The Heterogeneous Welfare Impacts of Tax Enforcement

TAPES Abstract Submission

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We provide novel, comprehensive estimates of the return to tax audits across the income distribution. We then embed these estimates within the Marginal Value of Public Funds framework in order to estimate the welfare effects of tax audits.

We start from the following questions: If the IRS spends $1 more on tax audits, how much additional revenue does it raise? Are the returns to additional audits larger for audits of low or high-income taxpayers? What are the welfare implications of those audits? While there is a large body of empirical work quantifying the heterogeneous impacts of changes in marginal income tax rates, there is comparatively less work quantifying the precise costs and benefits of tax audits across the income distribution.

Our paper uses comprehensive IRS administrative data on enforcement activity matched to tax returns to provide estimates of the cost-effectiveness of tax audits and study how they vary across the income distribution. We use detailed logs of activities by enforcement personnel matched to each audit to build a comprehensive database of the cost of each audit since 1984. Each auditor is required to log all their time on each case, which we translate into a measure of labor cost using publicly available government pay schedules. We observe a near-complete picture of the cost of each audit, including legal costs from lawyers reviewing a case or litigating at trial, the costs of IRS collection agents working to recover unpaid tax debt, and the cost travel for field officers conducting audits. The primary unobserved cost is administrative overhead, which we impute from GSA estimates and IRS-wide totals. In addition to costs, we also observe the change in tax liability and taxes paid as a result of each audit. Comparing this additional revenue to the audit costs provides a measure of the cost effectiveness of each audit. Merging this information to income reported on tax returns enables us to study how the costs and benefits vary across the distribution of income (both audited and reported income). While some previous work has look at the size of the tax gap across the income distribution and other work has examined the overall cost-effectiveness of IRS audits, this is the first paper to estimate the cost-effectiveness of tax audits actions across the income distribution.

If audits are targeted to taxpayers who have likely underpaid, the marginal return to additional audits will differ from the average return to tax audits. In this paper, we estimate both the average and marginal returns. We measure the average return on audits using the universe of data on historical audits. We estimate the marginal returns using data from the National Research Program's random audit data. While traditional operational audits are audits initiated due to a suspicion of underpayment of tax liability, random audits are conducted independent of any such suspicion. Data on random audits enable us to construct the costs and benefits of additional audits amongst returns not traditionally flagged for review. As a random audit is likely to generate lower additional tax payments than the marginal return selected for audit, this provides a lower bound on the cost-effectiveness of expanding the scope of audits.

Having estimated the returns to tax audits across the income distribution, we next provide a framework to consider the welfare impact of those audits. We show how to measure the Marginal Value of Public Funds (MVPF) of changes in tax audit expenditures at different points of income distribution. The MVPF of additional tax audits is given by the ratio of the (monetized) disutility of the those audited to the net revenue raised. In order to measure the disutility to those audited, we quantify not only the additional tax and penalties paid but also any non-monetary (e.g. hassle) costs they face from being audited. We estimate hassle costs using survey data on the time intensity of complying with IRS requests. In order to capture the total revenue that would be raised if the IRS expanded audits, we incorporate not only the direct revenue raised, but also the impact of any deterrence effects. While a reduced form estimate of these effects is beyond the scope of our work, we nest our estimates of the private benefits of evasion into a classic Allingham-Sandmo model of deterrence. We estimate the size of the deterrence effects predicted by this model and compare them numbers used in existing literature. We discuss how these deterrence effects impact the welfare conclusions of expanded tax audits across the income distribution.