The Distributional Implications of Itemized Medical Deductions

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Introduction

Participants in the U.S. health care system incur out-of-pocket medical costs in the form of direct payments to providers, cost-sharing requirements and premiums. The tax code subsidizes certain out-of-pocket medical expenses for those who qualify. In particular, households are able to deduct eligible medical expenses from their income on their tax returns if they itemize deductions. Eligible expenses include those paid that year for medical and dental care for the taxpayer, their spouse, and their dependents that exceed 7.5 percent of adjusted gross income (AGI). These can include payments to doctors and hospitals, premiums for insurance policies, and many services and items that health insurance typically does not cover, such as the costs of home improvements made due to a disabling condition and transportation and lodging for medical purposes.

In the 2021 tax year, U.S. taxpayers claimed approximately $75 billion in itemized medical deductions (IMDs) in aggregate, resulting in $8.35 billion in foregone tax revenue (IRS Statistics of Income Division, 2021; U.S. Department of the Treasury, 2022). A series of changes in the tax code over the past several years have influenced the availability and generosity of this deduction. Most notably, the Tax Cuts and Jobs Act (TCJA) increased the standard deduction and eliminated or restricted many itemized deductions, further impacting

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taxpayer eligibility for the IMD. The $78.5 billion of IMDs that taxpayers deducted in 2018 represent a 23 percent reduction from $102.5 billion deducted in 2017. As shown in Figure 1, while the share claiming the IMD declined by 55 percent (from 6.7 percent to 3 percent), the average IMD claimed increased by 69 percent (from $10,080 to $17,069). In addition, the TCJA changed the income threshold for taxpayers under age 65 from 10 percent of AGI to 7.5 percent.[1] The foregone tax revenue is estimated to more than triple in nominal terms over the next decade if the individual tax provisions of the TCJA expire in December 2025 as scheduled (U.S. Department of the Treasury, 2023), and how tax policy evolves will influence who is eligible to claim IMDs going forward.

In this analysis, we aim to document the distribution of tax savings associated with the IMD across income and age prior to the TCJA, determine how the TCJA changed this distribution, and evaluate the distributive effects of other potential tax policy changes to the IMD. The baseline level of progressivity for the IMD is not obvious because of the income-based threshold: while taxpayers with higher incomes are more likely to itemize and face higher marginal tax rates, their medical spending may be less likely to exceed 7.5 percent of their AGI.

Our analysis will contribute to both the academic literature as well as tax policy discussions as the TCJA expiration date nears. Despite a tax expenditure approximately one third as large as the mortgage interest deduction,[2] the literature analyzing the itemized medical deduction is limited and covers a period of time prior to recent policy changes, which significantly impacted the availability and generosity of the itemized medical deduction as described above.[3] By contrast, it is well-established that the tax expenditure associated with the mortgage interest deduction on owner-occupied homes is skewed to higher-income households because outstanding mortgages, homeownership rates, itemization rates, and marginal tax rates all increase with income (CBO, 2021; CRS, 2020). In addition, recent studies have analyzed how the distribution of tax savings from the mortgage interest deduction changed after the TCJA (Blouri, Büchler and Schöni, 2023; Dawkins, 2023) and how the TCJA impacted different aspects of the housing market (McClelland, Mucciolo and Sayed, 2022; Li and Yu, 2020; Davis, 2019; Hembre and Dantas, 2022).

[1] For taxpayers 65 and older, the threshold remained at 7.5 percent of AGI.

[2] Foregone tax revenue from mortgage interest deductibility was estimated to be $34.4 billion in 2022 (U.S. Department of the Treasury, 2023).

[3] An early literature examined the medical expense deduction prior to its current form, which has been in place since 1986 (Jensen, 1952, 1954; Steuerle and Hoffman, 1979; Wilensky, 1982; Feenberg and Skinner, 1994). Serocki and Murphy (2009) examine the deduction's progressivity using data from 1977, 1991, and 2001, and Lurie and Minicozzi (2010) show distributional features using 1999-2005 data. Kuroki (2022) reports the correlation between HI coverage and the percent change in medical deduction at the state level.

Data and Methods

We plan to use a combination of data sources to document the distribution of tax savings associated with the itemized medical deduction under different policy scenarios. Our outcome variables of interest include the share claiming the itemized medical deduction, the average itemized medical deduction amount, and the tax savings associated with the itemized medical deduction, expressed in both real dollars and as a percent of income.

We will show how these quantities vary across income deciles and by age in the period prior to the TCJA and after the TCJA took effect to understand how the TCJA changed the distribution of tax savings associated with the IMD. We will also compute the IMD tax savings using pre-TCJA deductions under TCJA rules to isolate the impact of tax policy changes from behavioral changes resulting from changes in incentives. Finally, we will contrast these results with those constructed under other policy alternatives, such as a revenue-neutral tax credit or an "above-the-line" deduction that does not require itemization for individuals with high levels of medical spending relative to income. In order to provide a comparison point, we will do a similar analysis of the mortgage interest deduction. This will allow us to compare the targeting and level of tax savings to a deduction where the distribution of tax savings has been documented extensively.

We plan to use two complementary sources of data for our analysis. First, we will use a 1 percent sample of individual tax records including IMD claiming and associated tax savings from the Internal Revenue Service (IRS) population files, where pre-TCJA data come from 2015-2017, and post-TCJA data come from 2018-2020.[4]

Figures 2-4 provide some preliminary results. In Figure 2, we show how the share claiming the itemized medical deduction and the average tax savings among claimers changed across AGI decile from 2016 to 2019. Panel A shows that prior to TCJA, the share claiming the IMD was increasing with AGI decile for deciles 2-8, and lowest for the highest AGI decile. After TCJA, the share claiming the IMD declined across all income deciles. In Panel B, we see that among those who claimed the IMD, the tax savings associated with the IMD is increasing in income. Figure 3 combines these facts and shows that both before and after the TCJA, a large proportion of the tax savings accrues to those in higher AGI deciles. Specifically, 90.7 percent of the IMD tax savings accrues to above median AGI taxpayers and 27.2 percent accrues to the top AGI decile in 2016. In 2019, the distribution is more highly skewed to high AGI taxpayers: 96.9 percent of tax savings accrues to above median

[4]In order to determine the tax savings associated with the itemized medical deduction, we simulate each tax unit's federal and state tax liability with and without the itemized medical deduction and calculate the difference using TAXSIM (Feenberg and Coutts, 1993).

AGI taxpayers and 40.8 percent accrues to the top AGI decile.[5]

Figure 4 shows how IMD claiming and tax savings vary by age. In Panel A, we see that claiming is highly skewed towards older taxpayers both before and after TCJA, and that taxpayers under age 65 saw a smaller decline in claiming rates after the TCJA due to the offsetting lower AGI threshold in effect. Panel B shows that the tax savings associated with the IMD was concentrated among older claiming taxpayersbefore TCJA, but are more evenly distributed across claimers at different ages after the TCJA.

These data allow us to observe IMD claiming and associated tax savings for a large sample of taxpayers with high accuracy, but the censoring of medical spending at amounts above the AGI threshold and the lack of data for non-itemizers make policy counterfactuals more difficult. To address this challenge, we will perform a companion analysis using the 2016-2020 waves of the Health and Retirement Study (HRS).[6] The HRS includes detailed data on out-of-pocket medical spending that allows the construction of a proxy for each household's potential IMDs and associated tax savings under different policy environments.[7] The HRS also provides a rich source of observable characteristics that can be used to look at additional heterogeneity. As a proof of concept, Figure 5 shows the distribution of actual tax savings and potential tax savings (under an assumption of full take-up) associated with the IMD for the 2002-2012 period.[8]

Conclusion

Unlike other itemized deductions, the itemized medical deduction is subject to a minimum threshold that increases with income, which could impact the extent to which the tax savings associated with the deduction accrues to households across the income distribution. Recent changes in tax policy impacted both the share eligible to claim the deduction as well as the average amount claimed, but both the baseline distribution and how these changes affected people differentially by income is not well understood.

Our study aims to fill this gap and help inform policy discussions surrounding the itemized medical deduction as the TCJA provisions are set to expire. However, we acknowledge that the redistributive effects of the itemized medical deduction are only one aspect of

[5]Please note that these results are preliminary.

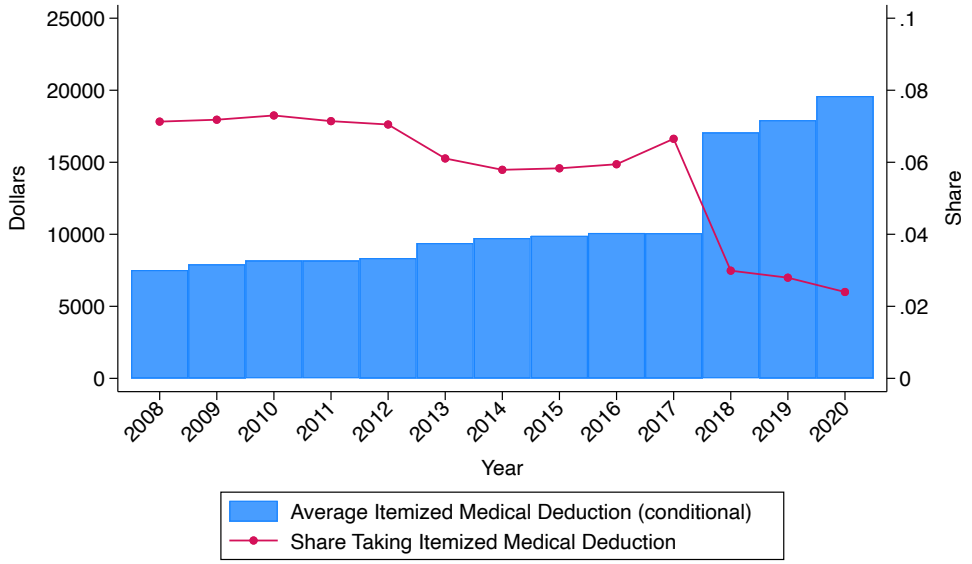
[6]While the HRS is nationally representative of the population aged 50 and over, two-thirds of aggregate IMDs are deducted by tax units with primary taxpayers age 65 and over, and 90 percent is deducted by tax units with primary taxpayers age 45 and over (IRS Statistics of Income Division, 2022).

[7]These calculations will implicitly assume full take-up of eligible medical deductions. While not all eligible medical spending is deducted, evidence suggests that take-up is increasing in income (Goda, 2024); thus, incomplete take-up will result in actual tax savings more highly skewed towards high-income taxpayers.

[8]Note that observed tax savings is not available in the Health and Retirement Study after 2012.

evaluating its consequences. Our future research agenda aims to better understand the economic tradeoffs associated with the itemized medical deduction, including the extent to which it helps households insure against health and economic shocks and whether it distorts other economic behaviors.

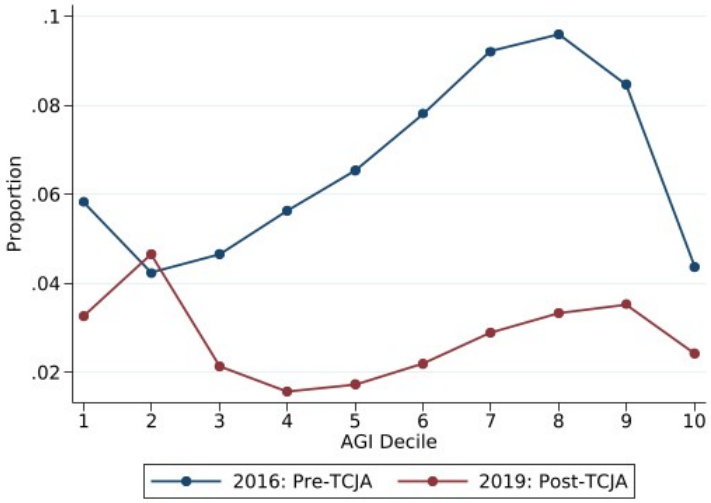
Figure 1: Share Claiming Itemized Medical Deduction and Average Amount Claimed, 2008-2020



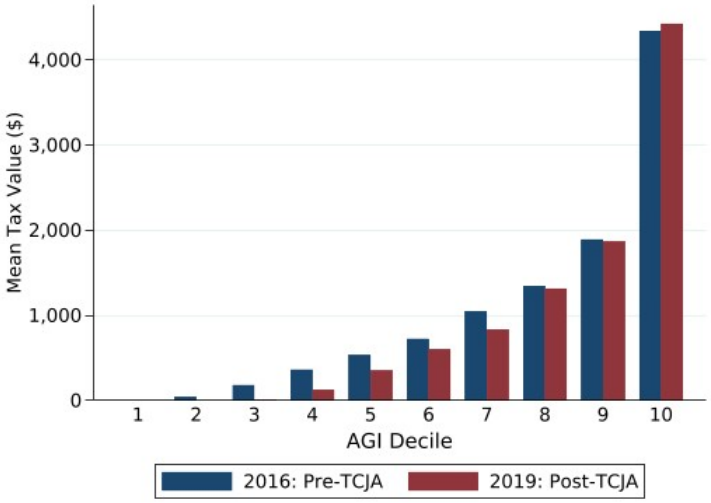
Source: Statistics of Income, Individual Income Tax Statistics, Publication 1304, Internal Revenue Service, Tables 1.1 and 2.1.

Figure 2: Itemized Medical Deductions by AGI, 2016 and 2019

Panel A: Share Claiming Itemized Medical Deduction

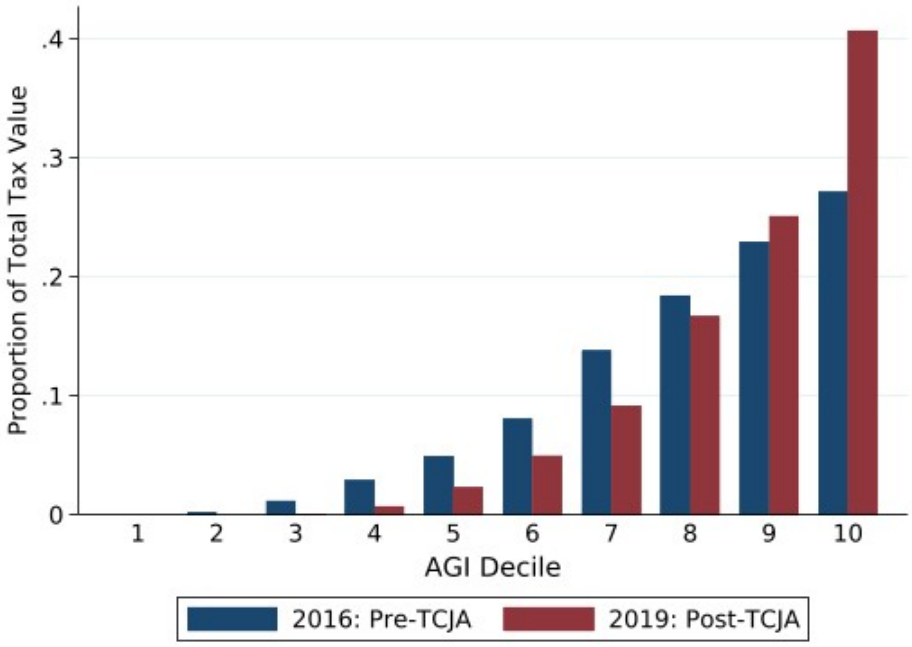


Panel B: Average IMD Tax Savings among Claimers



Source: IRS population files. Tax savings calculated using TAXSIM.

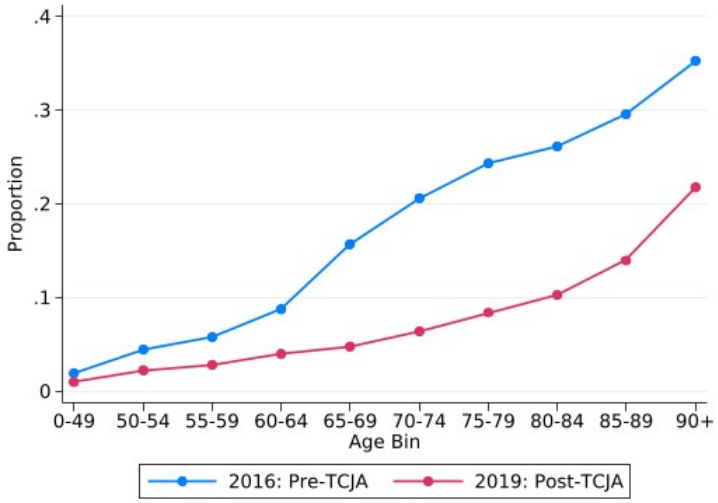
Figure 3: Distribution of IMD Tax Savings by AGI Decile, 2016 and 2019



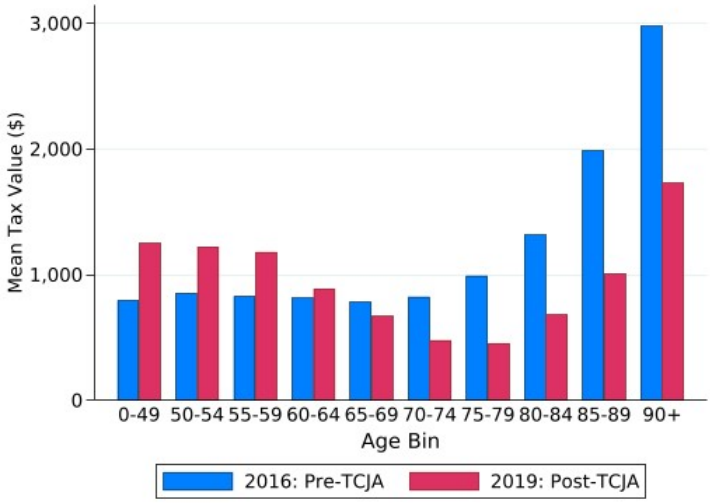
Source: IRS population files. Tax savings calculated using TAXSIM.

Figure 4: Itemized Medical Deductions by Age, 2016 and 2019

Panel A: Share Claiming Itemized Medical Deduction

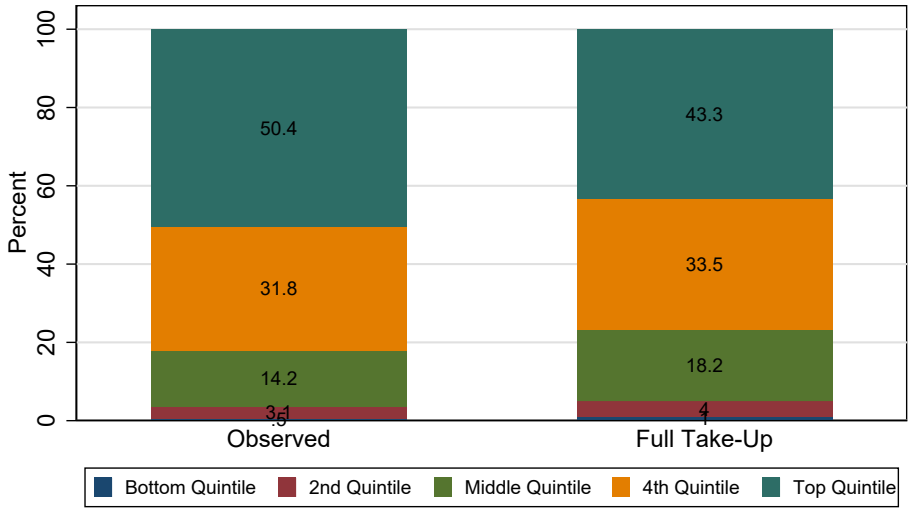


Panel B: Average IMD Tax Savings among Claimers



Source: IRS population files. Tax savings calculated using TAXSIM.

Figure 5: Distribution of Observed and Potential IMD Tax Savings by AGI Quintile



Source: Goda (2024), using data from the Health and Retirement Study, Waves 6-11, 2002-2012. "Observed" denotes claimed tax savings, while "Full Take-Up" represents tax savings available if all eligible deductions were claimed. Tax savings calculated using TAXSIM.

References

Blouri, Yashar, Simon Büchler, and Olivier Schöni. 2023. "The geography of mortgage interest deductions." *Journal of Urban Economics*, 138: 103604.

CBO. 2021. "The Distribution of Major Tax Expenditures in 2019."

CRS. 2020. "An Economic Analysis of the Mortgage Interest Deduction." R46429.

Davis, Matthew. 2019. "The distributional impact of mortgage interest subsidies: Evidence from variation in state tax policies." mimeo.

Dawkins, Casey J. 2023. "The geography of US homeownership tax expenditures." *Journal of Housing Economics*, 59: 101888.

Feenberg, Daniel, and Elisabeth Coutts. 1993. "An introduction to the TAXSIM model." *Journal of Policy Analysis and Management*, 12(1): 189–194.

Feenberg, Daniel, and Jonathan Skinner. 1994. "The Risk and Duration of Catastrophic Health Care Expenditures." *The Review of Economics and Statistics*, 76(4): 633–647.

Goda, Gopi Shah. 2024. "Subsidizing Medical Spending through the Tax Code: Take-Up and Targeting."

Hembre, Erik, and Raissa Dantas. 2022. "Tax incentives and housing decisions: Effects of the Tax Cut and Jobs Act." *Regional Science and Urban Economics*, 95: 103800.

IRS Statistics of Income Division, IRS. 2021. "Publication 1304."

IRS Statistics of Income Division, IRS. 2022. "Publication 1304."

Jensen, James E. 1952. "Medical Expenditures and Medical Deduction Plans." *Journal of Political Economy*, 60(6): 503–524.

Jensen, James E. 1954. "Rationale of the medical expense deduction." *National Tax Journal*, 7(3): 274–284.

Kuroki, Masanori. 2022. "Healthcare coverage and out-of-pocket medical expenses: evidence from the 2017 Tax Cuts and Jobs Act and the medical expense deduction." *Public Health*, 205: 58–62.

Li, Wenli, and Edison G Yu. 2020. "Real estate taxes and home value: Winners and losers of TCJA."

Lurie, Ithai Z, and Alexandra Minicozzi. 2010. "Understanding the Increasingly Popular Itemized Deduction for Medical Expenses." *Medical Care Research and Review*, 67(6): 707–721.

McClelland, Robert, Livia Mucciolo, and Safia Sayed. 2022. "NEW EVIDENCE ON THE EFFECT OF THE TCJA ON THE HOUSING MARKET."

Serocki, James S, and Kevin J Murphy. 2009. "An analysis of the medical expense deduction under the US income tax system." *The Quarterly Review of Economics and Finance*, 49(2): 343–356.

Steuerle, Eugene, and Ronald Hoffman. 1979. "Tax expenditures for health care." *National Tax Journal*, 32(2): 101–115.

U.S. Department of the Treasury, Office of Tax Analysis. 2022. "Tax Expenditures (FY 2023)."

U.S. Department of the Treasury, Office of Tax Analysis. 2023. "Tax Expenditures (FY 2024)."

Wilensky, Gail R. 1982. "Government and the Financing of Health Care." *The American Economic Review*, 72(2): 202–207.