



Return on Investment: Re-Examining Revenue Estimates for IRS Funding

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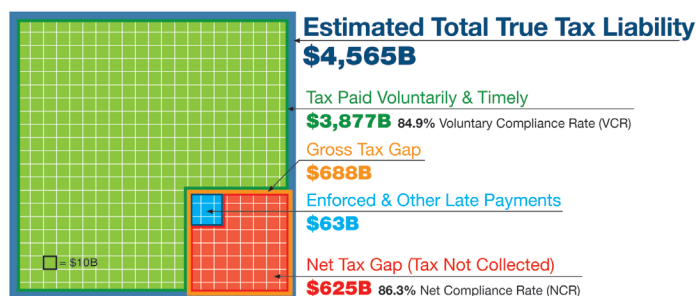
Introduction

With the Inflation Reduction Act (IRA), the United States Congress and President Biden made an investment in the financial foundation of the United States—a well-functioning tax system. The IRS processes approximately 96% of the nation's gross receipts annually.¹ Figure 1, taken from the 2020–2021 Tax Gap Analysis, showcases how much of the tax revenue comes into the Treasury timely (without any enforcement action by the IRS), how much comes in late or with some IRS enforcement engagement with the taxpayer, and how much we estimate is not collected.² The large majority of the Estimated Total True Tax Liability of \$4,565—\$3,877 billion or 85.0%—is paid voluntarily and timely. The remaining \$688 billion or 15% constitutes the gross tax gap: the difference between taxes owed and taxes paid. Revenue from IRS enforcement efforts meaningfully reduce the tax gap but contribute a significantly smaller portion of tax liability, \$63 billion or 1.4%.

The far-reaching initiatives outlined in the **IRA Strategic Operating Plan (SOP)** reflect how the IRS will deploy the IRA investments to better serve taxpayers, tax professionals, and the broader tax ecosystem. We will improve the taxpayer experience through better customer service, clearer guidance on how to correctly file taxes, increased options for filing electronically, and robust online accounts so that individuals and businesses can file quickly and independently. Taxpayers will have the tools, information and assistance needed to get their tax filings right—both in paying what they owe and claiming the incentives for which they are eligible. This is expected to yield meaningful improvements to the voluntary compliance rate, which has been stagnant at around 83–85% for decades.

Our work to improve service is coupled with efforts to improve compliance by those who choose not to meet their obligations. To that end, we are using the IRA investment to rapidly

Figure 1
2020–2021 Tax Gap Analysis Summary



modernize our technology and further expand our use of data and analytics, which will improve employee efficiency and effectiveness. Congress, in passing the IRA, acknowledged that an adequately funded federal tax administration will generate significant revenue for the country. All of the IRS's compliance efforts are consistent with the Secretary of the Treasury's August 10, 2022, directive that IRA resources not be used to increase the share of small businesses or households earning less than \$400,000 that are audited relative to historical levels.³

These changes have prompted the IRS to reexamine how we estimate revenue from our investments. The IRS's previous estimates of revenue generated by IRA funding were limited to revenues directly resulting from increased enforcement staffing. Consequently, the estimates did not present a complete picture of the revenue benefits of the innovative investments we are making under the IRA SOP. The approach ignored many activities that will influence revenue, including enhancing services to improve voluntary compliance, modernizing technology, and adopting analytic advances that can dramatically improve productivity. It also ignored the deterrence effect of compliance activities on taxpayers' behavior.^{4, 5}

¹ Internal Revenue Service. (2023, April 14). *IRS releases fiscal year 2022 Data Book describing agency's activities*. <https://www.irs.gov/newsroom/irs-releases-fiscal-year-2022-data-book-describing-agencies-activities>

² Internal Revenue Service. (2023) *Federal Tax Compliance Research: Tax Gap Projections for Tax Years 2020 and 2021* (Publication 5869), <https://www.irs.gov/pub/irs-pdf/p5869.pdf>.

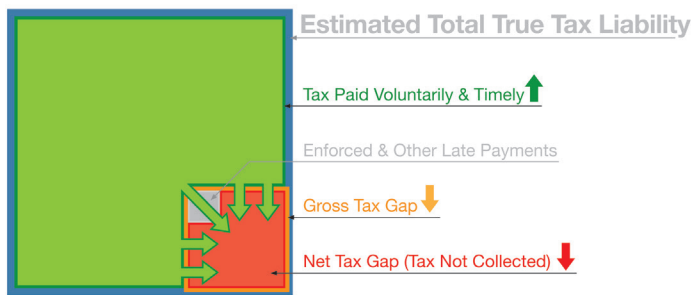
³ <https://home.treasury.gov/news/press-releases/jy0918>

⁴ The deterrence effect of compliance activities on taxpayer behavior refers to the reduced likelihood of tax evasion or avoidance due to the presence and actions of the IRS, such as audits, penalties, and enforcement actions, which create a perceived risk of detection and punishment.

⁵ There are at least two ways that IRS interactions with taxpayers can impact taxpayers' vol-

To account for the potential revenue impact of the full array of investments contemplated in the IRA SOP, we need to look at the effects on revenue collection in a more comprehensive way. For example, we are improving our notices to make them more readily understandable and to reach people at an optimized moment, such as sending notices with resources prior to major tax due dates or following legislative changes that impact taxpayer population groups. We are also improving customer service to increase the likelihood that taxpayers will successfully connect with the appropriate resources to resolve their issue upon receiving a notice. Similarly, foundational investments in IT infrastructure will boost efficiency. We cannot ignore the benefits of these improvements.

Figure 2
Enabling Voluntary Compliance can Shrink the Tax Gap



Another focus of the SOP is modernization to address taxpayer compliance before traditional enforcement activities are necessary. As illustrated by the graphic, as voluntary compliance increases, the tax gap shrinks. This proactive approach can result in payment of taxes that otherwise would not have been paid at all because the IRS is not able to devote enforcement resources to every case.

This white paper provides a broader perspective of the revenue effects of transforming the IRS. We propose to use five categories of revenue benefits, the latter three of which are not captured by the IRS's previous methodology. These categories include:

1. **Direct Revenue:** Including payments received related to enforcement actions.
2. **Revenue Protected:** Stopping illegitimate refund claims before the refund is issued.
3. **Impact of Service on Compliance:** Making it easier for taxpayers to pay what they owe.
4. **Compliance Assurance:** Increasing transparency and tax certainty for complex tax situations.
5. **Efficiency Gains:** Including from IT investments and improvements to data analytics.

untary compliance behavior (through education, deterrence, assurance, or other mechanisms): (1) by changing (over the years following the contact) the behavior of the specific taxpayer who was contacted (the "specific indirect effect"); and (2) by changing the behavior of the general population (i.e., those who were not subject to that kind of contact but may have heard something relevant—the "general indirect effect").

These categories represent areas of study. The IRS has traditionally estimated revenues in categories one and two. The case studies herein will highlight some aspects of categories three and five. We intend to study revenue effects in all five categories going forward. We will also continue to study the indirect effects of these activities, including deterrence.

Summary of Conclusions

To fully understand the revenues effects of the IRS transformation, the IRS must shift from its traditional revenue approach, focused on direct enforcement, to a more comprehensive approach. This shift emphasizes efficiency gains, IT and analytical advancements, service improvements, and compliance through deterrence as key revenue drivers. The table below summarizes the key findings within this white paper in three areas: 1) Previous Enforcement Estimations, 2) Enhanced Enforcement Estimations, and 3) Diversified Revenue Strategies. These estimates for FY 2024 to FY 2034 assume sufficient funding is available in addition to the funding provided in the IRA, to fully implement and sustain the investment and hiring contemplated in the SOP after the IRA funds expire at the end of FY 2031. It is imperative to employ the broader and detailed approach described above to effectively describe the benefits of the IRS SOP.

Using the methods employed in prior IRS estimates, the IRA investment if sustained through FY 2034 would yield \$390 billion in revenue during the period FY 2024–FY 2034. Improvements to the methods for estimating enforcement revenues would increase the estimate to \$497 billion. If the scope of revenue considered is diversified as described in the remainder of this paper, the investments would yield total revenue of \$851 billion (see Table 1).

Table 1. Revenue Associated with IRA Investment Extended through Fiscal Year 2034

Billions of Dollars	Fiscal Year 2024– Fiscal Year 2034 Total
Previous Methods for Estimating Enforcement Revenue	\$390
Expanded Enforcement Estimates Total	\$497
Diversified Revenue Strategies	\$851

NOTE: Rows represent different approaches to estimating revenue for IRS investments. They should not be added.

Revenue Estimation Methodologies

Ideally, revenue estimates for IRS funding would provide a comprehensive assessment of the effects of that funding on revenues. However, as described above, previous estimates focused exclusively on revenue impacts resulting from increased enforcement staffing. The following sections show how IRA revenue projections under the IRS SOP change as we widen the lens to include a more comprehensive revenue picture. We first summarize the previous approach. Next, we consider improvements to the methods for estimating revenue resulting

from increased enforcement staffing. Finally, we consider more profound effects that could result from a fully modernized and well-functioning IRS.

Previous Methods for Estimating Enforcement Revenues

As described above, the previous process for estimating revenue was rigorous but extremely conservative in that it was limited to only Direct Revenue and Revenue Protected from additional Enforcement-funded hires. These hires are themselves a subset of Enforcement appropriation funded employees; they are limited to the frontline examination and collection employees, not including managers, support staff and subject matter experts. Investments in programs or processes that improve the effectiveness or efficiency of core work are not included in the ROI calculation, nor are investments in programs designed to prevent taxpayers from becoming non-compliant.

The previous ROI calculation started with an enforcement staffing proposal, which laid out the staffing we expect to hire in certain “revenue generating” Full Time Equivalent (FTE) staff positions. It then leveraged a decade’s worth of direct enforcement revenue data to derive a revenue per FTE estimate, using a 10-year weighted average that placed greater weight on recent years than older ones. This approach minimized the influence of outliers or abnormal events from specific years and acknowledged the evolving nature of enforcement activities over the decade.

Once the historic revenue per FTE was calculated based on the type of employee and type of work, the estimated revenue impact from a marginal increase in that type of work was generated based on historic revenue per FTE, reduced to account for the following factors: marginality, productivity, training costs, and the assumed hiring date of hire, the learning curve of new employees (productivity), training costs (including the opportunity cost of pulling more seasoned employees off-line to train new employees), and an assumption that new work would generate less revenue than current work (marginality). This was divided by the FTE cost, which included the cost of the FTE along with other costs associated with bringing in a new hire, such as training, information technology, and other support costs. Estimates also assumed that a new hire will only work 7 years, to account for attrition.

The next step was to estimate when we expected the revenue to be collected. We did this by utilizing historic data to compare the year a case closed with the year its associated revenue was collected. This created a spread of revenue over time, as revenue collected from work conducted in prior years is added to revenue collected from work conducted in the current year. By multiplying the planned hires by this spread, we calculated the expected revenue from those new hires.

The previous methodology projected that, if IRS staffing were sustained after IRA funding is depleted, the IRA investments

would generate about \$390 billion between FY 2024 and FY 2034, consisting of \$309 billion in direct revenue and \$81 billion of revenue protected. If the IRA investment were not sustained after current funding expires, the investments would raise \$211 billion under the previous methodology.

This conservative method produced revenue estimates limited to the revenue directly attributed to new enforcement hires using data on enforcement activities from the recent past.

While this approach is reasonable for budget requests that aim to expand enforcement FTEs, it does not adequately capture the impact of transformational investments designed to change the way the IRS operates and their associated impact on tax revenue.

Improvements to the Methods for Estimating Enforcement Revenues

The estimate of \$390 billion assumed that the IRS would maintain its recent operational practices and those practices would become less effective as they are scaled up. This can be a reasonable assumption but does not reflect the magnitude of unworked cases available due to years of declining and constrained resources, staff attrition, and population growth. It also does not consider research demonstrating the potential improvements to case selection from using advanced analytics in prioritizing the types of cases that are likely to be most productive given staffing levels and inventory. Finally, it does not include any revenues from deterrence.

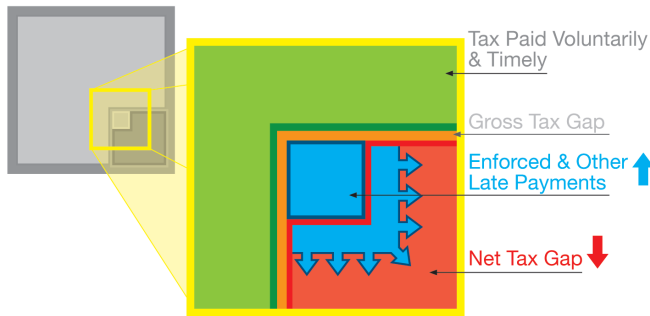
Preliminary results of the Enterprise Planning Scenario Tool (EPST), a workplan optimization tool that assists managers with determining the most effective allocation of case assignments, suggest a likely increase in enforcement revenue relative to the historical returns. The EPST was improved in recent years by incorporating additional data and analysis into the Examination Planning process by incorporating flexible optimization objectives and constraints in the development of the Examination plan. This improvement was demonstrated among base Examination work, which has a much greater revenue potential than is reflected in previous estimates of the impact of marginal work. This capability can also be utilized by Collection to identify the optimal mix of work across phones, automated actions, and manual follow-ups while meeting constraints around staffing levels and call center Level of Service.

Additional research is yielding significant improvement in the ability to identify productive work among partnerships and pass-through entities. For example, a major expansion in partnership compliance efforts is underway, leveraging Artificial Intelligence tools and improvements to partnership-centric compliance letters.⁶

⁶ Internal Revenue Service. (2023, September 21). *IRS announces sweeping effort to restore fairness to tax system with Inflation Reduction Act funding new compliance efforts*. <https://www.irs.gov/newsroom/irs-announces-sweeping-effort-to-restore-fairness-to-tax-system>

IRA SOP initiatives will improve enforcement efficiency and effectiveness, both directly and indirectly through deterrence. By expanding the reach of IRS enforcement, investments in efficiency help combat the tax gap (see Figure 3).

Figure 3
The IRS is Investing to Make Our Enforcement Staff More Effective to Expand Their Reach



Additionally, the inventory of unworked cases and investments in analytics imply that our previous marginality assumption of a 10% decline in efficiency for additional work is too conservative.⁷ For individual returns with \$1 million to \$5 million of total positive income, exam coverage rate fell from 4.9% to 1.5% from 2012 to 2019. With a renewed emphasis on high income taxpayers and complex partnerships, accompanied by investments in tools and data to streamline these audits, it is plausible to project an enhancement in our audit efficiency.

While the previous 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 an 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 deterrence effect.

Applying the method described in an accompanying Treasury memo on specific deterrence revenues to the additional individual audits of high-income and high-wealth individuals made possible by the IRA, assuming funding is sustained through FY 2034, supports estimates of the specific deterrence effect of individual audits of \$39 billion.⁸ Additional research quantifying the deterrent effect of non-audit intervention is ongoing.

We are thus implementing a revised assumption to increase our overall revenue estimate by 20%. We are also adding an adjustment for specific deterrence effects. These modest changes

in assumptions would increase the estimated \$390 billion revenue benefit of the IRA investments (direct and revenue protected, if sustained through FY 2034), by an additional \$107 billion for FY 2024–FY 2034 for a total of \$458 billion in both direct revenue and revenue protected and a total of \$497 billion when considering specific deterrence. Of course, there is unavoidable uncertainty in projecting the return on additional audits. If the return on additional audits is identical to the return on current audits, the additional audits would raise only an additional \$73 billion (including the deterrence revenue) rather than \$107 billion. Improvements in audit selection would also increase revenues for the baseline level of audits, which would be captured in estimates of the revenue impact of improved analytics.

Note that there may also be efficiency gains to our base-funded activities arising from the planned changes, but these figures do not attempt to estimate them and instead only highlight the effect of IRA investments.

Diversified Revenue Strategies

The IRA is expected to significantly boost federal revenues beyond the effect resulting from increases in enforcement staff. What follows are selected case studies that highlight where investments included in the SOP will have a profoundly positive effect on the nation's finances. These examples are intended to illustrate the potential benefit of considering revenue effects more holistically.

Information Reporting for Digital Assets

Overview: With the implementation of the Information Returns Modernization (IR Mod) program, being developed with IRA funding via **SOP Initiative 4.1: Transform Core Account Data and Processing**, we expect to ingest dramatically more information returns electronically, including information returns from cryptocurrency exchanges. Our research has indicated that most of the capital gains from cryptocurrency trading are not being properly reported.⁹ We must examine a taxpayer's records to determine if the taxpayer has underreported—a labor intensive process. With IR Mod, the IRS will ingest information returns from cryptocurrency exchanges, which will make enforcement more efficient and dramatically increase voluntary compliance for taxes that otherwise would have been unpaid.

Revenue Effect: Multiple sources including the International Monetary Fund estimate the global crypto revenue to be between \$1 billion and \$37 billion per year.¹⁰ However, a signifi-

with-inflation-reduction-act-funding-new-compliance-efforts

⁷ Boning, W. C., Hendren, N., Sprung-Keyser, B., & Stuart, E. (2023). *A Welfare Analysis of Tax Audits Across the Income Distribution*. U.S. Department of the Treasury; Harvard University and Policy Impacts; The University of Sydney and Policy Impacts.

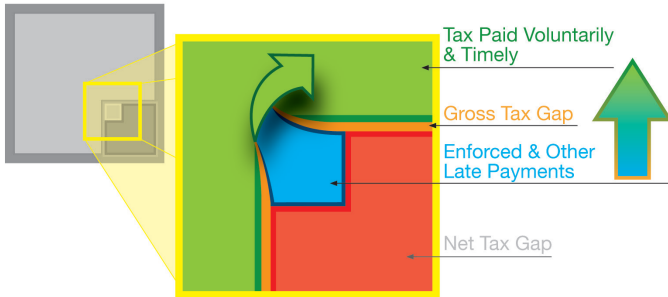
⁸ Department of the Treasury. (2023). *Estimating specific deterrence revenue from additional audits of high-income and high-wealth individuals*.

⁹ Internal Revenue Service. (2023, September 21). *IRS announces sweeping effort to restore fairness to tax system with Inflation Reduction Act funding new compliance efforts*. <https://www.irs.gov/newsroom/irs-announces-sweeping-effort-to-restore-fairness-to-tax-system-with-inflation-reduction-act-funding-new-compliance-efforts>

¹⁰ Baer, K., de Mooij, R. A., Hebous, S., & Keen, M. (2023). *Taxing Cryptocurrencies*. IMF Working Papers, 2023(144). <https://www.imf.org/en/Publications/WP/Issues/2023/06/30/Taxing-Cryptocurrencies-535510>

cant compliance gap exists with only 25% currently reported.¹¹ Historical data from the IRS suggests that direct income reporting can dramatically increase compliance levels.

Figure 4
Increased Information Reporting Helps Taxpayers File Accurately Up Front and Enables the IRS to Ensure Compliance via Automation



Potential Benefit: IRS tax gap analysis has consistently shown that income subject to substantial reporting by third parties is voluntarily reported by taxpayers at a much higher rate than income subject to little or no 3rd-party reporting.¹² Although cryptocurrency income is volatile, this change should create a revenue benefit. Taxpayers who wittingly or unwittingly misreport income from digital assets will get a 1099 or similar information report, nudging them towards compliance. System improvements under the IRA investments will significantly expand the IRS's data ingestion capabilities. Revenue from improved processing of information returns would be captured by the revenue estimate for IT and customer experience modernization below.

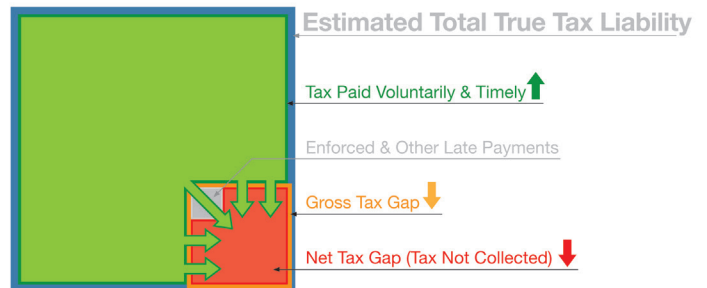
Empirical Support: An internal IRS study demonstrates the power of increased reporting in shaping taxpayer behavior.¹³ In 1989, IRS began requiring that taxpayers report Social Security numbers for dependents claimed on tax returns. This change was intended to address an estimated \$4.3 billion in improper payments associated with improper dependency exemptions. There was a sudden drop of nearly 2 million dependents being claimed following implementation of this change, which yielded a substantial impact for revenue protection. This instance highlights the effectiveness of detailed reporting requirements in improving compliance. Similarly, the IRS's IR Mod program is set to bring about a significant change in reporting digital asset transactions. As noted, a large portion of capital gains from cryptocurrency trading is currently

under-reported. This strategy is expected to mirror past successes, where third-party reporting requirements dramatically increased compliance rates. Thus, the IRS's study strongly supports the IR Mod's potential to close compliance gaps in digital asset taxation.

Estimated Tax Payments

Overview: Aimed at enhancing the timeliness and accuracy of tax payments, the IRS's Estimated Tax Payments Program seeks to leverage behavioral science tactics like nudging and reminders. With new payment options like PayPal and Venmo on the horizon, the initiative aligns with **SOP Initiative 2.3: Develop Taxpayer-centric Notices**. This program aims to educate and prompt taxpayers well ahead of estimated tax deadlines, thereby minimizing late payments, reducing administrative burden, and removing the need for later enforcement action on low ROI tax issues.

Figure 5
Nudging Can Increase the Share of Taxes Paid Voluntarily



Revenue Effect: The impact of the program is twofold. First, behavioral nudges and reminders drive an uptick in timely and accurate estimated tax payments, reducing the need for costly follow-up enforcement actions when taxpayers do not pay taxes owed as part of their annual income tax return. This allows the IRS to redeploy those enforcement resources to raise additional revenue. In addition, this proactive strategy has the added benefit of capturing revenue from taxpayers whose non-compliance issues may not have ultimately warranted traditional enforcement activities—making it easier to pay taxes increases the total revenue to the United States. Although official metrics for these gains are yet to be in place, anecdotal evidence and smaller-scale tracking point to a substantial revenue increase attributable to the initiative.

Potential Benefit: Although the IRS currently employs nudging techniques on a very limited basis, the evidence is promising. Extrapolating this success to the broader tax filing and payment landscape suggests a high potential for a significant increase in voluntary tax compliance. In tax year 2020, the IRS collected approximately \$390 billion in estimated tax payments from individual taxpayers.¹⁴ Leveraging behavioral science tactics for the Estimated Tax Payments Program will reduce inadvertent and intentional noncompliance by taxpayers.

¹¹ Internal Revenue Service. (2023, September 21). *IRS announces sweeping effort to restore fairness to tax system with Inflation Reduction Act funding new compliance efforts*. <https://www.irs.gov/newsroom/irs-announces-sweeping-effort-to-restore-fairness-to-tax-system-with-inflation-reduction-act-funding-new-compliance-efforts>

¹² Internal Revenue Service, Federal Tax Compliance Research: Tax Gap Projections for Tax Years 2020 and 2021, Publication 5869 (Rev. 10-2023), Washington, DC, October 2023, p. 16.

¹³ Trend Analysis and Related Statistics—1990 Update, Publication 1500 (Rev. 8-90). Also see Crenshaw, Albert B. The Washington Post (February 14, 1991). <https://www.washingtonpost.com/archive/politics/1991/02/14/an-irs-chiller-case-of-the-disappearing-dependents/47ac1ca7-84f3-4af5-8f8f-49e68c8a4e6a/>

¹⁴ <https://www.irs.gov/statistics/soi-tax-stats-individual-income-tax-returns-line-item-estimated-publication-4801>

We estimate an increase in tax revenue of \$7.5 billion annually beginning in fiscal year 2028, or a total of \$53 billion by 2034 once the related initiatives are complete.

Empirical Support: A 2021 study by the International Data Corporation (IDC) on PayPal's Enterprise Payments Solutions highlights the tangible benefits of leveraging behavioral science tactics, by conducting qualitative and quantitative interviews with three merchants: an NBA basketball team, a large retail health and wellbeing organization, and a subscription meal kit company.¹⁵ By adopting PayPal's advanced payment infrastructure, merchants were able to deploy a user-friendly platform that facilitated diverse payment experiences across web, mobile, and in-person options. Through this integration, participants realized a 36% reduction in transaction costs and a 92% surge in customer satisfaction. Importantly, this translated to an 11% rise in revenue, underlining the considerable potential benefit of ease of payment improvements to both tax compliance and collections.

Another study conducted in Costa Rica, in collaboration with the World Bank, assessed the impact of email reminders on tax filing rates.¹⁶ By sending behaviorally informed messages, researchers demonstrated a notable 20% increase in tax compliance. Firms receiving the emails were more likely to file taxes and utilize third-party reports, suggesting that straightforward communication can effectively enhance tax compliance.

In parallel, a 2020 study by Holz et al. conducted in the Dominican Republic, examined the influence of communication strategies on tax compliance among self-employed workers and firms.¹⁷ Collaborating with the local tax authority, they sent tailored messages emphasizing the consequences of tax evasion, including prison sentences and public disclosure. This approach led to a significant reduction in claimed tax exemptions and a notable increase in tax revenue by \$193 million. Similarly, a 2019 meta-analysis by Antinyan and Asatryan reviewed over 40 randomized controlled trials, focusing on the effectiveness of various nudges in tax compliance.¹⁸ Their findings highlighted the limited impact of non-deterrence nudges, such as appeals to tax morale, while deterrence nudges, emphasizing audit probabilities and penalties, proved more effective. However, the magnitude of these effects was relatively small,

suggesting that the most potent compliance strategies combine immediate deterrents with clear, direct communication.

IT and Customer Experience Modernization

Overview: The IRS relies extensively on IT systems to fulfill its mission, including the duties of providing customer responses to taxpayer account, refund, and notice inquiries that lead to revenue collection and voluntary compliance. Like most major financial institutions, we rely on IT-dependent functions that include: **intake** (the receipt, conversion, validation, issue resolution, and processing of all inbound electronic and paper submission); **account management** (maintaining centralized access to records and providing critical account services to process incoming information, payments, and other types of financial transactions); and **compliance** (the planning and modeling, anomaly detection, case selection, and common services that enable taxpayers to realize and meet their tax obligations and identify and compel taxpayers who fail to meet their tax obligations).

The IT and Customer Experience Modernization investment aims to enhance the efficiency of tax administration by investing in the systems and business processes to enable taxpayers and our employees to better resolve issues. IRA funding allows the IRS to invest broadly across many tax administration activities, including a diverse set of Initiatives such as **1.2 Expand Digital Services and Digitalization** and **4.3 Improve Technology Operations**. Components of this strategy include implementing a state-of-the-art tax return processing system, integrating advanced analytics, providing enriched self-service options for taxpayers and their representatives, incorporating tangible business process improvements, and implementing upgrades to existing legacy systems. This multi-faceted approach is designed to streamline operations, facilitate more effective decision-making, and ultimately create a more user-centric experience for taxpayers.

To actualize these goals, we expect to need an investment of around \$7.75 billion for Business Systems Modernization and \$25 billion for Operations Support. IT Development is funded in both appropriations, but Operations Support solely funds the maintenance for IT developed in both. Much of this funding is already available and is being deployed in accordance with the IRA Strategic Operating Plan, but it is predicated on adequate discretionary funding including BSM funding being provided annually.

Revenue Effect: The revenue effects of a modernized IT infrastructure are most visible in modernizing compliance systems and leveraging tools to better identify non-compliance and fraud patterns that reduce non-compliance and improve revenue protection and recovery. For example, investments in dynamic analytical capabilities and machine-learning can enable us to identify and resolve issues more quickly and accurately. Furthermore, the modernization of compliance systems helps accelerate the detection and resolution of non-compliance and

¹⁵ Jewell, J., Hand, L., & Singh, H. (2021, March). *Measuring the Business Impact of PayPal's Enterprise Payments Solutions: Three Merchants' Case Studies* (IDC Doc. #US47471121). https://www.paypalobjects.com/ecm_assets/PayPal_BVSolutionBrief_US47471121_FINAL.pdf

¹⁶ World Bank Group. (2019). *Behavioral Insights for Tax Compliance*. <https://documents1.worldbank.org/curated/en/472181576511865338/pdf/Behavioral-Insights-for-Tax-Compliance.pdf>

¹⁷ Holz, J. E., List, J. A., Zentner, A., Cardoza, M., & Zentner, J. (2020). The \$100 Million Nudge: Increasing Tax Compliance of Businesses and the Self-Employed using a Natural Field Experiment. Becker Friedman Institute for Economics Working Paper No. 2020-113. https://bfi.uchicago.edu/wp-content/uploads/BFI_WP_2020113.pdf

¹⁸ Antinyan, A., & Asatryan, Z. (2019). Nudging for Tax Compliance: A Meta-Analysis. ZEW - Centre for European Economic Research Discussion Paper No. 19-055. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3500744

ultimately contributes to a reduction in the tax gap. Notably, a modernized IT infrastructure also contributes to our ability to accurately adjust for and implement tax code changes that affect the revenue base and support the growth of the tax base over time. Modernized tax account management systems improve flexibility, modularity and availability of core tax processing systems that enable revenue collection.

A decade ago, the State of California undertook to modernize its tax administration infrastructure. Many of the changes implemented are similar to those we are undertaking now, including a consolidation of its Case Management Systems, coupled with process changes to notices and other taxpayer centered improvements. The California experience demonstrates that these improvements can substantially increase revenue.

Potential Benefit: IT modernization offers a wide array of potential revenue benefits. As discussed above, expanded data intake capacity and productivity will help increase compliance; improved audit selection and collection planning can increase the productivity of enforcement activities. IT investments can also increase the productivity of auditors by providing them with better access to data during the audit process and allow for quicker and more efficient communication between auditors and taxpayers. IT and customer experience investments can also facilitate voluntary compliance by making it easier for taxpayers to communicate with us, enabling taxpayers to complete more tasks online, reducing the demand for direct contact with customer service representatives and allowing us to process returns more quickly and efficiently.

The modernization of intake, account management and compliance functions reduces the reliance on employees for basic tasks that can be accomplished through automation and/or virtualization. These modernization efforts can reduce cost due to the elimination of manual, labor-intensive processes and the reduction of the IT footprint. In addition, IT investments in automation can enable us to more efficiently utilize our workforce and mitigate the negative effects of attrition over time.

Investments in the IT infrastructure, including the required compute, storage, and network capabilities, also mitigate the risk of IT-related outages and disruptions that would otherwise compromise the ability of employees to fulfill their duties and/or the ability of taxpayers to make payments. For example, we experienced a widespread system outage in 2018 resulting in 11 hours of downtime during filing season that delayed the processing of millions of tax returns. A similar outage in 2016 resulted in downtime of approximately 30 hours.¹⁹

The promising outcomes from similar projects such as California's Enterprise Data to Revenue (EDR) initiative offer a clue towards the effects we should expect. California saw an approximately 1% overall increase in its collections during

Phase 1 of the Enterprise Data to Revenue project. A senior leader from California attributed much of this increase to technical and process improvements that allowed for increased taxpayer self-service. Given that the IRS oversees an annual net tax collection of approximately \$4.3 trillion, a 1% increase in efficiency could contribute an additional \$43 billion annually, or \$301 billion for FY 2028–2034 accounting for the time for these investments to come online.²⁰ There is, of course, substantial uncertainty in any estimate of the effect of IT investments on revenues. Even a much more conservative estimate that IT investments boost the productivity of base enforcement functions by 10% as discussed above would yield \$6 billion annually with specific deterrence compounding this increase as described above. Increases in voluntary compliance and further increases in enforcement productivity would raise still more.

Considering the insights from Alm's et. al. 2021 article, the integration of technology in tax administration is a dual-edged sword.²¹ While it significantly enhances government capability to reduce tax evasion through enriched data access, it concurrently presents sophisticated taxpayers, particularly those with high incomes, with novel opportunities to evade taxes. Therefore, as we modernize our IT infrastructure, we must also devise strategies to close these new loopholes, ensuring that the digital transformation leads to a more equitable tax system.

Empirical Support: The State of California Franchise Tax Board's (CA FTB) Enterprise Data to Revenue (EDR) project provides compelling evidence for Enterprise Case Management's benefits. Implemented between 2011 and 2016, EDR generated an estimated annual \$1 billion in state revenue on about \$85 billion in total collections for individual and business returns.²²

The banking sector offers examples of how organizations have improved revenue and contained expense growth with investments in digital services. For example, a McKinsey study based on an analysis of 40 global banks from 2018 through 2022 demonstrated that banks that embraced digital solutions for their customers were able to decrease contact center staffing by 11% due to handling more customer demand online and providing self-service capabilities.²³ These gains are analogous to the outcomes we would expect from **SOP Initiative 1.4, Improve Self-Service Options** and **SOP Initiative 2.5, Offer Proactive Debt Resolution**. We would anticipate an improvement in voluntary compliance based on SOP 1.4 actions as taxpayers can interact with IRS electronically and make a range of account service changes that would previously require

²⁰ Applied directly, a 1% increase in revenues would scale with the size of the economy. To be conservative, we hold fixed the nominal size of the 1% increase over the budget window.

²¹ Alm, J. (2021). Tax evasion, technology, and inequality. *Economics of Governance*. Retrieved from <https://link.springer.com/article/10.1007/s10101-021-00252-1>

²² California Franchise Tax Board. (2023). *Enterprise Data to Revenue (EDR) Project*. Retrieved September 15, 2023, from <https://www.ftb.ca.gov/about-ftb/data-reports-plans/enterprise-data-revenue-project.html>

²³ The Value of Digital Transformation (hbr.org)

¹⁹ Review of the System Failure That Led to the Tax Day Outage | U.S. Treasury Inspector General for Tax Administration OIG (tigta.gov)

interacting with someone. SOP 2.5 will position us to identify the best repayment options for taxpayers based on analytics, proactively contact taxpayers who miss payments through the channel of their choice, and leverage data and analytics to notify taxpayers of upcoming due dates.

A 2015 review by the Government Accountability Office (GAO) provides concrete evidence that IT modernization in federal agencies leads to significant cost savings.²⁴ This review underscores the importance of establishing business outcome-oriented performance measures to accurately evaluate the success of these initiatives. Significantly, federal agencies reported approximately \$3.6 billion in cost savings and avoidances between 2011 and 2014. Moreover, federal agencies have reported cost savings and avoidance of over \$28 billion from 2012–2023, further amplifying the positive ROI benefit of IT investments.²⁵ These findings strongly suggest that similar IT modernization investments at the IRS could yield considerable cost savings and increased operational efficiency.

Improved Services and Reduced Burden

There is also evidence pointing to additional, difficult-to-quantify benefits arising from the investments in the IRA SOP. These benefits extend beyond outcomes addressed above.

Overview: One of the principal goals of the IRA SOP is to improve voluntary compliance. Reducing administrative burden for taxpayers is one important mechanism towards that goal.

The SOP includes developing robust online resources, expanding outreach and educational programs, and streamlining the tax filing process. These strides are made possible with IRA funding through such initiatives as **1.1 Improve the Availability and Accessibility of Customer Service**. By making it easier for taxpayers to calculate and pay taxes accurately, these investments have a dual benefit of reducing their administrative burden and increasing their rate of voluntary compliance.

Potential Benefit: Enhanced taxpayer services can yield significant benefits, including increased voluntary compliance and a more positive taxpayer experience. This can potentially lead to an improvement in revenue collections, as seen in other sectors where service improvements have directly correlated with increased revenue.

Empirical Support: Empirical support for the impact of taxpayer services on compliance rates is robust, as evidenced by multiple studies. Findings from the 2012 IRS Research conference indicate that taxpayers who are more willing to pay for reduced reporting burdens tend to avoid self-reporting regimes.²⁶ This preference for simpler tax reporting methods is linked to lower rates of underreporting in regimes with less reporting burden, such as automatic reporting, suggesting that ease in tax reporting correlates with higher compliance. The overarching message of this experiment is that providing options to reduce the burden in tax reporting leads to better compliance; taxpayers generally avoid complex and burdensome reporting procedures. Further, an experiment conducted by Tulane University demonstrated that equipping taxpayers with necessary filing information increased compliance rates from 62% to 70%, underscoring the effectiveness of service provisions in tax administration.²⁷

A More Comprehensive Revenue Scenario

The case studies discussed above demonstrate the anticipated revenue effects of the SOP transformative initiatives. The table to the right presents potential revenue figures for FY 2024 through FY 2034 using a more comprehensive approach. Under the most comprehensive approach, the IRA investment, if sustained, will raise \$851 billion over FY 2024–2034, which is more than double the estimates from the previous, overly conservative ROI estimation process (see Table 2).²⁸ As enacted, the IRA would raise \$561 billion over FY 2024–2034.

It is notable these figures reflect only revenues from specific deterrence of individual audits. They do not incorporate specific deterrence effects from other types of enforcement activities or general deterrence.²⁹ Broader deterrence effects will likely magnify the benefits of these investments. While direct enforcement revenue is more straightforward to measure, the second and third order effects of these actions can have profound impacts on revenue. These indirect effects are crucial for a holistic understanding of the efficacy of IRS actions and strategies. To that end, IRS and Treasury have research underway to estimate and project indirect effects, which will allow for a better assessment of the full value and impact of enforcement and increased communications on overall tax compliance.

²⁴ U.S. Government Accountability Office (GAO). Information Technology Reform: Progress Made; More Needs to Be Done to Complete Actions and Measure Results, 2015. <https://www.gao.gov/products/gao-15-617>

²⁵ IT Dashboard. (n.d.). *Cost Savings*. Retrieved December 13, 2023, from <https://www.itdashboard.gov/cost-savings>

²⁶ Contos, G., Guyton, J., Langetieg, P., Lerman, A. H., & Nelson, S. (2012). *Taxpayer Compliance Costs for Corporations and Partnerships: A New Look*. IRS Office of Research.

²⁷ Alm, J., Cherry, T., Jones, M., & McKee, M. (2010). *Taxpayer information assistance services and tax compliance behavior*. *Journal of Economic Psychology*, 31(5), 577–586. <https://doi.org/10.1016/j.joep.2010.03.018>

²⁸ Estimates assumes discretionary base is kept consistent year over year, keeping pace with inflation.

²⁹ The deterrence effect of compliance activities on taxpayer behavior refers to the reduced likelihood of tax evasion or avoidance due to the presence and actions of the IRS, such as audits, penalties, and enforcement actions, which create a perceived risk of detection and punishment.

Table 2: Revenue Associated with IRA Investment Extended through Fiscal Year 2034

[Amounts are in billions of dollars]

Type of revenue	FY 2024– FY 2034 Total
Previous method for estimating enforcement revenue	
Revenue	
Direct revenue	290
Soft notices	18
CI restitution paid	1
Total direct revenue (IRA)	309
Revenue protected (LB&I)	67
Revenue protected (W&I)	14
Previous method for estimating enforcement revenue, total	390
Impact of changing marginality assumption, assuming efficiency gains for direct revenue and soft notices, and adding specific deterrence	
Direct revenue & soft notices	68
Specific deterrence	39
Expanded enforcement estimates, total	497
Impact of efficiency gains	
Leveraging behavioral science tactics	53
IT modernization	301
Efficiency gains, total	354
Diversified revenue strategies, total	851

The IRA allows us to simultaneously address longstanding issues in enforcement, technology, and service caused by decades of underinvestment. We will realize revenue benefits from focusing enforcement efforts on high-income and large business taxpayers who are not paying the taxes they legally owe, investing in better technology solutions that facilitate voluntary compliance and help target resources, and improving customer service. This white paper suggests a path forward for estimating these benefits, which also provides a roadmap for further study of these benefits.

The IRS stands as one of the federal government’s most crucial agencies. Its role in funding essential national services and upholding fiscal integrity cannot be overstated. With each new challenge our nation faces, making sure that we have the resources to operate ensures that we are laying the groundwork for a thriving economy. The investments outlined in the Strategic Operating Plan will do exactly that and pay dividends by helping taxpayers to voluntarily comply with America’s tax laws and enabling the IRS to efficiently address taxpayer noncompliance.