Treasury's Baseline Estimates of Health Coverage
Fiscal Year 2019 Budget Exercise

The Office of Tax Analysis (OTA) 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 an income tax return and are not claimed as dependents on a 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 2028, based on the Administration's annual or midsession 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.[1] 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 2021, an excise tax is imposed on the cost of ESI, including FSA contributions, in excess of a threshold amount.

Self-employed persons may deduct health insurance premiums paid by the taxpayer from adjusted gross income (AGI), but they 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 (7.5 percent of AGI for tax years 2017 and 2018).

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.

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

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

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 five-percent of income exclusion) 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.[2]

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 on Form 1095A, B or C. At the time that OTA was constructing the 2014-based tax model the

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[2] See Lurie and McCubbin (2016) for additional information about these provisions.

Form 1095 data were not available. Therefore we use a statistical match to assign coverage to persons in our 2014 sample based on 2015 Form 1095 coverage data. In this strategy, we match tax year 2015 observations (the "donor sample") to similar persons in our 2014 sample (the "recipient sample"), and assign the observed 2015 coverage to the 2014 matched individuals.[3] The characteristics used to match the donor sample to the recipient sample include: Modified AGI as a share of the federal poverty level, type of return filed (single, married filing jointly, married filing separately or head of household), number of personal and dependent exemptions, employment status of primary filer, employment status of secondary filer, geography, age of primary filer, and whether the return has a deduction for self-employed health insurance.

The donor sample is a 1 in 100 sample of tax return units. We supplemented this with a 1 in 100 sample of non-filers, which are individuals who are not found on any tax return but are found on an information return such as a Form W-2, 1099, or 1095. We matched each individual in each tax unit including the primary filer, secondary filer and all dependents, as well as non-filers, to all Form 1095 information returns that indicated the individual was covered. Using codes on the Form 1095B and the type of Form 1095 (A or C) we assign each person's type of coverage, including: ESI, Exchange, Medicare, other public coverage and non-group private coverage outside the Exchange. In rare cases where an individual had more than one type of coverage for the same month, we assigned a single health insurance status per month, in a hierarchical fashion. We used the following hierarchy: Exchange, employer-sponsored coverage, non-group private coverage outside of the Exchange, Medicare or other public coverage.

As shown in Brown, Lurie and Pearce (2017), the coverage information based on Form 1095 alone suggests lower ESI coverage and higher numbers of uninsured persons than most survey data.[4] Furthermore, there are individuals on Form 1040 tax returns indicating that all individuals were covered for the full year for whom we did not find Form 1095 information. Because the administrative data is so new and possibly incomplete, we were not ready to rely solely on the Form 1095 information, and decided to increase our counts of persons in ESI coverage and reduce the number of uninsured within the donor sample to be consistent with the Medical Expenditure Panel Survey – Household Component (MEPS-HC).[5] We first reassigned some of those individuals whose Form 1040s indicated insurance coverage but who are missing Form 1095 data to ESI. We also reassigned some individuals over 65 who had Medicare based on Form1095 information to ESI because it appears that Form 1095 data are missing for some ESI retiree polices that are secondary to Medicare, resulting in a shortage of ESI coverage among the elderly (relative to survey data). We then randomly assigned additional uninsured persons to ESI coverage to reach coverage rates observed in the MEPS-HC.

In order to calculate the Individual's Shared Responsibility Payment (ISRP), we split the uninsured population into two groups: (1) being uninsured with an exemption and (2) being uninsured and paying the penalty. We use information from Form 8965 (reporting exemptions)

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[3] We could have assigned health insurance to most individuals in our 2014 sample based directly on their own statuses observed for 2015. However, this strategy would not take into account changes in individual's characteristics from year to year. For example, individuals can be unemployed in 2014 and hence be uninsured but employed in 2015 and have ESI.

[4] One of the issues is that tax data has more individuals than survey data which makes the comparison harder.

[5] The MEPS-HC 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.

and information about payment of the ISRP on Form 1040 to make these assignments. However, we found some individuals (and returns) that did not check the box on the 1040 indicating full coverage for the entire tax return, also did not report an exemption on Form 8965 but did not pay the penalty. Those individuals were still assigned to the penalty group but OTA created an indicator that they did not pay the penalty.[6] This allows us to vary their treatment (i.e., to assign a fraction of them to pay the penalty) when we extrapolate the model for years after 2015.

Premium Imputations

Exchange premiums. To impute Exchange premiums, we use the zip code from Form 1040 in the donor data to assign each individual in the recipient sample to a rating area. We then calculate the second-lowest cost silver premium (SLCSP) for the individual (in the case of a single filer or non-filer) or family (in the case of married filers or persons with dependents) based on the imputed rating area and the ages of the individuals in the recipient sample. Exchange enrollees may purchase a more or less expensive plan than the SLCSP, and the PTC is limited to the amount of premiums actually paid. However, in reviewing Forms 1095-A, we found that in most cases the premiums paid for the policy were larger than the PTC, such that the amount of credit was determined by the SLCSP. Hence, for simplicity, we assumed all returns purchased a SLCSP. This assumption will not change the PTC calculation in most cases.

We do not impute premiums for non-group coverage outside of the Exchanges, in our baseline model. However, we do have information on the self-employed insurance deduction. In addition, we do impute non-group premiums if needed to evaluate policy proposals.

ESI 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 on the W-2. Because some employees begin or leave employment mid-year, the Form W-2 reports premiums in many cases that do not represent a full-year premium, and reported premiums may be for the worker and/or for other family members. However, from the Forms 1095 B and C for ESI, we are able to identify each policyholder and to observe the number of people covered by the policy for each month. Combining that information with W-2 premiums for each policyholder in our donor sample enables us to calculate an annualized measure of premiums. To evaluate the resulting premium imputation, we compared our estimated distributions of premiums by number of people covered to the distributions from the Medical Expenditure Panel Survey – Insurance Component (MEPS-IC).[7] Our premiums closely match the MEPS-IC premiums, up to about the 90th percentile (i.e., the highest 10 percent of premiums). Above the 90th percentile, premiums estimated from the tax data are somewhat higher than MEPS-IC premiums.

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[6] In the process we also found the reverse, tax returns that paid the ISRP even though everyone on the return had either coverage or an exemption that covered the full year. We left these cases with their imputed coverage, meaning that they will not have a penalty assigned to them when we extrapolate the model to later years.

[7] The MEPS-IC is conducted by the United States Census Bureau AHRQ. For our modeling, we obtained special tabulations of premiums at each percentile of the premium distribution from AHRQ. In the MEPS-IC the report is for single policies, policies where the employee and one other person are covered (E+1 policies) and family coverage. In the tax data we do not observe whether the policy is an E+1 or a family policy. Hence, we compared tax data for policies covering two people to the MEPS E+1 polices and tax data for policies covering three or more people to the family policy in the MEPS.

A health insurance policy may cover individuals in more than one tax unit, or it may be purchased by a person in one unit to cover an individual in another tax unit. As a result, premiums obtained from Form W-2 may be missing or misallocated. For example, if a single non-custodial father buys coverage for his children who are dependents of their mother, and the father is a taxpayer in our sample, he will have family-level premiums assigned to him, even though we only have a single covered person in the sample. To address this situation, we use the number of covered persons on Form 1095 B or C to correctly flag the premium as a family, rather than single, premium. If instead the mother's return is in the sample, premiums for the children are missing from our imputation because we did not associate the father's W-2 with the children's tax unit. (However, we did correctly assign the children to their coverage status.) To address this situation, we impute ESI premiums to covered persons that were not matched to W-2 premium information, using a statistical match to similar tax units within the donor sample. Specifically, we count up the number of covered persons in the tax unit and impute an annualized premium using information from similarly-sized coverage units within the donor sample.

Extrapolation

The steps above result in coverage and premium assignments for 2014 data but represent 2015 coverage levels and premiums. The ITM extrapolates the 2014 data through the budget window by reweighting returns and adjusting dollar values on each return to hit targets based on Administration provided economic forecasts. Targeted counts include the number of tax-filing and non-filing units by filing status and by income relative to the poverty level.

In addition, targets for the number of subsidized and unsubsidized persons in the Exchange were obtained from the Department of Health and Human Services' Office of the Actuary (OACT). Similarly, targets for the number of persons with ESI coverage, non-group coverage outside of the Exchange, and uninsured status were constructed from OACT growth rates for these categories. To extrapolate premium dollar values, we used OACT projected growth rates for total Exchange premiums and for total ESI premiums for major medical coverage. These coverage and premium growth rates are applied only to years beyond 2015. The 2015 levels are based on the coverage information we observed in the donor sample with the adjustments we made.

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 use each donor return's prior year income (or income from two years prior, if prior year income is not reported) to impute the expected income that the enrollee reported to the Exchange. We compute a ratio of expected income to final 2015 income for each observation, and assume that it remains constant through the budget window. 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 incomes and premiums.

The ISRP is calculated for each year (through 2018) based on the imputed months of coverage, forecasted income, and payment formula effective for each year. The Tax Cuts and Jobs Act (Public Law 115-97) effectively repealed the ISRP, for tax years after 2018. This is expected to decrease coverage and increase premiums, but these changes were not accounted for in the OACT targets at the time we were preparing our baseline. To address this, we use a separate model that predicts the demand for health insurance coverage given imputed health characteristics and the cost of coverage net of tax subsidies and penalties.[8] In this model, premiums are endogenously determined and employer decisions to offer coverage are made based on the preferences of employees within each firm (as determined using Form W-2 data). We simulate coverage and premiums with and without the ISRP using this model, and transfer the resulting percentage changes in coverage and premiums by coverage type and family characteristics to the ITM.

References

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[8] See Gillette et al. (2010) for a description of this model.