

## Treasury's Baseline Estimates of Health Coverage

The Office of Tax Analysis in the Department of the Treasury maintains a microsimulation model of individual income and payroll taxes based on income tax and information returns and other data. The Individual Tax Model (ITM) represents income and tax liabilities of all citizens and residents of the United States, including those who do not file or are not claimed as dependents on an income tax return, and of any non-citizens abroad who file U.S. income tax returns. The current model is based on a sample of tax year 2014 return information extrapolated to produce estimates for each year through 2027, based on the Administration's annual or mid-session Budget assumptions and other projections described below. The model provides estimates of health insurance coverage statuses and expenditures that have tax implications.

### Key Individual Income and Payroll Tax Implications of Health Coverage

Most Americans obtain health insurance coverage through their workplaces (or the workplace of a family member). This is in large part because employer-sponsored health insurance (ESI) coverage is heavily subsidized through the tax system.<sup>1</sup> Employer contributions for insured or self-insured coverage are excluded from wages, for both individual income tax and payroll tax purposes. Most employee contributions for premiums or self-insured coverage are also exempt from income and payroll tax, as are contributions to Flexible Spending Arrangements (FSAs).

After 2019, an excise tax is imposed on the cost of ESI, including FSA contributions, in excess of a threshold amount.<sup>2</sup>

Self-employed persons may deduct health insurance premiums paid by the taxpayer from adjusted gross income (AGI), but do not benefit from the payroll tax exclusion. In addition, any premiums and other medical expenses not already excluded from income may be claimed as an itemized deduction, to the extent that these expenses exceed 10 percent of AGI.

Taxpayers who purchase high-deductible health plans may be eligible to contribute to a Health Savings Account (HSA). Contributions made through payroll deduction are excluded from wages for purposes of income and payroll taxes. Contributions made directly by an individual are deductible in computing AGI for income tax purposes. Returns on investments in these accounts are tax deferred, and withdrawals from HSAs are not subject to tax if they are used for qualifying health expenses.

Reimbursements made to an individual from accident or health insurance for injuries or sickness are excluded from gross income.

Taxpayers who purchase coverage from a health insurance Marketplace established under the Affordable Care Act and who are not eligible for public (government-sponsored) coverage or

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<sup>1</sup> Throughout this paper the terms "employer-sponsored coverage" and "ESI" include both insured and self-insured coverage provided by employers. Similarly, the term "premiums" includes the cost of coverage for self-insured employer plans.

<sup>2</sup> See "General Explanations of the Administration's Fiscal Year 2017 Revenue Proposals," pp. 150-151 for additional details.



affordable ESI may be eligible for the Premium Tax Credit (PTC). This fully refundable tax credit is equal to the excess of the cost of a benchmark plan over the family's expected contribution, up to the amount of actual premiums paid for the chosen plan. The benchmark plan is the second-lowest cost 70-percent actuarial value plan available to the family (also known as the second lowest cost silver plan, or SLCSP). Thus, the cost of a benchmark plan varies by location and the number and ages of the people in the coverage unit. The expected contribution ranges from 2 percent of household income for families with incomes up to 133 percent of the federal poverty line (FPL) to 9.5 percent of household income for families with incomes between 300 and 400 percent of the FPL. The contribution percentage is indexed for the excess of per enrollee premium growth over per capita personal income growth after 2014. Household income includes AGI plus tax-exempt interest, any foreign earned income or housing exclusion and non-taxable Social Security benefits of the taxpayer, plus that of dependents who are required to file a tax return.

Taxpayers may elect to have the PTC paid in advance directly to insurers. The amount of advance PTC (APTC) is generally based on the enrollee's expected income and family size at the time of enrollment. Taxpayers who receive APTC must file Form 8962 to reconcile the APTC received with the amount of PTC allowed based on actual income and family circumstances for the tax year. Taxpayers who received APTC in excess of the amount of PTC allowed must repay the excess, up to certain limits. The maximum amount that must be repaid ranges from \$600 for families with incomes below 200 percent of FPL to \$2,500 for families with incomes between 300 and 400 percent (half these amounts for taxpayers using the single filing status, and indexed for inflation after 2014), and is unlimited for higher income taxpayers. Conversely, taxpayers who received less APTC than the amount of PTC allowed (including those who did not receive APTC) use Form 8962 to claim the additional amount, called net PTC.

Certain lower-income Marketplace enrollees are also eligible for cost sharing reductions (CSRs). CSRs reduce the amount of deductibles and co-payments the enrollee must make, effectively by purchasing a higher actuarial-value plan for the enrollee. CSR payments are made directly to insurers. CSR eligibility is based on the same income concept as used for APTC, and CSR payments are paid from the same Treasury account. However, because they are not reported on the tax return, the Office of Tax Analysis does not currently model CSRs; for Budget purposes they are estimated by the Office of the Actuary, Center for Medicare and Medicaid Services (OACT).

Persons with incomes below 100 percent of FPL are generally not eligible for the PTC. Persons with incomes below 133 percent of FPL (138 percent of FPL after a Medicaid income disregard) are eligible for Medicaid in many states, including all states that expanded eligibility for Medicaid as part of the ACA.

In addition, taxpayers who are eligible for Trade Adjustment Assistance or who are receiving benefits from the Pension Benefit Guaranty Corporation may be eligible for a refundable Health Coverage Tax Credit equal to 72.5 percent of premiums.



Taxpayers are required to obtain health coverage, make an individual shared responsibility payment for failure to obtain coverage, or receive an exemption from the coverage requirement.<sup>3</sup>

## Coverage Assignments

Beginning with tax year 2015, all insurers (including self-insured employers, private insurers, and government entities) are required to report months of coverage to enrollees and the IRS. However, these data were not available to us at the time that we were constructing the current tax model. Therefore in order to produce estimates for the premium tax credit, the tax exclusion for employer-sponsored coverage, and other tax provisions related to health coverage, we impute health coverage status using a combination of tax data and Current Population Survey (CPS) data.<sup>4</sup> Each person in our model is assigned one coverage status per month, in a hierarchical fashion, in the following order: Marketplace, uninsured and making an individual responsibility payment for failure to have health coverage, uninsured and exempt from the coverage requirement, employer-sponsored coverage alone or in combination with self-employed coverage, self-employed coverage only, other non-group private coverage, or public coverage.

Marketplace coverage. Marketplace coverage for 2014 is directly observable, as it is reported by the Marketplaces to the Internal Revenue Service on Form 1095-A and in monthly data during the year. Hence, the first step in the coverage imputation is to match the Marketplace data to the 2014 tax return units in our sample and record the months of coverage for each person. Because of delays in fully implementing Marketplace enrollment in 2014 (the first year of Marketplace coverage), coverage for early 2014 is not representative of coverage in later years. Therefore we counted months of coverage for January through April of 2015 for persons covered in May of 2015, and assigned similar patterns of monthly coverage for January through April of 2014 to persons covered in May of 2014. Marketplace coverage includes coverage for persons purchasing unsubsidized coverage as well as for persons receiving APTC and/or PTC and cost-sharing reductions.

Uninsured. We can also directly observe families who report an individual responsibility payment for failure to obtain health coverage. However, only the total amount of penalty is reported and in many cases we cannot determine who in the family did not have coverage or for how long. If a family reported the maximum amount of annual penalty consistent with their income and family size, we assume that the entire family was uninsured all year (except for any persons and months for which Marketplace coverage is reported or imputed). If the penalty is less than the maximum amount, we calculate a number of months of uninsurance that is consistent with the observed penalty. We then generally assign those months of uninsurance first to the oldest taxpayer on the return, then to the next taxpayer on the return, and then to dependents, until all of the months of uninsurance are accounted for.

We can also observe families who claim an exemption from the coverage requirement. Families with incomes below the filing requirement may check a box on Form 8965 to claim an exemption for the entire household for the full year. We assign all persons in these families an uninsured-exempt status for all months of the year (other than those previously assigned). Then

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<sup>3</sup> See Lurie and McCubbin (2016) for additional information about these provisions.

<sup>4</sup> See Smith and Medalia (2015) for more information about the CPS health coverage data.



we assign an uninsured-exempt status for all person-months for which a specific exemption is claimed on Form 8965.

Employer-sponsored and self-employed insurance coverage. Employers filing more than 250 Forms W-2 are required to report the total cost of the coverage (employee and employer share) on Form W-2, providing some information about employees with health coverage. However, we do not know whether coverage was for all or part of a year, or the number of individuals covered. We assign ESI coverage for all months not already assigned to workers with any coverage indicated on Form W-2. We similarly assign ESI coverage for all months to dependents and spouses under age 65 of workers with ESI coverage.

We next assign self-employed non-group insurance coverage to taxpayers who claim the self-employed health insurance deduction and their family members, for any months and family members not already assigned Marketplace coverage or uninsurance. Some families that claim the self-employed health insurance deduction also include at least one worker who has a Form W-2 indicating ESI coverage. Because we cannot readily determine which family members or months of coverage are claimed for the deduction and which are covered by ESI, we simply assign persons in these units to a dual status of ESI and self-employed coverage.

Small employers are not required to report coverage on Form W-2. Thus, we randomly select additional unassigned workers and their family members to receive ESI coverage, to meet CPS targets of the number of adults with ESI coverage, by age and income classes. Similarly, ESI coverage provided to retirees is generally not reported on Form W-2. Therefore we randomly assign ESI coverage to persons age 59 and over who receive distributions from a retirement account or pension, and their family members not already assigned coverage, to meet CPS targets of the number of persons with retiree ESI coverage, by age and income.

Assigning ESI coverage to all of the children of workers imputed to receive ESI coverage results in an overestimate of the number of children with ESI coverage, relative to CPS targets. Thus, we reassign some children of workers with ESI to public coverage. This is consistent with the fact that children are more likely than adults to be eligible for public coverage.

Other non-group coverage. Person-months not already assigned to one of the above coverage statuses are then randomly assigned to other non-group coverage, to meet the count of persons in the CPS reporting private non-ESI coverage, less the number with Marketplace or self-employed coverage, by age and income classes.

Public coverage. Person-months not already assigned are designated as public coverage. Under our hierarchical methodology, persons who had multiple sources of coverage at the same time or at different points in time during the year (or who have coverage for part of the year and are uninsured for part of the year) are likely to be assigned to a private coverage (or uninsured) status before public coverage imputations are made. This means our imputed number of publicly insured person-months will be lower than other data suggests. On the other hand, because the tax population is larger than the CPS population, our estimate of persons in public coverage, our residual category, will be larger than that reported in the CPS. This is consistent with the likely status of the institutionalized population, which is included in the tax population but not the CPS.



However, because the tax population also includes citizens and permanent residents living outside of the U.S., which are not in the CPS, our residual group conceptually also includes persons with other types of coverage not captured by the CPS.

## Premium Imputations

Marketplace premiums. We generally obtain monthly premiums paid and the SLCSP for families with Marketplace coverage from Form 1095-A. For families with imputed coverage for January through April, we assumed that the premiums paid and the SLCSP were as reported on Form 1095-A for May.

### ESI and self-employed premiums.

As noted earlier, large employers are required to report the total premium for policies provided to employees each year on Form W-2. However, the months of coverage and number of persons covered are not reported. Because some employees begin or leave employment mid-year, the Form W-2 reported premium in many cases does not represent a full-year premium, and the reported premium may be for the worker only or also for other family members. To estimate the monthly premium, we therefore use Form W-2 data in combination with data on employer-sponsored coverage from the Medical Expenditure Panel Survey - Insurance Component (MEPS-IC).<sup>5</sup>

Specifically, we first aggregate all Forms W-2 for each large employer in the population, and then rank employers by the median premium amount reported for their employees. Large establishments in the MEPS-IC are similarly ranked by amount of premium. Then the median W-2 premium for each employer is replaced by the amount of MEPS-IC premium of similar rank, and the employees in our model are assigned this premium. Smaller employers are not required to report premiums on Form W-2. Thus, employees of smaller employers were randomly assigned MEPS-IC premiums from the distribution reported for small establishments.

Single taxpayers without dependents are assigned a non-family premium from the MEPS-IC data; other individuals with ESI coverage are assigned a family premium. Taxpayers with retiree ESI coverage are assigned a retiree coverage premium from the MEPS-IC data and working taxpayers are assigned premiums from MEPS-IC data for active workers. The monthly premium is the MEPS-IC premium divided by 12.

In addition, families with ESI coverage are randomly assigned flexible spending account contributions using data on contributions by income class from the MEPS - Household Component. Families with ESI coverage are similarly assigned premiums for secondary coverage for dental, vision and/or prescription drugs, to meet the aggregate amount of premiums for such plans observed in the MEPS-IC.

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<sup>5</sup>The MEPS-IC is conducted by the United States Census Bureau for the Agency for Healthcare Research and Quality (AHRQ), part of the Department of Health and Human Services. For our imputation, we obtained special tabulations of premiums at each percentile of the premium distribution from AHRQ. We obtained separate tabulations of single and family premiums for active workers, retirees under age 65, and retirees age 65 and over.



## Extrapolation

The steps above result in coverage and premium assignments for 2014. The 2014 data are then extrapolated forward by reweighting returns and adjusting dollar values on each return to hit Administration-wide macro-economic forecasts of key variables such as wages and additional targets that are specific to the ITM. Targeted counts include the number of tax-filing and non-filing units by filing status and number of people by income relative to the poverty level. In addition, projections of the number of subsidized and unsubsidized persons in the Marketplace were obtained from OACT. Similarly, out-year targets for the number of persons with ESI coverage, non-group coverage outside of the Marketplace, and uninsured status were constructed from OACT growth rates for these categories.

We used OACT projected growth rates for total Marketplace premiums and total ESI premiums for major medical coverage to extrapolate premium values throughout the Budget period.

PTC estimates for the Budget period are obtained using the projected number of returns with coverage, premiums, and incomes. APTC is calculated based on each enrollee's expected income and family circumstances for the year as reported at the time of enrollment (generally about one to three months before the beginning of the coverage year). Expected income at the time of enrollment is not reported in the tax data. We infer the expected income from the value of APTC received, premium and months of coverage as reported on Form 1095-A for each observation in the 2014 data. We compute a ratio of expected 2014 income to final 2014 income for each observation, and assume that the ratio of expected to final income is constant for all years. We use this ratio to calculate expected income as a function of actual (extrapolated) income for each year and family. The APTC, PTC and related variables are then calculated based on extrapolated expected and final incomes and premiums.

## References

Lurie, Ithai Z. and McCubbin, Janet, "What Can Tax Data Tell Us About the Uninsured? Evidence from 2014," *National Tax Journal*, December 2016, 883-904.

Smith, Jessica C. and Medalia, Carla, *Health Insurance Coverage in the United States: 2014*, U.S. Census Bureau, September 2015, <https://www.census.gov/content/dam/Census/library/publications/2015/demo/p60-253.pdf>.

