

## **Estimating specific deterrence revenue from additional audits of high-income and high-wealth individuals**

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The tax gap, the difference between taxes owed and taxes paid, is projected to be \$688 billion in tax year 2021. The Inflation Reduction Act of 2022 (IRA) made an investment in the IRS to improve enforcement for high-income and high-wealth individuals, large corporations, and complex partnerships. If this investment is sustained through Fiscal Year (FY) 2034, the IRS estimates that it will raise \$390.3 billion in revenue between FY 2024 and FY 2034 using the agency's traditional methods for estimating revenues from additional funding. Of this \$390.3 billion, an estimated \$54.2 billion is directly from increased audits of high-income and high-wealth individuals.

Consistent with previous practice, the \$390.3 billion estimate includes only direct revenue and revenue protected. Direct revenue is the revenue that results directly from enforcement activities, such as audits, document matching, and collections. Revenue protected is the revenue loss avoided by stopping invalid refund claims.

While this estimate of audit revenue counts only the assessed tax, penalties, and interest collected from additional audits, research studies find that audited taxpayers also report additional tax liability in the years following the audit. In other words, a taxpayer who is audited in 2024 and found to have underreported tax will voluntarily pay more tax in 2025, 2026, and beyond. This change in taxpayer behavior after an audit is known as the specific deterrent effect.

This paper focuses narrowly and conservatively on specific deterrence revenue from increased audits of high-income and high-wealth individuals. This paper reviews the literature on specific deterrence and describes a method for estimating the revenue effect of specific deterrence for audits of individuals. There is less evidence on specific deterrence revenue for other types of audits, and the deterrence effects of other enforcement activities, such as automated document-matching and collections. However, see Boning et al. (2020) for some evidence on deterrence effects of other types of enforcement activities.

In addition to specific deterrence, audits are also thought to deter noncompliance by taxpayers who are not audited, which is called the general deterrence effect. Estimates of the magnitude of the general deterrence effect are rare and vary widely. This paper does not attempt to estimate the revenue effect of general deterrence.

Applying the method described below to the additional audits of high-income and high-wealth individuals made possible by the Inflation Reduction Act, assuming funding is sustained through FY 2034, yields an estimate of an additional \$38.8 billion in revenue collected in the budget window from audited individuals due to the specific deterrence effect.

## **An overview of the literature on taxpayer behavior following an audit**

Studies of random audits of individuals around the world and in the United States find that audited taxpayers more accurately report and pay taxes owed in the years following an audit. Kleven et al. (2011) study a Danish field experiment and find increased liability equal to 42 percent of the change in liability made during the audit in the following year. Hebous et al. (2020) find that audited taxpayers in Norway reduce the deductions they claim. In the United Kingdom, Advani et al. (2021) find that the additional revenue from higher compliance in the five to eight years following an audit is at least 1.5 times the tax understatement found by the audit. In the United States, DeBacker et al. (2018) find that random audits of individual taxpayers conducted by the IRS National Research Program cause taxpayers to report additional tax over the five years following an audit that totals more than 1.5 times the direct revenue gain from the audit. Using more years of random audits and a longer post-audit period, Boning et al. (2023) find that the revenue from specific deterrence in each year following the audit is about 23 percent of the size of the audit revenue. This percentage is stable for more than ten years and across taxpayer income levels. Several studies of random audits find that taxpayers whose returns are corrected by an audit report additional tax liability following the audit. These studies either find no change (Hebous et al. (2020), Advani et al. (2021) and DeBacker et al. (2018)) or a decline (Gemmell and Ratto (2012), in the United Kingdom) in subsequent liability reported by taxpayers found to be compliant by the audit.

There are fewer studies of the specific deterrence effects of operational audits, for which taxpayers are selected based on suspected underreporting. Compared to random audits, operational audits are more difficult to study because the effort to identify and audit taxpayers who have underreported tax makes it more difficult to construct a control group of unaudited taxpayers whose behavior can be compared to the audited group to estimate the effect of the audit. Beer et al. (2019) compare individuals selected for operational audits in the U.S. to matched controls. Like studies of random audits, they find that operational audits on average raise revenue from specific deterrence, although taxpayers found to be compliant reduce reported liability. This result suggests an additional benefit from initiatives to update audit selection models: increasing the fraction of audits that make corrections is likely to boost specific deterrence. While it is difficult to ensure that the matched controls are a good comparison for taxpayers deliberately selected for audit, the available evidence supports the view that, on average, operational audits of individuals increase future reported tax liability.

There is little evidence on the behavior of small- and medium-sized firms following an audit and evidence on the behavior of large corporations following an audit is mixed. Hoopes, Mescall, and Pittman (2012) find that increasing the probability of an IRS audit of a corporation from 19 percent to 37 percent increases the ratio of cash taxes paid to pretax income by nearly two percentage points. Ayers, Seidman, and Towery (2018) find that corporations assigned to a continuous audit program do not change their reporting behavior relative to propensity-matched controls but do set aside more money to cover potentially uncertain tax positions. Belnap et al. (2022) study small corporations and find increased reported tax liability following an audit alongside an increased likelihood that a firm goes out of business. In contrast, DeBacker et al. (2015) find that U.S. corporations reduce reported tax liability immediately following an audit before eventually returning to reporting liability similarly to before the audit. This behavior is

consistent with firms assuming that they are less likely to be audited again immediately after an audit. As the business audits examined in these studies are operational and thus selected rather than random, different choices of comparison group may explain the differences between studies' results.

### **A method for estimating specific deterrence revenue from changes in IRS audits**

For audits of individuals, studies provide robust evidence of specific deterrence that supports an estimate of specific deterrence revenue. Based on U.S. data, recent work by Boning et al. (2023) estimates that the specific deterrence revenue in each of thirteen years following an audit is 23 percent of the direct audit revenue (in deflated constant dollars). The method this paper uses to estimate specific deterrence revenue from an expansion in individual audits is to multiply the estimates of the direct revenue from expanding audits by fiscal year by 23 percent in each following fiscal year in the budget window and then adjust for inflation. Thus, the specific deterrence revenue resulting from an audit in the ten-year budget window varies depending on when the audit occurs. As shown in Table 1, for every \$100 of audit revenue generated in 2025, \$207 of deterrence revenue is collected during the budget window spread equally over the next nine years. For every \$100 of audit revenue generated in 2033, \$23 of deterrence revenue is collected in the last year of the budget window. Of course, the large difference in deterrence revenue in the budget window is an artificial effect resulting from the 10-year budget window. An audit in 2033 would continue to raise deterrence revenue outside the budget window. Moreover, as shown in Table 1, the ratio of specific deterrence revenue to direct revenue is highly sensitive to the time pattern of direct revenue over the budget window. This illustration omits inflation-adjustment for simplicity.

Table 1. Illustration of Specific Deterrence Revenue

Fiscal Year	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Audit in 2025												
Direct revenue		\$100										\$100
Deterrence revenue			\$23	\$23	\$23	\$23	\$23	\$23	\$23	\$23	\$23	\$207
Total												\$307
Audit in 2033												
Direct revenue										\$100		\$100
Deterrence revenue											\$23	\$23
Total												\$123

Boning et al. (2023) find that the specific deterrence effect is consistent for random audits of taxpayers at all income levels. While the taxpayers Boning et al. (2023) study are audited by the IRS' Small Business/Self-Employed division, global high-wealth individual taxpayers audited by the IRS' Large Business & International division are likely to behave similarly to other high-income individual taxpayers. Therefore, it is reasonable to apply the same estimate of specific deterrence revenue to global high-wealth audits.

The available evidence on the specific deterrence effects of audits of businesses is much more limited, so it is not possible to construct an estimate of the specific deterrence revenue generated by increasing audits of large corporations and complex partnerships at present. It may become possible to construct such an estimate as the literature develops. In the meantime, the lack of an estimate of specific deterrence revenue for other types of audits does not imply that other types of audits have no specific deterrent effect or that audit resources should be shifted from auditing businesses to auditing individuals.

The IRS estimates that the investments in enforcement functions outlined in the Inflation Reduction Act Strategic Operating Plan, provided funding is sustained through FY 2034, will generate \$390.3 billion in direct or protected revenue in FY 2024 – FY 2034. Of this \$390.3 billion, an estimated \$54.2 billion is from increased audits of high-income and high-wealth individuals. Following the proposed method, the specific deterrence revenue associated with these individual audits is approximately \$38.8 billion in tax receipts collected in FY 2024 – FY 2034.

As shown in Table 2, the direct revenue from individual audits grows from \$0.1 billion in FY 2024 to over \$8.0 billion annually after FY 2030 as enforcement personnel increases incrementally until FY 2030. About 63 percent of the direct revenue associated with individual audits is realized in the last four years of the period. The specific deterrence revenue also grows over the period, from \$0.1 billion in FY 2026 to \$11.3 billion in FY 2034. Specific deterrence revenue lags audit revenue because an audit necessarily must occur first before deterrence occurs in subsequent years. In addition, substantial growth in deterrence revenue results because taxpayers remit additional tax for as long as 13 years following the audits and thus the deterrence revenue rises over time as the effect of previous audits accumulates. About 82 percent of the deterrence revenue associated with the direct audit revenue raised in this period is realized in the last four years of the window.

In Table 2, the ratio of the total deterrence revenue to the total direct revenue is about 72 percent, or \$38.8 billion divided by \$54.2 billion, over the years 2024-2034. This ratio does not capture the full impact of the long-lasting specific deterrence effect - Boning et al. (2023) find a stable estimate of the effect for 13 years following an audit, though data are thinner and estimates more uncertain after ten years. For example, for the direct audit revenue raised in 2033, the \$38.8 billion estimate includes only one year of the specific deterrence effect associated with it in 2034 and misses the additional receipts that will be collected in the next 12 years outside the budget window. For each dollar of direct revenue, applying the 23-percent factor for 13 years would result in a total of nearly \$3 in deterrence revenue (in deflated constant dollars) in the long run.

These estimates, like any estimates, are uncertain. One important source of uncertainty is the extent to which deterrent effects many years after operational audits are similar to the deterrent effects of the random audits that form the basis for these estimates. However, the available literature supports the existence of specific deterrence effects—and an uncertain estimate of the effect is more accurate than excluding specific deterrence effects entirely.

Table 2. Specific Deterrence Revenue from Increased Audits of High-Income and High-Wealth Individuals

Fiscal Year	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total, 2024-2035
Direct revenue and revenue protected from all enforcement	0.9	4.1	9.6	16.9	25.2	35.1	46.3	57.1	61.7	66.5	66.9	390.3
Of which, direct revenue from individual audits	0.1	0.5	1.4	2.5	3.7	5.0	6.7	8.2	8.1	9.0	9.0	54.2
Specific deterrence from individual audits	0	0	0.1	0.5	1.1	2.0	3.2	4.8	6.9	8.9	11.3	38.8
Total after including specific deterrence from individual audits	0.9	4.1	9.7	17.4	26.3	37.1	49.5	61.9	68.6	75.4	78.2	429.1
Specific deterrence from individual audits as percentage of direct revenue from individual audits	0%	0%	7%	20%	30%	40%	48%	59%	85%	99%	126%	72%

Note: all money amounts are in billions of dollars.

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