaries are; therefore, they too are less likely to owe taxes on their Social Security benefits.

If MINT simulated all beneficiaries, its estimates of taxes owed as a percentage of benefit income would be lower and, thereby, closer to the OTA estimates. As they are, MINT estimates closely resemble those of the Congressional Budget Office (CBO). CBO estimates that 51.5 million beneficiaries paid 6.7 percent of their Social Security benefits as income tax in 2014 and projects that income taxes owed on Social Security benefits will rise to more than 9 percent by 2039 (Shakin and Seibert 2015). MINT estimates that 52.4 million beneficiaries paid 6.7 percent of their benefits as income tax in 2014 and projects that income tax owed will exceed 10 percent of benefit income by 2040. Like all estimates, these projections are uncertain and their accuracy depends on the reliability of their underlying data, methods, and assumptions.

The Social Security Act Amendments of 1983 (Public Law 98-21) established that beneficiaries whose total annual income exceeds certain thresholds are required to pay income tax on up to 50 percent of their Social Security benefit income. Ten years later, the Omnibus Budget Reconciliation Act of 1993 (OBRA 93, Public Law 103-66) established an additional higher threshold, above which up to 85 percent of Social Security benefits are taxable. The 1983 amendments require beneficiaries to pay income tax on their benefits if their modified adjusted gross income (AGI)—which includes one-half of Social Security benefit income—is greater than $25,000 for single beneficiaries and $32,000 for married couples (Table 1).[2,3] Specifically, beneficiaries who file taxes singly must count as taxable income the lesser of one-half of the amount by which modified AGI exceeds $25,000 or one-half of their benefit income. Married beneficiaries filing joint income tax returns are required to count as taxable income the lesser of one-half of the amount by which modified AGI exceeds $32,000 or one-half of their benefit income.[4] Prior to OBRA 93, all of the revenue raised from taxing Social Security benefits was credited to the Old-Age, Survivors, and Disability Insurance Trust Funds.

OBRA 93 established the second income thresholds of $34,000 of modified AGI for beneficiaries filing income tax singly and $44,000 of modified AGI for married beneficiaries filing jointly. Although benefit income for tax filers with modified AGI below those thresholds remains taxable according to the terms of the 1983 amendments, up to 85 percent of Social Security benefits are taxable for beneficiaries with modified AGI exceeding the new thresholds.[5] The additional revenue generated by increasing the maximum taxable proportion of benefits above the second threshold from 50 percent to 85 percent is credited to the Medicare Hospital Insurance Trust Fund.

The income tax treatment of Social Security benefits shown in Table 1 summarizes information available in a current Internal Revenue Service (IRS) taxpayer guide. The income thresholds and taxable proportions set forth in the 1983 amendments and modified under OBRA 93 remain in effect today. Because the taxable-income thresholds are not indexed to changes in prices or wages in the national economy, the taxable proportion of aggregate benefit income has risen over time.

A worker's payroll tax contributions to Social Security in a given year are included in his or her

Table 1.
Taxable portions of income for Social Security beneficiaries, by income tax filing status and modified AGI

Line	Modified AGI (nominal $)	Taxable portion of income
		Single
1	Less than 25,000	None
2	25,000–34,000	Lesser of— • 50 percent of benefit income; or • modified AGI in excess of $25,000
3	More than 34,000	Lesser of— • 85 percent of benefit income; or • amount from line 2 *plus* 85 percent of modified AGI in excess of $34,000
		Married, filing jointly
4	Less than 32,000	None
5	32,000–44,000	Lesser of— • 50 percent of benefit income; or • modified AGI in excess of $32,000
6	More than 44,000	Lesser of— • 85 percent of benefit income; or • amount from line 5 *plus* 85 percent of modified AGI in excess of $44,000

SOURCE: IRS (2015b).

NOTE: Modified AGI is AGI plus nontaxable interest income plus income from foreign sources plus one-half of Social Security benefits.

taxable income for that year. In other words, workers pay income tax on the payroll tax. The 1983 amendments adopted the principle that beneficiaries should not pay income tax on the portion of benefit income that equals their previously taxed contributions. The principle of excluding from taxation an employee's previously taxed contributions also applies to pensions and annuities.[6]

The 1983 amendments limited the taxable proportion of benefits to 50 percent because employees pay half of the payroll tax, and their payroll tax contributions were already included in taxable income for earlier years.[7] However, although the worker pays half of the payroll tax, a typical worker's lifetime payroll tax contributions amount to much less than half of his or her lifetime Social Security benefits. In 1993, SSA's Office of the Chief Actuary estimated that the payroll tax contributions of current and future workers would equal less than 15 percent of the present value of their lifetime benefits (Goss 1993). Therefore, if the ratio of lifetime contributions to benefits is less than 15 percent, then up to 85 percent of benefit income can be taxed without risk of double taxation. On that basis, OBRA 93 increased the maximum taxable portion of Social Security benefits from 50 percent to 85 percent for beneficiaries whose modified AGI exceeds the second (higher) threshold specified in that law. OBRA 93 did not change the taxable portion of benefits between the first and second income thresholds, which continues to be 50 percent. For beneficiaries with income below the first threshold, all benefits continue to be tax-exempt.

In its January 1983 report, the National Commission on Social Security Reform estimated that about 10 percent of Social Security beneficiaries would pay income tax on their benefits if half of benefits were taxable for "persons with Adjusted Gross Income (*before including therein any [Social Security] benefits*) of $20,000 if single and $25,000 if married" (emphasis added). The 1983 Amendments to the Social Security Act set the income thresholds for taxation of benefits at $25,000 for single persons and $32,000 for married couples (with income *including* one-half of Social Security benefits). Thus, the income thresholds Congress established for taxation of benefits were higher than those recommended by the Commission, but the effect of the higher thresholds was partly offset by requiring taxpayers to include half of their Social Security benefits in the income computations.

When the 1983 amendments went into effect, about 8 percent of beneficiary families were required to pay income tax on part of their Social Security benefits (House Ways and Means Committee 2004). That percentage has increased over time because the 1983 amendments set the thresholds for taxation of benefits in nominal dollars, rather than indexing them to price or wage changes in the national economy.[8] By 1993, an estimated 20 percent of beneficiary families paid income tax on part of their benefits (Pattison and Harrington 1993). Subsequent estimates by the Congressional Budget Office (CBO) put the percentage of beneficiaries paying income tax on their benefits at 25 percent in 1997, 32 percent in 2000, and 39 percent in 2003. More recently, CBO estimated that 49 percent of Social Security beneficiaries paid income tax on their benefits in 2014 and that their average tax payment equaled 6.7 percent of benefit income, although "less than 30 percent of all Social Security benefits paid out in 2014 were subject to income tax" (Shakin and Seibert 2015). The authors also projected that more than 9 percent of benefits will be owed as income tax by 2039.

Although the percentage of families that pays income tax on Social Security benefits has risen, not all beneficiary families are required to file an income tax return, and not all beneficiaries who file a return owe income tax on their benefits. Individuals and married couples must file a tax return only if their taxable income exceeds the sum of the standard deduction and personal exemption amounts in effect for that year.[9] For example, in 2016, a single person younger than age 65 will have to file a federal income tax return only if his or her 2015 income from nontax-exempt sources exceeds $10,300. For married couples in which both spouses are younger than age 65, the income threshold for filing a tax return for 2015 will be $20,600. Single persons aged 65 or older will have to file a tax return in 2016 only of they have 2015 income of more than $11,850. Married couples in which both spouses are 65 or older will have to file a tax return only if their 2015 income exceeds $23,100.

Data and Methods

The MINT microsimulation model was used to estimate the proportion of Social Security beneficiary families that will owe federal income tax on their benefits and the percentage of benefit income they will owe as income tax over the period 2010–2050. Microsimulation models use information about a sample of "micro units" such as individuals, families, or households to estimate how changes in their characteristics or behavior will affect the entire population or a selected subgroup such as workers or retirees. These models are widely used by federal agencies to analyze the distributional effects of public policy proposals. In addition to SSA, agencies such as the Department of Agriculture, the Department of Health and Human Services, CBO, the Congressional Research Service, and the Government Accountability Office have used microsimulation models in recent years to estimate the effects of policy proposals on beneficiaries of federal programs. Smith and Favreault (2013) observe that microlevel data, when "combined with detailed representations of program rules, can inform policy by revealing interactions and trends that more aggregate analyses may fail to capture."

MINT links demographic data from the Census Bureau's Survey of Income and Program Participation (SIPP) to Social Security earnings records to simulate the effects of alternative policy and economic scenarios on individual and family income. The MINT income tax calculator statistically matches the records for individual SIPP respondents with similar records in the IRS Statistics of Income data file. The projections in this paper use MINT version 7 (MINT7). MINT7 simulates federal income tax liability based on income tax parameters in effect through 2013, including the provisions of the American Taxpayer Relief Act of 2012 (Public Law 112-240).

MINT7 simulations begin with a representative sample of the noninstitutionalized U.S. adult resident population born after 1925, based on records from the 2004 and 2008 SIPP panels that have been matched to Social Security earnings records through 2010.[10] Adjusted by sample weights, the beneficiary population modeled by MINT7 represents 54.3 million persons in 2015. That number is equal to 92 percent of the monthly average of 59.0 million persons who received benefits from January through June 2015. Beneficiaries omitted from the MINT7 sample include those born before 1926, children, disabled individuals aged 30 or younger, and nursing home residents.[11]

The Internal Revenue Code requires the income brackets to which each marginal tax rate applies to be indexed to annual price inflation, as measured by the Consumer Price Index. If tax brackets continue to be indexed to prices, taxes as a share of national income will rise substantially. Consequently, long-term estimates of income taxes must assume either that the income tax will one day consume a larger percentage of national income than it does today or that Congress will act to prevent such an increase by adjusting the brackets upward.

MINT7 simulations assume that Congress will act to keep the proportion of national income paid as income tax from rising substantially above its long-term historical average. Specifically, MINT models the current tax policy of price indexing through 2023 and assumes a switch to wage indexing using the national average wage index (AWI) thereafter.[12] This is a critical assumption because over time, wages—which are the largest single source of income—tend to rise faster than prices as labor productivity increases. For example, the Social Security Board of Trustees states that over the period from 1967 through 2007, wages grew faster than prices by an average of 0.9 percentage points per year. The Board also assumes that the average rate of growth of wages will exceed the average rate of price inflation by about 1.1 percentage points over the next 75 years (Board of Trustees 2014).

MINT simulates tax-filing units, which in most cases are either unmarried individuals or married couples filing joint tax returns.[13] For simplicity, all tax-filing units that include at least one Social Security beneficiary are called "beneficiary families," regardless of whether the unit is a single person or a married couple in which one or both spouses receive Social Security benefits.

MINT Simulation Results

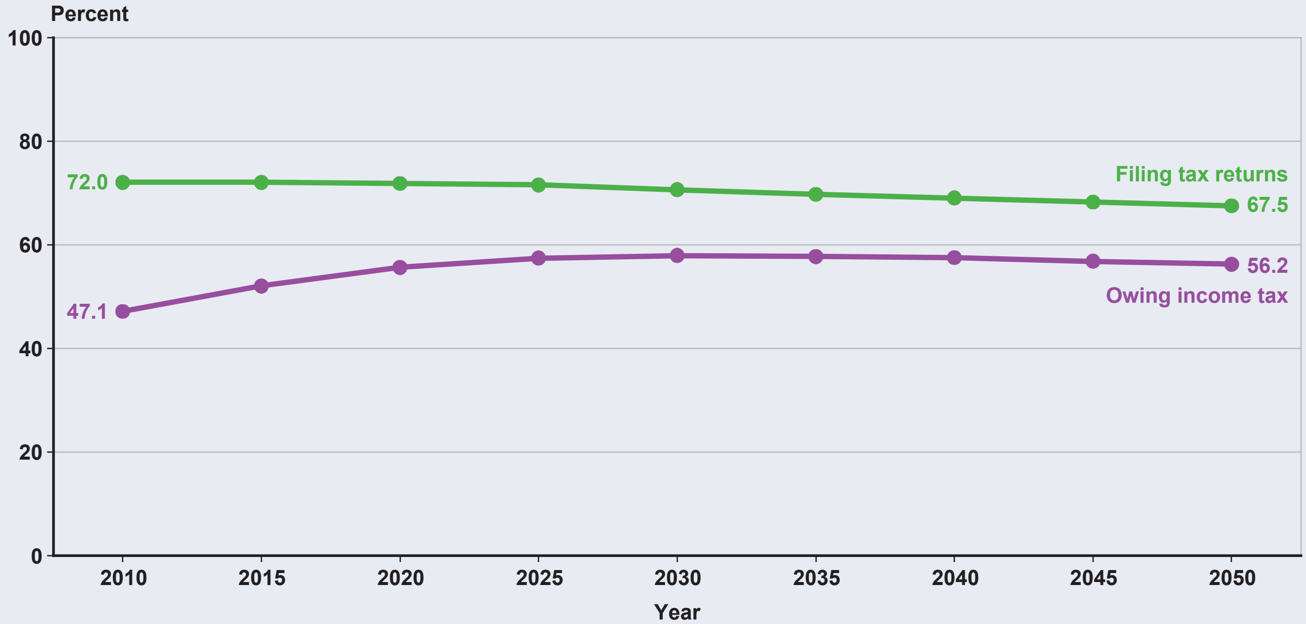
This section discusses the projected prevalence and relative amount of income tax liability on Social Security benefit income, based on the MINT7 simulations. The charts and tables illustrate broad trends by showing the projections in 5-year intervals (quinquennially).

Beneficiary Families Filing a Tax Return and Owing Income Tax on Benefits

Chart 1 shows the projected percentage of Social Security beneficiary families that will file a tax return and the percentage that will owe income tax on their benefits over the period 2010–2050. MINT projects that about 72 percent of beneficiary families will file an income tax return through 2030, after which the proportion will fall slowly to about 68 percent by 2050. The decline after 2030 reflects assumptions of both a change from price indexing to wage indexing for tax brackets after 2023 and a reduction in the rate of growth in retirement income from pensions and other non–Social Security sources.

As noted earlier, some beneficiaries who file income tax returns do not pay taxes on their benefits because their modified AGI does not exceed the taxable

Chart 1.
Percentages of Social Security beneficiaries filing income tax returns and owing income tax on their benefits, 2010 and projected quinquennially 2015–2050



SOURCE: Author's calculations using MINT7.

threshold. MINT projects that the proportion of beneficiary families that will owe income tax on their benefits will increase from about 47 percent in 2010 to 52 percent in 2015 and to 58 percent in 2030, then will fall slightly to about 56 percent by 2050. Here too, the projected decline after 2030 reflects the assumption of both the change from price indexing to wage indexing for tax brackets and a slowing rate of growth in retirement income from nonbenefit sources.

Share of Benefits Paid as Income Tax

Chart 2 shows the projected mean percentage of Social Security benefits paid as income tax by three beneficiary-family groups: all such families; families that file a tax return; and families that owe any income tax on their benefits. Among all beneficiary families, MINT projects that the mean percentage of benefit income owed as income tax will increase from 6.4 percent in 2010 to 7.2 percent in 2015, to 9.7 percent in 2030, and to 10.9 percent by 2050. Because the income thresholds for taxation of benefits are fixed in nominal dollars, long-term growth in total income will result in a rising share of benefits being paid as income tax, even if tax code parameters currently indexed to price inflation are instead indexed to wage growth in the future.

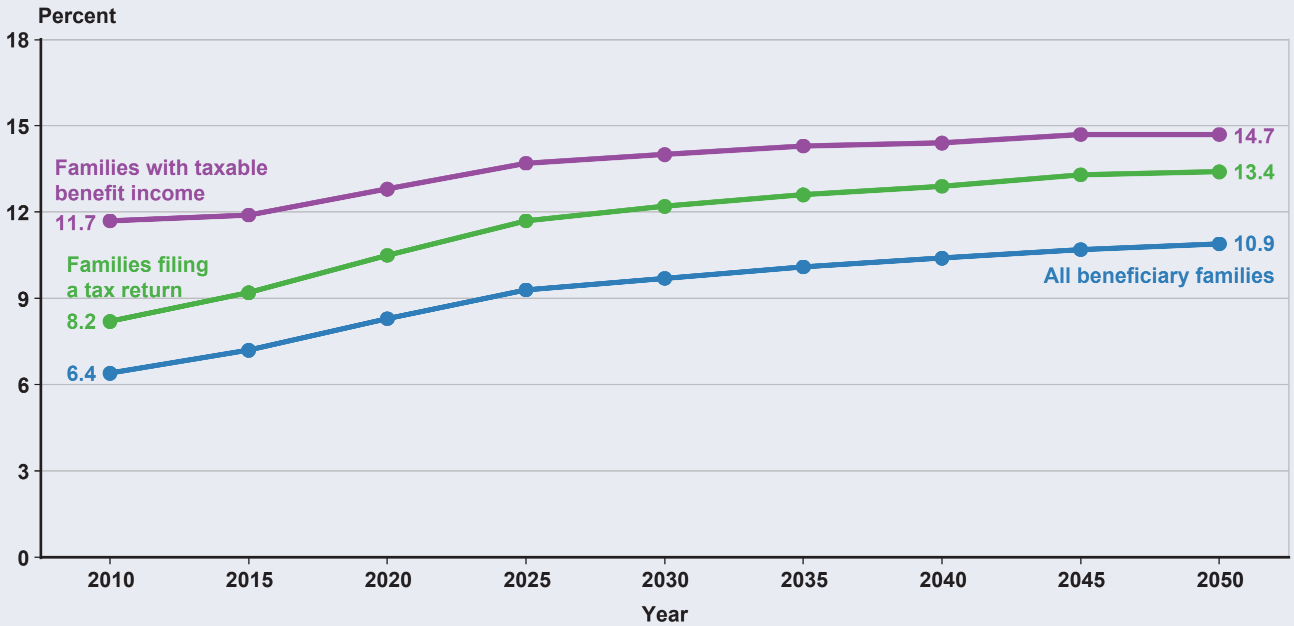
For beneficiary families that must file a tax return (regardless of whether they owe income taxes on their benefits), MINT projects the mean percentage of benefits owed as income tax to increase from 8.2 percent in 2010 to 9.2 percent in 2015 and to 12.2 percent in 2030. By 2040, beneficiary families that file tax returns will owe an average of 12.9 percent of their benefits as income tax.

For beneficiary families that must pay income tax on their benefits, MINT projects that the mean percentage of benefit income owed as income tax will increase from 11.7 percent in 2010 to 11.9 percent in 2015 and to 12.2 percent in 2030. By 2050, MINT projects that families that owe any tax on their benefits will owe 14.7 percent of their benefits as income tax on average.

Median Percentage of Benefits Owed as Income Tax

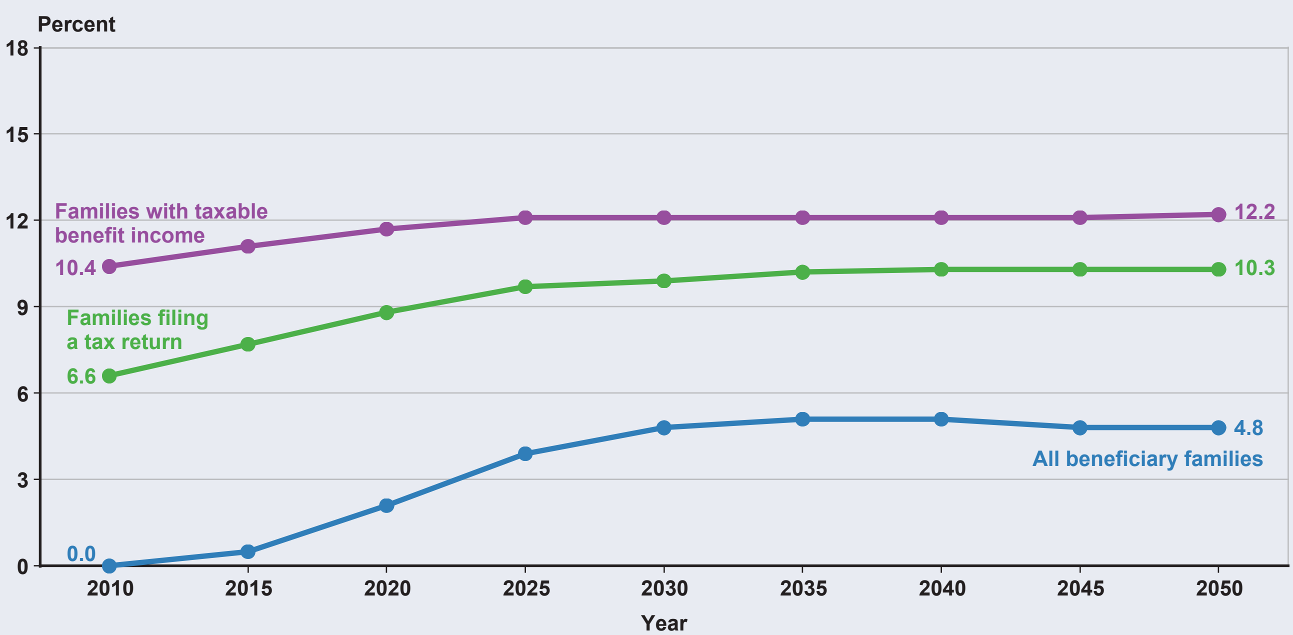
Taxes due for the typical beneficiary family are perhaps best represented by the median percentage of benefits owed as income tax. The median lies at the midpoint of the distribution, with equal numbers of families having higher and lower percentages due. Chart 3 shows the projected median percentage of benefits owed as income tax among beneficiary families in the same three groups represented in Chart 2.

Chart 2.
Mean percentage of Social Security benefit income owed as income tax: Three beneficiary-family categories, 2010 and projected quinquennially 2015–2050



SOURCE: Author's calculations using MINT7.

Chart 3.
Median percentage of Social Security benefit income owed as income tax: Three beneficiary-family categories, 2010 and projected quinquennially 2015–2050



SOURCE: Author's calculations using MINT7.

Among all beneficiary families, the median percentage of Social Security benefits owed as income tax was zero in 2010 and is projected to be just 0.5 percent in 2015. The median income tax liability on Social Security benefits among all beneficiary families will rise to 4.8 percent in 2030 and will then remain relatively stable over the following 20 years.

Among families that file a tax return, the median percentage of benefits paid as income tax was 6.6 percent in 2010 and will be 7.7 percent in 2015. MINT projects that percentage to rise to 9.9 percent in 2030 and to 10.3 percent by 2050.

Among beneficiary families that owe any income tax on their benefits, the median percentage of benefits owed as income tax was 10.4 percent in 2010 and will rise to 11.1 percent in 2015. MINT projects that share to reach 12.1 percent in 2025 and then to remain stable over the following 25 years. The percentage of benefits owed as income tax will stabilize because most families that owe income tax on their benefits will be in the 15 percent marginal income tax bracket, and most of them will be paying taxes on the maximum 85 percent of benefits.

Benefit Income Owed as Income Tax Above and Below the Median

Some beneficiary families owe considerably more or less than the median percentage of their benefits in taxes. As Chart 1 shows, 56–58 percent of beneficiary families will owe some income tax on their benefits over the next several decades. Conversely, 42–44 percent of beneficiary families will owe no income tax on their Social Security benefits in any given year, again assuming that tax brackets will be indexed to wages rather than prices after 2023.

Under current law, the highest percentage of Social Security benefits that any family pays as income tax is 33.7 percent. That figure represents the product of the maximum proportion of benefit income that is taxable (85 percent) and the highest marginal income tax rate (39.6 percent). In 2015, the 39.6 percent marginal tax rate applies to taxable income above $411,200 for single persons and to taxable income above $464,850 for married couples filing joint returns. MINT projects that less than 1 percent of beneficiaries will owe 33.7 percent of their benefits as income tax in 2015 or in any year through 2050 (not shown). In 2015, an estimated 80 percent of beneficiaries filing singly and 79 percent of married couples filing jointly are in either the 15 percent or 25 percent marginal tax brackets (Table 2).

Table 2.
Estimated percentage distribution of beneficiary families that owe income tax, by marginal income tax rate and filing status, 2015

Marginal tax rate (%)	Filing status	
	Single	Married, filing jointly
Total	100.0	100.0
10.0	5.7	4.9
15.0	36.0	42.9
25.0	43.9	35.9
28.0	11.0	8.0
33.0	3.1	6.1
35.0	a	0.7
39.6	a	1.5

SOURCE: Author's calculations using MINT7.

NOTE: Data are for the 52 percent of beneficiary families estimated to owe tax on their benefits.

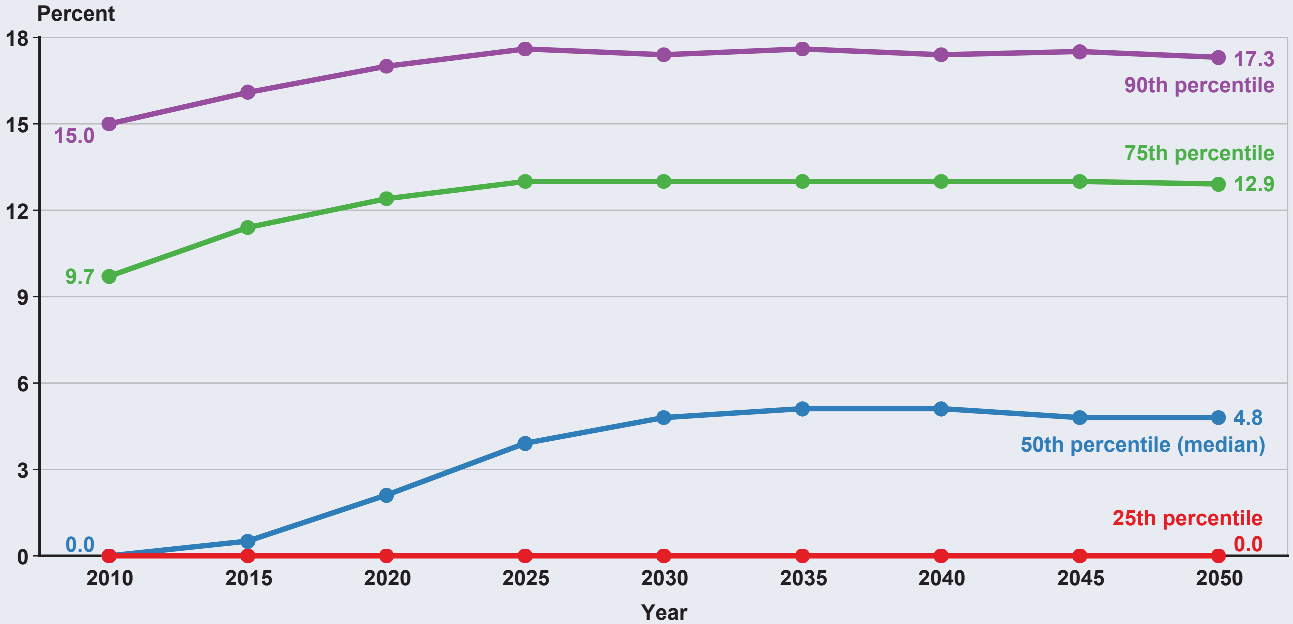
a. Less than 0.5 percent.

In addition to the median percentage of benefit income owed as income tax by beneficiary families, Chart 4 shows the 90th-, 75th-, and 25th-percentile values. The chart covers all beneficiary families, including those that owe no income tax on their Social Security benefits. Beneficiary families at the 90th percentile of income tax liability on Social Security benefits paid 15.0 percent of their benefits as income tax in 2010; those families will owe 16.1 percent of their benefits as income tax in 2015 and about 17 percent in later years. Beneficiary families at the 75th percentile of income tax liability paid 9.7 percent of their benefits as income tax in 2010. MINT projects that those families will owe 11.4 percent of their benefits as income tax in 2015 and about 13 percent over the period 2025–2050. The median percentage of benefit income due as income tax among all beneficiary families is represented by the blue line, which duplicates the blue line in Chart 3, described earlier. Families at the 25th and lower percentiles of tax liability paid no income tax on their Social Security benefits in 2010, and MINT projects that they will not be required to pay income tax on their Social Security benefits at any time in the period 2015–2050.

Benefit Income Owed as Income Tax by Total-Income Quartile

Because of the progressivity of income tax rates, higher-income families owe higher percentages of their Social Security benefits as income tax than do lower-income families. For example, a beneficiary family with income in the highest quartile pays a

Chart 4.
Percentage of Social Security benefit income that is owed as income tax among beneficiary families: Selected percentiles, 2010 and projected quinquennially 2015–2050



SOURCE: Author's calculations using MINT7.

larger percentage of its benefits as income tax than does a family in the lowest quartile. For each successive quartile, from lowest to highest, the projected percentages should increase.

To provide a consistent basis for comparing income over time, MINT projects the amounts that will define the income-quartile boundaries among beneficiary families from 2010 to 2050, and expresses them relative to the national AWI (Table 3). For example, among beneficiary families in 2010, a family with total income equal to at least 2.273 times the national AWI was in the fourth (highest) income quartile. A beneficiary family was in the third income quartile in 2010 if it had income between 1.223 and 2.273 times the AWI. A beneficiary family with income between 0.624 and 1.223 times the AWI was in the second income quartile, and a beneficiary family with income of less than 0.624 times the AWI was in the first (lowest) income quartile.

Chart 5 shows MINT projections of the mean percentage of benefits paid as income tax by beneficiary families in each total-income quartile. Total income consists of pretax cash income from all sources, including the estimated amount a family would receive if it used its financial assets to purchase an annuity. Beneficiary families in the fourth income quartile paid 13.9 percent of their benefits as income tax, on average, in 2010. MINT projects that families in the fourth income quartile will owe 14.0 percent of their benefits as income tax in 2015 and 14.8 percent in 2020. From 2030 through 2050, MINT projects that families in the fourth income quartile will owe about 16 percent of their benefits as income tax.

On average, beneficiary families in the third income quartile paid 5.0 percent of their benefits as income tax in 2010. MINT projects that those beneficiary families will owe 6.9 percent of benefits as income tax in 2015 and 8.6 percent in 2020. Over the period 2025–2050, MINT projects that beneficiary families in the third income quartile will owe an average of about 10 percent of their Social Security benefits in income taxes.

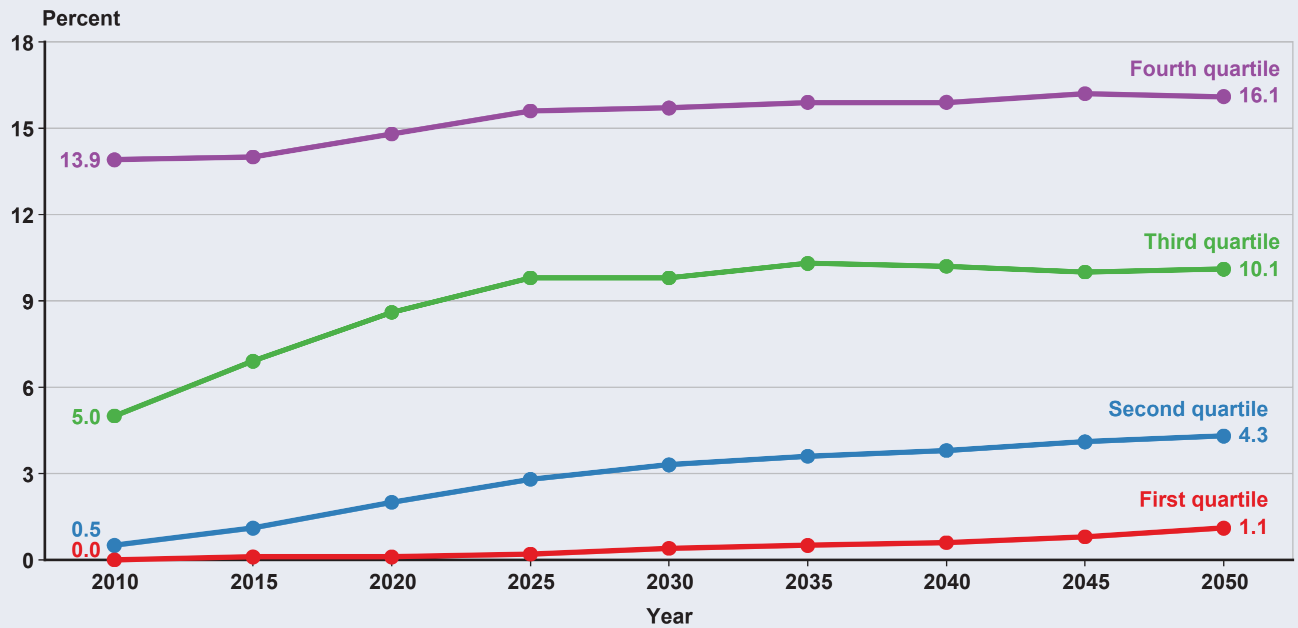
Beneficiary families in the lower half of the income distribution pay a substantially lower proportion of their benefits as income tax than do those with income above the median. Families in the second income quartile paid less than 0.5 percent of their benefits as income tax in 2010 and they will owe 1.1 percent of their benefits as income tax in 2015. That proportion will rise to 3.3 percent in 2030 and by 2050, MINT projects that families in the second income quartile will owe 4.3 percent of their Social Security benefits in income tax. Families in the lowest quartile paid no

Table 3.
Quartile boundaries for total income of beneficiary families, 2010 and projected quinquennially 2015–2070

Year	National AWI (nominal $)	Total family income relative to national AWI		
		75th percentile	Median	25th percentile
2010	41,674	2.273	1.223	0.624
2015	50,893	2.246	1.201	0.590
2020	63,676	2.235	1.165	0.567
2025	76,831	2.229	1.162	0.572
2030	93,193	2.179	1.120	0.549
2035	113,228	2.133	1.089	0.537
2040	137,642	2.080	1.043	0.524
2045	167,076	2.005	1.000	0.506
2050	202,452	1.942	0.959	0.490

SOURCE: Author's calculations using MINT7.

Chart 5.
Mean percentage of Social Security benefit income owed as income tax among beneficiary families, by total-income quartile: 2010 and projected quinquennially 2015–2050



SOURCE: Author's calculations using MINT7.

income tax on their benefits in 2010. MINT projects that those families will owe just 1.1 percent of benefits as income tax by 2050.

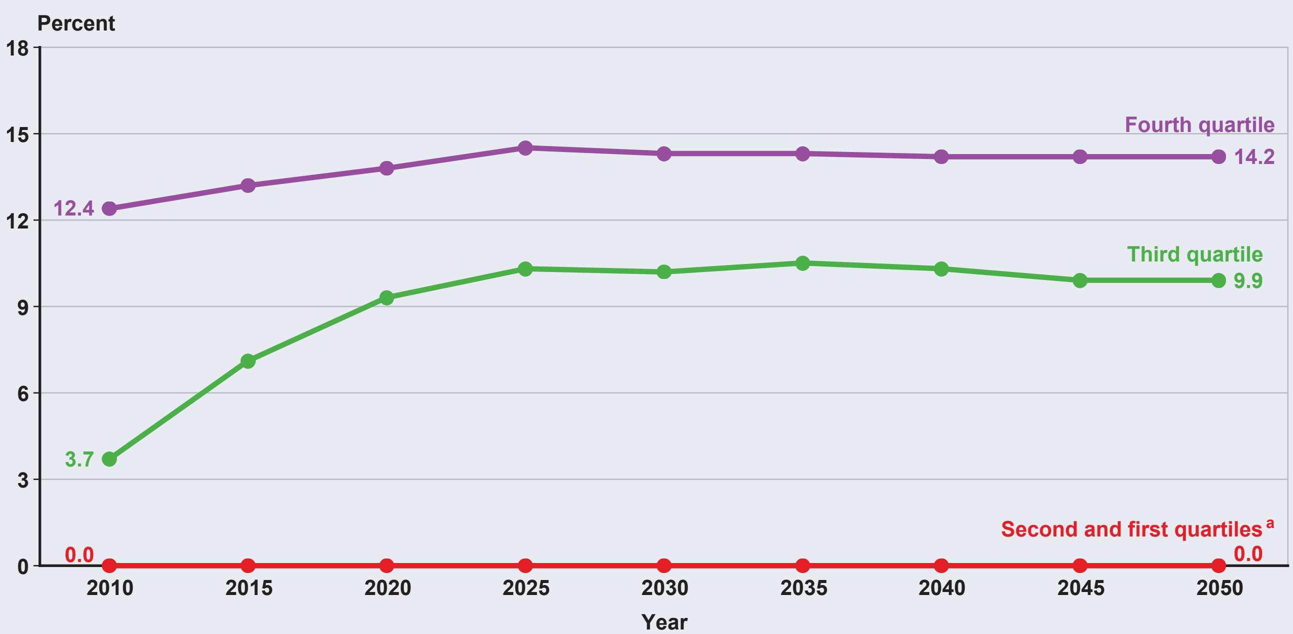
In contrast with Chart 5's mean percentages, Chart 6 shows the median percentages of benefits paid as income tax by beneficiary families within each income quartile. A family in the fourth income quartile paid a median of 12.4 percent of its benefits as income tax in 2010 and is projected to owe 13.2 percent in 2015 and about 14 percent thereafter. A family in the third income quartile paid a median of 3.7 percent of its benefits as income tax in 2010 and is projected to owe 7.1 percent in 2015 and between 9 percent and 11 percent from 2025 through 2050. MINT projects that the median tax liability for families in the second and first income quartiles will be zero throughout the period 2010–2050.

Conclusion

Social Security benefits were first subject to income tax in 1984 and since then, the proportion of beneficiary families whose benefits are taxed has increased from less than one in ten to more than half. SSA's MINT microsimulation model, containing data on about 92 percent of Social Security beneficiaries, projects that 52 percent of beneficiary families will pay income tax on their Social Security benefits in 2015. The median tax payment among all beneficiary families will equal less than 1 percent of benefit income in 2015; but among only those families whose benefits are taxable, the median income tax payment will equal 11.1 percent of Social Security benefits. By 2030, MINT projects that 58 percent of beneficiary families will owe income tax on their Social Security benefits and that the median income tax payment will equal about 5 percent of their benefit income. Among families that owe income tax on their benefits, the model projects a median payment equal to 12 percent of benefit income in 2030. These estimates are based on the assumption that Congress will amend provisions of the Internal Revenue Code that currently require tax-bracket adjustments based on price indexing; such amendments would assure that the proportion of income paid as income tax would remain close to its current level. Otherwise, the percentage of Social Security benefits that will be owed as income tax will exceed the level that MINT has projected.

Because the progressivity of the federal income tax assures that higher-income beneficiaries pay the most taxes, the taxation of benefits reduces the net Social Security income received by higher-income

Chart 6.
Median percentage of Social Security benefit income owed as income tax among beneficiary families, by total-income quartile: 2010 and projected quinquennially 2015–2050



SOURCE: Author's calculations using MINT7.

a. Because the projected median percentages for beneficiary families in the second income quartile are zero in every year, the projected median percentages for beneficiary families in the first income quartile are necessarily also zero in all years.

beneficiaries. In that respect, taxing Social Security benefits has the same effect that a means test would have, without the administrative cost that direct means testing would entail (Goodman and Liebman 2008).[14] Means tests are effective for targeting benefits to persons who are most in need, but they can be expensive to administer. In 2014, for example, federal expenditures for the Supplemental Nutrition Assistance Program (SNAP) were $76 billion. Of that amount, 4.9 percent ($3.7 billion) went to administrative expenses, including means testing. Based on total Social Security expenditures of $851 billion in fiscal year 2014, each percentage point in hypothetical expenditures needed to institute means testing would raise annual Social Security program spending by more than $8.5 billion.

Because Congress established income thresholds below which Social Security benefits are tax-exempt, benefit income continues to be taxed less heavily than income from annuities and pensions. Individuals with modified AGI of less than $25,000 and married couples with modified AGI of less than $32,000 pay no income tax on their Social Security benefit income. Because those income thresholds are not indexed to prices or wages, the proportion of beneficiaries who pay taxes on their benefits has increased over time. Eventually, the taxation of Social Security benefits will be roughly equivalent to the current-law taxation of pensions and annuities—which, according to the legislative history of the 1983 amendments, was Congress' intent when it set the threshold for taxation of benefits in nominal dollars.

Notes

[1] From 1950 through 2012, the ratio of income taxes to personal income averaged 9.5 percent per year. The annual ratio was never lower than 7.2 percent or greater than 11.6 percent (IRS 2014).

[2] For most taxpayers, modified AGI equals AGI plus tax-exempt interest income, income from foreign sources, and one-half of Social Security benefits.

[3] Special rules apply to heads of households (single parents) and married couples filing separately. Complete rules for counting Social Security and Tier 1 Railroad Retirement benefits as taxable income are included in IRS (2015a).

[4] Pattison and Harrington (1993) describe the origins of both the income thresholds at which Social Security benefits become taxable and the percentage of benefits subject to income tax.

[5] Pattison (1994) describes the 1993 provisions that increased the taxation of Social Security benefits.

[6] According to IRS instructions, "if you paid part of the cost of your pension or annuity, you are not taxed on the part of the pension or annuity you receive that represents a return of your cost. The rest of the amount you receive is generally taxable" (IRS 2015b, 77).

[7] As of 2015, a worker pays a Social Security payroll tax of 6.2 percent on earnings up to $118,500. The worker's employer pays an equal amount, which is a tax-deductible business expense. Self-employed workers are liable for the full 12.4 percent payroll tax, but they are eligible for two tax deductions: They may reduce their net earnings from self-employment by half the amount of the Social Security payroll tax, and they can deduct half of their Social Security tax from personal income reported on IRS Form 1040. The payroll tax deduction is a factor in determining AGI (SSA 2015a).

[8] The selection of nominal-dollar thresholds was deliberate, so that eventually the tax treatment of Social Security income would be similar to that of pensions and annuities (Senate Finance Committee 1993).

[9] Taxable income consists mainly of wages and salaries, interest, dividends, rent, royalties, capital gains, income from the sale of goods or property, income from a farm or business, annuities, pensions, alimony, unemployment compensation, and distributions from retirement accounts other than qualified Roth distributions.

[10] For the 2004 SIPP panel, 88 percent of survey records were matched to their Social Security earnings records. The match rate for the 2008 panel was more than 90 percent. Characteristics of birth cohorts after 1979 are simulated rather than being based on SIPP records.

[11] MINT simulations for 2020 and later reflect samples that are successively more representative of the full population of aged beneficiaries, as members of birth cohorts from 1925 or earlier are replaced by members of later cohorts over time.

[12] Results would be similar if the assumed date of the switch to wage indexing were a few years earlier or later. For a description of the national AWI, see https://www.socialsecurity.gov/oact/cola/AWI.html.

[13] For 2015, MINT simulates the distribution of beneficiary units to be 21 percent filing singly, 50 percent married couples filing jointly, 1 percent filing as the head of a household, and 28 percent not filing a tax return.

[14] Means tests limit eligibility for government-provided benefits or reduce the amount of the benefit for individuals who have income or assets above thresholds set in law. Temporary Assistance for Needy Families (TANF), the Supplemental Nutrition Assistance Program (SNAP), Supplemental Security Income (SSI), and Medical Assistance (Medicaid) are means-tested programs. Social Security and Medicare, as social insurance programs funded largely by payroll taxes levied on workers and their employers, are not means tested, although Medicare Part B (supplemental medical insurance) and Part D (prescription drug coverage) both charge income-related premiums to participants.

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