

NATIONAL TAXPAYER ADVOCATE

Annual Report to Congress

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EXECUTIVE SUMMARY

Pay-as-you-earn (PAYE) systems are designed to collect the correct amount of tax throughout the course of the year as taxpayers earn the associated income. The U.S. has a simple PAYE system, which applies withholding predominantly on wage income. By contrast, other countries, such as the United Kingdom (U.K.) and New Zealand, have a broader PAYE system collecting tax on a range of payments beyond simple wages. The U.K. has been so successful at this expansion that approximately two-thirds of British taxpayers end each year having already fully and accurately satisfied their tax liabilities.

This study considers the benefits and burdens of an expanded PAYE system within the U.S. and the challenges that would need to be addressed in order for this expansion to occur. Both taxpayers and the IRS would benefit from a broader PAYE system. From the perspective of taxpayers, an expanded PAYE tax system combined with real-time adjustments based on taxpayers' changing circumstances would allow for a much more accurate collection of tax liabilities at source throughout the course of the year. In theory, by year end, most taxpayers would be neither over-withheld nor under-withheld and would have enjoyed the benefits of this relative certainty during the entire year. Moreover, the overall reporting and payment system would be simplified and the possibility of unintentional errors reduced. An expanded PAYE also would streamline and improve tax administration. As the liabilities of most taxpayers would be determined and collected in real time, the IRS would be spared the resource burdens inherent in after-the-fact collection endeavors. Moreover, they would be obtaining the tax remittances and much of the relevant information from third parties, thereby substantially reducing opportunities for intentional noncompliance.

In tax year (TY) 2016, 45 percent of nonitemizing filings reported wage earnings subject to withholding as the sole source of income. Thus, even simple PAYE allows for complete withholding of tax at source for these approximately 59 million filings. With a variety of withholding adjustments, some involving a greater or lesser degree of difficulty, PAYE tax collection could be extended to seven of the primary income sources, covering 62 percent of tax returns. These income sources and the possible progression are as follows:

FIGURE 1.1, Cumulative Buildup of PAYE Income Items, Tax Year 2016 Data

Income type(s)	Number of nonitemizing tax returns	Incremental addition	Percentage of nonitemizing returns	Percentage of all tax returns
Wage only	59,300,000	59,300,000	45%	40%
Wage and/or interest	65,600,000	+6,300,000	50%	45%
Wage, interest, and/or pension	71,000,000	+5,300,000	54%	48%
Wage, interest, pension, and/or dividends	73,400,000	+2,500,000	56%	50%
Wage, interest, pension, dividends, and/or capital gains	78,900,000	+5,500,000	60%	54%
Wage, interest, pension, dividends, capital gains, and/or IRA	87,100,000	+8,200,000	66%	59%
Wage, interest, pension, dividends, capital gains, IRA, and/or unemployment	90,700,000	+3,600,000	69%	62%

Additionally, for a comprehensive PAYE system to provide relatively accurate levels of withholding, that system must properly account for frequently occurring deductions and credits. Such is particularly the case if the PAYE system is ever to form the basis of a return-free filing regime for substantial numbers of taxpayers. The inclusion of these tax benefit items, particularly refundable credits such as the Earned Income Tax Credit (EITC) and the Child Tax Credit (CTC), is easier said than done. However, a comprehensive real-time PAYE system that included the above income types along with the seven most popular deductions and credits would cover 51 percent of tax returns. More modestly, a PAYE system incorporating only wage, interest, pension, and dividend income and solely the standard deduction would still achieve relatively accurate annual withholding for 26 percent of tax returns.

Regardless of the income, deduction, and credit items ultimately included, substantial PAYE coverage in the U.S. will require that significant procedural and cultural obstacles be confronted and overcome. Specifically, when expanding PAYE, some systemic features of the U.S. tax regime could be utilized, but many would need to be adjusted. Among other things:

- Information reporting mechanisms already exist with respect to the primary income types, which could be leveraged in a PAYE system.
- Expanded withholding requirements would impose burdens on impacted withholding agents.
 These burdens would need to be minimized and potentially subsidized.
- Coverage of independent contractors within the PAYE system would represent a significant step along the comprehensiveness spectrum.
- The ability to administer refundable credits, such as the EITC and the CTC, in conjunction with a PAYE system also would substantially broaden its potential scope. Nevertheless, the scale of systemic and cultural changes needed to accommodate these credits as part of, or alongside, PAYE, cannot be overstated.
- More robust real-time reporting is an essential aspect of any comprehensive PAYE system.
- Use of a PAYE code facilitates the efficiency of PAYE regimes.

Equally important as the technical ability to implement PAYE is taxpayers' willingness to accept it. Among other things:

- Taxpayers may find the expanded responsibility of the IRS under a PAYE system to be disconcerting.
- Sharing additional personal information with employers could raise significant privacy concerns.
- Taxpayers are often unwilling or unable to interact with the IRS on an ongoing basis.
- Tax refunds, which would be minimized by PAYE, are highly valued by many taxpayers and impact local and national economies.

To the extent that these technical and cultural issues can be accommodated, either in whole or in part, both U.S. taxpayers and the IRS have much to gain from an expanded PAYE system. As a result, the National Taxpayer Advocate recommends that the IRS and Treasury collaborate with TAS to:

Study the feasibility of, and options for, establishing a real-time comprehensive PAYE system. The study should focus first on applying such a system to income attributable to wages, interest, pensions, and dividends, and the standard deduction, which would cover approximately 26 percent of tax returns, and should consider the incremental costs and benefits of adding each category to a real-time comprehensive PAYE system. The study should then analyze such an

- expansion as it would apply to all 14 income, deduction, and credit categories described in more detail below, which would cover 51 percent of tax returns; and
- Conduct a public opinion survey examining the receptivity of potentially impacted taxpayers to a real-time comprehensive PAYE system, the changes in behavior it would require, and the results it would generate.

INTRODUCTION1

The Concept of PAYE Is Distinct From the Issue of How and When Income and Deductions Are Reported

The United States traditionally has employed a voluntary tax compliance system.² A central aspect of this system involves the timing and the methodology governing the collection of information applicable to the calculation of tax liabilities, and the provision of that information to taxpayers and the IRS.³ A number of proposals and studies have been advanced by stakeholders, legislators, and commentators with the goal of streamlining and improving this information reporting process.⁴ These efforts have generated recommendations with diverging details and varying names, ranging from Simple Return to Autofill to Return-Free Filing.⁵ Various studies have estimated, depending on their parameters and assumptions, that between 8 million and 63 million taxpayers could feasibly be exempted from the obligation to file year-end tax returns.⁶

PAYE Focuses on the Issue of Tax Collection

Separate from the question of information reporting, however, is the conundrum of how and when tax liabilities will be collected.⁷ Toward that end, tax systems around the world typically combine year-end reconciliation payments with more or less robust PAYE mechanisms for collecting revenue.⁸ This study discusses various PAYE systems, the potential benefits and burdens they present, and the opportunities and challenges relating to the adoption of a comprehensive PAYE system. As will be discussed below, the potential reach of such a system has been expanded as part of the Tax Cuts and Jobs Act.⁹

- 1 The principal authors of this study are Michael Baillif, Attorney Advisor, and Fran Cappelletti, Research Analyst.
- 2 Jonathan Barry Forman and Roberta Mann, Making the Internal Revenue Service Work, 17 FLA. TAX REV. 725, 748-751 (2015).
- 3 National Taxpayer Advocate 2015 Annual Report to Congress 45-55; National Taxpayer Advocate 2015 Annual Report to Congress 56-63; National Taxpayer Advocate 2011 Annual Report to Congress vol. 2, 146-150; Jonathan Barry Forman and Roberta Mann, *Making the Internal Revenue Service Work*, 17 FLA. TAX REV. 725, 752 (2015).
- 4 National Taxpayer Advocate 2013 Annual Report to Congress vol. 2, 68-96; Joseph Bankman, Simple Filing for Average Citizens: The California Ready Return, Tax Notes 1431, 1434 (June 13, 2005).
- Austan Goolsbee, *The Simple Return: Reducing America's Tax Burden Through Return-Free Filing*, The Hamilton Project 5 (July 2006) http://www.hamiltonproject.org/papers/the_simple_return_reducing_americas_tax_burden_through_return-free_fil; Autofill Act of 2015, H.R. 1750, 114th Congress; Tax Filing Simplification Act of 2016, S. 2789, 114th Congress; Staff of Sen. Elizabeth Warren, *Tax Maze* 4-5 (2016), http://www.warren.senate.gov/files/documents/Tax_Maze_Report.pdf.
- 6 Department of the Treasury, Report to the Congress on Return-Free Tax Systems: Tax Simplification is a Prerequisite 16 (Dec. 2003).
- William G. Gale, Remove the Return, in Toward Tax Reform: Recs. for Obama's Task Force 40, 41 (Tax Analysts, 2009); William G. Gale and Benjamin Harris, What Is Return-Free Filing and How Would It Work? Briefing Book, Tax Pol'y Ctr., http://www.taxpolicycenter.org/briefing-book/what-it-return-free-filing-and-how-would-it-work (last visited June 5, 2017).
- 8 Koenraad van der Heeden, *The Pay-As-You-Earn Tax on Wages, Tax Law Design and Drafting* vol. 2, 5 (Victor Thuronyi, ed., International Monetary Fund 1998); William G. Gale and Janet Holtzblatt, *On the Possibility of a No-Return Tax System*, Natl. Tax J. 475, 476 (1997).
- 9 H.R. 1, Tax Cuts and Jobs Act, Pub. Law No. 115-97, 131 Stat. 2054 (Dec. 22, 2017).

Exact Withholding, Which Is the Ideal Form of PAYE, Requires Real-Time Reporting

The gold standard for PAYE systems is for them to collect the precise amount of tax owed by taxpayers during the year. This is known as exact withholding and means that at year end taxpayers will neither have a tax liability requiring the additional payment of tax nor a tax overpayment requiring the filing of a refund claim. Exact withholding, however, and therefore the implementation of a successful comprehensive PAYE system, requires timely and accurate information reporting by employers and institutions paying income, and by taxpayers experiencing status changes that impact their available deductions and credits. An example of this real-time reporting, which has now been embraced in the U.K., involves, among other things, integrated payroll systems that simultaneously process payroll and provide information reporting to the tax authorities.¹⁰ Given the goal of exact withholding, and the crucial importance of real-time reporting in achieving it, the term "comprehensive PAYE system," used herein, encompasses those concepts.

Comprehensive PAYE Systems Require Some Compromises, But Provide Many Benefits to Taxpayers and Tax Authorities

Generally, the broader the system for calculating and collecting tax as amounts are earned, the narrower and less intrusive are the requirements for reconciling and paying tax at year end, because more taxpayers receive the benefit of exact withholding.¹¹ For example, the U.K. applies a widespread withholding tax on wage income, royalties, and pensions, while also exempting from taxation certain other categories of income, such as capital gains under an £11,700 threshold and dividends under a £5,000 threshold, that do not easily lend themselves to a PAYE system of tax collection.¹² Because of this ongoing systemic effort to withhold the correct amounts of tax liability, approximately two-thirds of British taxpayers end each year having already fully and accurately satisfied their tax liabilities.¹³ As is also the case in the U.K., such comprehensive PAYE systems can then, if desired, be coupled with a less arduous year-end reporting regime, or even a return-free environment for those groups of taxpayers whose situations are straightforward enough that they require no year-end tax reconciliation.¹⁴

The Simple PAYE System Applied in the U.S. Has a Number of Shortcomings

By contrast, the U.S. applies a simple PAYE system that focuses on employer withholding against wage income. The withholding is undertaken at a standard rate throughout the year, regardless of external changes impacting tax liability, unless the taxpayer takes affirmative steps to adjust amounts being

- Jessica Winch, Q&A: Why Your PAYE is Switching to 'Real Time,' Telegraph (Apr. 5, 2013), http://www.telegraph.co.uk/finance/personalfinance/tax/9973700/QandA-Why-your-PAYE-tax-is-changing-to-real-time.html; David Gauke, PAYE Story, Tax'n (Sept. 21, 2011), http://www.taxation.co.uk/taxation/Articles/2011/09/21/29571/paye-story. See also National Taxpayer Advocate 2013 Annual Report to Congress vol. 2 83-93.
- William G. Gale and Benjamin Harris, What are the Benefits? Briefing Book, Tax Pol'y Ctr., http://www.taxpolicycenter.org/briefing-book/what-are-benefits-return-free-filing (last visited June 5, 2017); William G. Gale and Janet Holtzblatt, On the Possibility of a No-Return Tax System, Natl. Tax J. 475, 476 (1997); William J. Turnier and Scott L. Little Is It Time for an American PAYE? 103 Tax Notes 559, 565-566 (May 3, 2004).
- Her Majesty's Revenue and Customs (HMRC), Capital Gains Tax https://www.gov.uk/capital-gains-tax/print (last visited Nov. 19, 2018); HMRC, Dividends Allowance Factsheet (Aug. 17, 2015) https://www.gov.uk/government/publications/dividend-allowance-factsheet/dividend-allowance-factsheet. See also International Bureau of Fiscal Documentation (IBFD), United Kingdom Country Analysis 1. Individual Income Tax (Jan. 1, 2017) 1.3.3, Pension Income; 1.10.3, Withholding taxes.
- Louise Eccles, Millions are Unnecessarily Filling in Tax Returns: Quarter of Those Filing Forms Owe Less than £50 or Nothing at All, Dally Mall (June 15, 2015), http://www.dailymail.co.uk/news/article-3125675/Millions-needlessly-filling-tax-returns-Quarter-completing-forms-owe-50-all.html. See also William J. Turnier, PAYE as an Alternative to an Alternative Tax System, 23 Va. Tax Rev. 205, 212 (Summer 2003).
- 14 William G. Gale, Remove the Return, in Toward Tax Reform: Recs. for Obama's Task Force 40, 41 (Tax Analysts, 2009).

withheld.¹⁵ Thereafter, taxpayers calculate and report their final tax liability at year end.¹⁶ They are then entitled to a tax refund or subject to a tax liability, depending on the result of the calculations.

The approach currently followed in the U.S. inevitably possesses a variety of systemic flaws. For taxpayers, the uncertainty and retrospective nature of a limited PAYE system stand as barriers to compliance.¹⁷ Although simplicity can be substantially increased through a variety of approaches that would reduce reporting burdens, these reforms would not necessarily address the problem that taxpayers are often required to pay tax well after the fact with money they may no longer have.¹⁸

A regime employing only limited PAYE taxation also presents the IRS with the fundamental challenge of eventually collecting any remaining tax liability. This reality helps contribute to an annual underpayment tax gap of approximately \$46 billion between the amounts owing from individual taxpayers and the amounts that are ultimately received by the IRS.¹⁹ Additionally, this system currently generates back-loaded administrative expenditures dedicated, in part, to substantial tax compliance and collection activities.

Further, a system that contemplates the large-scale reconciliation of tax obligations after year end inevitably generates substantial refund activity. For tax year 2016, the IRS received 116 million tax returns claiming over \$416 billion in refunds. Simply processing these returns, answering associated inquiries, and issuing the refunds themselves account for a significant portion of IRS resources.

In turn, this refund activity also raises the possibility of some unscrupulous taxpayers, return preparers, and identity thieves seeking to enrich themselves at the expense of the federal government. For example, the IRS has reported that, as of May 6, 2017, it identified 195,941 tax returns with \$2.1 billion claimed in fraudulent refunds.²¹ The danger of tax fraud is legitimate, and the IRS must, as a result, devote significant resources to combatting it. The IRS's sometimes indiscriminate efforts in this regard, however, have resulted in considerable and unnecessary hardship for legitimate taxpayers, as can be seen

¹⁵ Koenraad van der Heeden, *The Pay-As-You-Earn Tax on Wages, Tax Law Design and Drafting* vol. 2, 4 (Victor Thuronyi, ed., Int'l Monetary Fund 1998).

¹⁶ Joseph Bankman, Using Technology to Simplify Filing, 61 National Tax Journal 773, 774 (Dec. 2008).

¹⁷ Jonathan Barry Forman and Roberta Mann, Making the Internal Revenue Service Work, 17 FLA. TAX REV. 725, 774 (2015).

¹⁸ The majority of taxpayers actually overpay their taxes during the year, but the number of taxpayers with amounts due and owing remains significant.

¹⁹ IRS, IRS Releases New Tax Gap Estimates; Compliance Rates Remain Statistically Unchanged From Previous Study (Jan. 6, 2012), https://www.irs.gov/newsroom/irs-releases-new-tax-gap-estimates-compliance-rates-remain-statistically-unchanged-from-previous-study. As noted by the IRS, "Overall, compliance is highest where there is third-party information reporting and/or withholding. For example, most wages and salaries are reported by employers to the IRS on Forms W-2 and are subject to withholding. As a result, a net of only 1 percent of wage and salary income was misreported. But amounts subject to little or no information reporting had a 56 percent net misreporting rate in 2006." Accordingly, a broader application of PAYE, which included both an information reporting and tax collection component, likely would reduce the underreporting and underpayment tax gaps, and perhaps the non-filing tax gap as well, thereby decreasing the cumulative tax gap of approximately \$385 billion.

²⁰ IRS, Individual Returns Transaction File (IRTF), Compliance Data Warehouse (CDW), individual returns for tax year (TY) 2016, data accessed Oct. 19, 2018.

²¹ Treasury Inspector General for Tax Administration (TIGTA), Ref. No. 2018-40-012, Results of the 2017 Filing Season 21-22 (Jan. 31, 2018).

in areas such as identity theft and Form 1042-S refunds.²² For example, the false positive rate for the IRS's identity theft filter was 62 percent when last measured at the end of September 2018.²³

Quality Tax Administration Would Be Enhanced by a Comprehensive PAYE System

No method of revenue collection is a panacea for the challenges confronted by a tax regime. Efforts to reduce the tax gap, enforce the revenue laws, and limit tax fraud will always be required to some degree. Nevertheless, a comprehensive PAYE system, to the extent that it proves viable, could substantially minimize the problems presented by after-the-fact revenue collection.²⁴ By significantly limiting the amount of refund payments, and by looking to and collecting from third parties, such a system would reduce the opportunities for, and attractiveness of, tax fraud, while making the revenue easier to collect in the first instance.²⁵

A Comprehensive PAYE Regime Would Particularly Benefit Taxpayers

From a taxpayer perspective, a comprehensive PAYE system would reduce the burden that accompanies the sometimes confusing and overwhelming annual reporting generally required of wage earners. ²⁶ It would also substantially minimize the number and impact of reporting errors made by good-faith taxpayers, as many of the calculation and remittance duties would be undertaken by employers or other third parties. Specifically, the types of errors typically caught by the IRS's Automated Underreporter (AUR) program would be greatly reduced. Some taxpayers likewise would enjoy the increased certainty of an exact withholding system, which generally would not require them to raise a lump sum payment to satisfy their tax liabilities after year end. ²⁷ Additionally, a comprehensive PAYE system could serve as an effective vehicle for achieving substantial tax simplification for a significant number of taxpayers, a long-held goal of many stakeholders and policymakers. ²⁸

This study will examine different PAYE systems existing in other countries and will analyze the benefits, burdens, and limitations of a broader PAYE system as it might be applied in the U.S. Finally, although this study does not advocate for any changes to the current U.S. tax collection system, it recommends that the IRS and the Department of the Treasury, in collaboration with TAS, consider the desirability and feasibility of a comprehensive PAYE system applicable to some of the most commonly arising income types, deductions, and credits. As discussed in more detail below, a comprehensive PAYE system that incorporated only wage, interest, pension, and dividend income and solely the standard deduction reported on IRS Form 1040, U.S. Individual Income Tax Return, would result in exact withholding for

National Taxpayer Advocate 2017 Annual Report to Congress 219-226; National Taxpayer Advocate 2016 Annual Report to Congress 151-160; National Taxpayer Advocate 2015 Annual Report to Congress 45-55; National Taxpayer Advocate 2015 Annual Report to Congress 56-63; National Taxpayer Advocate 2015 Annual Report to Congress 56-63; National Taxpayer Advocate 2012 Annual Report to Congress 68-94.

²³ See Most Serious Problem: False Positive Rates: The IRS's Fraud Detection Systems Are Marred by High False Positive Rates, Long Processing Times, and Unwieldy Processes Which Continue to Plague the IRS and Harm Legitimate Taxpayers, supra.

William G. Gale and Benjamin Harris, *What are the Benefits*? Briefing Book, Tax Pol'y Ctr., http://www.taxpolicycenter.org/briefing-book/what-are-benefits-return-free-filing (last visited June 5, 2017).

²⁵ William J. Turnier, PAYE as an Alternative to an Alternative Tax System, 23 Va. Tax Rev. 205, 264 (Summer 2003).

²⁶ Non-wage earners typically make quarterly estimated tax payments which, although sometimes no less confusing or complex, allocate the reporting and remittance burden throughout the year.

²⁷ Deborah A. Geier, Fundamental Tax Reform: Incremental Versus Fundamental Tax Reform and the Top One Percent, 56 SMU L. Rev. 99, 167-168 (Winter 2003).

²⁸ See, e.g., National Taxpayer Advocate 2016 Annual Report to Congress 305-324.

26 percent of these filings. A comprehensive PAYE system that included seven common income types and seven deductions and credits would extend to 51 percent of all tax returns.²⁹

Regardless of the particular form adopted, a comprehensive PAYE system would allow for more precise withholding, limit the number of taxpayers requiring tax reconciliation payments after year end, and allow the option of exempting such taxpayers altogether from post-year-end tax filing obligations.³⁰ Such benefits to both taxpayers and the IRS make the prospect of a comprehensive PAYE system intriguing and worthy of further analysis.

TAS Research analysis of IRS CDW, IRTF, TY 2016 returns. After the standard deduction, the EITC and the CTC are respectively the second- and third-largest credit/deduction items claimed by U.S. taxpayers. Such refundable credits theoretically can be incorporated into a PAYE system so that these refunds are transmitted to taxpayers, either directly or via offset, ratably throughout the course of the year. However, inclusion of these refundable credits within a broader PAYE system would require substantial reform of the tax system and might face resistance from taxpayers (see more detailed discussion in "Successful Implementation of a Comprehensive PAYE System is Feasible, But Requires That a Number of Procedural and Cultural Obstacles Be Addressed and Overcome" infra). They are presented as part of this latter coverage number to illustrate the scope of a comprehensive PAYE system if larger systemic and attitudinal changes are embraced.

³⁰ William G. Gale and Benjamin Harris, *What are the Benefits*? Tax Pol'y Ctr., http://www.taxpolicycenter.org/briefing-book/what-are-benefits-return-free-filing (last visited June 5, 2017).

PAYE SYSTEMS INCORPORATE VARIOUS GOALS AND APPROACHES

Simple Withholding Is the Version of PAYE Used Within the U.S.

Generally, three different types of PAYE systems exist. The most basic form of PAYE is simple withholding, which is the approach applied in the U.S. It was implemented as a revenue collection mechanism during World War II, and has operated in roughly the same form ever since.³¹

Under a simple withholding system, taxpayers provide their employers with their marital status, elected allowances, and any additional amounts they would like withheld. Withholding is then undertaken from wage income on a paycheck-by-paycheck basis. Percentage adjustments are automatically made to account for the amount of earnings within each pay period, but these adjustments are too generalized to result in accurate withholding for many taxpayers.³² Moreover, earnings from other sources, such as interest, dividends, capital gains, and self-employment income are not subject to withholding.

As a result, a year-end tax reconciliation is required to compare the amounts collected via withholding against the taxpayer's aggregate annual tax liability. This reconciliation, which in the U.S. is implemented through a post-year-end tax return filing requirement imposed on taxpayers, then generates a tax refund, a tax liability, or no payment from either the government or the taxpayer depending on the outcome.

Exact Withholding Seeks to Collect Complete Tax Liability By the End of the Year

The other two varieties of PAYE represent different aspects of a concept known as exact withholding. The first of these methods is referred to as cumulative withholding and is used in countries such as the U.K. and New Zealand.³³ It aims to withhold precisely the right amount of tax at regular intervals throughout the year.³⁴

To facilitate implementation, participating taxpayers generally are required to provide their employers or the taxing authority with all information necessary to enable the employer to accurately withhold amounts sufficient to satisfy each taxpayer's annual tax liability from withholding alone.³⁵ Taxpayers also must furnish their employers or the taxing authority with news of any event or change in status that would have a bearing on the determination of their tax liability.³⁶ To the extent taxpayers also earn income from other sources not subject to withholding, they are separately required to report and pay taxes on that amount at year end.

³¹ Pub. L. 68, Ch. 120, 57 Stat. 126 (June 9, 1943). For a discussion of the historical evolution of the U.S. tax administration, see National Taxpayer Advocate 2011 Annual Report to Congress 1-150 (Study: From Tax Collector to Fiscal Automaton: Demographic History of Federal Income Tax Administration 1913-2011).

³² IRS Notice 1036 (Jan. 2018). See also Koenraad van der Heeden, The Pay-As-You-Earn Tax on Wages, Tax Law Design and Drafting vol. 2, 4 (Victor Thuronyi, ed., Int'l Monetary Fund 1998).

³³ William G. Gale and Benjamin Harris, What Is Return-Free Filing and How Would It Work? Briefing Book, Tax Pol'y Ctr., http://www.taxpolicycenter.org/briefing-book/what-it-return-free-filing-and-how-would-it-work (last visited June 5, 2017); IBFD, New Zealand – Country Analysis 1. Individual Income Tax (Oct. 1, 2017).

³⁴ Id.

³⁵ See, e.g., IBFD, United Kingdom - Country Analysis 1. Individual Income Tax (Jan. 1, 2017) 1.10.3.1 Employment Income; William J. Turnier, PAYE as an Alternative to an Alternative Tax System, 23 Va. Tax Rev. 205, 251 (Summer 2003). See also William G. Gale and Janet Holtzblatt, On the Possibility of a No-Return Tax System, Natl. Tax J. 475, 476 (1997).

³⁶ Ia

The goal of cumulative withholding systems is to collect the proper amount of tax during the year so that no, or only minimal, refunds or tax liabilities are owed after year end. Often, taxing authorities will also allow taxpayers requiring no adjustments to forego filing an annual tax return altogether.³⁷ To achieve these benefits, cumulative withholding regimes generally apply to income sources beyond simple wages and utilize broader tax brackets.³⁸ These systemic adjustments will be discussed in greater depth when the U.K. system is examined in more detail below.

Final Withholding Relies on Reconciling Adjustments Made to Year-End Paychecks

A third variant of PAYE, which, like cumulative PAYE, is an exact withholding system, represents a hybrid between simple PAYE and cumulative PAYE.³⁹ Specifically, final PAYE systems, which are used in Germany and Japan, apply withholding at a standard rate during the year, and then adjust the amount collected from the final paycheck of the year to accommodate for the difference in tax withheld versus tax liability.⁴⁰

Final withholding is a hybrid creation in that it essentially applies simple withholding to all but the taxpayer's final paycheck. This withholding is generally undertaken without variation or adjustment to account for actual tax liability throughout the bulk of the year. Then a year-end reconciliation is made on the final paycheck with greater or lesser amounts being withheld in order to achieve the proper result. Taxpayers' final paycheck might be happily large or dishearteningly small. The end result, however, will be exact withholding that has been achieved using elements of both simple PAYE and cumulative withholding.

³⁷ William J. Turnier and Scott L. Little, Is It Time for an American PAYE?, 103 TAX NOTES 559, 564 (May 3, 2004).

³⁸ See, e.g., IBFD, New Zealand – Country Analysis 1. Individual Income Tax (Oct. 1, 2017) 1.10.3, Withholding Taxes. New Zealand, which is one example of a country that utilizes a comprehensive PAYE system, withholds taxes on a variety of income sources, including wages, dividends, and interest. See also William G. Gale and Janet Holtzblatt, On the Possibility of a No-Return Tax System, Natl. Tax J. 475, 476 (1997).

³⁹ Koenraad van der Heeden, *The Pay-As-You-Earn Tax on Wages, Tax Law Design and Drafting* vol. 2, 5 (Victor Thuronyi, ed., International Monetary Fund 1998).

⁴⁰ William G. Gale and Janet Holtzblatt, On the Possibility of a No-Return Tax System, Natl. Tax J. 475, 476 (1997).

⁴¹ Koenraad van der Heeden, *The Pay-As-You-Earn Tax on Wages, Tax Law Design and Drafting* vol. 2, 5 (Victor Thuronyi, ed., International Monetary Fund, 1998).

⁴² William G. Gale and Benjamin Harris, What Is Return-Free Filing and How Would It Work? Briefing Book, Tax Pol'y Ctr., http://www.taxpolicycenter.org/briefing-book/what-it-return-free-filing-and-how-would-it-work (last visited June 5, 2017).

⁴³ Koenraad van der Heeden, *The Pay-As-You-Earn Tax on Wages, Tax Law Design and Drafting* vol. 2, 5 (Victor Thuronyi, ed., International Monetary Fund 1998).

PAYE SYSTEMS, EVEN THOSE INVOLVING EXACT WITHHOLDING, ARE DIFFERENT FROM TAX AGENCY RECONCILIATIONS

To the extent that a PAYE system is reasonably comprehensive, it readily lends itself to a return-free environment.⁴⁴ If taxpayers neither owe tax, nor are entitled to refunds, the need for year-end tax returns can be greatly minimized or rendered superfluous.⁴⁵ A return-free environment has many advantages, including increased certainty, reduced burden, and improved resource allocation.⁴⁶

Nevertheless, PAYE, which is the subject of this study, represents a fundamentally different concept from tax agency reconciliations (TAR). PAYE systems concern themselves with revenue collection, whereas TAR focuses on information reporting.⁴⁷ As a result, TAR and PAYE can coexist or be applied independently of one another. The difference between a TAR and a comprehensive PAYE is that, in a TAR, the taxing authority generally provides taxpayers with tax data and initial calculations that taxpayers can accept or amend as they determine their own liabilities. On the other hand, in a PAYE system, a third-party employer or institution collects taxes at source based on rules formulated by the taxing authority and data furnished by the taxpayer. This taxpayer data, which helps determine amounts withheld, is sometimes compiled by the taxing authority, as in the U.K., and sometimes provided directly by the taxpayer to the employer or institution, as in the U.S.⁴⁸

Commentators and legislators, however, sometimes are vague in drawing definitional lines and matters can be further complicated by the fact that year-end return-free filing can be facilitated by either a PAYE system or a TAR system.⁴⁹ As a result, clarity in the tax administration dialogue can be greatly enhanced by distinguishing PAYE from TAR, and then by specifically identifying the particular system in which some degree of return-free filing might be contemplated.

As mentioned, in a TAR system, the tax authorities provide some or all taxpayers with a pre-filled return, which taxpayers can either file as-is or correct to reflect their actual bill or refund due.⁵⁰ Variations of this system, which are alternatively described as "pre-populated returns," "pre-filled returns," and "auto-filled returns" are used in countries such as Denmark, Sweden, Spain, and Portugal.⁵¹

- 44 Austan Goolsbee, *The Simple Return: Reducing America's Tax Burden Through Return-Free Filing*, The Hamilton Project 7-10 (July 2006), http://www.hamiltonproject.org/papers/the_simple_return_reducing_americas_tax_burden_through_return-free_fil.
- 45 William J. Turnier and Scott L. Little, Is It Time for an American PAYE?, 103 Tax Notes 559, 561 (May 3, 2004).
- 46 William G. Gale and Benjamin Harris, What are the Benefits?, Tax Pol'y Ctr., http://www.taxpolicycenter.org/briefing-book/what-are-benefits-return-free-filing (last visited June 5, 2017).
- 47 William G. Gale, Remove the Return, in Toward Tax Reform: Recs. for Obama's Task Force 40, 41 (Tax Analysts, 2009); William G. Gale and Benjamin Harris, What Is Return-Free Filing and How Would It Work? Briefing Book, Tax Pol'y Ctr., http://www.taxpolicycenter.org/briefing-book/what-it-return-free-filing-and-how-would-it-work (last visited June 5, 2017).
- 48 IBFD, United Kingdom Country Analysis 1. Individual Income Tax (Jan. 1, 2017) 1.10.3.1 Employment Income.
- 49 See, e.g., Joseph Cordes and Arlene Holen, Should the Government Prepare Individual Tax Returns?, Technology Policy Institute 3 (Sept. 2010); Staff of Sen. Elizabeth Warren, Tax Maze (2016), http://www.warren.senate.gov/files/documents/Tax_Maze_Report.pdf.
- William G. Gale, Remove the Return, in Toward Tax Reform: Recs. for Obama's Task Force 40, 41 (Tax Analysts, 2009); William G. Gale and Benjamin Harris, What Is Return-Free Filing and How Would It Work?, Briefing Book, Tax Pol'y Ctr., http://www.taxpolicycenter.org/briefing-book/what-it-return-free-filing-and-how-would-it-work (last visited June 5, 2017).
- 51 Forum on Tax Administration Sub-Group, *Using Third Party Information Reports to Assist Taxpayers Meet Their Return Filing Obligations—Country Experiences with the Use of Pre-populated Personal Tax Returns*, Ctr. for Tax Admin., Organisation for Economic Cooperation and Development (OECD) 5-6 (Mar. 2006). IBFD, Denmark Country Analyses 1. Individual Income Tax (Aug. 1, 2017), 1.11.1, *Tax Returns*; IBFD, Sweden Country Analyses 1. Individual Income Tax (Nov. 1, 2017), 1.11.1, *Tax Returns*; IBFD, Spain Country Analyses 1. Individual Income Tax (Nov. 1, 2017), 1.11.1, *Tax Returns*.

Additionally, the National Taxpayer Advocate previously has advocated that the IRS make financial data provided by third parties electronically available to taxpayers and their representatives for the purpose of tax return preparation.⁵² While not an active TAR, this approach would have many of the benefits, including minimized taxpayer burden and enhanced accuracy. The IRS itself likewise has proposed the Real Time Tax Initiative in which information returns, such as Forms W-2 and Forms 1099, would be accessible for use during the filing season.⁵³

A TAR, however, regardless of its form and regardless of how desirable, will not alone address the revenue collection side of the tax equation. Tax liabilities, even if they can more accurately be determined, must still be collected and refunds must still be paid. For example, for the 2016 tax year, the IRS issued over 116 million refunds totaling approximately \$416 billion, with the median refund being \$1,700 and the mean refund being \$3,600.⁵⁴

A comprehensive PAYE system would substantially reduce the year-end tax collections and refunds to be made by the IRS.⁵⁵ As with a comprehensive TAR, it could also be coupled with a return-free element eliminating the need for many qualifying taxpayers to file year-end returns.⁵⁶

⁵² National Taxpayer Advocate 2013 Annual Report to Congress vol. 2, 68-96.

⁵³ National Taxpayer Advocate 2009 Annual Report to Congress 338-345; National Taxpayer Advocate 2011 Annual Report to Congress 284-295; IRS, *Real Time Tax Initiative* (Apr. 27, 2018) https://www.irs.gov/tax-professionals/real-time-tax-initiative; Presentation, Real Time Tax Initiative Pub. Meeting (Dec. 8, 2011), https://www.irs.gov/pub/irs-utl/rtts_deck.pdf.

⁵⁴ IRS, IRTF, CDW, individual returns for TY 2016, data accessed Sept. 7, 2018.

⁵⁵ William J. Turnier and Scott L. Little, Is It Time for an American PAYE?, 103 TAX NOTES 559, 561 (May 3, 2004).

William G. Gale and Benjamin Harris, *What are the Benefits*?, Briefing Book, Tax Pol'y Ctr., http://www.taxpolicycenter.org/briefing-book/what-are-benefits-return-free-filing (last visited June 5, 2017).

THE U.S. CAN LEARN MUCH FROM THE EXPERIENCES OF OTHER COUNTRIES WITH PAYE SYSTEMS

Countries Choosing to Offer Some Form of Return-Free Filing Generally Do So In Combination With PAYE Collection Mechanisms

Approximately 36 countries allow return-free filing for qualifying taxpayers.⁵⁷ Nearly all of these countries implement the return-free portion of their tax administration through some form of exact withholding PAYE.⁵⁸

As explained above, this exact withholding can be undertaken using a cumulative withholding system, which makes adjustments and strives to collect the correct amount of tax throughout the course of the year. The U.K., Russia, and New Zealand are primary examples of countries employing cumulative withholding.⁵⁹ On the other hand, some countries, such as Germany and Japan, rely on final withholding systems that collect the proper amount of tax by adjusting withholding on taxpayers' final paycheck of the year.⁶⁰ Many other countries combine aspects of these exact withholding PAYE regimes with other requirements for, and limitations on, return-free eligibility.

Even simple withholding can be used to achieve return-free, or almost return-free, treatment for certain categories of taxpayers, as is done in the Netherlands.⁶¹ Most countries seeking to create a return-free environment do so by focusing primarily on wage withholding.⁶² Other countries, however, such as the U.K., have extended the reach of their PAYE systems to other types of income, and in doing so, have expanded the breadth of their return-free capacity.⁶³

The U.K. Employs One of the Most Comprehensive PAYE Systems in the World

The U.K. has operated a cumulative form of exact withholding for decades. This system, which centers on the pay-as-you-earn concept, has specifically been named "PAYE" by the U.K.⁶⁴ As discussed above, commentators and other tax systems likewise have adopted the term "PAYE" to describe pay-as-you-earn systems ranging from simple PAYE to exact withholding.

⁵⁷ William G. Gale and Benjamin Harris, What Other Countries Use It?, Tax Pol'y Ctr., http://www.taxpolicycenter.org/briefing-book/what-other-countries-use-it (last visited Dec. 19, 2017).

⁵⁸ William G. Gale and Janet Holtzblatt, On the Possibility of a No-Return Tax System, Natl. Tax J. 475, 476 (1997).

⁵⁹ William G. Gale and Benjamin Harris, What Is Return-Free Filing and How Would It Work? Briefing Book, Tax Pol'y Ctr., http://www.taxpolicycenter.org/briefing-book/what-it-return-free-filing-and-how-would-it-work (last visited Dec. 19, 2017); IBFD, New Zealand – Country Analysis 1. Individual Income Tax (Oct. 1, 2017) 1.10.3, Withholding taxes.

⁶⁰ William G. Gale and Benjamin Harris, What Is Return-Free Filing and How Would It Work?, Briefing Book, Tax Pol'y Ctr., http://www.taxpolicycenter.org/briefing-book/what-it-return-free-filing-and-how-would-it-work (last visited June 5, 2017).

⁶¹ Government of the Netherlands, Filing a Tax Return, https://www.government.nl/topics/income-tax/filing-a-tax-return; IBFD, Netherlands – Country Analyses – 1. Individual Income Tax (Aug. 1, 2017), 1.10.3.1, Employment Income; Koenraad van der Heeden, The Pay-As-You-Earn Tax on Wages, Tax Law Design and Drafting vol. 2, 7-8 (Victor Thuronyi, ed., International Monetary Fund 1998).

⁶² Koenraad van der Heeden, *The Pay-As-You-Earn Tax on Wages, Tax Law Design and Drafting* vol. 2, 7-8 (Victor Thuronyi, ed., International Monetary Fund 1998).

⁶³ William G. Gale and Janet Holtzblatt, On the Possibility of a No-Return Tax System, L Nat'L Law Tax J. no. 3, 1997, 475, 477-78. See also HMRC, UK Tax Gap Falls to 6.5 Percent As HMRC Targets the Dishonest Minority (Oct. 20, 2016) https://www.gov.uk/government/news/uk-tax-gap-falls-to-65-as-hmrc-targets-the-dishonest-minority; HMRC, Income Tax Overview (Oct. 14, 2016), https://www.gov.uk/income-tax/overview.

⁶⁴ David Gauke, PAYE Story, Tax'n (Sept. 21, 2011), http://www.taxation.co.uk/taxation/Articles/2011/09/21/29571/paye-story.

As in the U.S., the U.K. version of PAYE was established in the 1940s to address the financial obligations generated by World War II. To assist in meeting the funding requirements of the war and its aftermath, the U.K. increased its tax rolls by 150 percent over a two-year period. PAYE was correspondingly developed to limit the mistakes and computational burdens of the U.K.'s additional inexperienced taxpayers.

Originally, PAYE estimated taxpayers' annual tax liability and collected it via withholding throughout the course of the year. ⁶⁷ As time and technology progressed, the U.K. sought to accommodate changing work patterns and increase the precision and efficiency of tax collection by updating PAYE. In 2009, the U.K. created the National Insurance and PAYE Service (NPS) to compile and maintain in a single location records relating to earnings, tax, and National Insurance. ⁶⁸ Then, in 2013, the U.K. began requiring most employers to report PAYE income tax information to Her Majesty's Revenue and Customs (HMRC) in real time. ⁶⁹ The ability to maintain and access a single taxpayer record in real time allows for more accurate and efficient tax determinations and collections throughout the year, while also facilitating a new benefits payment system, the Universal Credit. ⁷⁰

In order to cover the maximum number of taxpayers as comprehensively as possible under its PAYE system, the U.K. takes some approaches different from those adopted by the U.S. In particular, U.K. taxpayers file and are taxed individually regardless of their family status.⁷¹ By contrast, the U.S.'s retrospective approach to administering tax benefits, such as the EITC, with reference to the ongoing existence of the family unit, places significant limitations on the number of tax returns to which a comprehensive PAYE system could be applied.⁷²

Additionally, withholding at source occurs on a range of income beyond wage earnings, including royalties, pensions, and annuities.⁷³ Moreover, beginning with a 2013 phase-in, the U.K. has generally administered benefits and support programs on a direct payment basis, rather than through the tax

⁶⁵ William G. Gale and Janet Holtzblatt, On the Possibility of a No-Return Tax System, L Nat'L Law Tax J. no. 3, 1997, 475, 477.

⁶⁶ Id.

⁶⁷ David Gauke, PAYE Story, Tax'n (Sept. 21, 2011), http://www.taxation.co.uk/taxation/Articles/2011/09/21/29571/paye-story.

⁶⁸ Id. Note, National Insurance in the U.K. is similar in concept to Social Security in the U.S.

⁶⁹ Jessica Winch, *Q&A: Why Your PAYE is Switching to 'Real Time,'* Telegraph, (Apr. 5, 2013), http://www.telegraph.co.uk/finance/personalfinance/tax/9973700/QandA-Why-your-PAYE-tax-is-changing-to-real-time.html. As used herein, the term "real time" means contemporaneously or instantaneously, as the case may be.

⁷⁰ Id.

⁷¹ William G. Gale and Janet Holtzblatt, On the Possibility of a No-Return Tax System, L Nat'L Law Tax J. no. 3, 1997, 475, 477-479.

⁷² National Taxpayer Advocate 2016 Annual Report to Congress 325-357; National Taxpayer Advocate 2016 Annual Report to Congress 325-357. For a more in-depth discussion of this issue, see *The Ability to Administer Refundable Credits Through the PAYE System Would Substantially Broaden Its Potential Scope, infra.*

⁷³ IBFD, United Kingdom - Country Analysis 1. Individual Income Tax (Jan. 1, 2017) 1.3.3, Pension income; 1.10.3, Withholding taxes.

system.⁷⁴ These adjustments make it easier for PAYE to operate very broadly and to collect the full annual tax liability from the majority of U.K. taxpayers during the course of the year.

The results of PAYE in the U.K. are noteworthy. The U.K. income tax gap for individuals, which is the difference between the income and related tax due and the amount collected, has dropped by approximately seven percent from 5.6 percent to 5.2 percent between 2005-2006 and 2014-2015. By contrast, the individual income tax gap when last measured in the U.S. in 2006 was roughly 14.5 percent of the tax due. Further, the last comprehensive study of tax compliance costs in the U.K. estimated these costs to be approximately two percent of revenue collected, as compared with over eight percent of revenue collected in the U.S. for roughly the same period. As an additional measure of tax compliance efficiency, the uncollected tax debt in the U.K. (approximately two percent) is substantially lower as a percentage of net tax revenue than it is in the U.S. (roughly 13 percent).

- In 2003, the U.K. began administering welfare through the tax system, via the Working Tax Credit and the Child Tax Credit. Michael Godwin and Colin Lawson, *The Life and Death of the Child Tax Credit and the Working Tax Credit*, Bath Economics Working Papers No. 1/12 (2012). Then, in 2013, the U.K. adopted the Universal Credit as a comprehensive benefit program to replace a variety of individual support payments and tax credits, including the income-based Jobseeker's Allowance, the Working Tax Credit, the Child Tax Credit, and the-income based Employment and Support Allowance. United Kingdom Department for Work and Pensions, *Universal Credit Announced* (Oct. 5, 2010) https://www.gov.uk/government/news/universal-credit-introduced; *Universal Credit: What Is It?* https://www.gov.uk/universal-credit (last visited Aug. 6, 2018). In part, the Universal Credit was meant to address complexities and remedy difficulties encountered by HMRC in attempting to administer benefits programs through the tax system, which, among other things, required reference to the family unit. United Kingdom Department for Work and Pensions, *Universal Credit Announced* (Oct. 5, 2010) https://www.gov.uk/government/news/universal-credit-introduced. The Universal Credit is now administered by the Department for Work and Pensions and is provided via direct payments determined with reference to income information compiled by HMRC. Department of Work and Pensions, *Universal Credit and You* (July 25, 2018) Sec. 4, https://www.gov.uk/government/publications/universal-credit-and-you/universal-credit-and-you-a#payments----how-when-and-where.
- 75 HMRC, Measuring Tax Gaps 2016 Edition: Tax Gap Estimates for 2014-2015, Her Majesty's Revenue and Customs (Oct. 20, 2016) 16, http://webarchive.nationalarchives.gov.uk/20170621230141/https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/561312/HMRC-measuring-tax-gaps-2016.pdf. In the U.K., the individual income gap in 2014-2015 was measured at £15.5 billion.
- 185, IRS Releases New Tax Gap Estimates; Compliance Rates Remain Statistically Unchanged From Previous Study (Jan. 6, 2012), https://www.irs.gov/newsroom/irs-releases-new-tax-gap-estimates-compliance-rates-remain-statistically-unchanged-from-previous-study. This 14.5 percent, as with the U.K. tax gap percentage, is net of taxes collected through enforcement activity. Unlike the applicable dollar amounts, the IRS only provides this percentage cumulatively and does not break it down among taxpayer categories such as individuals and corporations. Thus, the respective tax gaps may not necessarily constitute an exact "apples to apples" comparison, but they do provide some insight into the compliance behavior in the U.K. and the U.S. When last measured in 2006, the U.S. individual income tax gap was valued at \$309 billion.
- 77 Treasury Committee, House of Commons, *The Administrative Costs of Tax Compliance:* Seventh Report of Session 2003-2004 (June 4, 2004); David Collard and Michael Godwin, *Compliance Costs for Employers: UK PAYE and National Insurance*, 1995-6, 20 Fiscal Studies 423, 439-440 (1999); William J. Turnier and Scott L. Little, *Is It Time for an American PAYE?*, 103 Tax Notes 559, 566-568 (May 3, 2004).
- 78 OECD, Tax Administration 2017: Comparative Information on OECD and Other Advanced and Emerging Economies (2017) 106 https://read.oecd-ilibrary.org/taxation/tax-administration-2017_tax_admin-2017-en#page107. The OECD defines tax debt as the total amount of tax that is overdue for payment at the end of the fiscal year, including any interest and penalties. As with the compliance costs discussed in the preceding sentence, the uncollected tax debts of the U.K. and the U.S. have a number of causal factors. Among these, the scope of PAYE within each country plays an important role in determining the comparative efficiency of tax administration.

FIGURE 1.2, Comparative Compliance Data⁷⁹

Metric	U.K.	U.S.
Individual tax gap	5.6%	14.5%
Compliance costs as a percentage of revenue collected	2%	8%
Uncollected tax debt as a percentage of net revenue	2%	13%

PAYE as applied in the U.K. has not been free of difficulties and controversies. Each evolutionary phase, such as the implementation of NPS and the move to real-time reporting, has hit implementation snags and required subsequent adjustments. Further, no system of PAYE can completely cover all taxpayers, and a certain portion will always require year-end reconciliation. For example, PAYE in the U.K. excludes self-employed workers. Likewise, the possibility of error on the part of any system of tax administration can only be minimized, not completely eliminated. Nevertheless, the cumulative withholding PAYE system used in the U.K. appears to be relatively successful in limiting aggregate compliance costs, reducing the income tax gap, and extending a return-free system to approximately 65 percent of individual taxpayers.

Several Tax Authorities Have Taken Steps to Employ Various Types of PAYE

A range of countries has been making increasing use of PAYE in one form or another. For example, in New Zealand, tax code declarations are provided by employees to employers.⁸⁴ These tax codes determine the amount of tax to be deducted from gross wages and salaries and remitted by employers to the tax authority.⁸⁵ The tax codes take into account the type of employment, the number of jobs held, and the employee's entitlement to various rebates and deductions.⁸⁶ For example, a tax code factors in taxpayers' eligibility for various benefits, such as a credit for people earning between \$24,000 and \$48,000, families with minor dependents, and those possessing student loans.⁸⁷ Further, employees can apply to the tax authority for a special tax code certificate reflecting unique situations, such as previously accruing losses eligible for deduction.⁸⁸

- 85 Id.
- 86 Id.

⁷⁹ Sources for all data in this table are cited in the previous narrative paragraph. In order to display the most accurate presentation, this table presents tax gap numbers for tax years ending in 2006, which is the most current year for which both the U.S. and the U.K. published such information.

⁸⁰ Richard Dyson, *Digital Tax: 'HMRC Wants a Direct Link to Everyone's Bank Accounts'* Telegraph (Jan. 31, 2016), http://www.telegraph.co.uk/finance/personalfinance/tax/12128902/Digital-tax-HMRC-wants-a-direct-link-to-everyones-bank-accounts.html; David Gauke, *PAYE Story*, Tax'n (Sept. 21, 2011), http://www.taxation.co.uk/taxation/Articles/2011/09/21/29571/paye-story.

⁸¹ David Gauke, PAYE Story, Tax'n (Sept. 21, 2011), http://www.taxation.co.uk/taxation/Articles/2011/09/21/29571/paye-story.

⁸² Employment Status: Self Employed and Contractors, https://www.gov.uk/employment-status/selfemployed-contractor (last visited Sept. 6, 2018).

⁸³ Louise Eccles, Millions Are Needlessly Filling In Tax Returns: Quarter of Those Completing Forms Owe Less Than £50 Or Nothing At All, The Daily Mail (June 15, 2015), http://www.dailymail.co.uk/news/article-3125675/Millions-needlessly-filling-tax-returns-Quarter-completing-forms-owe-50-all.html; William J. Turnier, PAYE as an Alternative to an Alternative Tax System, 23 Va. Tax Rev. 205, 212 (Summer 2003).

⁸⁴ New Zealand Inland Revenue, What is my tax code? (Mar. 31, 2017) http://www.ird.govt.nz/contact-us/topfive/four/tax-code-index.html?id=201711MegaMenu.

⁸⁷ New Zealand Inland Revenue, Work Out Your Tax Code (Dec. 4, 2015) http://www.ird.govt.nz/how-to/taxrates-codes/workout/; New Zealand Inland Revenue, Independent Earner Tax Credit (Jul. 20, 2017) http://www.ird.govt.nz/income-tax-individual/tax-credits/ietc/?id=201512TaxRateCalculator.

⁸⁸ IBFD, New Zealand – Country Analysis 1. Individual Income Tax (Oct. 1, 2017) 1.10.3, Withholding taxes.

Taxpayers obtain a tax code by answering a questionnaire available on the tax authority's website.⁸⁹ The result of these questions generates a code corresponding to a series of potential circumstances (*e.g.*, one employer, income of \$75,000, one minor dependent). Thereafter, taxpayers furnish the applicable tax code to their employers.⁹⁰ If taxpayers fail to do so, withholding is instead applied at a default rate of 45 percent.⁹¹ Anytime taxpayers' circumstances change, they can return to the tax authority's website and obtain a revised tax code, which in turn they forward to their employer. Likewise, if the tax authority determines that taxpayers are using an incorrect tax code, it will send them a letter asking them to return to the website and update the applicable tax code.⁹² Thus, New Zealand's PAYE regime is relatively flexible in addressing taxpayers' individual circumstances.

Spain utilizes a PAYE system similar in concept to that of the U.S., but broader in application. It imposes withholding on employment earnings after adjusting for allowances and specified deductions, such as contributions to the social security system, donations to charitable organizations, and a range of other work-related expenditures capped at €2,000.⁹³ In addition, Spain withholds on dividends, interest, and royalties, and on income earned by many self-employed professionals.⁹⁴ At year end, taxpayers file a tax return and, as in the U.S., withheld amounts are treated as a credit against the amount of tax owed.

By comparison, in Australia, withholding, referred to by Australians as pay-as-you-go (PAYG), is still primarily imposed on wage income. ⁹⁵ It is not yet applied to dividends and interest earned by residents, but such income paid to non-resident sources is subject to PAYG. ⁹⁶ Also, Australia requires that payors who utilize the services of independent contractors undertake withholding if requested by those contractors, which step represents an important progression along the comprehensive withholding spectrum. ⁹⁷

⁸⁹ New Zealand Inland Revenue, What is my tax code? (Mar. 31, 2017) http://www.ird.govt.nz/contact-us/topfive/four/tax-code-index.html?id=201711MegaMenu.

⁹⁰ Id.

⁹¹ IBFD, New Zealand - Country Analysis 1. Individual Income Tax (Oct. 1, 2017) 1.10.3.1, Employment Income.

⁹² New Zealand Inland Revenue, What is my tax code? (Mar. 31, 2017) http://www.ird.govt.nz/contact-us/topfive/four/tax-code-index.html?id=201711MegaMenu.

⁹³ IBFD, Spain - Country Analysis 1. Individual Income Tax (Nov. 24, 2017) 1.3.6, Computation of Employment Income.

⁹⁴ IBFD, Spain – Country Analysis 1. Individual Income Tax (Nov. 24, 2017) 1.10.3, Withholding Taxes. This withholding is applied at varying rates based predominantly on the nature of the income earned and the period of time that the taxpayer has been in business. Thus, a taxpayer who has been self-employed as an artist for two years generally has withholding applied on incoming payments at a rate of seven percent, while after the third year, withholding increases to a rate of 19 percent. By contrast, income from renting urban immovable properties is subject to withholding at a rate of 19 percent, while income from the sale of the right to use their image by artists, athletes and bullfighters is subject to withholding at a rate of 24 percent. In such cases, withholding is generally undertaken by the payor and remitted to the Spanish tax authority. Susana Serrano-Davey, Self-employment in Spain, Expatica (Aug. 3, 2018) https://www.expatica.com/new/es/employment/self-employment/become-a-freelancer-2-104199/.

⁹⁵ Australian Tax Office (ATO), *Payments You Need to Withhold From* (Apr. 5, 2017) https://www.ato.gov.au/business/payg-withholding/payments-you-need-to-withhold-from/.

⁹⁶ ATO, Payments You Need to Withhold From (Apr. 5, 2017) https://www.ato.gov.au/business/payg-withholding/payments-you-need-to-withhold-from/; IBFD, Australia – Country Analysis 1. Individual Income Tax (Aug. 1, 2017) 1.10.3, Withholding Taxes.

⁹⁷ ATO, Payments You Need to Withhold From (Apr. 5, 2017) https://www.ato.gov.au/business/payg-withholding/payments-you-need-to-withhold-from/. The National Taxpayer Advocate has recommended that the U.S. adopt a voluntary withholding system for independent contractors. National Taxpayer Advocate 2017 Annual Report to Congress 329-331; National Taxpayer Advocate 2017 Annual Report to Congress 256-269.

Recently, France also adopted sweeping changes to its system of tax administration aimed at implementing a broadly applicable PAYE regime. Effective January 1, 2019, withholding at source will be imposed on a range of income including salaries, pensions, unemployment, and sickness benefits. Likewise, taxpayers will be expected to impose self-withholding on amounts such as business income, income from immovable properties, alimony, and foreign-source income. This combination of payor withholding and self-withholding should advance France substantially along the comprehensive PAYE spectrum.

The PAYE regimes of the U.K., New Zealand, Spain, Australia, and France provide generally representative examples of the PAYE systems utilized by the 36 countries that employ such mechanisms.¹⁰¹ The scope of PAYE differs and the extent to which these countries combine PAYE with return-free filing or auto-fill capacity vary. Nevertheless, PAYE is growing in popularity and expanding in coverage around the world.

⁹⁸ IBFD, France - Country Surveys 1. Individual Income Tax (Oct. 10, 2017) 1.10.3, Payment of Tax.

⁹⁹ Id.

¹⁰⁰ *Id.* This self-withholding is undertaken in a manner similar to that of the U.S., but taxpayers are required to make provisional payments on a monthly basis and must furnish the details of their bank accounts when filing tax returns. Ernst & Young, *France to Implement Withholding Tax Obligation on Employers Effective 1 January 2018* (Mar. 2017).

¹⁰¹ William G. Gale Benjamin Harris, What Other Countries Use It?, Tax Pol'y Ctr., http://www.taxpolicycenter.org/briefing-book/what-other-countries-use-it (last visited Dec. 19, 2017).

EXPANDED USE OF PAYE IN THE U.S. COULD BRING MANY BENEFITS

A broader application of PAYE in the U.S. would be beneficial for a number of reasons. From the perspective of taxpayers, an expanded PAYE tax system combined with real-time adjustments based on taxpayers' changing circumstances would allow for a much more accurate collection of tax liabilities at source throughout the course of the year. In theory, by year end, most taxpayers would be neither over-withheld nor under-withheld and would have enjoyed the benefits of this relative certainty during the entire year.

For TY 2016, the IRS paid out over \$116 million refund claims totaling over \$416 billion. 102 Moreover, approximately \$1 billion of available federal refunds go unclaimed by taxpayers each year. 103 A comprehensive PAYE system would have the effect of releasing refunds in real time, as no more than the correct tax generally would be collected on an ongoing basis. For most taxpayers, this circumstance could negate the need to seek a refund and eliminate the delays inherent in such a process.

For example, assume that Joe works as a full time computer programmer for Company A, earning salaried income of \$60,000 during 2018. He is also entitled to deduct the \$2,000 of student loan interest he pays during the year. Even though taxes will be collected from his paycheck throughout the course of the year, Joe will need to wait until 2019 to file a tax return and receive the benefit of the student loan interest deduction. ¹⁰⁴

By contrast, under a comprehensive PAYE system, Joe's withholding is adjusted downward to take account of the deductible student loan interest he is paying by building it into his withholding rate. As a result, Joe will be provided the student loan interest deduction ratably throughout 2018, in the form of lower withholding, and will not be forced to wait until the refund arrives in 2019 to recognize the economic benefit it is intended to confer.¹⁰⁵

As mentioned above, refunds of all sorts, including those attributable to refundable credits, such as the Earned Income Tax Credit (EITC) and the Child Tax Credit (CTC), could be incorporated into a PAYE system such that these refunds were transmitted to taxpayers, either directly or via offset, ratably throughout the course of the year. Including refundable credits in a PAYE system, however, would require a willingness to prepay benefits based on a reasonable expectation of qualification and then recapture those benefits post-year-end to the extent that the anticipated qualification did not occur. As with many incremental adjustments along the comprehensive PAYE spectrum, such a modification would not necessarily be technically daunting to undertake, but would require a significant and perhaps controversial policy change with respect to the way these tax benefit programs are viewed and administered.

¹⁰² IRS, IRTF, CDW, individual returns for TY 2016, data accessed Oct. 19, 2018.

¹⁰³ See, e.g., IRS, IRS Has Refunds Totaling \$950 Million for People Who Have Not Filed a 2012 Federal Income Tax Return (Mar. 10, 2016) https://www.irs.gov/uac/newsroom/irs-has-refunds-totaling-950-million-dollars-for-people-who-have-not-filed-a-2012-federal-income-tax-return, announcing that the statute of limitations for claiming calendar year (CY) 2012 refunds would expire in April of 2016.

¹⁰⁴ Such will be the case unless Joe anticipates these payments and independently factors them into the withholding allowances he furnishes to his employer.

¹⁰⁵ In the event that Joe also supplemented his income through part-time participation in the gig economy, he likely would be under-withheld at year end. However, in the short run, a PAYE system can allow taxpayers to take account of this circumstance by making it possible for them to adjust withholding on their W-2 income to cover Schedule C earnings. In the longer term, a broader PAYE system could be expanded to incorporate withholding directly against certain types of self-employment income, such as on payments to independent contractors from large companies (e.g., Uber or Lyft). See Coverage of Independent Contractors Within the PAYE System Would Represent a Significant Step Along the Comprehensiveness Spectrum, infra.

In addition to the speed and accuracy of withholding adjustments under a comprehensive PAYE system, it readily facilitates a return-free environment. Taxpayers who likely will neither owe tax nor be entitled to a refund generally could be exempt from year-end filing requirements, if Congress chose to make this option available. This dispensation would allow many taxpayers to avoid the anxiety and tedium of the return filing process. Of course, even in a return-free environment, post-year-end filing would still be necessary to address unusual situations or to report income from which no withholding was undertaken. Nevertheless, under a return free regime, the more comprehensive the accompanying PAYE system, the fewer year-end filings would be necessary.

A comprehensive PAYE system, coupled with return-free filing, would provide tangible cost savings when measured in terms of time and money that could be reallocated from the tax preparation process to other uses. The amount of taxpayer-related compliance costs that would be saved under a comprehensive PAYE system will vary widely depending on how many taxpayers fall within its return-free coverage and is somewhat difficult to estimate. For example, the U.S. for tax year 2016 had approximately 25.5 million taxpayers reporting Schedule C income, which generally is not subject to withholding. Of course, an expansion of PAYE to cover some of these taxpayers would require substantial attitudinal changes and would be limited by the types of Schedule C income that could be reasonably included. Nevertheless, one study concluded that a return-free system could be made applicable to as many as 40 percent of all taxpayers and could save more than \$2 billion and up to 225 million hours of time per year. Section 10.10 per year. Section

Alternatively, given the development of enhanced real-time reporting capabilities that must occur for a partial or comprehensive PAYE system to exist, such a system could be combined with an auto-fill regime, some other type of TAR, or simply a system in which third-party electronic financial documents are made available to taxpayers in real time.¹⁰⁹ Some of these combinations could facilitate a return-free environment, while others would not rise to that level. Regardless, U.S. taxpayers would benefit from substantial simplification both in the collection and reporting of tax liabilities.

Likewise, from the standpoint of tax administration, the IRS would gain much from a comprehensive PAYE system. As the liabilities of most taxpayers would be determined and collected in real time, the IRS would be spared the resource burdens inherent in after-the-fact collection endeavors. Moreover, they would be obtaining the taxes themselves and much of the relevant tax information from third parties, thereby substantially reducing opportunities for intentional noncompliance. In particular, real-time reporting would make it more difficult for criminals to sustain fraud on a broad scale.

¹⁰⁶ For the wide variety of compliance cost estimates for different proposed PAYE systems, see Sen. Byron L. Dorgan, *Dorgan Bill Proposes Return-Free Filing Option for Individuals*, Doc 2001-10120, 2001 TNT 72-59; Department of the Treasury, *Report to the Congress on Return-Free Tax Systems: Tax Simplification is a Prerequisite*, 5 (Dec. 2003); General Accounting Office, Report to the Chairman, Subcommittee on Treasury, Postal Service, and General Government, Committee on Appropriations, House of Representatives, *Tax Administration: Alternative Filing Systems* 2 (Oct. 1996).

¹⁰⁷ IRS, IRTF, CDW, individual returns for TY 2016, data accessed Oct. 19, 2018.

¹⁰⁸ Austan Goolsbee, *The Simple Return: Reducing America's Tax Burden Through Return-Free Filing*, The Hamilton Project 2 (July 2006). http://www.hamiltonproject.org/papers/the_simple_return_reducing_americas_tax_burden_through_return-free_fil.

¹⁰⁹ These real time capabilities are discussed in more detail below.

¹¹⁰ William J. Turnier, *PAYE as an Alternative to an Alternative Tax System*, 23 Va. Tax Rev. 205, 264 (Summer 2003). See *also* National Taxpayer Advocate 2015 Annual Report to Congress 45-55.

Further, to the extent that comprehensive PAYE was combined with return-free filing, the IRS would also experience significant cost savings in that the number of year-end tax returns to be processed would be dramatically reduced. The IRS could then allocate the resources currently devoted to this return processing to areas of greater need that would yield better service, education, and outreach for taxpayers, and improved results for the IRS. A 1996 Government Accountability Office (GAO) study indicated that return-free filing could save the IRS up to \$37 million (59 million 2018 dollars) annually in administrative and compliance costs. The amount of these savings if return-free filing were combined with comprehensive PAYE presumably would increase even more, as collection and enforcement costs would be reduced.

Another benefit to a comprehensive PAYE system from the IRS's perspective likely would be increased taxpayer satisfaction and the benefits that go with it.¹¹² To the extent that taxpayers have fewer compliance burdens, fewer lump sum tax liabilities, and fewer tax collection proceedings, the more satisfied they generally will be. A voluntary tax compliance system relies for its success on taxpayers' perceptions of its fairness, professionalism, and unobtrusiveness.¹¹³ A well-run comprehensive PAYE system, particularly if combined with return-free filing, has the potential to make U.S. taxpayers feel substantially better about the fairness and competence of the tax system to which they are subject. In turn, these perceptions would bolster the system itself and make the efforts of the IRS significantly more effective and efficient.

¹¹¹ General Accounting Office, Report to the Chairman, Subcommittee on Treasury, Postal Service, and General Government, Committee on Appropriations, House of Representatives, *Tax Administration: Alternative Filing Systems* 2 (Oct. 1996). 2018 equivalents determined through the use of the inflation calculator based on U.S. Consumer Price Index data at http://www.usinflationcalculator.com/. This GAO study and its results are provided purely for illustrative purposes, as the tax system has changed substantially since 1996. For example, the Affordable Care Act has been included and the EITC has been expanded.

¹¹² Irish Tax and Customs, Statistics and Economic Research Branch, Survey of PAYE Taxpayers 2015, 3 (Apr. 2016). While the satisfaction level of Irish taxpayers with respect to PAYE (91 percent) cannot necessarily be assumed to equate with the satisfaction level of U.S. taxpayers in similar circumstances, this data does provide a reasonable basis for inferring the rough level of U.S. satisfaction that likely would exist with regard to a successfully implemented PAYE system.

¹¹³ National Taxpayer Advocate 2016 Annual Report to Congress 50-63.

PAYE LENDS ITSELF TO INCREMENTAL APPLICATION

The benefits of PAYE are directly linked to the breadth of the system adopted. As discussed above, simple PAYE has a number of positive attributes, but not as many as a cumulative withholding system. In turn, a comprehensive PAYE system will confer increasing benefits as it expands to cover broader groups of taxpayers. For example, a robust PAYE regime that is premised on real-time data collection, that collects exact withholding from a number of income sources, and that could facilitate return-free filing for the majority of the population has much more to offer both taxpayers and the IRS than simple withholding limited to wages, which currently has no return-free component.¹¹⁴

However, the levels of coverage provided within a fully comprehensive PAYE system require compromises that may not always be desirable or currently achievable. For instance, the tax system in the U.K. has in many respects been tailored specifically to enable PAYE to provide the maximum number of taxpayers with a return-free option. Among other things, the U.K. has broadened tax rate categories, exempted certain categories of income from tax, and removed the distinction between individual and married filers to facilitate the effective application of a PAYE that incorporates return-free filing. Many of these systemic changes may prove necessary in order to offer U.S. taxpayers a comprehensive PAYE system that is also accompanied by return-free filing. Some or all of these systemic revisions undoubtedly would be controversial and perhaps undesirable if imported into the U.S. system of taxation.

Nevertheless, PAYE systems can be applied along a continuum with coverage gradually expanding to the extent that the requisite compromises are deemed acceptable and the necessary systemic revisions determined to be appropriate. Several points exist between simple PAYE at one end of the spectrum and a theoretically complete cumulative withholding system in which no one has year-end payment and filing obligations at the other extreme. PAYE can be expanded incrementally and its commensurate benefits realized in stages until a balance is met between the advantages of increased PAYE coverage and the costs, political and administrative, of systemic tax administration reform. In other words, this approach allows people to say, "This far and no further," and understand the reasons for compromises being made.

¹¹⁴ As previously discussed, PAYE, in its various incarnations, is a mechanism for tax collection, whereas return-free filing addresses the issue of whether, and under what circumstances, taxpayers will be required to file an income tax return. These mechanisms can operate separately or in tandem, depending upon how they interact and upon the preference of the given tax authority.

¹¹⁵ For more information on the U.K. system, see The U.K. Employs One of the Most Comprehensive PAYE Systems In the World,

¹¹⁶ William G. Gale and Janet Holtzblatt, On the Possibility of a No-Return Tax System, Natl. Tax J. 475, 477-479 (1997).

A QUANTITATIVE ANALYSIS OF U.S. TAX RETURNS ILLUSTRATES POTENTIAL COVERAGE POINTS ALONG THE PAYE SPECTRUM

When analyzing the attributes of the U.S. taxpayer population and those that potentially could be covered by a relatively comprehensive PAYE system, two broad questions arise. The first relates to the income types that can be collected via PAYE with a reasonable degree of accuracy and an acceptable amount of compliance burden. The second inquiry concerns the deductions and credits that could be administered through the PAYE system. Of course, the broader the income types and the more expansive the deductions and credits that are accommodated by a comprehensive PAYE system, the more taxpayers can be afforded the benefit of accurate tax collection and potential return-free filing.

PAYE Can Be Expanded to Collect Tax From a Wide Range of Income Sources¹¹⁷

Looking first at the income side of the equation, 147 million tax returns were filed for TY 2016. Sixty-two percent of those reported only income fully captured by seven line items on IRS Form 1040. Accordingly, a relatively large portion of the U.S. taxpayer population earns the vast majority of its income from a limited number of income sources, thus making expanded tax collection via withholding at source potentially feasible.

The primary sources of income reported by taxpayers are shown in Figure 1.3.

FIGURE 1.3, Income Sources¹¹⁹

Income source	Number of tax returns reporting this income item	Percentage of all tax returns	Number of nonitemizing returns reporting this income item	Percentage of nonitemizing returns
All 1040 series tax returns	146,700,000	100%	131,100,000	N/A
Wage earners	121,400,000	83%	109,600,000	84%
Interest	41,900,000	29%	32,300,000	25%
Taxable pensions and annuities	27,400,000	19%	22,500,000	17%
Dividends taxed at ordinary income rate	27,000,000	18%	20,200,000	15%
Capital gains	23,800,000	16%	17,300,000	13%
Taxable distributions from IRAs	14,100,000	10%	10,900,000	8%
Unemployment	5,500,000	4%	5,100,000	4%

¹¹⁷ Unless otherwise noted, the numbers and percentages discussed herein are based on TAS Research analysis of IRS CDW, IRTF, TY 2016 returns. TY 2016 data is the most reliable and complete information currently available. Actual filing characteristics were recalculated to reflect changes due to tax reform, including the increased standard deduction, elimination of exemptions, and limitations to itemized deductions. Tax reform and its eventual impact in subsequent years will affect these numbers, but TAS Research has, to the best of its ability, attempted to adjust for these changes.

¹¹⁸ This percentage is based on all filers, not just nonitemizers.

¹¹⁹ These income types are based on an analysis of TY 2016, which is the most recent year for which complete data is available. The column entitled, "Number of tax returns reporting this income item," represents the number of filings reporting income from the listed source. The column entitled, "Percentage of nonitemizing returns," represents the percentage of nonitemizing returns (i.e., returns claiming the standard deduction instead) that report income from each of the ten sources. The column entitled, "Number of nonitemizing returns reporting this income item," represents those returns as a percentage of total returns" indicates the number of nonitemizing returns reporting each income item. Finally, the column entitled, "Percentage of all tax returns," represents those filings that report income from each of the ten sources as a percentage of total filings.

Simplified PAYE as currently applied in the U.S. is primarily designed to collect taxes attributable to wage earnings. In TY 2016, 45 percent of nonitemizing filings reported wage earnings subject to withholding as the sole source of income. Thus, even simple PAYE allows for complete withholding of tax at source for these approximately 59 million filings.¹²⁰

Although a PAYE group limited to taxpayers whose income is drawn solely from wages still yields significant benefits to both taxpayers and the IRS, the number of eligible participants in such a system would increase substantially if income from interest were not a limiting factor. The IRS already requires issuance of a Form 1099-INT, *Interest Income*, reporting interest income earned by taxpayers. Such income would readily lend itself to withholding at source, and would result in coverage of earnings reported by an additional five percent of nonitemizing tax returns (six million).

Large numbers of taxpayers also receive income in the form of pensions and annuities, primarily from financial institutions or former employers. These sources likewise are already the subject of information reporting on Form 1099-R, *Distributions from Pensions, Annuities, Retirement or Profit-Sharing Plans, IRAs, Insurance Contracts, etc.*, and would represent the logical next step in extending the PAYE withholding regime. Imposing withholding at source on these payments would result in income tax collection relating to an additional four percent of nonitemizing tax returns (five million). This combination of coverage for wage, interest, and retirement earnings would provide complete PAYE income tax collection for approximately 71 million filings, which is nearly half of all individual income tax returns.

Similarly, corporations and financial institutions provide information reporting regarding dividends (Form 1099-DIV, *Dividends and Distributions*). If income from dividends were withheld at source, tax liabilities from another two percent of nonitemizing filings (two and a half million) could be completely collected.

Requiring withholding on all capital gains income would be impracticable because many of those transactions occur sporadically and between individuals. Nevertheless, the IRS requires information reporting on Form 1099-B, *Proceeds from Broker or Barter Exchange Transactions*, with respect to capital gains and losses on transactions involving stocks and other commonly traded investments. If income from these transactions were rolled into a withholding regime, then income reported on a further four percent of nonitemizing returns (five and a half million) could be fully collected via withholding.

Additionally, as with pension and annuity income, income from IRA distributions is already the subject of information reporting on Form 1099-R. Imposing withholding at source on these payments would result in income tax collection from amounts reflected on a further six percent of nonitemizing tax returns (eight million).

Finally, taxpayers receiving government income in the form of unemployment benefits (Form 1099-G, *Certain Government Payments*) could also be included in a withholding regime. Withholding on unemployment income would result in complete tax collection of liabilities associated with an additional three percent of nonitemizing filings (three and a half million).

Figure 1.4 shows the incremental tax collection increases that could result from a PAYE regime imposed with respect to the income categories discussed above.¹²¹

FIGURE 1.4, Cumulative Buildup of PAYE Income Items¹²²

Income type(s)	Number of nonitemizing tax returns	Incremental addition	Percentage of nonitemizing returns	Percentage of all tax returns
Wage only	59,300,000	59,300,000	45%	40%
Wage and/or interest	65,600,000	+6,300,000	50%	45%
Wage, interest, and/or pension	71,000,000	+5,300,000	54%	48%
Wage, interest, pension, and/or dividends	73,400,000	+2,500,000	56%	50%
Wage, interest, pension, dividends, and/or capital gains	78,900,000	+5,500,000	60%	54%
Wage, interest, pension, dividends, capital gains, and/or IRA	87,100,000	+8,200,000	66%	59%
Wage, interest, pension, dividends, capital gains, IRA, and/or unemployment	90,700,000	+3,600,000	69%	62%

The simple PAYE system currently employed within the U.S. generally collects sufficient amounts to satisfy the tax liabilities reported on 45 percent of nonitemizing returns and 40 percent of all tax returns. Based on the income types set forth above, these percentages could increase to as high as 73 percent of nonitemizing returns and 65 percent of all returns as a PAYE system became more widespread and coverage of additional income sources incrementally expanded. Achieving this breadth of coverage, however, would present challenges and would require several systemic adjustments, discussed below.

A Comprehensive PAYE System Can Be Created to the Extent That Deductions and Credits Can Also Be Factored Into the Ongoing Tax Collection Regime

Additionally, for a comprehensive PAYE system to provide relatively accurate levels of withholding, that system must properly account for frequently occurring deductions and credits. Such is particularly the case if the PAYE system is ever to form the basis of a return-free filing regime for substantial numbers of taxpayers. The recently enacted tax legislation facilitates expanded PAYE coverage because it reduces the number of deductions likely to be claimed by taxpayers. The Tax Policy Center estimates that, under the new tax regime beginning with TY 2018, approximately 89.1 percent of U.S. individual filers will forego itemizing deductions in favor of the increased standard deduction, up from 74.6 percent

¹²¹ Such an expanded PAYE regime regarding income items would generally collect sufficient taxes to pay the associated liabilities. Nevertheless, substantial overcollections of tax likely would occur until, as discussed below, a PAYE system also incorporated major deduction items.

¹²² IRS, IRTF, CDW, individual returns for TY 2016, data accessed Oct. 1, 2018.

¹²³ H.R. 1, Tax Cuts and Jobs Act, Pub. Law No. 115-97, 131 Stat. 2054 (Dec. 22, 2017).

under prior law.¹²⁴ These simplified returns involve a limited number of widely claimed deductions and credits, and therefore lend themselves more readily to comprehensive PAYE coverage than was previously the case.¹²⁵ These deductions and credits are set forth in Figure 1.5.

FIGURE 1.5, Deductions, Credits, and Potential PAYE Coverage¹²⁶

Deduction/Credit	Number of tax returns claiming this deduction or credit	Percentage of all tax returns	Number of nonitemizing returns reporting this income item	Percentage of nonitemizing returns
Standard deduction	131,100,000	89%	131,100,000	100%
Earned Income Tax Credit	26,700,000	18%	26,500,000	20%
Child Tax Credit	21,700,000	15%	20,500,000	16%
Student loan interest deduction	12,200,000	8%	11,400,000	9%
Child and Dependent Care Expenses credit	6,500,000	4%	5,500,000	4%
IRA deduction	2,600,000	2%	2,200,00	2%
Health Savings Account deduction	1,700,00	1%	1,300,00	1%

Currently, simple PAYE only directly considers a few items including marital status, number of children, and dependent care expenses. Likewise, taxpayers have the capacity to set forth additional amounts they would like to have withheld. However, to the extent that other frequently claimed deduction and credit items can be specifically incorporated into a PAYE system, the more comprehensive and accurate that system can become. In turn, this accuracy allows for more precise tax collection, minimizes the number of refund claims, and expands the number of returns that can be incorporated into a return-free filing regime, if desired.

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¹²⁴ Tax Policy Center, Table T18-0001, Impact on the Number of Itemizers of H.R. 1, The Tax Cuts and Jobs Act (TCJA) By Filing Status and Expanded Cash Income Level, 2018 (Jan. 11, 2018), http://www.taxpolicycenter.org/model-estimates/impact-itemized-deductions-tax-cuts-and-jobs-act-jan-2018/t18-0001-impact-number. TAS research projects a similar pattern in filing behavior.

¹²⁵ A truly comprehensive PAYE system will require several more systemic changes, including a restructuring of the way in which refundable credits are administered. See The Ability to Administer Refundable Credits in Conjunction With the PAYE System Would Substantially Broaden Its Potential Scope, infra.

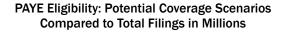
¹²⁶ These non-itemized deductions and credits are based on an analysis of TY 2016, which is the most recent year for which complete data is available. The column entitled, "Number of tax returns claiming this deduction or credit," represents those returns as a percentage of total returns," represents the number of tax returns claiming the listed deduction or credit. The column entitled, "Percentage of all tax returns. The column entitled, "Number of nonitemizing returns claiming this deduction or credit," represents the number of nonitemizing returns reporting the listed deduction or credit. Finally, the column entitled, "Percentage of nonitemizing returns," represents those nonitemizing returns claiming a given deduction or credit as a percentage of nonitemizing taxpayers.

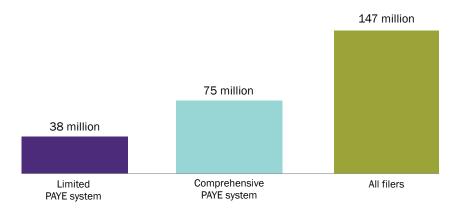
¹²⁷ The current Form W-4, Employee's Withholding Allowance Certificate, also provides taxpayers with detailed worksheets to more accurately calculate the appropriate withholding. Nevertheless, these worksheets are highly complex and require accurate projections of future circumstances.

¹²⁸ In order for this expansion to be possible, a number of technical and cultural challenges would need to be successfully addressed and overcome. These are discussed in the following section.

If the above-considered income sources and credits and deductions could be incorporated into a comprehensive PAYE system, that regime would cover 51 percent of all tax returns (75 million).¹²⁹ More modestly, a PAYE system that collected only wage, interest, pension, and dividend income at source and reflected the standard deduction would provide comprehensive coverage for 26 percent of all returns (38 million).¹³⁰ This coverage is illustrated by Figure 1.6.

FIGURE 1.6





SUCCESSFUL IMPLEMENTATION OF A COMPREHENSIVE PAYE SYSTEM IS FEASIBLE, BUT REQUIRES THAT A NUMBER OF PROCEDURAL AND CULTURAL OBSTACLES BE ADDRESSED AND OVERCOME

When Expanding PAYE, Some Systemic Features of the U.S. Tax Regime Could Be Utilized, But Many Would Need to Be Adjusted

Information Reporting Mechanisms Already Exist With Respect to the Primary Income Types

Adding incremental levels of withholding at source is definitely possible. As illustrated above, 50 percent of all filings recognize income falling into some combination of only four categories (wage, interest, pension, and dividends). Moreover, all seven of the above-considered income types currently are subject to information reporting requirements. Accordingly, the mechanisms have already been established for tracking, compiling, and reporting this income data. Beyond this information reporting, the next step would involve imposing on payors, such as financial institutions and government agencies, the same type of withholding and remittance requirements that currently apply to employers.

Expanded Withholding Requirements Would Impose Burdens on Impacted Withholding Agents

Such an expansion would expose new withholding agents to significant compliance costs and administrative burdens that should not be understated. Many such payors presumably would oppose the imposition of such a regime, and care would need to be taken by the IRS to proceed as efficiently and reasonably as possible. In recent years, the National Taxpayer Advocate and third-party stakeholders have extensively analyzed the implementation problems surrounding the Foreign Account Tax Compliance Act (FATCA) rollout, and the IRS should treat its FATCA challenges as a learning experience from which PAYE could benefit.

Withholding agents should be supported and facilitated wherever possible. Indeed, if a comprehensive PAYE system were deemed sufficiently desirable to justify the burdens that would inevitably be placed on new withholding agents, then it would be appropriate to consider providing a tax credit to fully or partially cover the transition costs resulting from implementing the expanded system. For example, the National Taxpayer Advocate previously suggested that Congress consider a one-time credit for the start-up and technology costs that would be incurred by brokers in implementing proposed information reporting on stock basis. The shift of compliance burdens from taxpayers to employers and other withholding agents when moving toward a real-time comprehensive PAYE system would neither be easy nor free from controversy. However, with strategic and careful implementation, embracing third parties as partners, such a transition could be successful.

Coverage of Independent Contractors Within the PAYE System Would Represent a Significant Step Along the Comprehensiveness Spectrum

Particular support would be needed if withholding at source were ever fully or partially implemented with respect to the rapidly increasing self-employed population. One measure of the growth occurring in this area can be seen by looking to the expansion of independent contractors, who are not subject to withholding at source.¹³² One study indicates that between 2005 and 2015, independent contractors expanded by 39 percent, from 6.9 percent of the employed population to 9.6 percent of the employed

¹³¹ National Taxpayer Advocate 2005 Annual Report to Congress 441.

¹³² Lawrence F. Katz and Alan B. Krueger, The Rise and Nature of Alternative Work Arrangements in the United States 1995-2015, Nat'L Bureau of Econ. Research (Mar. 29, 2016); IRS Pub. 505 (2017), Tax Withholding and Estimated Tax.

population.¹³³ Further, the Federal Reserve System estimates that as many as a third of Americans earn supplemental income through independent work.¹³⁴ Although the yardsticks for growth in this area sometimes differ, the significance of part-time and full-time workers in the loosely-defined gig economy cannot be overstated.¹³⁵

For TY 2016, 25.5 million taxpayers filed returns reporting Schedule C income.¹³⁶ Nine million of these returns showed a tax liability still owing to the IRS.¹³⁷ Further, 17.4 million returns reported both W-2 and Schedule C income.¹³⁸ Of these returns, 4.9 million reported a balance due to the IRS.¹³⁹

The self-employed and independent contractors generally are required to make quarterly estimated tax payments, but currently have no way of opting in to voluntary withholding at source, even though such a mechanism has been recommended by the National Taxpayer Advocate with respect to independent contractors. In particular, this withholding at source would be especially effective in the case of large service coordinators in the sharing economy, such as Uber or Lyft, who rely on independent contractors. The point at which payors should be deemed too small to make such an option, or even a requirement, administratively tenable, however, is an important issue and should be one of the topics considered in the more in-depth collaborative follow-on study recommended below.

Nevertheless, Australia currently includes many independent contractors in its PAYE system using the U.S.'s general approach, so such coverage is achievable. Moreover, the National Taxpayer Advocate, the Aspen Institute, and commentators have proposed that payors involved in a trade or business making payments of sufficient size generally be required to withhold from their workers based on a default rate. Given the benefits that this withholding would confer on independent contractors and the self-employed, the assistance it would provide to tax administration, and the extent to which it would expand PAYE coverage, such a step merits careful consideration.

- 136 IRS, IRTF, CDW, individual returns for TY 2016, data accessed Oct. 16, 2018.
- 137 Id.
- 138 Id.
- 139 Id.

- 141 ATO, Labour-Hire Firms and their Workers (Apr. 5, 2017) https://www.ato.gov.au/business/payg-withholding/payments-you-need-to-withhold-from/labour-hire-firms-and-their-workers/. In Australia, labour-hire firms (e.g., Uber) are required to withhold on workers in the same way as other employers by referencing withholding tables or a calculator made available by ATO. However, independent contractors who themselves engage subcontractors to assist them in the process of performing work generally are not required to withhold.
- 142 National Taxpayer Advocate 2003 Annual Report to Congress 256-269; Alastair Fitzpayne, Shelly Steward, Ethan Pollack, Tax Simplification for Independent Workers, The Aspen Inst. (Sept. 2018); Kathleen DeLaney Thomas, Taxing the Gig Economy, 166 U. of Penn. Law Rev. 1416, 1445-1447, https://ssrn.com/abstract=2894394.

¹³³ Lawrence F. Katz and Alan B. Krueger, *The Rise and Nature of Alternative Work Arrangements in the United States* 1995-2015, Nat'L Bureau of Econ. Research (Mar. 29, 2016), Table 2.

¹³⁴ Jeff Larrimore, Alex Durante, Kimberly Kreiss, Christina Park, and Claudia Sahm, Report on the Economic Well-Being of U.S. Households, Board of Governors of the Fed. Reserve Sys. 19 (May 2018) https://www.federalreserve.gov/publications/files/2017-report-economicwell-being-us-households-201805.pdf. See also Alastair Fitzpayne, Shelly Steward, Ethan Pollack, Tax Simplification for Independent Workers, The Aspen Inst. (Sept. 2018).

¹³⁵ Improving Tax Administration Today: Hearing Before the Subcomm. on Taxation and IRS Oversight of the S. Comm. on Finance, 115th Cong. (Jul. 24, 2018) (statement of Caroline Bruckner, Executive-in-Residence, Accounting and Taxation; Managing Director, Kogod Tax Policy Center, Kogod School of Business, American University).

¹⁴⁰ Improving Tax Administration Today: Hearing Before the Subcomm. on Taxation and IRS Oversight of the S. Comm. on Finance, 115th Cong. (July 26, 2018) (statement of Nina E. Olson, National Taxpayer Advocate); National Taxpayer Advocate 2017 Annual Report to Congress 329-331; National Taxpayer Advocate 2017 Annual Report to Congress vol. 3, 81-82; National Taxpayer Advocate 2017 Annual Report to Congress 165-171.

The Ability to Administer Refundable Credits in Conjunction With the PAYE System Would Substantially Broaden Its Potential Scope

Certain refundable credits, such as the EITC and the CTC, present particular difficulties when it comes to inclusion within a PAYE system. Such is the case because some of these credits are subject to incremental qualification throughout the course of the year. For example, eligibility for the EITC can only be determined six months into the tax year at the earliest. Moreover, taxpayers are only eligible for the credit if they are not claimed as dependents or qualifying children on another return. He family unit also plays a large role in qualification for many refundable credits. In the case of the CTC, taxpayers do not become eligible until a child resides with them for over six months out of the year. Given that 22 million tax returns claim the CTC each year, while 27 million tax returns claim the EITC, the breadth of PAYE could be expanded considerably if it could accommodate these credits.

One approach might be to apply a modified system in which these credits were conferred via PAYE once threshold qualification was attained during the year. The result would be a large reduction in withholding until year end to achieve the "true up," as is undertaken in the final month of the tax year under a final withholding system. ¹⁴⁶ Nevertheless, this approach would be complicated to apply, would require taxpayers to be assiduous in notifying the IRS regarding changes in personal circumstance, and could result in significant under-withholding that had to be recaptured in the event qualification proved to be illusory.

A somewhat similar strategy previously attempted in the U.K. would be to presume current year eligibility for the credit based on prior year qualification. This would have the benefit of allowing incorporation of the credits into the PAYE system throughout the course of the tax year. Nevertheless, it likewise poses a heightened danger that taxpayers presumed to qualify for a refundable credit could later prove to be ineligible, thus requiring recalculation of tax liability at year end and recapture of benefits that taxpayers may well have already spent.

This theoretical problem was experienced in practice by the U.K. when it relied upon prior year qualification to administer the Working Tax Credit and Child Tax Credit. Because of difficulties arising out of presumptive qualification based on family status and the complications resulting from year-end redeterminations and subsequent recaptures, the U.K. eventually abandoned this attempt. Instead, in 2013, it adopted a different approach, which provides an alternative model for administering benefits without removing recipients from the pool of taxpayers potentially qualifying for PAYE.

It implemented the Universal Credit as a comprehensive benefit program to replace a variety of individual support payments and tax credits, including the Working Tax Credit and the Child Tax Credit. The Universal Credit was a direct response aimed at addressing complexities and remedying difficulties encountered by the U.K. in administering benefits programs through the tax system, which,

¹⁴³ IRC § 32(c)(1); IRC § 152(c)(1).

¹⁴⁴ IRC § 32(c)(1)(A)(ii)(III).

¹⁴⁵ IRC § (c)(1)(B).

¹⁴⁶ See Final Withholding Relies on Reconciling Adjustments Made to Year End Paychecks, supra.

¹⁴⁷ Michael Godwin and Colin Lawson, The Life and Death of the Child Tax Credit and the Working Tax Credit, BATH ECONOMICS WORKING PAPERS NO. 1/12 14 (2012).

¹⁴⁸ Id.

¹⁴⁹ United Kingdom Department for Work and Pensions, *Universal Credit Announced* (Oct. 5, 2010) https://www.gov.uk/government/news/universal-credit-introduced; *Universal Credit: What Is It?* https://www.gov.uk/universal-credit (last visited Aug. 6, 2018).

among other things, required reference to the family unit.¹⁵⁰ The Universal Credit is now administered by the Department for Work and Pensions and is provided via direct payments determined with reference to income information compiled by HMRC.

Significant cultural changes would need to occur in the U.S. before a similar system could be successfully implemented.¹⁵¹ Among other things, people would need to be more comfortable with benefit payments being made directly to recipients, rather than channeled through the tax system, which somewhat obscures their basic nature. Moreover, taxpayers may need to accept increased information sharing regarding their private information among government agencies. The question of if and when such cultural shifts could occur is an open question. To the extent that taxpayers would accept these necessary changes, however, the scope of PAYE could be substantially increased by incorporating refundable credits such as the EITC and CTC.

Real-Time Reporting Is an Essential Aspect of Any Comprehensive PAYE System

As previously discussed, a comprehensive PAYE system that achieved the goal of collecting the accurate amount of tax liability during the year must also factor in deductions and credits, and must do so on a real-time basis. Such is the case because real-time adjustments to reflect deductions and credits covered within the PAYE system, as well as to accurately account for income types incorporated into the regime, are an indispensable means of preventing either substantial underreporting or overreporting of income throughout the course of the year. This real-time reporting can be accomplished in a variety of ways. For example, taxpayers could report tax information directly to employers, as is currently the case in limited contexts with simple PAYE. Something closer in concept to a real-time comprehensive PAYE system could be achieved by expanding the extent of information collected by withholding agents and increasing the frequency with which relevant tax data is provided to these withholding agents by taxpayers.

For example, some helpful steps in this direction were incorporated into the recent tax reform legislation put forward by the House of Representatives. That legislation would have required employers to report to the IRS the name, address, Social Security number, and wages for each employee on Form 941, *Employer's Quarterly Federal Tax Return*. Most states already require employers to submit employee wage information to state unemployment commissions on a quarterly basis. Although this provision was not ultimately enacted, it would have represented a substantial advance toward real-time reporting of employment-related income. Likewise, the National Taxpayer Advocate has recommended that Congress consider requiring employers filing more than five Forms W-2, 1099-MISC, *Miscellaneous Income*, and 941 to file electronically and provide a breakdown by employee of the amounts reported on Form 941. The state of the state

¹⁵⁰ United Kingdom Department for Work and Pensions, *Universal Credit Announced* (Oct. 5, 2010) https://www.gov.uk/government/news/universal-credit-introduced.

¹⁵¹ For an expanded discussion of taxpayer culture and its impact on PAYE, see Equally Important As the Technical Ability to Implement PAYE Is Taxpayers' Willingness to Accept It, infra.

¹⁵² H. REP. No. 115-409 (2017); H. REP. No. 115-466 (2017) (Conf. Rep.).

¹⁵³ See, e.g., Louisiana Workforce Commission, Department of Labor, Wage & Tax Reporting Services (July 6, 2017) http://www.laworks.net/UnemploymentInsurance/UI_WageTaxReportingOverview.asp; Texas Workforce Commission, Employer's Quarterly Wage Report Filing Options (Nov. 29, 2016) http://www.twc.state.tx.us/businesses/employers-quarterly-wage-report-filing-options.

¹⁵⁴ H.R. REP. No. 115-466, at 6 (2017) (Conf. Rep).

¹⁵⁵ National Taxpayer Advocate 2017 Annual Report to Congress vol. 3, 21-23.

Use of a PAYE Code Facilitates the Efficiency of PAYE Regimes

A related concept that would increase administrative efficiency, reduce compliance costs by employers, protect taxpayer privacy, and minimize identity theft risk would be to use an approach adopted in various countries, such as the U.K. and New Zealand. This strategy is premised on the calculation and distribution of a PAYE code. Although specific practices differ from country to country, generally the taxing authority is responsible for gathering real-time tax data to which it has access. ¹⁵⁶ In turn, taxpayers are charged with providing timely information regarding any alterations in their tax positions, such as changes in marital status or residence. The tax authority then issues individuals with a PAYE code that they furnish to their various withholding agents. This code indicates a withholding rate allowing those withholding agents to collect the proper amount of taxes to satisfy the liability calculated by the tax authority.

As a middle ground, if providing PAYE code adjustments to multiple withholding agents proved unduly complex, PAYE codes could be furnished solely to employers, such as occurs in New Zealand.¹⁵⁷ This limitation would minimize the burden on other parties, but may also reduce the number of taxpayers receiving exact withholding, thereby increasing the number of taxpayers who would need to rely on their year-end tax returns to obtain refunds or pay additional income tax. Nevertheless, even these taxpayers would indirectly benefit, as under a real-time comprehensive PAYE system, the IRS would already be receiving information in real time about those other sources of income, which could be used to provide taxpayers with real-time data for preparing their own tax returns, or could be utilized in the development of some type of auto-fill regime.

The use of a PAYE code, regardless of the particular circumstances in which it is adopted, has a variety of benefits, including efficiency and the ability for taxpayers to retain privacy from their withholding agents, such as employers, with respect to certain information. As in New Zealand, taxpayers also could be furnished with the option of simply having a flat rate of withholding applied (45 percent in New Zealand) in lieu of participation in the PAYE system.¹⁵⁸ The items included in a PAYE code, the mechanics of its operation, and the withholding agents who would utilize it would need to be a part of the follow-on collaborative study we recommend below.

Equally Important as the Technical Ability to Implement PAYE Is Taxpayers' Willingness to Accept It

Taxpayers May Find the Expanded Responsibility of the IRS Under a PAYE System to Be Disconcerting

Not only will an expanded PAYE system require significant systemic changes, but its ultimate scope will be determined by the prevailing tax culture and the relationship that U.S. taxpayers have with their government. For example, taxpayers could be troubled by the perceived loss of transparency and control resulting from the comprehensive collection of taxes directly by the IRS, from withholding agents, in conjunction with a return-free filing system. These concerns likely could be constructively

¹⁵⁶ As mentioned above, the IRS would have invaluable information it could use in the calculation of PAYE codes if employers were legally required to provide taxpayer-specific Form 941 information.

¹⁵⁷ For a more in-depth discussion regarding the mechanics of the PAYE code system utilized in New Zealand, see Several Tax Authorities Have Taken Steps to Employ Various Types of PAYE, supra.

¹⁵⁸ IBFD, New Zealand - Country Analysis 1. Individual Income Tax (Oct. 1, 2017) 1.10.3.1, Employment Income.

¹⁵⁹ Richard Dyson, *Digital Tax: 'HMRC Wants a Direct Link to Everyone's Bank Accounts'* Telegraph (Jan. 31, 2016), http://www.telegraph.co.uk/finance/personalfinance/tax/12128902/Digital-tax-HMRC-wants-a-direct-link-to-everyones-bank-accounts. html.

addressed in a variety of ways, including by allowing taxpayers online access to their own IRS accounts and by providing a taxpayer-friendly means of questioning and, if need be, challenging IRS actions undertaken in a PAYE environment.¹⁶⁰ These mechanisms would need to be developed and effectively communicated to taxpayers, which would require a serious commitment of resources and focus from the IRS.¹⁶¹ In order for a comprehensive PAYE system to succeed, confidence in its discretion, competence, and fairness must be established early on.¹⁶²

Sharing Additional Personal Information With Employers Could Raise Significant Privacy Concerns

An expanded PAYE system would, of necessity, involve a much larger role on the part of employers. In turn, this increased profile raises privacy issues, as some employees may object to providing their employers with additional personal information. For example, employees may be reluctant for their full-time employers to become aware that they are earning income from part-time work on the side.

The current controversy regarding the expanded Form W-4 provides an excellent case in point. To help implement accurate withholding after passage of the Tax Cuts and Jobs Act, the IRS issued a new Form W-4 that, to the extent completed, would furnish employers with significantly more information than in the past. This additional reporting not only increased the complexity of the form, but sparked privacy worries. As explained by the American Institute of Certified Public Accountants (AICPA), "Many employees are likely apprehensive that providing employers with spousal and family income information on the Form W-4 can lead to unfair and discriminatory employment practices. For example, employees may have concerns that an employer will forego a wage increase if the employer has knowledge of other family income." ¹⁶³

One means of addressing these legitimate concerns would be through the use of a system in which the employer was provided with a PAYE code. This approach would have the virtue of allowing taxpayers to retain their privacy from employers. Indeed, employers' transparency into employees' personal circumstances would be less than was the case prior to tax reform. On the other hand, depending upon the method adopted for determining the PAYE code, taxpayers might be required to provide this additional personal information to the IRS, which some may well find objectionable.

Taxpayers Are Often Unwilling or Unable to Interact With the IRS on an Ongoing Basis

A broadly applicable PAYE system would require taxpayers to be comfortable interacting more frequently with the IRS, or at least with tools developed by the IRS. This willingness would require a cultural shift on the part of U.S. taxpayers, in which they viewed the IRS as a neutral and trustworthy

- 160 To do so successfully, however, the digital divide existing within the U.S. and the difficulties in communicating with the IRS would need to be acknowledged and remedied. See Most Serious Problem: Navigating the IRS: Taxpayers Have Difficulty Navigating the IRS, Reaching the Right Personnel to Resolve Their Tax Issues, and Holding IRS Employees Accountable, supra; National Taxpayer Advocate 2017 Annual Report to Congress 22-35.
- 161 National Taxpayer Advocate 2016 Annual Report to Congress 121-137; National Taxpayer Advocate 2015 Annual Report to Congress 56-63.
- 162 In the recent 2017 Comprehensive Taxpayer Attitude Survey, 68 percent of taxpayers reported that they had confidence in the IRS to fairly enforce the tax laws as enacted by Congress and the President. PCG, Comprehensive Taxpayer Attitude Survey (CTAS) 2017 16 (Nov. 16, 2017). In order for PAYE to be embraced, however, taxpayers would need to have at least equal confidence in the willingness and ability of the IRS to provide high quality service to support and develop the expanding PAYE program.
- 163 Letter from American Institute of Certified Public Accountants (AICPA) to the IRS (July 12, 2018).
- 164 For a more in-depth discussion of the mechanics of a PAYE code, see *Use of a PAYE Code Facilitates the Efficiency of PAYE Regimes*, supra.

partner in the information reporting and tax collection process. In order for this change in perception to occur, though, the IRS likewise will need to progress from its current enforcement-oriented outlook to one that emphasizes taxpayer service and support. The National Taxpayer Advocate has long urged this shift in orientation on the part of the IRS.¹⁶⁵

In order for PAYE to flourish, a new norm will need to be established. Taxpayers must be willing and able to interact with, and provide information to, the IRS when appropriate. One way of encouraging this engagement is to minimize the actual information flowing directly to the taxing authority, such as in the case of the New Zealand PAYE code questionnaire, which generates a code without retaining taxpayer data. Ultimately, PAYE can only work if the responsible recordkeeper, be it the IRS or the employer, is informed of taxpayers' changes in circumstance.

The U.S. has some recent experience on which to draw regarding requirements that people notify the government about changes in their life situations. Specifically, calculation of the Advanced Premium Tax Credit under the Affordable Care Act (ACA) is premised on just such communication. Whenever would-be recipients have a change in circumstance, they are required to update the health insurance exchange so that adjustments can be made. So far, this system has encountered considerable growing pains, some the result of start-up issues, some attributable to the reluctance or inability of people to provide this information as part of their daily lives. Just as with the ACA, PAYE will require a change in culture if it is to expand and flourish.

Tax Refunds, Which Would Be Minimized by PAYE, Are Highly Valued by Many Taxpayers and Impact Local and National Economies

As another issue, some taxpayers may rely on their annual tax refunds as a form of automatic savings and may count on these refunds to offset larger future expenditures. ¹⁶⁹ Moreover, whole parts of the economy look forward to, and revolve around, the refund jolt occurring in the spring of each year. ¹⁷⁰ The same is true of states relying on the collection of sales tax, which increases as taxpayers use their annual refunds to make large purchases.

Indeed, the EITC was, in part, passed as a temporary measure designed to stimulate the economy in 1975.¹⁷¹ The Brookings Institution suggests that the larger economic benefits from the EITC could be increased even further if it were provided to taxpayers on a periodic basis.¹⁷² Instead, its positive impact on taxpayers and the economy was deferred when, as a fraud reduction measure, issuance of the EITC was delayed until February 15 of each year.¹⁷³

- 165 See, e.g., National Taxpayer Advocate 2016 Annual Report to Congress 221.
- 166 See Several Tax Authorities Have Taken Steps to Employ Various Types of PAYE, supra.
- 167 See Patient Protection and Affordable Care Act of 2009, Pub. L. 111-148, 124 Stat. 119 (Mar. 2010), as amended by the Health Care and Education Reconciliation Act of 2010, Pub. L. No. 111-152, 124 Stat. 1029 (Mar. 30, 2010).
- 168 Kira Brecht, Recipients of Obamacare Subsidies Could Face Tax Surprise, U.S. News & World Report (Feb. 10, 2015) https://money.usnews.com/money/personal-finance/articles/2015/02/10/recipients-of-obamacare-subsidies-could-face-tax-surprise.
- 169 TAS is unaware of any data distinguishing the number of refunds attributable to a savings motive versus refunds attributable to uncertainty or other factors.
- 170 Natalie Holmes and Alan Berube, *The Earned Income Tax Credit and Community Economic Stability*, Brookings Institution (Nov. 20, 2015) https://www.brookings.edu/articles/the-earned-income-tax-credit-and-community-economic-stability/.
- 171 Id.
- 172 Id.
- 173 Tribune news services, IRS to Delay Refunds for Millions of Low-Income Families, CHICAGO TRIBUNE (Jan. 11, 2017) http://www.chicagotribune.com/news/nationworld/ct-tax-refund-delays-20170111-story.html.

Ultimately, however, the economic impact of refunds is temporal, not permanent. Refunds simply provide an individual or an economy with a single lump-sum payment after year end. By contrast, a comprehensive PAYE system injects the same amount of money into the individual's pocket or the government's coffers ratably over an earlier time period. Thus, the money is always the taxpayer's for spending or saving, the only question is when.

The model of savings culminating in an annual refund is not economically optimal, as it represents an interest-free loan to the IRS. While some taxpayers may resist participation in a comprehensive PAYE system because of their reliance on annual refunds for budgeting purposes, others may appreciate the benefits of retaining control over their own funds without the need to await a deferred refund payment. One means of addressing these differing perspectives might be to follow the New Zealand model and impose a relatively high flat withholding rate, in the event that taxpayers opt out of participation in a real-time PAYE system. This approach would give taxpayers the choice regarding the timing of when they receive their tax benefit: ratably during the year in the form of reduced withholding, or in a lump sum refund after year end.

CONCLUSION

A wide range of factors, including taxpayer acceptance, withholding agent compliance costs, and a willingness to make some systemic changes in tax administration, must be taken into account in determining whether and to what extent a real-time comprehensive PAYE system would be desirable and achievable. Most commentators agree that such a system would produce substantial benefits, including minimized taxpayer cost, increased accuracy and compliance, greater certainty, and easier collection. However, whether these benefits justify the resulting shift in burdens and reallocation of resources remains an open question. At a minimum, such a system, if properly conceived and implemented, would simplify tax compliance for many taxpayers and would allow for easy interaction with an IRS-hosted data platform to facilitate transparency. Although the National Taxpayer Advocate is not, at this time, recommending a particular PAYE system, or even that the current approach to PAYE in the U.S. be expanded, any mechanism that has the potential for enhancing the quality of tax administration is always worth examining in detail.

¹⁷⁴ William J. Turnier, PAYE as an Alternative to an Alternative Tax System, 23 Va. Tax Rev. 205, 264 (Summer 2003); Deborah A. Geier, Fundamental Tax Reform: Incremental Versus Fundamental Tax Reform and the Top One Percent, 56 SMU L. Rev. 99, 167-168 (Winter 2003); Department of the Treasury, Report to the Congress on Return-Free Tax Systems: Tax Simplification is a Prerequisite 35 (Dec. 2003).

RECOMMENDATIONS

The National Taxpayer Advocate recommends that the IRS and Treasury collaborate with TAS to:

- 1. Study the feasibility of, and options for, establishing a real-time comprehensive PAYE system. The study should focus first on applying such a system to income attributable to wages, interest, pensions, and dividends, and the standard deduction, which would cover approximately 26 percent of tax returns, and should consider the incremental costs and benefits of adding each category to a real-time comprehensive PAYE system. The study should then analyze such an expansion as it would apply to all 14 income, deduction, and credit categories discussed above, which would cover 51 percent of tax returns.
- 2. Conduct a public opinion survey examining the receptivity of potentially impacted taxpayers to a real-time comprehensive PAYE system, the changes in behavior it would require, and the results it would generate.

A Study of the IRS's Use of the Allowable Living Expense Standards

EXECUTIVE SUMMARY¹

Internal Revenue Code (IRC) § 7122(d)(2)(A) requires that the IRS "develop and publish schedules of national and local allowances designed to provide that taxpayers entering into a compromise have an adequate means to provide for basic living expenses." However, the statute also allows for deviations. It instructs the IRS to review each taxpayer's situation on a case-by-case basis and not use the Allowable Living Expense (ALE) standards if "such use would result in the taxpayer not having adequate means to provide for basic living expenses." The resulting ALE standards, which represent how much money the IRS believes a taxpayer needs to meet necessary expenses, have come to play a crucial role not just in offer in compromise cases but all types of collection cases. Given how important the ALE standards are to taxpayers who have a tax debt, the National Taxpayer Advocate charged TAS Research with analyzing how well the ALE standards perform in making sure taxpayers have "adequate means to provide for basic living expenses" before paying their tax debt.

TAS Research reviewed financial information received from taxpayers who entered into installment agreements (IAs). This information was then compared to applicable ALE standards. In nearly two-thirds of the cases reviewed, taxpayers claimed higher expenses in at least one of the ALE categories than was recognized by the ALE standards. The prevalence of the expense being greater than the ALE standard and the frequency of the IRS disallowing the excess expense varied according to expense type. Figure 2.1, below, shows the percent of taxpayers who claimed an ALE expense greater than the standard followed by the percent of instances where the IRS disallowed the excess expense.

FIGURE 2.1, Percent of Taxpayers with an Expense Claimed in Excess of the ALE Standard and the Percent of Those Instances That the IRS Disallowed

Expense Type	Percent of Taxpayers Claiming Allowable Living Expenses in Excess of ALE Standard	Percent of Instances Where Excess Allowable Living Expenses Are Disallowed
National Standards	28.4%	50.6%
Housing and Utilities	54.0%	36.7%
Public Transportation	8.6%	29.2%
Vehicle Ownership Costs	21.6%	40.0%
Vehicle Operating Costs	49.6%	37.0%
Out-of-pocket Health Care Costs	36.7%	35.3%

Fifty-four percent of taxpayers had housing and utility expenses in excess of the ALE standards. And of those, approximately 37 percent had their expenses disallowed. Around 28 percent of taxpayers had national standard expenses (food, clothing, etc.) in excess of the ALE standards but slightly over half of those taxpayers had their expenses disallowed.

Pursuant to statutory direction, internal IRS guidance promotes the use of good judgment in ALE analysis and allows deviations when necessary.³ Since the total ALE calculation represents what the IRS has determined is necessary for a taxpayer and his or her family to meet all necessary living expenses, TAS Research also considered the prevalence of a particular ALE expense being disallowed for being

The principal authors of this study are Terry Ashley, Jeff Wilson, and Kate Leifeld.

² Internal Revenue Code (IRC) § 7122(d)(2)(B).

³ For example, see Internal Revenue Manual (IRM) 5.15.1.2(12), Overview and Expectations (Aug. 29, 2018).

excessive when in totality the taxpayer's expenses were less than his or her ALE amount. This would indicate the taxpayer is choosing to allocate budget dollars to an expense he or she prioritizes over other categories; that is, the taxpayer is willing to sacrifice in one area to cover over expenses.

Overall, the IRS disallowed expenses greater than those specifically allowed in the IRS ALE standards 28.8 percent of the time, even though the taxpayer was able to document the existence of the expense. In over 90 percent of these cases, the IRS disallowed the additional expense even though the taxpayer's total expenses for the various ALE standards was less than the total of the applicable ALE standards, which could be allowed by the IRS. In this situation, the taxpayer is living below the maximum allowable ALE standards for his or her household circumstances, even though one ALE expense is in excess.

TAS Research also considered expenses outside of the ALE standards but included on the IRS collection information statement (CIS). This category includes things such as health insurance and child care.⁴ When considering all disallowed expenses in this category, the taxpayer was able to document the expense over 44 percent of the time.

Last, TAS Research looked at expenses that are not considered in the ALE calculation at all. These expenses include things such as retirement savings contributions and higher education expenses. The study did not find a high rate of reporting for these expenses; however, it could be that they were included in the "other expense" category. When considering only these expenses, the IRS disallowed the expense in over 40 percent of the cases reviewed. Of the disallowed expenses, the taxpayer provided substantiation of the expense in approximately 38 percent of the cases.

This analysis shows that the ALE standards as designed may not be sufficient. For instance, we question whether we should not see such a high degree of taxpayers reporting expenses in excess of the ALE standards. TAS Research has also documented that taxpayers are reporting expenses outside of what is allowed in the ALE standards. Some of these expenses are disallowed even when the taxpayer is already living below the maximum ALE amount calculated for his or her circumstances. When the ALE standards fail to reflect what it truly costs to meet necessary living expenses, some taxpayers will forego a basic living expense in order to pay a tax debt. Additionally, the IRS appears not to be exercising the amount of statutorily authorized flexibility to allow for deviations when necessary, as evidenced by the number of disallowances even when the taxpayer documented the expense.

INTRODUCTION

Internal Revenue Code (IRC) § 7122(d)(2)(A) requires that the IRS "develop and publish schedules of national and local allowances designed to provide that taxpayers entering into a compromise have an adequate means to provide for basic living expenses." Congress also instructed the IRS to analyze the facts of each case involving these allowances and stipulated that if application of the allowances results in a taxpayer not being able to provide for basic living expenses, then the allowances should not be used. 6

⁴ The National Taxpayer Advocate previously made this recommendation. See National Taxpayer Advocate 2016 Annual Report to Congress 192-202.

⁵ See also Treas. Reg. § 301.7122-1(c)(2)(i).

⁶ IRC § 7122(d)(2)(B).

The resulting Allowable Living Expense (ALE) standards have come to play a major role in analyzing several types of IRS collection cases.⁷

The IRS uses the "necessary test" when analyzing a taxpayer's financial situation and allows an expense if it is "necessary to provide for a taxpayer's and his or her family's health and welfare and/or production of income." When a taxpayer agrees to pay a tax debt even though his or her income is below the ALE standard, that taxpayer will most likely forego paying necessary living expenses in order to pay the tax debt. TAS Research has also shown that these taxpayers are more likely to default on their installment agreement and may not stay current with taxes.⁹

Given the important role of ALE standards in taxpayers' wellbeing and future compliance, TAS Research conducted a study exploring how the IRS applies its ALE standards in a statistically valid sample of cases where the IRS entered into an installment agreement with the taxpayers after conducting a financial analysis.¹⁰ TAS Research analyzed how accurately the ALEs reflect the expenses reported by taxpayers. The study explores the frequency with which taxpayers have expenses in excess of the ALE standards, the frequency with which taxpayers claim other routine expenses not included in the ALE standards, and if the IRS is following its own ALE guidelines.

BACKGROUND

The ALE standards are broken down into national and local standards. National standards encompass the categories of food, clothing, and other items, as well as out-of-pocket health care expenses. Each category of the national standards is allotted a certain amount and taxpayers may claim up to that amount even if they spend less.¹¹ Local standards cover housing, utilities, and transportation. Unlike national standards, a taxpayer who claims an expense under the local standards is allowed the lesser of the amount spent or the local standard.¹²

The Internal Revenue Manual (IRM) provides that other expenses should be allowed as determined to be necessary for the taxpayer's living expenses: "the standard amounts set forth in the national and local guidelines are designed to account for basic living expenses. In some cases, based on a taxpayer's individual facts and circumstances, it will be appropriate to deviate from the standard amount when

- 9 National Taxpayer Advocate 2016 Annual Report to Congress vol. 2 54-66.
- 10 The sample is statistically valid at the 95 percent confidence level with a margin of error of plus or minus six percent.
- 11 IRM 5.15.1.8(4), Allowable Expense Overview (Aug. 29, 2018).
- 12 IRM 5.15.1.8(5), Allowable Expense Overview (Aug. 29, 2018).

Form 433-A, Collection Information Statement for Wage Earners and Self-Employed Individuals, is used to determine monthly expenses and primarily relies on the Allowable Living Expense (ALE) standards. This form is necessary for many types of case resolutions, including certain installment agreements (IAs) and offers in compromise (OIC). IRM 5.15.1.2, Overview and Expectations (Aug. 29, 2018).

IRM 5.15.1.8, Allowable Expense Overview (Aug. 29, 2018). While allowable living expenses (ALEs) receive the majority of IRS analysis, IRS employees are instructed to consider two other types of expenses in their financial analysis: "other necessary expenses" and "other conditional expenses." "Other necessary expenses" are expenses that meet the necessary expense test and are normally allowed. IRM 5.15.1.8, Allowable Expense Overview (Aug. 29, 2018). An example of this expense is the category of child care costs, which are allowed if they are "reasonable," making them subject to an individual IRS employee's judgment. IRM 5.15.1.11, Other Expenses (Aug. 29, 2018). "Conditional expenses" are expenses which may not meet the necessary expense test but may be allowed based on the circumstances of an individual case. IRM 5.15.1.8, Allowable Expense Overview (Aug. 29, 2018).

failure to do so will cause the taxpayer economic hardship."¹³ Substantiation of such an expense can consist of "credible verbal communication or written documentation received from the taxpayer."¹⁴

In fiscal year (FY) 2018, the IRS agreed to nearly 2.9 million installment agreements (IAs). Over 72 percent (2,079,743) of these agreements were streamlined IAs, not requiring financial analysis or the use of ALE standards.¹⁵ However, over 800,000 of the FY 2018 IAs were non-streamlined and required the IRS to apply the ALE standards.¹⁶ Therefore, even though ALE standards are not used in most IAs, these standards still affect over three-quarter of a million taxpayers entering into IAs annually. Furthermore, over a quarter of the FY 2018 TAS collection issue cases dealt with an IA.¹⁷ Moreover, as TAS has shown elsewhere, the failure to obtain financial information has resulted in taxpayers entering into installment agreements when their income is less than their allowable expenses.¹⁸

The IRS uses its ALE standards to determine the taxpayer's potentially collectible income, which is expected to go toward the tax debt.¹⁹ Over 20 percent of the IAs that defaulted in FY 2018 were agreements determined by applying ALEs. Even though IAs entered into with the use of the ALE standards are somewhat less likely to default than streamlined IAs not requiring financial analysis, over 200,000 of the IAs based on ALE standards defaulted in FY 2018.²⁰ When an IA defaults, the taxpayer and the IRS must devote resources to reworking defaulted IAs. The taxpayer may experience additional anxiety over the unresolved debt or become noncompliant because of the financial strain. In 2016, TAS Research determined that 40 percent of taxpayers entering into individual IAs in 2014 had incomes below their calculated ALE.²¹

The IRS bases national standard expenses, which include food, apparel, personal care, housekeeping, and services, on expenditures captured in the Bureau of Labor Statistics (BLS) consumer expenditure survey, notwithstanding a warning from BLS that it should not be used in relation to individual circumstances.²² This data is indexed by the number of individuals in a household. The standard

- 13 IRM 5.15.1.2(12), Overview and Expectations (Aug. 29, 2018).
- 14 Id.
- 15 IRM 5.14.5.1, Overview (May 23, 2014). Streamlined Criteria have two tiers, up to \$25,000, and \$25,001–\$50,000. In-Business Trust Fund Express IAs can be secured without securing financial information on business accounts up to \$25,000. For more information on streamlined IAs in particular, see IRM 5.14.5.2, Streamlined Installment Agreements (Dec. 23, 2015). The number of streamlined IAs reported above includes guaranteed IAs available to taxpayers under IRC § 6159(c), which also do not require financial analysis. Collection Activity Report 5000-6 (Sept. 1, 2019) only Individual Master File (IMF) IAs.
- 16 Collection Activity Report 5000-6 (Sept. 1, 2019) only IMF IAs.
- 17 Taxpayer Advocate Management Information System (TAMIS) cases received in fiscal year (FY) 2018 and coded with a Collection primary issue code. While this study focuses on ALE standards as applied to IAs, ALE standards impact thousands of taxpayers who have an outstanding liability with the IRS. About 470,000 taxpayers had their collection cases resolved as currently not collectible due to hardship, which would require a financial analysis. Collection Activity Report (CAR) 5000-149. In FY 2018, there were 32,621 accepted or rejected OICs. CAR 5000-108.
- 18 See Most Serious Problems: Economic Hardship: The IRS Does Not Proactively Use Internal Data to Identify Taxpayers at Risk of Economic Hardship Throughout the Collection Process; Private Debt Collection: The IRS's Expanding Private Debt Collection Program Continues to Burden Taxpayers Who Are Likely Experiencing Economic Hardship While Inactive PCA Inventory Accumulates, supra.
- 19 IRM 5.15.1.3, Analyzing Financial Information (Aug. 29, 2018).
- 20 CAR 5000-6 (Oct. 1, 2018).
- 21 National Taxpayer Advocate 2016 Annual Report to Congress vol. 2, 60.
- 22 IRM 5.15.1.8(4), Allowable Expense Overview (Aug. 29, 2018). Bureau of Labor Statistics (BLS) warns that the "data shown in the published tables are averages for demographic groups of consumer units. Expenditures by individual consumer units may differ from the average even if the characteristics of the group are similar to those of the individual consumer unit. Income, family size, age of family members, geographic location, and individual tastes and preferences all influence expenditures." BLS, Consumer Expenditure Surveys, Frequently Asked Questions, https://www.bls.gov/cex/csxfaqs.htm.

includes an additional amount for miscellaneous expenses. Also, as part of national standards the IRS allows each taxpayer to claim out-of-pocket health care expenses.²³ A housing and utility category (part of the local standards) is computed for each county in every state as well as the District of Columbia using data from the Census Bureau and the BLS.²⁴ Expenses included in the housing and utility category are telephone, garbage disposal, cable television, internet expenses, and home maintenance and repairs.²⁵ The expenses for local standards are also indexed by household size so that larger families have a greater housing and utility allowance than smaller families. Transportation costs also use local standards. Vehicle operating standards are based on BLS data that are adjusted with Consumer Price Indices to allow for projected increases throughout the year. Fuel costs have a separate fuel price adjustment that is based on Energy Information Administration data, allowing for projected fuel price increases.²⁶

While the IRS is using government data sources for constructing its ALE standards, as a practical matter, each taxpayer presents unique financial circumstances, which can only be addressed by IRS personnel using flexibility and reasonable judgment.²⁷ In fact, the IRM notes that Collection personnel should make appropriate deviations from the ALE when necessary.²⁸

OBJECTIVES

The specific objectives of this study appear below:

OIC Study

- Determine the incidence of taxpayers having expenses in a specific ALE category that exceed the allocation for that ALE standard;
- Determine the incidence of taxpayers having expenses in one or more ALE categories that exceed the ALE standards for the category and the incidence of the IRS disallowing these excess expenses even though the taxpayer's total expenses are less than the sum of all relevant ALE standards;
- Determine the incidence of the IRS not allowing an expense because it is outside of the current accepted ALEs; and
- Determine the incidence of the IRS not allowing an expense because it is outside of the accepted ALE standards even when the taxpayer's total expenses are less than the sum of all relevant ALE standards.

- 24 IRM 5.15.1.8(5), Allowable Expense Overview (Aug. 29, 2018).
- 25 Id.
- 26 Id.

28 IRM 5.15.1.2(12), Overview and Expectations (Aug. 29, 2018); IRM 5.19.13.2.2.2, Allowable Living Expenses (June 10, 2015). The language is as follows:

The standard amounts set forth in the national and local guidelines are designed to account for basic living expenses. In some cases, based on a taxpayer's individual facts and circumstances, it will be appropriate to deviate from the standard amount when failure to do so will cause the taxpayer economic hardship (See IRM 5.15.1.1(8)). The taxpayer must provide reasonable substantiation of all expenses claimed that exceed the standard amount.

²³ IRM 5.15.1.8(4), Allowable Expense Overview (Aug. 29, 2018); Small Business/Self-Employed (SB/SE) Finance, Research and Strategy 2014 Allowable Living Expense Project 4-6 (Aug. 2014). Currently, a taxpayer under the age of 65 can claim \$52 per month in out-of-pocket health care expenses and a taxpayer 65 or older can claim \$114. IRS, National Standards: Out-of-Pocket Health Care, https://www.irs.gov/businesses/small-businesses-self-employed/national-standards-out-of-pocket-health-care.

As mentioned above, BLS warns against using the consumer data on an individual basis. This data reflects what taxpayers are spending, not what they need to pay in order to provide for their basic living expenses. National Taxpayer Advocate 2016 Annual Report to Congress 192-202.

METHODOLOGY

Since non-streamlined IAs require that the taxpayer submit financial information to the IRS, TAS reviewed the information provided by the taxpayer to the IRS on the collection information statement (CIS).²⁹ Unfortunately, records of IRS financial analysis did not always contain sufficient detail to answer the research questions. Based on a review of financial statements recorded by IRS employees on internal databases, TAS reviewed about 1,500 cases to obtain sufficient information to complete this study. TAS Research believes the results of this study will provide important data to substantiate the need for the IRS to make changes in how it administers ALEs.

TAS randomly sampled nearly 1,500 cases resolved with a non-streamlined IA between March 18, 2018 and September 29, 2018. Of those cases that TAS randomly selected for review, 278 cases contained sufficient data to complete the data collection instrument (DCI). The DCI recorded data on where the taxpayer resided, the taxpayer's household size, the number of delinquent modules, and whether the IA was secured by Automated Collection System (ACS) or Collection Field function employees. The DCI contained four specific questions for 21 separate expenses. The following four questions were asked about each expense type:

- The expense amount;
- Whether the taxpayer provided documentation for the existence of the expense;
- The amount of the ALE standard (if applicable); and
- Whether the expense was allowed.

Additionally, if possible, we recorded the reason for disallowance of the expense and any relevant comments.³⁰ We focused on the six expenses covered by the ALE standards including:

- National standards (expenses, such as food, clothing, necessary services);
- Housing and utility standards;
- Public transportation (if any);
- Vehicle ownership expense (if any);
- Vehicle operating expenses; and
- Out-of-pocket health care expenses.

We then examined claimed expenses in categories included on the standard IRS Collection Information Statement including the expenses claimed with respect to:

- Childcare;
- Health Insurance;
- Life Insurance;
- Other Expenses;
- Current Year Taxes;
- Secured Debts:

²⁹ IRS, Form 433-A, Collection Information Statement for Wage Earners and Self-Employed Individuals (Dec. 2012); IRS, Form 433-B, Collection Information Statement for Businesses (Dec. 2012); IRS, Form 433-F, Collection Information Statement (Jan. 2017).

³⁰ Few cases contained information about the reason for an expense disallowance.

- Court Ordered Payments; and
- Delinquent State or Local Taxes.

Finally, we recorded the incidence of three additional expenses, which we believe are often necessary expenses:

- Retirement savings contributions;
- Higher education or trade school expenses; and
- School-related expenses for children.

Because of the length of time required to review the financial information from the closed cases, eleven different reviewers completed DCIs. To help ensure consistency, the group reviewed a small group of cases jointly. Then after each reviewer completed a few cases, the reviewers discussed each of the completed DCIs to confirm the consistency of the reviews.

When considering this sample size, results are valid at the 95 percent confidence interval with a margin of error of no more than plus or minus six percent with a maximum variation of 50 percent. We also discuss subpopulations of the sample.³¹

On average, these 278 sample taxpayer cases had 6.4 delinquencies with the median being six. ACS secured the IA in 119 cases (42.8 percent), while the Collection Field function secured the IA in 159 cases (57.2 percent).

FINDINGS

The Incidence of Taxpayers Having Actual Expenses in a Specific ALE Category Exceeding the ALE Standard

In over 85 percent of the CISs reviewed, taxpayers claimed higher expenses in at least one of the ALE categories than was recognized by the ALE standards.³² The prevalence of taxpayers claiming expenses over the ALE standards and the rate at which IRS employees approved deviations varied by expense type. The following figure depicts the percent of sample cases where the taxpayer claimed more than the ALE expenses and the rate at which such deviations were disallowed. This could indicate that the method for setting the ALE standards is insufficient because it may not accurately reflect what it costs to meet basic expenses, the IRS may not be making appropriate deviations, or the standards may not reflect expenses of taxpayers who owe delinquencies.

³¹ This report does not show the confidence intervals for most of the subpopulations.

³² In 236 of the 278 sample cases, the taxpayer claimed total expenses greater than the maximum ALE standards.

FIGURE 2.2, Percent of Taxpayers With an Expense Claimed in Excess of the ALE Standard and the Percent of Those Instances That the IRS Disallowed

Expense Type	Percent of Taxpayers With ALE Expenses in Excess of ALE Standard	Percent of Instances Where Excess ALE Expenses Are Disallowed	
National Standards	28.4%	50.6%	
Housing and Utilities	54.0%	36.7%	
Public Transportation	8.6%	29.3%	
Vehicle Ownership Costs	21.6%	40.0%	
Vehicle Operating Costs	49.6%	37.0%	
Out-of-pocket Health Care Costs	36.7%	35.3%	

Fifty-four percent of taxpayers had housing and utility expenses in excess of the ALE standards. And of those, approximately 37 percent had their expenses disallowed. Around 28 percent of taxpayers had national standard expenses in excess of the ALE standards but slightly over half of those taxpayers had their expenses disallowed. The high rate of disallowance may indicate that employee training on deviations needs to be improved.

Additionally, over 85 percent of those taxpayers whose expenses claimed for ALE standards did not exceed the total ALE amount for their age and family size claimed expenses outside of the items recognized by the IRS, which made their total of expenses claimed exceed their ALE standards. This means that a majority of the taxpayers who were able to fit within the IRS's system for ALE standards still fell outside of the limits because not all of their types of expenses were covered. Overall, about 60 percent of taxpayers claimed total expenses exceeding the amounts routinely allowed by the IRS. If the taxpayer is claiming reasonable expenses, the implications of this could be countering the congressional intent for ALE standards, which is to ensure that taxpayers do not enter into a payment arrangement for a tax liability that prevents them from meeting basic living expenses.

The TAS analyses also shed light in one area where perhaps IRS training can be improved. As of March 26, 2018, each taxpayer under age 65 is entitled to claim \$52 per month in out-of-pocket health care costs. Each taxpayer age 65 or over is entitled to claim \$114 per month.³³ However, in the review of 278 taxpayers, TAS found that only 254 cases reflected an allocation for this expense. That means that approximately eight percent of the cases did not receive the benefit of out-of-pocket health care costs each year, which should be guaranteed to each taxpayer.

³³ Out-of-pocket health care expenses include medical services, prescription drugs, and medical supplies. IRM 5.15.1.8(4), Allowable Expense Overview (Aug. 29, 2018). In response to the IRS's decision to decrease the amount allowed for out-of-pocket expenses, the National Taxpayer Advocate previously recommended that this expense should be increased. National Taxpayer Advocate 2016 Annual Report to Congress 198.

The Incidence of Taxpayers Having Expenses in One or More ALE Categories That Exceed the ALE for the Category and Whether These Excess Expenses Are Disallowed Even Though the Taxpayer's Total Expenses Are Less Than the Sum of All Relevant ALE Standards

The IRM instructs IRS Collection personnel to allow expenses that exceed the ALE standard if taxpayers' circumstances warrant such an action and the expense can be substantiated through verbal communication or documentation.³⁴ In about 40 percent of the cases reviewed, the IRS disallowed expenses that exceeded the applicable ALE standard.

IRS employees are instructed to request documentation to substantiate an expense claimed in excess of the ALE standard. According to IRS procedures, the IRS should allow the national standard even if the taxpayer spends less on those expenses.³⁵ However, the IRS must accept the lesser of actual expenses or the local standard for housing and transportation.³⁶ Figure 2.3 shows, by the type of ALE standard, the percent of disallowed excess expenses where the taxpayer was able to document the existence of the expense. This table also shows the number of cases where the disallowance occurred even though the IRS allowed a smaller total amount of living expense than the maximum expense indicated by the guidelines.³⁷

FIGURE 2.3, Percentage of Cases Where the IRS Disallowed ALE Expenses Even Though Expense Was Documented or the IRS Allowed Less than the Maximum ALE Standards

Expense Type	Percent of Taxpayers With ALE Expenses > Standards Where the IRS Disallowed the Additional Expense Even Though the Taxpayer Was Able to Document the Existence of the Expense	Percent of Taxpayers With ALE Expenses > Indicated Standard Where the IRS Disallowed the Additional Expense Even Though the Taxpayer's Total ALE Expenses Were Less Than the Maximum Total ALE Expense Standard	
National Standards	26.6%	13.9%	
Housing and Utilities	33.3%	10.0%	
Public Transportation	16.7%	54.2% ^a	
Vehicle Ownership Costs	31.7%	11.7%	
Vehicle Operating Costs	27.5%	26.8%	
Out-of-pocket Health Care Costs	16.7%	28.4% ^b	

a Only 24 cases claimed public transportation expenses.

Overall, 26.3 percent of the sample taxpayers claimed more than the amount of at least one ALE standard, even though they claimed less than the total amount of all allowable ALE expenses for their specific circumstance. The IRS disallowed expenses greater than those specifically allowed by the ALE standards 28.8 percent of the time. even though the taxpayer's total expenses for the ALE standards was

b Includes instances where the IRS allowed no out-of-pocket health care expenses.

³⁴ IRM 5.15.1.2(12), Overview and Expectations (Aug. 29, 2018); IRM 5.15.1.8, Allowable Expense Overview (Aug. 29, 2018).

³⁵ IRM 5.15.1.8(4), *Allowable Expense Overview* (Aug. 29, 2018). The exact language reads "Taxpayers are allowed the total National Standards amount monthly for their family size, without questioning the amounts they actually spend."

³⁶ IRM 5.15.1.8(5), Allowable Expense Overview (Aug. 29, 2018).

³⁷ Id. A taxpayer who claims an expense under the local standards is allowed the lesser of the amount spent or the local standard. Nevertheless, the IRS will allow the maximum amount of the expense for other taxpayers when expenses for the local standard equals or exceeds the expense standard.

less than the total applicable ALE standards, which is in contradiction for guidance related to national standards. In over 90 percent of these cases, the IRS disallowed the additional expense.³⁸

The Incidence of the IRS Not Allowing an Expense Because It Is Outside of the Currently Accepted ALEs

The IRS has exercised its discretion when it determines which expenses are necessary and included in the ALE standards. The third objective of this study examines the frequency with which the IRS allows expenses not included in its ALE standards. We divided these expenses between items which appear on the CIS (such as health or life insurance premiums) and other expenses not listed on the taxpayer's CIS but nevertheless potentially a legitimate expense (such as contributions to a retirement account).

TAS Research explored the prevalence of taxpayers claiming expenses not included in the ALE standards. The CIS allows taxpayers to report eight expenses not included in the ALE standards (listed in Figure 2.4).³⁹ Next to each expense type appears the percent of cases in which that expense was claimed, the percent of cases where the IRS disallowed this expense, and the percent of cases where the IRS disallowed the indicated expense, even though the taxpayer documented the existence of the expense.

FIGURE 2.4, Incidence of Expenses Appearing on the CIS Outside of the ALE Standards and Whether the IRS Allowed or Disallowed the Expenses with Substantiation

Expense Type	Percent of Cases Claiming Expense	Percent of Cases IRS Disallowed Expense	Percent of Taxpayers Where the IRS Disallowed the Additional Expense Even Though the Taxpayer Was Able to Document the Existence of the Expense
Child/Dependent Care Expenses	8.6%	16.7%	50.0%
Health Insurance	62.6%	9.8%	52.9%
Life Insurance	40.3%	20.5%	56.5%
Current Year Taxes	60.4%	19.6%	24.2%
Secured Debts	10.8%	26.7%	62.5%
Court Ordered Payments	16.2%	20.0%	55.6%
Payments on Delinquent Taxes	23.7%	27.3%	52.6%
Other Expenses	38.9%	50.9%	49.2%

When considered by individual expense category, the sample sizes for cases with disallowed expenses are small. This may be a result of the way in which the expenses were recorded by the IRS employee when conducting the financial analysis. Nevertheless, when considering all expense types not listed on the CIS, the IRS disallowed over 45 percent of the expenses even though the taxpayer was able to document the existence of the expense.⁴⁰

³⁸ The IRS disallowed part of the expense claimed for at least one ALE standard in 73 of the 278 sample cases, even though the taxpayer's total expenses for the ALE standards was less than the total applicable ALE standards. In 21 of the 73 cases, the taxpayer provided documentation for the higher expense claimed and in 19 of these 21 cases, the IRS did not allow the full amount of the applicable ALE standards.

³⁹ IRS, Form 433-A, Collection Information Statement for Wage Earners and Self-Employed Individuals 4 (Dec. 2012).

⁴⁰ In 61 of 144 instances the IRS disallowed a documented expense. The 95 percent confidence interval ranges from 34.3 percent to 50.4 percent.

Some disallowed expenses could severely impact taxpayers' well-being. For instance, there is no standard for childcare expenses because it is considered an "other" expense. However, almost 17 percent of the cases claiming childcare expenses were disallowed, and in half of those cases the taxpayer submitted documentation to substantiate the expense. IRS employees are instructed to only consider reasonable amounts of childcare costs but the IRM does not define what is a "reasonable" cost for childcare is. Instead, employees are cautioned that the "cost of childcare can vary greatly. Do not allow unusually large child care expense if more reasonable alternatives are available. Consider the age of the child and if both parents work. Given the importance of this expense category to a parent working outside of the house, childcare should be established as its own ALE category, to ensure uniform inclusion by IRS employees.

A similar argument can be made for health care insurance costs. Here, only ten percent of the cases were disallowed, but approximately 53 percent of those disallowed cases had their expenses disallowed even after submitting documentation.

We also examined expenses that do not appear on the CIS because the expenses are not recognized by the IRS, including:

Retirement savings contributions;

OIC Study

- Higher education or trade school expenses; and
- Children's school-related expenses.

Overall, these expenses were not recorded in the reviewed CISs with any significant frequency. The most common of these expenses was the presence of retirement allotments and trade school or other higher education expenses, which occurred in about 6.8 percent and 2.5 percent of the cases, respectively. However, IRS Collection personnel likely lump these expenses in "other" expenses highlighted above. When considering only these expenses, the IRS disallowed the expense in 43 percent of the cases reviewed, which is similar but somewhat lower than the rate at which IRS personnel disallowed "other" expenses. Of the disallowed expenses, the taxpayer provided substantiation of the expense in approximately 38 percent of the cases.

When combining these expenses with the "other" expenses detailed in the prior section of specific line items listed on the CIS but not included in one of the IRS ALE standards, taxpayers claimed such an expense in slightly over 44 of the cases reviewed.⁴³ The IRS disallowed these expenses about half of the time.⁴⁴ The taxpayer was able to document the expense in a third of the disallowed expense claims.

⁴¹ IRM 5.15.1.11(3), Other Expenses (Aug. 29, 2018). See National Taxpayer Advocate 2016 Annual Report to Congress 192-

⁴² IRM 5.15.1.11(3), Other Expenses (Aug. 29, 2018).

⁴³ The sample point estimate is 50.7 percent.

⁴⁴ The sample point estimate is 48.9 percent.

The Incidence of the IRS Not Allowing an Expense Because It Is Outside of the Accepted ALEs, but the Taxpayer's Total Expenses Are Less Than the Sum of All Relevant ALE Standards

This objective is similar to the second objective, except instead of analyzing individual ALE categories, TAS analyzed the frequency with which taxpayers claimed expenses outside of those covered by the ALE categories that were disallowed by the IRS, even though the taxpayer's total expenses were less than the maximum total for all ALE standards, given the taxpayer's individual circumstances. In about 15 percent of the sample cases, the IRS allowed total expenses less than the maximum amount which could be allowed by the ALE standards. In almost two-thirds of these cases, the taxpayer had claimed another expense outside of the ALE standards.

CONCLUSIONS

Congress intended for the IRS to use ALE standards in order to ensure that taxpayers do not go into poverty in order to pay their outstanding tax liabilities. The current standards have come to play an important role in many types of collection cases. However, the way in which the ALEs are designed and used may impact how effectively taxpayers are protected.

- Taxpayers claim more than the recognized ALE standards nearly two-thirds of the time.
- Eighty-five percent of the taxpayers claimed total expenses greater than the amounts allowed by the ALE standards.
- When considering taxpayers with total expenses for the ALE standards less than the standard amount, about two-thirds claimed an expense outside of those covered by the ALE standards.
- On average, the IRS disallowed a claimed expense exceeding the corresponding ALE standard about 40 percent of the time. The IRS denied over half of the claimed expenses exceeding the national standard (food, clothing, etc.).
- The IRS disallowed about 45 percent of the expenses occurring on the CIS but outside of the ALE standards, even though the taxpayer documented the existence of the expense. Although other routine expenses not considered necessary (*e.g.*, retirement savings contributions or charitable contributions) were claimed relatively infrequently, the IRS also disallowed over 45 percent of these documented expenses.

The IRS allowed expenses less than the ALE standards in about 15 percent of the cases. In nearly two-thirds of these cases, the taxpayer had claimed an additional expense outside of those covered by the ALE standards, while the IRS disallowed these additional expenses about 15 percent of the time.

⁴⁵ IRM 5.15.1.8(5), Allowable Expense Overview (Aug. 29, 2018). A taxpayer who claims an expense under the local standards is allowed the lesser of the amount spent or the local standard. Nevertheless, the IRS will allow the maximum amount of the expense for other taxpayers whose expenses for the local standard equals or exceeds the expense standard.

⁴⁶ The point estimate is 14.8 percent with the 95 percent confidence interval ranging from 5.2 percent to 24.4 percent.

RECOMMENDATIONS

To minimize devoting resources to granting IAs that have a high probability of default, the IRS should utilize the flexibility that is already required in the tax code. In doing so, the IRS is also fulfilling congressional intent, which is to avoid having taxpayers suffer a financial hardship to meet tax liabilities. Accordingly, the IRS should consider the following recommendations:

- 1. Both the local and national standards should be viewed as a minimum allowance without substantiation. If the taxpayer claims more, then substantiation may be requested.
- 2. The IRM gives IRS employees broad discretion in allowing for deviations from the ALE standards; however, deviations are not utilized consistently. The IRS should provide more training to its collection employees on using deviations when necessary and exercising good judgment to analyze the financial situation of each taxpayer and his or her family.
- 3. Similarly, TAS Research data reflects documented expenses in excess of the ALE standards that the IRS considered and disallowed or reduced. However, IRS procedures allow for reasonable substantiation of expenses, including credible verbal communication. The IRS should review its employees' exercise of this discretion to ensure they do not deny legitimate expenses, especially where taxpayers' overall expenses are below ALEs.
- 4. The three expenses TAS reviewed that are not included currently in ALE standards arguably meet consideration for allowance under the necessary expense test. The IRS should expand the current ALE standards to retirement savings contributions, higher education or trade school expenses, and children's school-related expenses.

Do Taxpayers Respond to the Substantial Understatement Penalty? Analysis of Bunching Below the Substantial Understatement Penalty Threshold

Do Taxpayers Respond to the Substantial Understatement Penalty? Analysis of Bunching Below the Substantial Understatement Penalty Threshold ¹

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The principal authors of this study are Eric LoPresti, Senior Attorney Advisor, Jeff Wilson, Senior Research Advisor, Michael Nestor, Operation Research Analyst, and Kim Bloomquist, former Operation Research Analyst. For a prospectus for this research, see National Taxpayer Advocate 2017 Annual Report to Congress 196-208.

EXECUTIVE SUMMARY

The "economic deterrence" model of tax compliance suggests that higher or more certain penalties should produce more compliance.² This study aims to explore the extent to which taxpayers respond to the substantial understatement penalty.

An accuracy-related penalty applies to various understatements, including "substantial" understatements and those due to negligence.³ If the understatement exceeds the substantial understatement threshold, a penalty applies even if the IRS does not determine the taxpayer was negligent. For individuals, the threshold is generally the greater of \$5,000 or 10 percent of the tax required to be shown on the return.⁴ The substantial understatement penalty should increase the likelihood that substantial understatements will be subject to an accuracy-related penalty. If it does, the deterrence model suggests that it should deter taxpayers from understating their tax liabilities by more than the substantial understatement threshold.

If the substantial understatement penalty affects compliance behavior, some taxpayers whose understatements would otherwise be just over the threshold should adjust their reporting so that their understatements are just below it.⁵ If they do, we should see the density of understatements concentrated or "bunching" at or just below it, and fewer (*i.e.*, a crater) just above the threshold.⁶

To detect bunching at or below the threshold, we analyzed the distribution of individual examination assessments (*i.e.*, understatements) on returns selected at random as part of the National Research Program (NRP) for tax years (TY) 2006-2012 (excluding 2009).⁷ We reviewed histograms of the distribution of the understatements and applied statistical tests.

We did not detect statistically significant evidence of bunching at or just below the substantial understatement penalty threshold for taxpayers overall or for any taxpayer segment. In other words, we did not find evidence that taxpayers respond to the economic incentive provided by the substantial understatement penalty, as predicted by the economic deterrence model of tax compliance.

² See, e.g., Maurice Allingham & Agnar Sandmo, Income Tax Evasion: A Theoretical Analysis, 1 J. Pub. Econ. 323-338 (1972).

³ Internal Revenue Code (IRC) § 6662.

⁴ IRC § 6662(d).

This threshold is analogous to a kink point or notch in the tax rate schedule. The point at which the marginal tax rate increases is called a kink point, whereas large jumps or stepped increases are generally called notches. For example, an income tax is notched if it requires a person to pay a higher average rate on all of his income when he or she reaches the next highest bracket, as is the case in Pakistan. See Henrik Kleven & Mazhar Waseem, *Using Notches to Uncover Optimization Frictions and Structural Elasticities: Theory and Evidence from Pakistan*, 128 Qtrly J. Econ. 669, 670 (2013). Penalty thresholds are generally more similar to notches than to kink points. Notches may trigger a larger behavioral response than kink points, in part, because they are more salient. See James Sallee & Joel Slemrod, *Car Notches: Strategic Automaker Responses to Fuel Economy Policy* 3 (Nat'l Bureau Econ. Res. (NBER) Working Paper No. 16604, 2010), http://www.nber.org/papers/w16604.

Indeed, Congress recently lowered the 10 percent substantial understatement threshold to 5 percent for taxpayers claiming a deduction under IRC § 199A for qualified business income, presumably based on the assumption that doing so would reduce noncompliance. Pub. L. No. 115-97, § 11011, 131 Stat. 2054 (Dec. 22, 2017) (codified at IRC § 6662(d)(1)(C)). The 5 percent threshold did not apply to the years we studied.

We excluded 2009 because the IRS's data did not have weights for that year.

DISCUSSION

Under the deterrence model people pay taxes to avoid penalties.⁸ Tax compliance depends on the likelihood of being caught and the size of the penalty. This model is overly simplified.⁹

Insights from behavioral science (*e.g.*, psychology and behavioral economics) suggest that other factors affect tax compliance. For example, people do what is easy, do what they think others are doing (*i.e.*, follow social norms), and cheat only to the extent they can maintain a positive self-image (*i.e.*, tax morale).¹⁰ These findings are consistent with other lines of research, which suggest that trust for the IRS, norms, fairness, reciprocity, tax morale, complexity, and similar factors drive compliance.¹¹

However, the deterrence model might suggest that a costless way for the government to increase tax compliance (and government revenue) is to increase the penalties for noncompliance.¹² Indeed, some lab

⁸ See, e.g., Maurice Allingham & Agnar Sandmo, Income Tax Evasion: A Theoretical Analysis, 1 J. Pub. Econ. 323-338 (1972).

Some have tried to tweak the model to solve the "compliance puzzle" of why, if deterrence is so important, we observe relatively high levels of compliance in the U.S. even though we have relatively few examinations and moderate penalty rates. See, e.g., Mark Phillips, Reconsidering the Deterrence Paradigm of Tax Compliance, IRS Research Conference (2011); Jack Manhire, Toward A Perspective-Dependent Theory of Audit Probability for Tax Compliance, 33 Va. Tax Rev. 629 (2014). However, other factors appear to affect compliance. See, e.g., Nadja Dwenger et al., Extrinsic and Intrinsic Motivations for Tax Compliance: Evidence from a Field Experiment in Germany, 8 Am. Econ. J. 203, 204-205 (2016) (finding that about 20 percent fully paid a church tax, even though they knew the tax was not enforced); Molly Frean, Jonathan Gruber & Benjamin Sommers, Premium Subsidies, the Mandate, and Medicaid Expansion: Coverage Effects of the Affordable Care Act, 5 (NBER Working Paper No. 22213, 2016), http://www.nber.org/papers/w22213 ("the [Affordable Care Act coverage] mandate penalty had a negligible impact on coverage"). Similarly, the incidence of crime cannot be explained by the severity of the sanction, as predicted by the deterrence model. See, e.g., Anthony Doob & Cheryl Webster, Sentence Severity and Crime: Accepting the Null Hypothesis, 30 CRIME & Just. 143 (2003).

¹⁰ See generally National Taxpayer Advocate 2016 Annual Report to Congress 50-63 (Most Serious Problem: Voluntary Tax Compliance); National Taxpayer Advocate 2016 Annual Report to Congress vol. 3 (Literature Review: Behavioral Science Lessons for Taxpayer Compliance); Richard Thaler, Misbehaving: The Making of Behavioral Economics (2015).

¹¹ See, e.g., National Taxpayer Advocate 2007 Annual Report to Congress, vol. 2 138-150 (Marjorie E. Kornhauser, Normative and Cognitive Aspects of Tax Compliance); National Taxpayer Advocate 2012 Annual Report to Congress vol. 2 1-28; OECD, Forum on Tax Administration, Small/Medium Enterprise (SME) Compliance Subgroup, Understanding and Influencing Taxpayers' Compliance Behaviour (Nov. 2010); OECD, Forum on Tax Administration Subgroup, Right from the Start: Influencing the Compliance Environment for Small and Medium Enterprises (Jan. 2012); Tom Tyler, Why People Obey the Law (2006); Tom Tyler, Legitimacy and Criminal Justice: The Benefits of Self-Regulation, 7 Ohio St. J. Crim. L. 307-359 (2009); Erich Kirchler, The Economic Psychology of Tax Behaviour (2007); Erich Kirchler & Erik Hoelzl, Tax Behaviour in Economic Psychology, ch. 16 (2017).

¹² Under an extension of the deterrence model, some have suggested that tax agencies can maintain compliance when they reduce audit rates without increasing penalties by trusting taxpayers—rewarding compliant taxpayers with fewer audits. See Juan P. Mendoza & Jacco L. Wielhouwer, Only the Carrot, Not the Stick: Incorporating Trust into the Enforcement of Regulation, 10 PLOS ONE 1, 4 (2015), https://www.ncbi.nlm.nih.gov/pubmed/25705898. However, an increase in penalty rates makes the use of trust less feasible. *Id.* at 15.

experiments support this notion.¹³ However, there is relatively little evidence that marginal changes to penalty rates have a positive effect on tax compliance in the real world.¹⁴

This study examines the extent to which the substantial understatement penalty affects real-world tax reporting behavior by individuals. If some taxpayers whose understatements would otherwise be just over the substantial understatement threshold adjust their reporting so that their understatements are at or just below it, then we should see relatively more understatements bunching at or just below it, and fewer (*i.e.*, a crater) slightly above the threshold. This analysis is possible only because the substantial understatement penalty is triggered at a specific observable threshold.

The Substantial Understatement Penalty Rules

If a tax return is wrong and the taxpayer was negligent or disregarded a rule or regulation, the IRS may apply a 20-percent accuracy-related penalty to the underpayment. Even if the IRS cannot show that the taxpayer was negligent or disregarded a rule or regulation, it may apply a 20-percent accuracy-related penalty to any underpayment that is due to a "substantial understatement," unless certain exceptions apply. If

- 13 See, e.g., Calvin Blackwell, A Meta-analysis of Incentive Effects in Tax Compliance Experiments, in Developing Alternative Frameworks for Explaining Tax Compliance 97, 109 (James Alm et al. eds., 2010); James Alm et. al., Estimating The Determinants Of Taxpayer Compliance With Experimental Data, 45(1) Nat'L Tax J. 107, 110 (1992) (finding experiments generally show that the "response to an increase in the penalty rate is positive but small and not highly significant.").
- See, e.g., Ann D. Witte and Diane F. Woodbury, *The Effect of Tax Laws and Tax Administration on Tax Compliance: The Case of the U.S. Individual Income Tax*, 38 Nat'L Tax J. 1, 7-9 (1985) (analyzing IRS data from the Taxpayer Compliance Measurement Program (TCMP) and finding the probability of civil and criminal fraud penalties had no significant effect or a negative effect; and the severity of criminal sanctions had no significant effect, except for a small positive effect on high-income self-employed individuals); Joel Slemrod et al., *Cheating Ourselves: The Economics of Tax Evasion*, 21 J. Econ. Persp. 25, 38 (2007) ("there has been no compelling empirical evidence addressing how noncompliance is affected by the penalty for detected evasion, as distinct from the probability that a given act of noncompliance will be subject to punishment."); James Andreoni et al., *Tax Compliance*, 36 J. Econ. Lit. 818, 842 (1998) (finding only one real-world study (by Pommerehne and Frey) that suggested penalties may have a positive effect on compliance, but the effect was not statistically significant). See also Kimberly Varma & Anthony Doob, *Deterring Economic Crimes: The Case of Tax Evasion*, 40 Canadian J. Criminology 165, 175-176 (1998) (surveying Canadians and finding that "25.9 percent of those who thought that jail would be imposed for evasion... had evaded tax. In contrast, only 15.3% of those who thought nothing would happen had evaded tax."). Even if raising penalties could increase compliance, there may be a point beyond which penalty increases decrease compliance, potentially due to a reduction in the perceived legitimacy of the penalties or in the agency's enforcement of them. See *generally*, Tom Tyler, *Why People Obey the Law* (2006) (discussing legitimacy).
- IRC § 6662(a); Treas. Reg. § 1.6664-2. For this purpose, a refundable credit claim (e.g., the Earned Income Tax Credit (EITC)) can trigger an underpayment if it is paid. See Treas. Reg. §§ 1.6664-2(c), -(g) (Example 3). During tax year (TY) 2010-12, the IRS may have believed a refundable credit claim could trigger an underpayment, even if it was frozen and not paid. See, e.g., Program Manager Technical Advice (PMTA) 2010-01 (Nov. 20, 2009) and PMTA 2011-03 (Aug. 27, 2010). While it later revised this conclusion, taxpayers could not be sure if the IRS would freeze their claims or issue refunds. See PMTA 2012-16 (May 30, 2012). While there were subsequent developments in this area, they should not be relevant to the years under study. See, e.g., Rand v. Comm'r, 141 T.C. 376 (2013) (holding that refundable credit claim reduce the amount shown, but not below zero); Protecting Americans from Tax Hikes Act of 2015 (PATH Act), Pub. L. No. 114-113, Div. Q, § 209(d)(1), 129 Stat. 3040, 3084-85 (2015) (providing that effective for all returns filed after Dec. 18, 2015, and all returns filed on or before Dec. 18, 2015, for which the period of limitations specified in section 6501 had not expired as of that date, refundable credit claims reduce the amount shown and can reduce it below zero).
- 16 Treas. Reg. § 1.6662-4(a)(2)(ii); Treas. Reg. §§ 1.6662-4(b)(4), -4(b)(5). An understatement is "substantial" if it exceeds the greater of: (A) ten percent of the tax required to be shown on the return for the tax year, or (B) \$5,000. For corporations (other than an S-corporation or personal holding company), an understatement is "substantial" if it exceeds the lesser of: (A) ten percent of the tax required to be shown on the return for the tax year (or if greater, \$10,000), or (B) \$10,000,000. See IRC § 6662(d)(1).
- 17 If the IRS establishes that a taxpayer was both negligent and substantially understated the tax, the maximum accuracyrelated penalty is capped at 20 percent of the understated tax. IRC § 6662(a).

Exceptions Do Not Eliminate the Incentive to Avoid the Threshold

The substantial understatement penalty does not apply if the taxpayer shows there is "substantial authority" for the tax treatment of the item.¹⁸ There is substantial authority for the tax treatment of an item only if the weight of the authorities supporting the treatment is substantial in relation to the weight of authorities supporting contrary treatment.¹⁹ Another way to avoid the penalty is to adequately disclose the position, typically on Form 8275, *Disclosure Statement*, Form 8275-R, *Regulation Disclosure Statement*, or on the return.²⁰ The adequate disclosure exception only applies if the taxpayer has a "reasonable basis" for the position and keeps adequate records.²¹ However, the substantial authority and adequate disclosure exceptions do not apply to understatements resulting from a "tax shelter."²² Tax shelters are broadly defined to include any partnership, entity, investment plan, or arrangement having "a significant purpose" of tax avoidance (*i.e.*, potentially any type of tax planning).²³

Finally, a taxpayer may avoid an accuracy-related penalty (including the substantial understatement penalty), if he or she can show the error was made in good faith and due to "reasonable cause."²⁴ However, this is a relatively narrow exception that is based on the facts and circumstances.²⁵

If any of these exceptions apply to an item (*i.e.*, there is substantial authority, adequate disclosure, or reasonable cause for the taxpayer's treatment of an item), then it is treated as if it were properly shown on the return for purposes of computing the penalty.²⁶ Because of the relative ease with which the IRS can establish that a taxpayer made a substantial understatement (as compared to establishing negligence or disregard of a rule or regulation) and the significant uncertainty about whether a taxpayer will be able to show that an exception applies, taxpayers have an economic incentive to ensure that any understatement of tax does not exceed the substantial understatement threshold, even if there is some possibility that an exception might apply.

- 18 IRC § 6662(d)(2)(B)(i) (reduction for substantial authority).
- 19 Treas. Reg. § 1.6662-4(d)(3)(i); Treas. Reg. § 1.6662-4(d)(2) (describing the standard as "less stringent than the more likely than not standard ... but more stringent than the reasonable basis standard").
- 20 IRC § 6662(d)(2); Treas. Reg. § 1.6662-3(b)(3) (defining reasonable basis); Treas. Reg. § 1.6662-3(c) and -4(f) (discussing the disclosure exception and Form 8275 or Form 8275-R); Rev. Proc. 2016-13, 2016-4 I.R.B. 290 (discussing alternative disclosure procedures for certain items).
- 21 Treas. Reg. § 1.6662-4(e)(2)(i) and (iii). The "reasonable basis" standard is "a relatively high standard of tax reporting, that is, significantly higher than not frivolous or not patently improper." Treas. Reg. § 1.6662-3(b)(3) (explaining the reasonable basis "standard is not satisfied by a return position that is merely arguable or that is merely a colorable claim. If a return position is reasonably based on one or more of the authorities set forth in § 1.6662-4(d)(3)(iii) (taking into account the relevance and persuasiveness of the authorities, and subsequent developments), the return position will generally satisfy the reasonable basis standard even though it may not satisfy the substantial authority standard...").
- 22 IRC § 6662(d)(2)(C) (reduction for substantial authority or adequate disclosure inapplicable to tax shelter items).
- 23 *Id.* For a discussion about problems with leaving "a significant purpose" undefined, see National Taxpayer Advocate 2008 Annual Report to Congress vol. 2, § 1 (*A Framework for Reforming the Penalty Regime*).
- 24 IRC § 6664(c) (reasonable cause exception).
- Treas. Reg. § 1.6664-4(b)(1) (further explaining "[c]ircumstances that may indicate reasonable cause and good faith include an honest misunderstanding of fact or law that is reasonable in light of all of the facts and circumstances, including the experience, knowledge, and education of the taxpayer. An isolated computational or transcriptional error generally is not inconsistent with reasonable cause and good faith. Reliance on an information return or on the advice of a professional tax advisor or an appraiser does not necessarily demonstrate reasonable cause and good faith. Similarly, reasonable cause and good faith is not necessarily indicated by reliance on facts that, unknown to the taxpayer, are incorrect. Reliance on an information return, professional advice, or other facts, however, constitutes reasonable cause and good faith if, under all the circumstances, such reliance was reasonable and the taxpayer acted in good faith.").
- 26 IRC § 6662(d)(2)(B) (understatement "reduced" by that "portion" for which there is substantial authority or adequate disclosure); IRC § 6664(c)(1) (reasonable cause exception for applicable "portion" of the understatement).

A Taxpayer Could Compute the Operative Threshold Before Filing

For individuals, an understatement is substantial if it exceeds the greater of \$5,000 or 10 percent of the tax required to be shown on the return.²⁷ For example, if the correct amount of tax is \$10,000 and an individual taxpayer reported \$6,000, then the penalty would not apply. Although the \$4,000 understatement is more than ten percent of the correct tax, it is less than the fixed \$5,000 threshold. Conversely, if the same individual reported a tax of \$4,000, the substantial understatement penalty would apply. The \$6,000 understatement is more than \$5,000, which is the greater of the two thresholds.

For relatively high income taxpayers who owe more than \$50,000 in tax, the operative threshold is 10 percent because 10 percent is more than $$5,000 (10\% \times $50,000 = $5,000)$. For the same reason, \$5,000 is the operative threshold for those who owe less than \$50,000 in tax (*e.g.*, those with lower incomes or who are entitled to relatively large deductions or credits). Thus, because a taxpayer could calculate whether the understatement penalty might apply, the penalty lends itself to bunching analysis, as opposed to the more subjective penalty for negligence.

Precedent for an Analysis of Bunching

Because the substantial understatement penalty does not apply unless a person's understatement exceeds a threshold, the distribution of understatements around the threshold can reveal whether the penalty affects reporting behavior. Other studies have suggested that if we see a disproportionate number of taxpayers reporting income near a threshold, such as a notch or kink point in the tax rate schedule (called bunching), we can conclude that they are responding to the economic incentive created by the marginal rate.²⁸

To detect this type of bunching, researchers first divide the population into buckets or bins that represent fixed income ranges (e.g., \$1-\$500, \$501-\$1,000, etc.) and then create a histogram showing how many taxpayers fall into each bin. If there are a disproportionate number of taxpayers in the bins near the threshold, researchers may conclude that taxpayers are adjusting their behavior (e.g., earnings or reporting compliance) in response to it.

A number of studies have used bunching to analyze the behavioral response to the Earned Income Tax Credit (EITC) schedule. The EITC is a means-tested anti-poverty program that provides assistance

²⁷ IRC § 6662(d)(1).

²⁸ See, e.g., Emmanuel Saez, Do Taxpayers Bunch at Kink Points?, 2 Am. Econ. J. Econ. Pol. 180, 182 n4. (2010) (finding evidence of bunching around the first marginal U.S. tax rate threshold); Raj Chetty et al., Adjustment Costs, Firm Responses, and Micro vs. Macro Labor Supply Elasticities: Evidence from Danish Tax Records (NBER Working Paper No. 15617, 2009), http://www.nber.org/papers/w15617 (reviewing tax data from Denmark to find evidence of bunching at the top marginal rate thresholds); Henrik Kleven & Mazhar Waseem, Using Notches to Uncover Optimization Frictions and Structural Elasticities: Theory and Evidence from Pakistan, 128 QTRLY J. ECON. 669, 672 (2013) (finding "bunching below every notch [in Pakistan's income tax brackets] combined with missing mass (holes) above every notch...[and that these effects are] larger for selfemployed individuals than for wage earners..."); Spencer Bastani & Håkan Selin, Bunching and Non-Bunching at Kink Points of the Swedish Tax Schedule (CESifo Working Paper No. 3865, 2012), https://ssrn.com/abstract=2101038 (estimating the taxable income elasticity at a kink point in the Swedish tax schedule using the bunching method). For a technical discussion of a similar methodology called "regression discontinuity," see, e.g., David S. Lee and Thomas Lemieux, Regression Discontinuity Designs in Economics, 48 J. Econ. Lit. 281-355 (2010) (describing methods for analyzing of the effects of treatments based on the insight that those immediately above and below a threshold that triggers a treatment can be compared as if they were selected at random if there is no reason to expect they are significantly different in other important respects); Justin McCrary, Manipulation of the Running Variable in the Regression Discontinuity Design: A Density Test, 142 J. Econometrics 698-714 (2008) (developing a statistical test to gauge whether the distribution of people above and below a threshold is random or subject to manipulation).

OIC Study

Penalty

to the working poor.²⁹ It boosts the economic incentive to earn income from work within certain ranges. One study found a disproportionate number of self-employed taxpayers' income bunching near the first kink point in the EITC schedule.³⁰ Although the self-employed are generally able to adjust their earnings in response to incentives more easily than wage earners, the study concluded that tax evasion could best explain the results.³¹ Although EITC claimants are more likely to get tax preparation assistance from unregulated, unaffiliated preparers—the types of preparers who are most likely to make mistakes—these studies suggested that someone (perhaps a preparer) was responsive to the kinks in the rate schedule.³² A follow-up study suggested that low income taxpayers' incomes bunch around thresholds that maximize all of the refundable credits, rather than just the EITC.³³

Another study found income bunching near a notch applicable to the saver's credit.³⁴ It concluded that some taxpayers who were claiming the saver's credit manipulated their incomes to qualify.³⁵ Another found that automakers responded to gas guzzler taxes by producing a disproportionate number of cars with fuel economy just above the notches in the tax rate schedule that would minimize the tax.³⁶ A study from the U.K. found bunching by small businesses with turnover just below the threshold at which they would be required to register for the value added tax (VAT).³⁷

- 29 To claim EITC for 2012, a person's income had to be between \$13,980 and \$50,270, depending on the number of children and whether the taxpayer was married. See IRS, Pub. 596, Earned Income Credit (EIC) 1 (2012). Although the thresholds have increased, we are citing the ones for 2012 because that was the last year of data that we studied. For a discussion of refundable credits, including the EITC, and related compliance challenges, see, e.g., Improper Payments in the Administration of Refundable Tax Credits: Hearing Before the H. Subcomm. on Oversight of the Comm. on Ways and Means, 112th Cong. (2011) (statement of Nina E. Olson, National Taxpayer Advocate).
- 30 See Emmanuel Saez, Do Taxpayers Bunch at Kink Points?, 2 Am. Econ. J. Econ. Pol. 180-212 (2010).
- 31 Id. See also, Elira Kuka, EITC and the Self-Employed: Real or Reporting Effects? 42 Pub. Fin. Rev. 691–719 (2013). Subsequent research used analysis of bunching to conclude that the EITC has a significant impact on reported earnings in areas of the country where knowledge about the EITC schedule is more widespread and preparers are readily available. Compare Raj Chetty & Emmanuel Saez, Teaching the Tax Code: Earnings Responses to an Experiment with EITC Recipients (NBER Working Paper No. 14836, 2009), http://www.nber.org/papers/w14836.pdf (finding that having preparers educate taxpayers about EITC incentives did not increase bunching around the EITC kink points), with Raj Chetty, John N. Friedman, & Emmanuel Saez, Using Differences in Knowledge Across Neighborhoods to Uncover the Impacts of the EITC on Earnings, 103 Am. Econ. Rev. 2683–2721 (2013), http://dx.doi.org/10.1257/aer.103.7.2683 (finding geographic and social proximity to peers (and preparers) with knowledge of the EITC kink points affected bunching around EITC kink points).
- See Kara Leibel, IRS, Pub. 5161, Taxpayer Compliance and Sources of Error for the Earned Income Tax Credit Claimed on 2006-2008 Returns 41 (Aug. 2014) (finding that most EITC claimants use a preparer, that unenrolled return preparers are the most common type of preparer used by EITC claimants, and that these are also the most error prone). See also National Taxpayer Advocate 2002 Annual Report to Congress 216-230 (finding higher rates of error among unenrolled preparers). In some cases, preparer fraud is an issue. See, e.g., National Taxpayer Advocate 2012 Annual Report to Congress 68-94. For further discussion of the effect of preparers on compliance, see, e.g., National Taxpayer Advocate 2007 Annual Report to Congress vol. 2 2-74 (Leslie Book, Study of the Role of Preparers in Relation to Taxpayer Compliance with Internal Revenue Laws).
- 33 Jacob Mortenson & Andrew Whitten, How Sensitive Are Taxpayers to Marginal Tax Rates? Evidence from Income Bunching in the United States 3 (Jan. 2016), https://www.aeaweb.org/conference/2016/retrieve.php?pdfid=1486. This study did not analyze the effect of preparers.
- Shanthi Ramnath, Taxpayers' Responses to Tax-based Incentives for Retirement Savings: Evidence from the Saver's Credit Notch, 101 J. Pub. Econ. 77-93 (2013). The saver's credit is a tax credit for using certain retirement savings vehicles, which provides larger credits to those with smaller adjusted gross incomes. IRC § 25B.
- 35 This study suggested that taxpayers with paid preparers were more likely to claim the credit, but did not otherwise analyze the effects of preparers. Shanthi Ramnath, Taxpayers' Responses to Tax-based Incentives for Retirement Savings: Evidence from the Saver's Credit Notch, 101 J. Pub. Econ. 77, 82 (2013).
- 36 James Sallee & Joel Slemrod, Car Notches: Strategic Automaker Responses to Fuel Economy Policy (NBER Working Paper No. 16604, 2010), http://www.nber.org/papers/w16604.
- Li Liu & Ben Lockwood, VAT Notches (Nat'l Tax Assoc. 108th Annual Conf. Proc., Apr. 23, 2015), https://www.ntanet.org/ wp-content/uploads/proceedings/2015/023-lockwood-vat-notches.pdf.

Limitations

The bunching methodology has broad applicability. However, it is more challenging to analyze the distribution of understatements than it is to analyze the distribution of income. Income is reported by taxpayers on their returns, whereas the IRS can only detect understatements by examining a person's return. Moreover, the IRS only examines a subset of returns, making it more difficult to estimate the distribution of any understatements in the population as a whole or to determine whether taxpayers' understatements bunch at or below the substantial understatement threshold.

An Audit May Not Determine the Correct Tax Liability

One limitation is that an examination may not accurately reveal the taxpayer's understatement. An examiner may assert an understatement that is too high due to a misunderstanding of the facts or the rules. Alternatively, an examiner may not detect all of the understatements on a return, for example, because he or she is focused on a single issue.⁴²

To minimize the problem of inaccurate understatements, this study analyzed understatements detected as part of the National Research Program (NRP). NRP examinations are more likely to identify the true tax liability than other types of examinations.⁴³ However, even NRP exams do not identify all underreporting (or overreporting).⁴⁴

- 38 Leonard Burman et al., Older Taxpayers' Response to Taxation of Social Security Benefits, IRS-Tax Policy Center Research Conference (June 20, 2013), https://www.irs.gov/pub/irs-soi/14rptaxationofsocialsecuritybenefits.pdf. Social Security benefits are only partially subject to tax. Over certain income ranges, taxpayers must include in their taxable income \$0.50-\$.85 of benefit for every additional dollar of other taxable income. IRC § 86. These rules create kink points in the marginal rate schedule.
- 39 See Donald Bruce & Xiaowen Liu, *Tax Evasion and Self-Employment in the US: A Look at the Alternative Minimum Tax*, IRS Research Conference 165-179 (2015), https://www.irs.gov/pub/irs-soi/14rescontaxevasion.pdf. The alternative minimum tax (AMT) required taxpayers to compute their taxes twice—once under the regular tax rules and again under the AMT rules. If the "tentative minimum tax" liability exceeded the regular tax liability, the taxpayer paid the difference as AMT. See IRC § 55 (2017). The AMT was repealed for tax year 2018. See Pub. L. No. 115-97, 131 Stat. 2054 (Dec. 22, 2017).
- 40 Id.
- 41 Id.
- 42 Dispute resolution procedures may help to ensure that proposed assessments are accurate. However, the IRS may agree to settle for amounts that are less than the true tax liability based on the hazards of litigation, and taxpayers may agree to excessively high settlements to avoid the cost and risks of litigation, including reputational risks.
- 43 Compare Internal Revenue Manual (IRM) 4.10.2.7.1.1 (Feb. 11, 2016) ("The goal of an examination is to determine the 'substantially correct' tax liability") and IRM 4.10.2.3.1 (Feb. 11, 2016) (noting that Office and Field "Examiners are expected to examine all large, unusual and questionable items (LUQ). However, it is not intended that examiners should consider every possible issue") with IRM 4.22.1.3(4) (Sept. 6, 2017) (National Research Program (NRP) "examiners will verify information on the sampled returns and capture all adjustments, no matter how small or whether the adjustments favor the IRS or the taxpayers.").
- 44 See, e.g., Mark J. Mazur & Alan H. Plumley, *Understanding the Tax Gap*, 60 Nat'l Tax J. 569, 573 (2007) (noting that because NRP audits do not detect all underreporting, the IRS applies a multiplier to the underreporting to estimate the total amount that should have been reported). Of course, IRS auditors may also fail to detect overreporting.

Some Bunching Could be Due to the Structure of the Tax Code, Rather than a Behavioral Response

Another limitation is that we would expect the structure of the tax code to cause understatements to bunch at specific dollar thresholds. This type of bunching does not necessarily reflect a behavioral response to a penalty. For example, we might expect the disallowance of a first-time homebuyer tax credit of up to \$6,500 to generate a disproportionate number of \$6,500 understatements, especially if an auditor is faced with a binary choice to either allow or disallow the credit. Similarly, we might expect the disallowance of a dependent to cause a disproportionate number of understatements of specific amounts (e.g., child tax credits or earned income tax credits). By contrast, omitted income or overstated deductions can result in understatements of any amount, depending on the facts and circumstances.

In other words, we could observe understatements bunching in various ranges simply because of the structure of the tax code, even if taxpayers are oblivious to the penalty or penalty threshold. However, bunching due to the structure of the tax code should not interfere with our analysis of bunching below the substantial understatement threshold, unless the structural bunching occurs at or immediately below the substantial understatement threshold.

Bunching Could Reflect a Behavioral Response by Examiners, Rather than Taxpayers

If we observe understatements bunching below the threshold, it might not always reflect a behavioral response by the taxpayer. For example, when an understatement is otherwise close to the threshold, it is possible that some examiners might try to avoid proposing assessments that would trigger the substantial understatement penalty, perhaps to avoid controversy and extra paperwork. Others might try to find understatements large enough to trigger the penalty, especially if the taxpayer seems negligent or uncooperative. In other words, if understatements are bunching at a particular range, the bunching could reflect a behavioral response to the substantial understatement penalty threshold by IRS employees, rather than by taxpayers.

The Density or Distribution of the Understatements Detected by the IRS May Be Biased by the IRS's Examination Priorities

Another limitation is that if we only analyze the understatements on returns that have been selected for audit, the distribution of the understatements we detect could be due to the IRS's audit selection methods. It may not reflect the distribution of understatements in the population.⁴⁸ While some returns are selected for audit at random as part of the NRP,⁴⁹ others are selected because the IRS believes

- The first-time homebuyer credit is a tax credit for the purchase of a new home after Apr. 8, 2008, and before May 1, 2010, with certain exceptions. See IRC § 36; IRS, First-Time Homebuyer Credit Questions and Answers: Basic Information, https://www.irs.gov/newsroom/first-time-homebuyer-credit-questions-and-answers-basic-information (revised Jan. 27, 2010). The maximum credit was generally \$7,500 or \$8,000, but beginning Nov. 7, 2009, a credit of up to \$6,500 was available to a new category of homebuyers. Id.
- 46 See IRM 20.1.5.1.4 (Dec. 13, 2016) (requiring exam employees to obtain managerial approval to either assert or not assert the substantial understatement penalty where there is a substantial understatement of tax).
- 47 See IRM 20.1.5.1.1 (Dec. 13, 2016) ("An adjustment warranting a penalty may meet the threshold of a substantial understatement and also be attributable to the taxpayer's clearly negligent actions. The substantial understatement penalty under IRC § 6662(b)(2) should be developed as the primary position and the negligence penalty under IRC § 6662(b)(1) should be developed as the alternative position.").
- 48 John L. Czajka & Sonya Vartivarian, MPR Ref. No.: 6284-001, An Evaluation of the Sample Design for the National Research Program Individual Income Tax Reporting Compliance Study 4, n.1 (Mathematica, Policy Research, Inc., Apr. 30, 2007) ("The returns selected for operational audits do not comprise a probability sample of the full population of filed returns, and the audits themselves differ from research audits in their generally more narrow focus on reporting issues identified and flagged in the screening process [than NRP audits].").
- 49 IRM 4.10.2.7.1 (Feb. 11, 2016).

they contain significant understatements or because it wants to maintain a particular level of audit coverage for a given taxpayer segment.⁵⁰ To avoid the bias that might result from analyzing a non-random sample, this study analyzes the results of individual NRP examinations. We used NRP data for tax years (TYs) 2006-2012, excluding data for which no weights were available.⁵¹ However, working with NRP data presented another set of challenges.

Methodology

Bootstrapping Procedure

Instead of a simple random sample, the NRP uses a complex stratified random sample (*i.e.*, selects a minimum number of returns from various taxpayer segments).⁵² Stratified random samples must be weighted before the results can be projected to the population. The NRP weights reflect the relative frequency with which the IRS expects the audited returns to occur in the population. Because the statistical tests that we used to detect bunching could not use stratified weighted data, we expanded the data so that it would not require weighting. Then we used a "bootstrapping" method to improve the reliability of our statistical test results.

First, we duplicated each observation so that the chance of selecting it at random from the overall NRP dataset would match the likelihood of selecting it from the overall population. For example, observations from a segment of the population with a weight of five (e.g., because they were relatively underrepresented in the NRP sample) would each appear five times.

Next, we drew 1,000 random samples of 10,000 observations (with replacement) from the expanded NRP dataset. For each of these 1,000 "bootstrap" samples, we estimated the probability that the understatements bunched at or just below the threshold. The results of these repeated estimates allowed us to come up with an average estimate of the results of these tests.

Separate Analysis of Various Taxpayer Segments

Because our literature review identified a number of taxpayer segments that were better able to adjust their income in response to monetary incentives, TAS analyzed these segments separately to determine if some are more responsive to the penalty threshold than others. Specifically, we analyzed segments claiming the EITC, sole proprietors, those who used a preparer, and those with income of at least \$100,000 for the following reasons:

Studies (discussed above) suggest that self-employed taxpayers have a greater propensity than
other taxpayers to adjust their tax reporting behavior in response to economic incentives such as
thresholds applicable to marginal tax rates, the EITC, the taxation of Social Security benefits, and

⁵⁰ For a general discussion of audit selection methods, see IRM 4.1.3.1 (Aug. 10, 2012); Government Accountability Office (GAO), GAO-16-103, Certain Internal Controls for Audits in the Small Business and Self-Employed Division Should Be Strengthened (2015). The extent to which the IRS can audit various types of taxpayers and issues may also depend on the staffing, training, and skill level of its workforce.

⁵¹ We analyzed the latest tax years for which the NRP weights were available. Weights were not available for TY 2009.

⁵² John L. Czajka & Sonya Vartivarian, MPR Ref. No.: 6284-001, An Evaluation of the Sample Design for the National Research Program Individual Income Tax Reporting Compliance Study (Mathematica, Policy Research, Inc., Apr. 30, 2007).

- for triggering the AMT.⁵³ For this reason, they could also be more responsive to the economic incentives provided by the substantial understatement penalty threshold than other taxpayers.
- Studies suggest that some taxpayers adjust their behavior to claim the maximum EITC.⁵⁴ If EITC claimants (or their preparers) change their behavior in response to the economic incentive provided by the EITC thresholds, they could be similarly responsive to the substantial understatement penalty threshold.⁵⁵
- Preparers can have a wide range of effects on compliance, depending on the circumstances.⁵⁶ Preparers might educate taxpayers about the substantial understatement penalty threshold. Some taxpayers may use a preparer to avoid making an understatement, perhaps because the law is so complex they are not sure they can avoid one on their own. Others may use a preparer
- 53 See Emmanuel Saez, Do Taxpayers Bunch at Kink Points?, 2 Am. Econ. J. Econ. Pol. 180 (2010) ("We find clear evidence of bunching around the first kink point of the Earned Income Tax Credit but concentrated solely among the self-employed."); Elira Kuka, EITC and the Self-Employed: Real or Reporting Effects?, 42 Pub. Fin. Rev. 691-719 (2013) (finding that real labor supply responses of the self-employed are similar to those of salaried workers, but that they exhibit greater bunching due to misreporting); Leonard Burman et al., Older Taxpayers' Response to Taxation of Social Security Benefits, IRS-Tax Policy Center Research Conference 3 (June 20, 2013), https://www.irs.gov/pub/irs-soi/14rptaxationofsocialsecuritybenefits.pdf ("We find no evidence of bunching at or around the thresholds [at which Social Security benefits become taxable] for the population as a whole, and only a very small response for single self-employed taxpayers who have previously been found to be more sensitive to changes in tax rates..."); Donald Bruce & Xiaowen Liu, Tax Evasion and Self-Employment in the US: A Look at the Alternative Minimum Tax, IRS Research Conference 165, 165 (2015), https://www.irs.gov/pub/irs-soi/14rescontaxevasion. pdf ("We find the bunching created by self-employed individuals locates further away from the AMT threshold than the bunching created by wage earners, which suggests that the self-employed act more aggressively to avoid the AMT."); Henrik Kleven & Mazhar Waseem, Using Notches to Uncover Optimization Frictions and Structural Elasticities: Theory and Evidence from Pakistan, 128 QTRLY J. Econ. 669, 672 (2013), http://eml.berkeley.edu/~saez/course/kleven-waseem_qje2013.pdf (finding "bunching below every notch [in Pakistan's income tax brackets] combined with missing mass (holes) above every notch...[and that these effects are] larger for self-employed individuals than for wage earners...").
- 54 See, e.g., Raj Chetty, John N. Friedman, & Emmanuel Saez, Using Differences in Knowledge Across Neighborhoods to Uncover the Impacts of the EITC on Earnings, 103 Am. Econ. Rev. 2683–2721 (2013), http://dx.doi.org/10.1257/aer.103.7.2683.
- The impact of the preparer on compliance probably depends on the issue and also on the combination of both the taxpayer and the preparer's views toward compliance. See National Taxpayer Advocate 2010 Annual Report to Congress vol. 2, 72, 80 n.37 (Study: Researching the Causes of Noncompliance: An Overview of Upcoming Studies) ("Assume there are three types of preparers and taxpayers: (1) those who want to comply with the letter and spirit of the law, (2) those who are willing to be more aggressive, particularly in areas where the law is unclear, and (3) those who are willing to cheat. Type one preparers may increase compliance by type two and type three taxpayers. Alternatively, those taxpayers may seek out type two or type three preparers. However, type two and type three preparers may reduce compliance by type one taxpayers unless those taxpayers either seek out type one preparers or are particularly resistant to the preparer's suggestions for tax savings. Similarly, type three taxpayers may pressure type one or type two preparers to be more aggressive than usual.").
- For a general discussion of the influence of preparers on sole proprietors and EITC claimants, see, e.g., National Taxpayer Advocate 2007 Annual Report to Congress vol 2. 2-74 (Leslie Book, Study of the Role of Preparers in Relation to Taxpayer Compliance with Internal Revenue Laws). Some research suggests preparers enhance compliance with unambiguous rules, but reduce it with respect to ambiguous ones. See Steven Klepper, Mark Mazur, & Daniel Nagin, Expert Intermediaries and Legal Compliance: The Case of Tax Preparers, 34 J. L. AND ECON. 205 (1991). See also Kim M. Bloomquist, Michael F. Albert, & Ronald L. Edgerton, Evaluating Preparation Accuracy of Tax Practitioners: A Bootstrap Approach, Proceedings of the 2007 IRS Research Conference 77 (2007) (finding preparers reduce math errors, but increase the incidence of potential misreporting). Other research suggests preparers make frequent errors in a wide variety of areas. See, e.g., GAO, GAO-02-509, Tax Deductions: Further Estimates of Taxpayers Who May Have Overpaid Federal Taxes by Not Itemizing (2002) (finding in 1998 about two million taxpayers overpaid by failing to itemize even though about half used a preparer); Treasury Inspector General for Tax Administration (TIGTA), Ref. No. 2003-40-046, Analysis of Statistical Information for Returns with Potentially Unclaimed Additional Child Tax Credit (Jan. 31, 2003) (finding about 230,000 returns filed by paid preparers in 2002 where taxpayers appeared eligible for Additional Child Tax Credits they did not claim); Janet Holtzblatt & Janet McCubbin, Issues Affecting Low-Income Filers, in The Crisis in Tax Administration 148, 159 (Henry J. Aaron and Joel Slemrod eds., 2004) (observing that about two-thirds of EITC returns, which have high levels of noncompliance, were prepared by paid preparers); GAO, GAO-06-563T, Paid Tax Return Preparers: In a Limited Study, Chain Prepares Made Serious Errors 5, 23 (Apr. 4, 2006) (finding preparers made significant mistakes on 17 of the 19 returns prepared for GAO employees posing as taxpayers, including the omission of income on ten); TIGTA, Ref. No. 2008-40-171, Most Tax Returns Prepared by a Limited Sample of Unenrolled Preparers Contained Significant Errors 2 (Sept. 3, 2008) (finding preparers made mistakes on 17 of the 28 returns prepared for TIGTA employees posing as taxpayers, including six willful or reckless errors).

- to minimize their taxes and to ensure that any understatement is not so severe as to trigger a penalty.⁵⁷
- Taxpayers with at least \$100,000 in income might be more likely (than lower income taxpayers) to be engaged in economic activities that allow for a wider range of reasonable reporting positions. ⁵⁸ Some of these taxpayers might try to ensure that debatable positions would not push them over the substantial understatement threshold.

Analysis of the Gap Between the Understatement and the Threshold

To analyze the distribution of the understatements, we computed the gap between the assessed understatement and the substantial understatement penalty threshold using a methodology similar to the one employed by the authors of the AMT study (discussed above).⁵⁹ The AMT threshold is different for each person depending on what items are on the return, making it difficult to select an income threshold to study. The AMT study addressed this problem by analyzing the gap between each individual's AMT and regular tax to determine how close each person was to the threshold.⁶⁰ Because the substantial understatement threshold depends on how much tax is required to be shown on a person's return (*i.e.*, an amount that varies from person to person, just like the AMT), this study uses a similar gap analysis to determine how close taxpayers are to the substantial understatement threshold that would apply to their returns.

Specifically, TAS first computed the substantial understatement threshold applicable to each return (*i.e.*, the greater of \$5,000 and 10 percent of the tax required to be shown). Next, we subtracted the threshold from the understatement (including disallowed EITC) to compute the gap between the understatement and the threshold for each return. Positive gaps represent understatements above the threshold, and negative gaps represent understatements below the threshold.

As an example, if the amount of tax required to be shown is \$60,000 and the amount actually shown is \$52,000, the understatement is \$8,000 (\$60,000 minus \$52,000) and the threshold is \$6,000 (the greater of \$5,000 and 10 percent of \$60,000). The gap between the understatement and the threshold is \$2,000 (\$8,000 minus \$6,000). If, instead, the amount shown were \$56,000, then the understatement would be \$4,000 (\$60,000 minus \$56,000), the threshold would be \$6,000 (the greater of \$5,000 and 10 percent of \$60,000), and the gap would be -\$2,000 (\$4,000 minus \$6,000). Because our focus was the substantial understatement threshold (*i.e.*, a gap of \$0), we did not include outliers—understatement gaps of less than -\$4,000 or more than \$10,000 (*i.e.*, the "tails" of the distribution). If we had expanded our analysis to include gaps below -\$4,000, the significant bunching in this area would have made it difficult to detect any bunching closer to \$0—both visually and statistically. Although the density

⁵⁷ For further discussion of various types of influences, see, e.g., National Taxpayer Advocate 2007 Annual Report to Congress vol. 2, 59-63 (Leslie Book, Study of the Role of Preparers in Relation to Taxpayer Compliance with Internal Revenue Laws).

⁵⁸ Perhaps for this reason, high income taxpayers may even take more aggressive positions after being told they are likely to be audited. See Joel Slemrod et al., Taxpayer Response to an Increased Probability of Audit: Evidence from a Controlled Field Experiment in Minnesota, 79 J. Pub. Econ. 455, 455 (2000) (finding that the reported tax liability of the high income taxpayers fell sharply relative to the control group, after being informed the returns they were about to file would be "closely examined").

⁵⁹ See Donald Bruce and Xiaowen Liu, *Tax Evasion and Self-Employment in the US: A Look at the Alternative Minimum Tax*, IRS Research Conference 165-179 (2015), https://www.irs.gov/pub/irs-soi/14rescontaxevasion.pdf.

⁶⁰ Id.

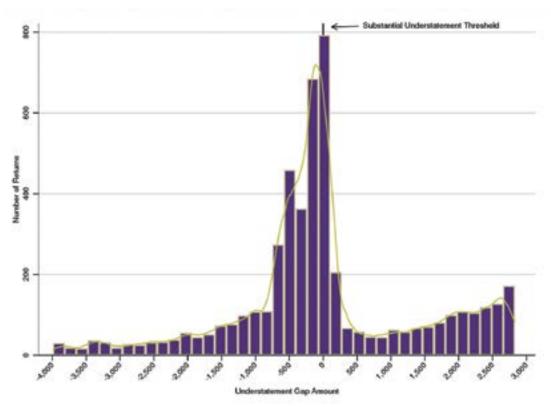
⁶¹ For taxpayers owing tax of less than \$50,000, gaps of less than -\$4,000 represented understatements of between \$0 and \$1,000. For about 84.2 percent of the returns in our sample, the understatement was in this range (including 48.9 percent that were not changed). As noted above, for purposes of this analysis, the understatement included the amount of any disallowed EITC claims.

of understatements of more than \$10,000 above the substantial understatement threshold trailed off gradually, we cut off this tail for the same reason—to make it easier to see any bunching near \$0.

An Analysis of Histograms to Detect Bunching

To see the distribution of the understatement gaps, the gap amounts can be sorted into bins and plotted on a histogram.⁶² If taxpayers are manipulating their understatements so that they are at or below the threshold (with a few overshooting by a little), we would expect to see bunching on a histogram that looks something like Figure 3.1.

FIGURE 3.1, Hypothetical Example of Bunching at or Below the Substantial Understatement Threshold



The appearance of the histogram depends to some extent on bin width selection.⁶³ Large bins look more choppy than small ones. However, kernel smoothing (the yellow-green line) can help to give a better representation of the density. In Figure 3.1, the number of returns clearly bunches near the substantial

⁶² See Justin McCrary, Manipulation of the Running Variable in the Regression Discontinuity Design: A Density Test, 142 J. Econometrics 698–714 (2008). We used the R software, executing package "rdd," as documented by Drew Dimmery, Regression Discontinuity Estimation (Mar. 14, 2016), https://cran.r-project.org/web/packages/rdd/rdd.pdf.

Some researchers suggest choosing a bin size based on the amount of variation in the data, using larger sizes for groups with more variation. For example, one recommendation is to compute the bin sizes as 2*SD*n^{-1/2}, where SD is the standard deviation of the understatement gap for the group and n is the number of returns in the group. See Justin McCrary, *Manipulation of the Running Variable in the Regression Discontinuity Design: A Density Test*, 142 J. Econometrics 698–714 (2008). We chose the bin sizes for purposes of the histograms, but allowed the software we were using to choose them for purposes of the statistical tests, as discussed below.

understatement threshold (*i.e.*, near an understatement gap of \$0). If there is no bunching at or below the threshold then we would expect the kernel density line to go nearly straight through the threshold, or to show seemingly random hills and valleys around the threshold, perhaps corresponding to the structure of the tax code.

An Analysis of Statistical Tests to Detect Bunching

A visual analysis of a histogram is sometimes sufficient to detect bunching or the lack thereof. However, TAS confirmed the results reflected on the histograms with a statistical test. Justin McCrary developed one of the first statistical tests for the "manipulation" of a "running variable." In this case, the understatement gap is the running variable. The McCrary test first creates a histogram where no one bin contains points both to the left and to the right of the threshold point. Then it uses local linear regression—trend lines on each side of the threshold—to provide an estimate of the density and slope of the running variable (*i.e.*, the understatement gap) on each side. It also computes the bandwidth to use for these regressions (*i.e.*, how long the regression lines should be) using the method described by Guido and Kalyanaraman. However, the McCrary test requires researchers to select a bin size and the amount of data to analyze on each side of the threshold (*i.e.*, "bandwidth") to determine whether any bunching that appears on the histogram is likely to have occurred by chance (*i.e.*, is statistically significant). These choices introduce an element of subjectivity into the analysis. Accordingly, we used a similar test that was subsequently developed by Cattaneo, Jansson, and Ma, which does not require researchers to select a starting bin size or bandwidth.

Results

TAS reviewed the histograms of the gap between taxpayers' assessed understatement and the applicable substantial understatement threshold to see if understatements bunched in the bin immediately below the substantial understatement penalty threshold. Our significance tests generally validated our visual observations.

Overall, understatements by taxpayers selected at random and examined as part of the NRP program for TYs 2006-2012 (excluding 2009 because the data did not include weights) did not bunch immediately below the substantial understatement threshold, as shown on Figure A.1 (in the Appendix). Moreover, we did not detect any significant evidence of bunching at or below the substantial understatement threshold for any taxpayer segment that we analyzed.

However, we see some visual evidence of what could be interpreted as bunching among those who claimed the EITC, particularly if they used a preparer, as shown on Figures A.4 and A.5 (in the Appendix), though it is not significant at a 95 percent level of confidence. It is possible that the structure of the EITC resulted in some bunching that happened to coincide with the threshold in these

⁶⁴ See, e.g., Justin McCrary, Manipulation of the Running Variable in the Regression Discontinuity Design: A Density Test, 142 J. Econometrics 698–714 (2008).

⁶⁵ *Id.* See Imbens, Guido & Karthik Kalyanaraman, *Optimal Bandwidth Choice for the Regression Discontinuity Estimator* (NBER Working Paper No. 14726, 2009). Finally, the test measures whether the differences in the density of the substantial understatement gaps on the left and right-hand sides of the threshold are statistically significant.

⁶⁶ See Matias D. Cattaneo, Michael Jansson, & Xinwei Ma, Simple Local Polynomial Density Estimators, (Sept. 27, 2017), https://eml.berkeley.edu/~mjansson/Papers/CattaneoJanssonMa_LocPolDensity.pdf. We applied these tests by using commands that have been incorporated into the "R" and "Stata" software (called "rddensity" and "rdbwdensity"). These packages are available in R from the CRAN-R Project and in Stata from Google site RD Packages. We used these commands in R to test for manipulation of the understatement gap amount at zero, as described below. If the density is discontinuous at the threshold (i.e., there is bunching at or below the threshold, which suggests manipulation of the running variable) then the test statistic will be less than 0.05 if the discontinuity is significant at the 95 percent confidence level.

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two graphs. Indeed, we see several bunches on each of the histograms of understatements by taxpayers claiming the EITC (*i.e.*, Figures A.4, A.5, and A.6), which correlate roughly with the maximum amount of EITC that could be disallowed to taxpayers with various numbers of qualifying children. Figure 3.2 shows the maximum amount of EITC that could be claimed for the years we studied based on the number of qualifying children (QC).

FIGURE 3.2, Maximum EITC by Tax Year and Number of Qualifying Children (QC)⁶⁷

Tax Year	3 + QC	2 QC	1 QC	o QC
2012	\$5,891	\$5,236	\$3,169	\$475
2011	\$5,751	\$5,112	\$3,094	\$464
2010	\$5,666	\$5,036	\$3,050	\$457
2008	\$4,824	\$4,824	\$2,917	\$438
2007	\$4,716	\$4,716	\$2,853	\$428
2006	\$4,536	\$4,536	\$2,747	\$414

For several of the tax years we reviewed, the maximum EITC was just below \$5,000—the operative substantial understatement threshold. Any taxpayer who claimed the maximum EITC for the years in question and whose EITC was denied would be faced with an understatement of a similar amount. Therefore, we cannot be sure that what may appear to be slight bunching under the substantial understatement threshold for EITC claimants is actually a behavioral response to the threshold.

CONCLUSION

Although it may be convenient for economists and policymakers to assume that people are motivated primarily by monetary penalties, there is relatively little real-world evidence that marginal changes to accuracy-related penalty rates affect tax reporting compliance. However, if people know about the substantial understatement penalty and try to avoid it, as assumed by the economic deterrence model of tax compliance, then some who might otherwise have an understatement just above the threshold should reduce their underreporting so that they are at or just below the threshold.

A wide range of studies have found that if people respond to an economic incentive that includes a threshold, we should observe bunching at or near that threshold (e.g., the EITC, the AMT, a gas guzzler tax, and a VAT). This study reveals no such bunching below the substantial understatement threshold—except for slight bunching that is not statistically significant and that is most likely due to the structure of the EITC—rather than a behavioral response to the penalty. Therefore, this study does not support the hypothesis that we can improve reporting compliance by increasing penalties or reducing the substantial understatement threshold. One explanation could be that other (nonmonetary) factors drive tax compliance decisions for most taxpayers. Another could be that the IRS cannot reliably detect understatements even when using NRP examinations, which are the most comprehensive types of examinations. Alternatively, it is possible that the substantial understatement threshold is too uncertain or complicated to affect behavior.

⁶⁷ This table is based on the EITC tables printed on IRS Pub. 596, Earned Income Credit (EIC), for each of the tax years in question.

Appendix A

FIGURE A.1, The Gap Between Substantial Understatement Thresholds and NRP-Detected Understatements for All Taxpayers

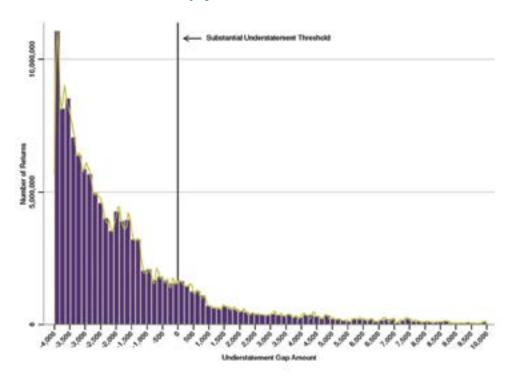


FIGURE A.2, The Gap Between Substantial Understatement Thresholds and NRP-Detected Understatements for Those with Income of at Least \$100,000 Who Used a Paid Preparer

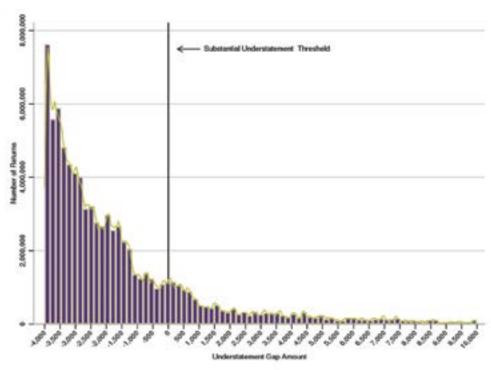


FIGURE A.3, The Gap Between Substantial Understatement Thresholds and NRP-Detected Understatements for Those with Income of at Least \$100,000 Who Did Not Use a Paid Preparer

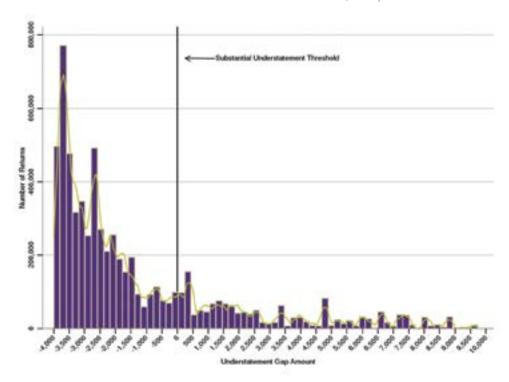


FIGURE A.4, The Gap Between Substantial Understatement Thresholds and NRP-Detected Understatements for Those Who Claimed EITC

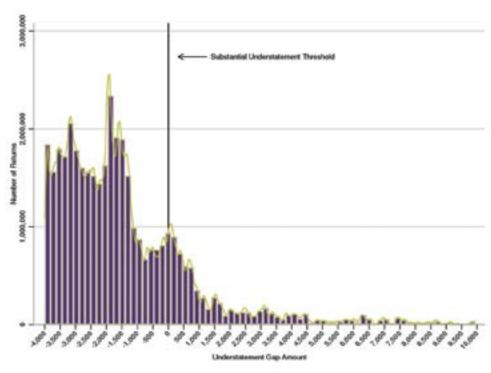


FIGURE A.5, The Gap Between Substantial Understatement Thresholds and NRP-Detected Understatements for Those Who Claimed EITC and Used a Preparer

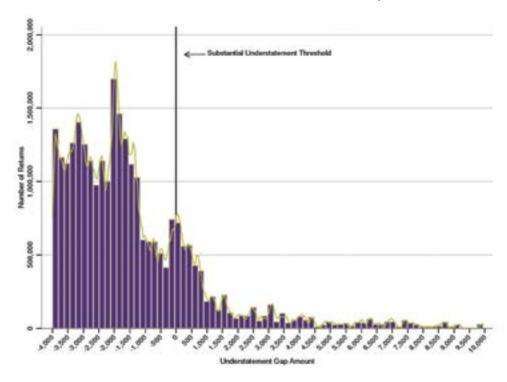


FIGURE A.6, The Gap Between Substantial Understatement Thresholds and NRP-Detected Understatements for Those Who Claimed EITC and Did Not Use a Preparer

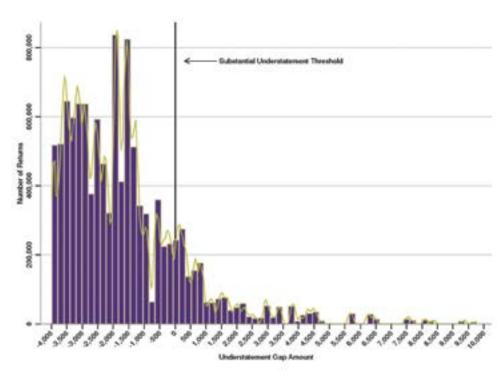


FIGURE A.7, The Gap Between Substantial Understatement Thresholds and NRP-Detected Understatements for Those Who Did Not Claim EITC

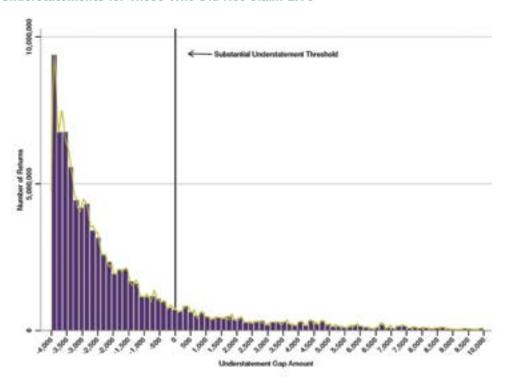


FIGURE A.8, The Gap Between Substantial Understatement Thresholds and NRP-Detected Understatements for Those with Income Below \$100,000 Who Did Not Claim EITC

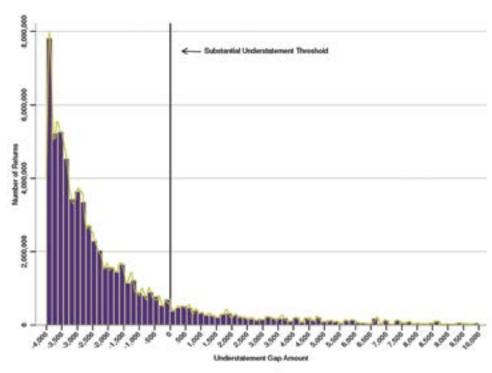


FIGURE A.9, The Gap Between Substantial Understatement Thresholds and NRP-Detected Understatements for Those Who Used a Paid Preparer and Did Not Claim EITC

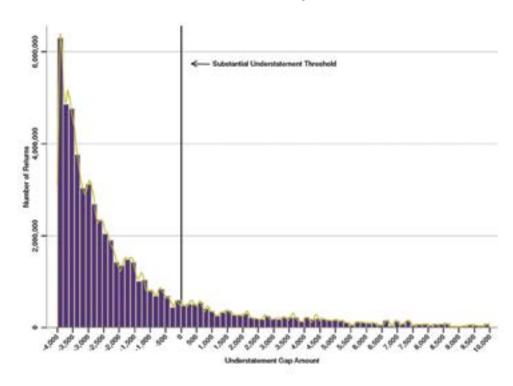


FIGURE A.10, The Gap Between Substantial Understatement Thresholds and NRP-Detected Understatements for Those Who Did Not Use a Paid Preparer or Claim EITC

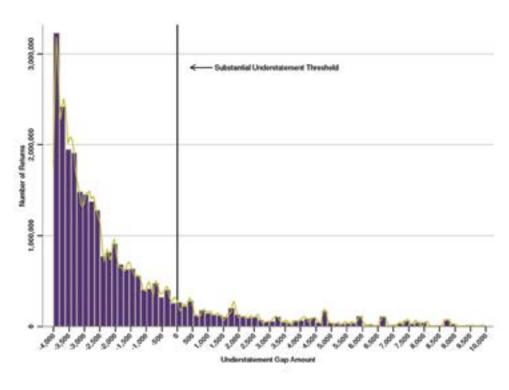


FIGURE A.11, The Gap Between Substantial Understatement Thresholds and NRP-Detected Understatements for Sole Proprietors

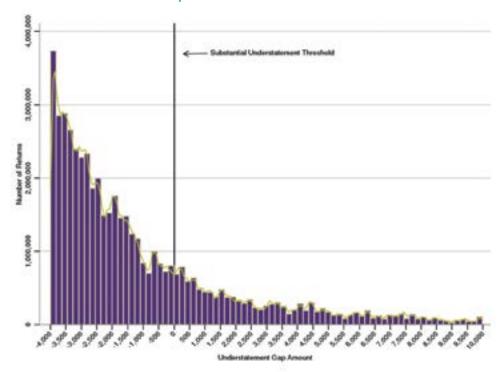


FIGURE A.12, The Gap Between Substantial Understatement Thresholds and NRP-Detected Understatements for Sole Proprietors Who Claimed the EITC

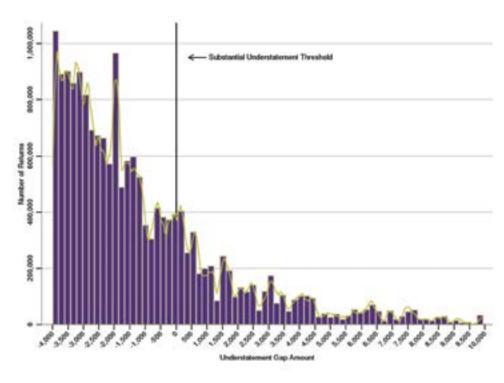


FIGURE A.13, The Gap Between Substantial Understatement Thresholds and NRP-Detected Understatements for Sole Proprietors Who Did Not Claim the EITC

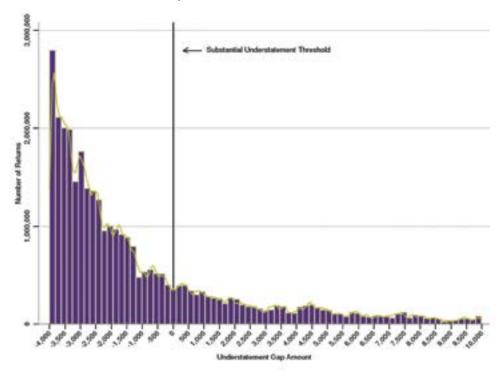
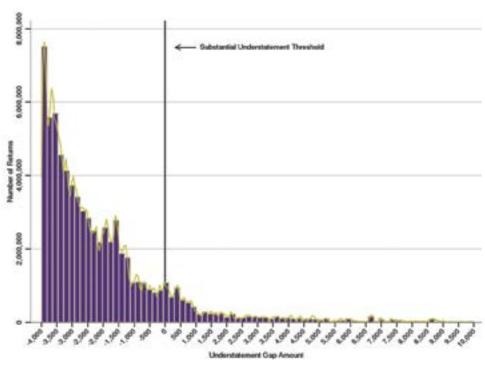


FIGURE A.14, The Gap Between Substantial Understatement Thresholds and NRP-Detected Understatements for Those Who Were Not Sole Proprietors



Improving Notices

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What Influence do IRS Audits Have on Taxpayer Attitudes and Perceptions? Evidence from a National Survey

What Influence do IRS Audits Have on Taxpayer Attitudes and Perceptions? Evidence from a National Survey

EXECUTIVE SUMMARY
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Written by Brian Erard, Matthias Kasper, Erich Kirchler, and Jerome Olsen. We thank the National Taxpayer Advocate and the Taxpayer Advocate Service (TAS) for their sponsorship and support of this research study, and, in particular, Jeff Wilson, Kim Bloomquist, and Carol Hatch for their substantial assistance and helpful advice.

EXECUTIVE SUMMARY

This report presents results from a survey study of non-farm self-employed (Schedule C) taxpayers. The analysis explores how taxpayer attitudes and perceptions are shaped by different types of audits and audit outcomes. It also investigates whether certain groups of taxpayers share specific attitudinal postures towards paying taxes and the IRS and, if so, how audits influence membership within these groups.

To address these questions, the Taxpayer Advocate Service commissioned a survey of 2,729 Schedule C filers, including 1,363 taxpayers who experienced an audit of one of their returns filed for tax years (TYs) 2010 through 2015 and 1,366 who did not.² We find that many of the audited respondents do not recall the examination, and that the rate of recollection depends on both the type of audit that was conducted and the outcome of the examination. Overall, only 64 percent of audited Schedule C filers acknowledge having been audited. Audit recollection is especially poor among those who have experienced a correspondence audit (below 40 percent), which suggests that some taxpayers may not perceive correspondence examinations as actual audits. In the case of field and office examinations, a substantial majority of participants do remember being audited (72 percent and 80 percent, respectively), suggesting that face-to-face audits might have a stronger effect on taxpayer attitudes and behavior.

To account for additional determinants of audit awareness beyond audit type, we have performed a logit analysis that also includes audit outcome (positive tax adjustment, no tax change, or tax refund), measures of the recency of the examination, and indicators for an amended return and for paid tax return preparation as explanatory variables. The results indicate that taxpayers are relatively more likely to recall more recent audits as well as audits that result in a positive tax adjustment. All else being equal, respondents who experience an audit of an amended return are relatively less likely to recall the examination. It is standard practice at the IRS to review amended return filings and contact the taxpayer if any significant anomalies are identified, so taxpayers may tend to view an examination as a routine part of the amended return filing process rather than an actual audit, particularly if the examination is rather cursory.

To examine how audits influence taxpayer attitudes and perceptions, we have selected a matched unaudited "control group" from our survey sample with similar characteristics and a comparable audit risk to our sample of audited taxpayers. A comparison of the responses from our audit sample and matched control group reveals a mixed result with regard to the specific deterrent effect of an audit. On the one hand, audited taxpayers report a higher perceived level of audit risk than the control sample, suggesting that audits might be effective in discouraging future noncompliance. On the other hand, audited taxpayers perceive a relatively low level of sanctions for noncompliance, which runs counter to deterrence. Our analysis further indicates that audits tend to induce negative attitudes among audited taxpayers. Specifically, we find that audited taxpayers tend to perceive greater coercive power within the IRS, have relatively less trust in the agency, and express weaker sentiments with regard to voluntary compliance than the matched control sample. Audited taxpayers are also relatively more likely to indicate that paying taxes feels like something is taken away from them, rather than as a contribution to society.

These audits were initiated between February 7, 2011 and March 17, 2017. The audited respondents were interviewed in September and October 2017. The unaudited respondents were interviewed between October and November 2017. The survey also was administered to a sample of wage-earners and a sample of taxpayers who were victims of identity theft. However, the focus of this report is on the self-employed sample.

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Our results demonstrate that the nature of the examination process has important implications for taxpayer perceptions of fairness. Overall, correspondence audits tend to be more impersonal than face-to-face examinations, and they tend to focus more narrowly on one or two specific reporting issues on the return. Typically, individuals who have experienced a field or office audit report a greater sense of fairness in the examination process than those who have experienced a correspondence examination.

The impact of audits on taxpayer attitudes and perceptions is also found to vary with the outcome of the examination. Taxpayers who have received an additional tax assessment as a result of the audit report a higher perceived risk of future audits and a weaker sense of procedural and distributive justice than those who received a tax refund or no adjustment. At the same time, taxpayers who have received an additional tax assessment tend to express lower levels of trust in the IRS, a greater sense of coercion, and stronger feelings of anger and threat. Overall, then, it appears that the deterrent effect of an audit is likely to depend on the outcome of the examination.

Finally, we investigate whether certain groups of taxpayers share a common attitudinal posture towards paying taxes and the IRS and, if so, how audits impact the composition of these groups. Our analyses of survey responses within our matched sample suggest that self-employed taxpayers can be constructively divided into three groups in accordance with their attitudes towards paying taxes, motivations to comply, trust in, and negative emotions towards the IRS.

The first group holds positive attitudes towards the IRS and views paying taxes as a contribution to society. It perceives the IRS as trustworthy, feels protected against free riders, and reports an absence of negative emotions towards the IRS. The second group holds reasonably neutral attitudes towards the IRS. While members of this group view paying taxes as a contribution to society, they possess only a limited degree of trust in the IRS and report moderate levels of negative emotions towards the Agency, such as anger and fear. The third group holds negative attitudes towards the IRS. More specifically, this group reports that paying taxes feels like something is taken away from them. Its members report low levels of trust in the IRS, and they express strong negative emotions, especially anger, towards the Agency.

When investigating the effect of audits on the relative shares of these three groups within each audit type and outcome category, we find a larger share of taxpayers who hold negative views towards the IRS among individuals who have experienced a correspondence audit. This supports the finding that face-to-face audits have a more positive effect on taxpayer attitudes and perceptions than correspondence audits. The membership share for the group with the most negative attitudes towards the IRS is largest among those who received an additional tax assessment as a result of the audit. On the other hand, the membership share for the group with the most positive attitudes is highest among those who experienced no change in their tax status — even higher than that observed for taxpayers who have received a tax refund as a result of the audit. Perhaps this is an indication that taxpayers who received a tax refund as a result of the audit tend to feel somewhat frustrated that they were forced to undergo an audit despite having overpaid their tax obligation. Alternatively, perhaps they are relatively more likely to perceive their selection for audit as a sign of undeserved mistrust by the IRS than those who experienced no tax change as a result of the examination.

Our findings demonstrate that IRS audits have the potential to change taxpayer attitudes in both positive and negative ways. While many taxpayers fail to recall a correspondence audit experience, such audits are nonetheless perceived to be less fair than face-to-face examinations, suggesting that field and office audits might be better suited to deter evasion. Moreover, the audit outcome seems to affect the perceived risk of future examinations: taxpayers who have experienced a positive tax adjustment perceive

a higher audit risk than those who have received a refund or no tax change. This result complements the earlier finding by the Taxpayer Advocate Service (Beer, Kasper, Kirchler, & Erard, 2015) that the behavioral response to an audit is highly dependent on the audit outcome.

INTRODUCTION

Tax audits are a primary tool used by tax administrations to deter noncompliance.³ However, despite ongoing efforts to reduce evasion, the tax gap remains high, currently estimated to be \$458 billion (IRS, 2016). A recent study by the Taxpayer Advocate Service (TAS) shows that operational tax audits, which are targeted towards high-risk taxpayers, successfully identify returns with unreported taxes and increase subsequent reporting compliance (Beer, Kasper, Kirchler & Erard, 2015). However, for audited taxpayers who do not experience an additional tax assessment, the TAS study finds detrimental audit effects. One possible explanation is that such taxpayers perceive a reduced probability of future audits (Kastlunger, Kirchler, Mittone, & Pitters, 2009; Mittone Panebianco, & Santoro, 2017). On the other hand, tax audits might be viewed as a signal of distrust and crowd out the intrinsic motivation to comply among honest individuals (Feld & Frey, 2007; Lederman, 2017) or further decrease the willingness to pay among taxpayers whose cheating has not been detected during an audit. More broadly, the TAS study raises the question of the extent to which audits affect taxpayers' attitudes and how changes in attitudes shape subsequent compliance behavior.

This report examines how tax audits affect taxpayers' tax-related attitudes and perceptions by comparing the survey responses of self-employed taxpayers (Schedule C filers) who have experienced an audit with those of a matched comparison sample of unaudited respondents. The results indicate that tax audits have significant and varied effects on taxpayers' attitudes, depending on both the type of examination (office, field, or correspondence) and the outcome (positive tax adjustment, no change, or tax refund). Overall, audited self-employed taxpayers perceive higher levels of audit risk but weaker sanctions for noncompliance than those who have not been audited. They also report lower levels of trust in the IRS and are relatively more likely to agree strongly with the statement that "paying taxes feels like something is taken away from me rather than a contribution to society." Second, our results indicate that taxpayers' attitudes and perceptions regarding taxes vary in accordance with the type of audit they experience and the outcome of the examination. For instance, individuals who have experienced a correspondence audit report lower levels of perceived justice in IRS procedures. Audited taxpayers who have received a positive tax adjustment report a higher perceived audit risk, lower levels of justice, and less trust in the IRS than taxpayers who received no adjustment or a refund.

The remainder of this report is organized as follows. In the next section, we briefly present the literature on the determinants of tax compliance, as summarized in the Slippery Slope Framework (SSF, Kirchler, 2007; Kirchler, Hoelzl, & Wahl, 2008). We then describe our research questions and provide an overview of our survey instrument, sampling methodology, and data. Subsequently, we present and discuss the results of our analysis. In the final section, we provide concluding remarks.

The deterrent effect of tax audits has been in the focus of theoretical and empirical research for at least five decades. It has been demonstrated in a substantial number of studies such as Allingham & Sandmo (1972), Alm, Jackson & McKee (2009), DeBacker, Heim, Tran, & Yuskavage (2018), Kleven, Knudsen, Kreiner, Pedersen, & Saez (2011), Slemrod, Blumenthal & Christian (2001).

LITERATURE REVIEW

Attitudes Towards Paying Taxes

Attitudes towards paying taxes are often negative (Eriksen & Fallan, 1996; Kirchler, 2007). The aversion to pay taxes even seems to exceed the rational economic motivation to avoid monetary costs, as individuals prefer to avoid tax-related costs over avoiding equal, or larger, costs that are not related to taxes (Sussman & Olivola, 2011). One common explanation for negative attitudes towards paying taxes is that the tax burden is perceived to be too high; attitudes towards taxes are lowest among high income individuals (Lewis, 1979). On the other hand, taxpayers who perceive the system as fair also exhibit more positive attitudes toward paying taxes (Wilson & Sheffrin, 2005). Other factors that seem to affect the willingness to comply are religious and political beliefs (Wahlund, 1992; Prinz, 2004; Alm & Torgler, 2006). Attitudes towards taxes also vary with age, gender, education, and income (Hofmann, Voracek, Bock, & Kirchler, 2017).

Prior work by the TAS suggests a connection between taxpayers' attitudes and their compliance behavior (TAS, 2012). The study finds low levels of trust in both the federal government, overall, and the IRS, in particular, among individuals who are classified as high-risk (*i.e.*, less compliant taxpayers). The study further finds that these taxpayers perceive both the tax system and the IRS as relatively unfair, which suggests that negative attitudes might contribute to tax noncompliance.

Tax Knowledge and Prior Experiences

Several studies investigate the link between tax knowledge, attitudes towards taxes, and willingness to comply. On average, levels of tax knowledge within the population appear to be fairly low. For instance, taxpayers have been found to have inconsistent views on tax policy reform, advocating tax rate cuts and increased public expenditures at the same time (*e.g.*, Kemp, 2008; Kirchler, 1997). Moreover, many taxpayers find it difficult to understand basic concepts of taxation such as progressivity (McCaffery & Baron, 2004; Roberts, Hite & Bradley, 1994).

The existing literature on tax compliance suggests that an improved understanding of taxes has positive implications for tax compliance. For instance, Eriksen and Fellan (1996) find that increased tax knowledge is associated with improved attitudes towards evasion. Consistent with this finding, Kirchler (1999) shows that owners of business startups oppose paying taxes more strongly than more experienced self-employed taxpayers. Similarly, Kirchler and Maciejovsky (2001) observe a positive correlation between knowledge of tax law and tax morale among entrepreneurs. Likewise, a recent survey of self-employed taxpayers in Austria and Germany finds more positive attitudes towards taxes and a higher willingness to comply voluntarily among taxpayers with high levels of tax knowledge (Olsen, Kasper, Kogler, Muehlbacher, & Kirchler, 2018).

Tax audits affect taxpayers directly and indirectly, as taxpayers learn from past experiences with tax authorities and from communication with each other. While the audit experience directly impacts subsequent reporting compliance (e.g., DeBacker et al., 2018; Kleven et al., 2011; Slemrod et al., 2001), several studies also find substantial indirect revenue effects of tax audits. Specifically, taxpayers who have not been audited report more income when they learn that others have been audited (Alm et al., 2009; Dubin, Graetz, & Wilde, 1990; Dubin, 2007). Moreover, recent work emphasizes the importance of the audit outcome for subsequent reporting behavior. For example, Gemmell and Ratto (2012) find that random tax audits reduce subsequent reporting compliance among taxpayers who are found to be compliant. Similarly, a recent TAS study shows that taxpayers who experience no additional tax assessment following an audit report lower overall amounts of income and tax in subsequent years

(TAS, 2015). While these studies do not examine the drivers of such behaviors, a potential explanation is that a shift in taxpayers' attitudes contributes to a decline in compliance. For instance, taxpayers might be less willing to comply after an audit if they believe they have been treated unfairly.

Justice Perceptions

Perceived justice is a fundamental determinant of voluntary compliance (Andreoni et al., 1992, Hofmann, Gangl, Kirchler, & Stark, 2014). Fairness in the interaction between tax authorities and taxpayers results from mutual respect, neutrality, and goodwill (Tyler, 2006). Following Colquitt (2001), the academic literature usually distinguishes between procedural justice, informational justice, interpersonal justice, and distributive justice.

Procedural justice refers to the transparency, consistency, and neutrality of processes. It is affected by individuals' ability to express their views and to influence the outcome of a decision. Informational justice and interpersonal justice relate to fairness in interactions (Bies & Moag, 1986) such as justification (explaining decisions), truthfulness (no deception), respect (politeness), and propriety (no improper remarks). While fairness in explanations establishes informational justice, interpersonal justice relates to sensitivity and respect (Greenberg, 1990). Distributive justice results from a match between the outcome of a decision and the goals of the decision; for instance, improving cooperation or promoting social welfare. To achieve distributive justice, the tax burden should be allocated fairly among taxpayers with equal incomes (horizontal equity) and unequal incomes (vertical equity). Moreover, Alm, Kirchler, and Muehlbacher (2012) point out that the benefits from social goods should be reflected in individual tax payments (exchange fairness).

A professional tax administration is key to achieving fairness in taxation. Tax agencies can strengthen perceived justice by treating taxpayers equally and respectfully, providing high quality services, and ensuring that taxpayers pay their fair share. One focus of this study is, thus, to assess whether taxpayers perceive that the tax system is fair, both in general terms and with respect to tax audits.

Social Norms

Social norms play a critical role in tax compliance behavior (Alm, McClelland & Schulze, 1999). For instance, perceived levels of tax evasion affect attitudes towards tax noncompliance. The more prevalent that taxpayers perceive noncompliance to be, the more likely it is that they will become noncompliant themselves. Strong social norms make it easier to adapt to the behavior of others and to justify own wrongdoing (Welch, Xu, Bjanason, Petee, O'Donnell, & Magro, 2005). Torgler (2005) finds a strong relationship between tax morale and social norms; individuals who are personally aware of tax evasion committed by others exhibit lower levels of tax morale. On the other hand, a field experiment in the UK finds that appealing to social norms can result in increased tax compliance (Hallsworth, List, Metcalfe, & Vlaev, 2017).

Social norms are stronger within relevant reference groups (Wenzel, 2005). Terry and Hogg (1996) report that individuals align their behavior with the behavior of their social reference group if they identify strongly with this group. In case of low identification, however, individuals oppose group behavior. Thus, taxpayers respond more strongly to the behavior of others when they identify with them. Survey studies also find a positive link between patriotism and pro-social behavior (Huddy & Khatib, 2007; Wenzel, 2007), suggesting that the degree of attachment to country is also an important factor. Taken together, social norms have the potential to increase or decrease one's willingness to comply with one's tax obligations.

OIC Study

IRS

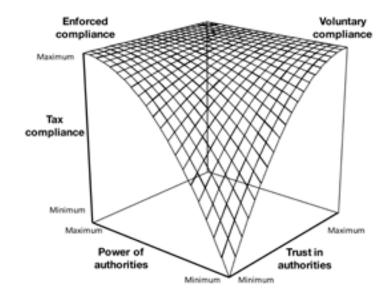
Audits

The Slippery Slope Framework

The Slippery Slope Framework (SSF, Figure 4.1) is a conceptual framework that explains tax compliance behavior (Kirchler, 2007; Kirchler et al., 2008). It summarizes various determinants of tax compliance and guides the assessment of taxpayers' perceptions and attitudes in the present study.

The SSF assumes that tax compliance behavior is a function of power of and trust in the tax authority. A tax authority's power reflects its capacity to enforce compliance through audits, penalties, and criminal prosecution. An extended theoretical model distinguishes between legitimate and coercive power (Gangl, Hofmann, & Kirchler, 2015). While professionalism and perceived legitimacy constitute legitimate power, coercive power originates from the capacity to punish and reward taxpayers. Trust in the tax authority, on the other hand, is affected by tax law complexity, tax knowledge, attitudes towards taxes, fairness perceptions, and social norms. Taxpayers comply voluntarily when they perceive that the tax system is just, when they feel that they are being treated fairly and professionally by the tax administration, and when they view paying taxes as a social norm (Tyler et al., 2015). Consequently, building trust elevates voluntary tax compliance. While enforced compliance results from an extensive decision process in which individuals weigh the costs and benefits of noncompliance, voluntary compliance is more intuitive and spontaneous (Rand, Greene & Nowak, 2012).

FIGURE 4.1, The Slippery Slope Framework (adapted from Kirchler, 2007, p. 205; Kirchler, Hoelzl, & Wahl, 2008, p. 212)



RESEARCH QUESTIONS

This report analyzes the effect of tax audits on taxpayer attitudes. Our central hypothesis is that experiencing an audit has the potential to alter taxpayers' willingness to comply. To test this hypothesis, we examine the effects of different audit types and outcomes on survey-based measures of a wide range of attitudes and perceptions.

In line with the "bomb crater" hypotheses (Mittone, et al., 2017), we assume that experiencing an audit changes the perceived risk of future audits. This effect, however, is likely conditional on the audit outcome. Taxpayers who receive an additional assessment may infer that they are now in the focus of the IRS and thus likely to be audited again. Conversely, taxpayers who receive a refund or no assessment may (rightly or wrongly) perceive a reduced likelihood of being audited in the future. This report explores to what extent the audit type and outcome affect the perceived probability of future audits.

A tax audit may provide taxpayers with a better understanding of their tax obligations. Some taxpayers may learn that they have been paying too much in tax, for instance, by failing to take advantage of offsets or credits to which they are entitled. Others may discover they have been paying too little, perhaps as a result of underreporting a taxable source of income, overstating a deduction, or claiming a credit for which they are not eligible. Such learning effects will likely be stronger if the taxpayer interacts personally with the IRS during a field or office audit. A correspondence audit, on the other hand, which offers little scope for such interactions, may have less of an educational effect. We thus analyze how audits of different types affect tax knowledge.

Subsequently, we investigate the potential for tax audits to change taxpayers' motivation to comply. The examination experience might alter taxpayers' perceptions of fairness in IRS procedures, for instance. Again, we expect that this effect is moderated by the audit outcome. An audit that results in an additional tax assessment is likely to raise more negative sentiments than one that results in a tax refund or no change in taxes owed. Similarly, some audit types might be perceived as fairer than others. The quality and outcome of an audit might also build or diminish trust in the IRS and affect taxpayers' emotions. Ultimately, experiencing an audit may affect taxpayers' motivation to comply and willingness to think about cheating on their tax return.

Finally, we explore whether taxpayers can be classified in accordance with their attitudinal postures. Our analysis aims to identify groups of taxpayers who share specific attitudes and perceptions. For example, some individuals might generally oppose paying taxes, disapprove of the IRS, and believe that taxation is "theft" rather than a contribution to society. Other taxpayers might hold more positive attitudes and be willing to comply voluntarily.

A detailed description of our empirical approach to addressing these research questions is provided below.

SURVEY INSTRUMENT AND SAMPLE DESIGN

OIC Study

The survey instrument reflects the core dimensions of the Slippery Slope Framework and can be broadly divided into three parts. The first section inquires about the enforcement power of the IRS, including taxpayer perceptions of audit risk and the sanctions for noncompliance. This section also asks respondents a series of questions that are useful for directly assessing their perceptions of the coercive and legitimate powers of the Agency. The second section elicits responses concerning the level of trust that taxpayers have in the IRS as well as the determinants of that trust (such as tax knowledge, attitudes towards taxation, justice perceptions, and social norms). The third section includes questions meant to capture taxpayer emotions, such as anxiety, anger, comfort, and fear. Finally, the last section of the instrument covers sentiments regarding voluntary and enforced compliance as well as thoughts about cheating when filing taxes.

Table 4.1 gives an overview of the survey scales, each of which has been documented using responses to one or more related questions. A copy of the survey instrument is provided in Appendix A.

TABLE 4.1, List of Survey Scales

Survey Scale	Description
Audit probability	Perceived audit probability
Detection probability	Perceived detection probability
Fines	Perceived severity of fines for noncompliance
Tax knowledge	Subjective competence when filing taxes
Attitudes	General attitude towards paying taxes
Motivation	Motivation to comply (obligation vs. contribution to society)
Justice	
Procedural justice	Perceived justice in IRS procedures
Informational justice	Perceived transparency in communications with IRS
Interpersonal justice	Perceived fairness of treatment by IRS employees
Distributive justice	Perceived fairness of outcomes of IRS procedures
Social norms	Perceived compliance levels of other taxpayers
Coercive power	IRS enforcement capacity
Legitimate power	Legitimacy of enforcement
Trust	Trust in the IRS
Emotions	
Fear	Fear of the IRS
Anger	Anger towards the IRS
Caution	Feeling cautious regarding the IRS
Threat	Feeling threatened by the IRS
Protection	Feeling protected by the IRS
Enforced compliance	Intended compliance out of fear of punishment
Voluntary compliance	Intended compliance out of moral obligation
Thought about cheating	Have taxpayers thought about cheating?

Sample Selection: Audited Taxpayers

Separate samples of audited and unaudited self-employed taxpayers were drawn for our survey. To be eligible for inclusion, an audited taxpayer had to meet the following criteria:

- Had at least one operational audit between Tax Years 2010 and 2015.4
- Filed a Schedule C return for at least three consecutive tax years, including the year of the audit, the preceding year, and the year subsequent to the audit.
- All income tax returns for Tax Years 2010 through 2015 were filed chronologically.⁵
- The audit for Tax Year T was initiated prior to the filing of the Tax Year T+2 return.⁶
- No examinations were initiated or ongoing two years prior to the audit under consideration.
- Among the returns filed following the initiation of the Tax Year T audit, a maximum of one of these returns was subsequently audited.
- The taxpayer was not a resident of Puerto Rico.

One key aim of the study is to investigate differences in tax-related perceptions and attitudes according to the type of audit (office, field, or correspondence) and the audit outcome (positive tax adjustment, no change, or tax refund). Therefore, we have drawn separate subsamples of audited self-employed taxpayers for each of the nine groupings (three audit types times three outcome types). For each type of audit, a target of 100 respondents was set for taxpayers receiving a tax refund as a result of the audit, 150 respondents for those experiencing no tax change, and 200 for those experiencing an additional tax assessment.

Ultimately, our objective was to be able to match each audited respondent in our survey to an unaudited "control" with comparable characteristics. To help ensure that a suitable match could be obtained in most cases, we conducted a preliminary propensity scoring analysis. Our overall estimation sample for this analysis included the population of approximately 250,000 audited taxpayers who satisfied the above sample selection criteria. It also included a stratified random sample of approximately 750,000 potential "controls" who satisfied the following selection criteria with regard to the returns they filed for Tax Years 2009 through 2016:

- Filed a Schedule C return for at least the three consecutive tax years over the period.
- All returns filed for those tax years were filed in chronological order.
- At the time that at least one of the returns for Tax Years 2010 through Tax Year 2015 was filed, no audits were initiated, closed, or ongoing during the period from two years prior to the filing date of that return to the date that the return for the following tax year was filed.

⁴ Certain special purpose or narrowly targeted audits for which it would be difficult to find comparable unaudited returns were excluded from selection.

The taxpayer was not required to file a return for all tax years during this period, but any that were filed must have been done so chronologically.

⁶ In certain cases, it was not possible to determine with confidence whether a return was filed before the taxpayer was informed of an audit for a prior tax year. In such cases, the taxpayer was excluded from our sample.

Since our ultimate objective was to match the audited respondents to unaudited taxpayers with similar characteristics, potential controls in the population were divided into strata based on their DIF score, and we then oversampled from those strata where audited taxpayers were concentrated.

The taxpayer was not a resident of Puerto Rico.⁸

Since IRS audit selection criteria vary both with respect to the type of audit and the year of the return, we developed a separate logit specification for each audit type (field, office, or correspondence) and each tax year (from tax year (TY) 2010 through TY 2015) to predict the likelihood of an audit. The estimation sample for a given audit type and tax year included all of the eligible taxpayers who experienced the relevant type of audit for that tax year as well as a subsample of eligible controls. The explanatory variables in each specification included measures based on the IRS DIF score (an IRS measure of the potential of a given return for a substantial tax adjustment if audited) as well as a variety of indicators of taxpayer and line item tax return characteristics.

The logit estimation results for a given audit type and tax year were used to estimate the log-odds of an audit for each audited and unaudited taxpayer in the sample. The estimated log-odds was then used as a guide for selecting which audited taxpayers to include in the pool of potential interview subjects. Specifically, our selection process for this pool undersampled audited taxpayers with extreme log-odds scores for which there were very few potential controls with comparable scores.¹⁰

In order to approximately achieve our targets for the number of respondents for each of the nine groupings of audited taxpayers by type of audit and audit outcome, it was necessary to take into account that a valid phone number might not be identified for some taxpayers, and that some taxpayers would fail to answer the phone or refuse to participate in the survey. To address this issue, the size of our pool of potential interview subjects for each audit type/audit outcome grouping was set substantially larger than target number of respondents. However, the sizes of the overall sub-populations of potential subjects who received a tax refund as a result of either a field or an office audit were limited and, ultimately, the number of actual respondents ultimately fell somewhat short of our target for these groups. In order to achieve our approximate target of 1,350 audited taxpayers, we therefore elected to expand the numbers of respondents who received a positive tax adjustment or no tax change as a result of a field or office audit beyond their target values. Ultimately, 1,363 audited Schedule C filers responded to our survey.

Sample Selection: Unaudited Taxpayers

An important objective for the survey was to include a group of unaudited taxpayers in our survey sample who would serve as suitable controls for the audited respondents. We determined that this would be easier to accomplish if we first arranged for the interviews to be conducted from the pool of audited taxpayers. In this way, we would know which audited taxpayers actually responded to survey, and we could tailor our pool of unaudited interview subjects in the second stage of sampling so that its members had comparable characteristics.

To select the second-stage sample of unaudited interview subjects, we began by performing a generalized propensity score analysis of the likelihood of a correspondence or face-to-face audit by combining the actual sample of 1,363 audited respondents with our aforementioned sample of approximately 750,000

⁸ Most residents of Puerto Rico are not required to file a federal personal income tax return, and those who do so generally are not required to pay federal tax on their Puerto Rico-source income.

⁹ A randomly selected subsample of eligible controls for that tax year was drawn to reduce the estimation time for a given model. The size of the selected subsample was set at 15 times the size of the audit sample.

¹⁰ The population of eligible taxpayers who were audited in Tax Years 2014 and 2015 was smaller than that for the other years, so we also oversampled audit cases from these years when selecting the pool of potential interview subjects.

potential controls. A separate specification was estimated for each audit year to account for the fact that the IRS audit selection process tends to vary from year to year.

For each audit year, a weighted multinomial logit analysis was conducted, and the estimation results were used to compute the generalized propensity score (a vector containing both the predicted likelihood of a face-to-face audit and the predicted likelihood of a correspondence audit) for each observation in the combined estimation sample for that year. Next, a large number of unaudited taxpayers was matched to each audited survey respondent based on the application of a Mahalonobis distance criterion to the generalized propensity score. The audited taxpayers were divided into one of two possible groups along with their matched unaudited counterparts on the basis of whether they received a face-to-face or a correspondence examination.

The sextiles of the predicted likelihood of a correspondence audit were identified for the subsample of survey respondents who received a correspondence audit for the tax year under consideration. Their unaudited counterparts were then assigned to these same sextile categories on the basis of their predicted likelihood of a correspondence audit. Finally, a random sample of unaudited taxpayers was selected from each sextile. In this way, we were assured of a pool of potential unaudited survey respondents for that year that would have a similar distribution for the likelihood of a correspondence audit (and also reasonably similar generalized propensity scores) to that observed in our sample of respondents who actually received a correspondence audit in that year. To ensure that our pool was large enough to result in the target number of unaudited respondents, we selected 50 unaudited taxpayers into our pool for every correspondence audit respondent in our survey sample for that year.

We followed a comparable approach for selecting cases from our group containing matches for the face-to-face audit respondents (include office audit and field audit respondents). However, in this case, the sextiles were based on the predicted likelihood of a face-to-face audit among the respondents who received such an audit. Again, we selected 50 unaudited taxpayers into our pool for every face-to-face audit respondent in our survey sample for that year.

For each audit year, we merged each sextile pool of potential unaudited survey subjects for the correspondence audit cases with the corresponding sextile pool of potential subjects for the face-to-face audit cases (top correspondence sextile with top face-to-face sextile, second correspondence sextile with second face-to-face sextile, etc.), so that we ultimately had six groupings of potential interview subjects for each audit year. We set the target number of respondents from each of these six groups equal to the rounded value of the overall number of audited survey respondents for that year divided by six. Ultimately, these targets were approximately met, resulting in a sample of 1,366 unaudited survey respondents.

Construction of Matched Survey Sample

Our two-stage survey sampling design ultimately resulted in a sample of 1,363 audited respondents and 1,366 unaudited respondents. Under this design, the respondents were selected in such a way that the vast majority of audited respondents would have one or more unaudited counterparts in the sample that possessed similar characteristics. Our primary objectives for this study were to investigate how audits influence taxpayer attitudes and perceptions and the extent to which this influence differs in accordance with the type of audit (field, office, or correspondence) and the audit outcome (positive tax adjustment, no tax change, or refund). To do so, we began by identifying for each audited taxpayer in the survey sample an unaudited taxpayer that was the most suitable match in terms of relevant taxpayer and tax return characteristics. This matched unaudited taxpayer then served as a "control" that could be relied

upon to approximate what the audited taxpayer's attitudes and perceptions would have been like had an audit not taken place.

To develop our matched sample, we again relied on a generalized propensity scoring approach. The first step was to estimate a multinomial logit model of the likelihood of a face-to-face or correspondence examination. A large set of candidate explanatory variables was identified for this analysis. For each audit year, we developed a separate specification through a variable selection process. Under this process, we began by estimating a multinomial logit model using a parsimonious set of explanatory variables that we wanted to ensure were included in the final specification. This included some current and lagged measures of audit risk based on the IRS DIF score, measures of current and lagged overall reported income and tax liability, and taxpayer age. The lagged measures were included to help ensure common trends among the audit and control samples.

We then estimated a series of models that alternately incorporated one additional explanatory variable from our list of candidates. Among these models, we selected the candidate explanatory variable that represented the "best fit" on the basis of the likelihood-ratio test statistic for inclusion in our expanded specification. Next, we estimated a series of models that alternately included one of the candidate explanatory variables along with the variables already present in our expanded specification. Again, we expanded our specification to include the candidate variable associated with the largest likelihood ratio statistic. This process continued until none of the remaining candidate explanatory variables was associated with a likelihood ratio statistic that met the criterion for statistical significance at the five percent level.

After completing the variable selection process, we estimated our multinomial logit model of audit risk using the selected set of explanatory variables, and we used the results to predict for each observation in the estimation sample the log-odds of a correspondence audit and the log-odds of a face-to-face audit. Next we matched (with replacement) each audited respondent for the tax year under consideration with the eligible unaudited respondent in our sample that was the closest match with respect to the pair of log-odds statistics based on a Mahalanobis distance measure. We excluded 46 audited respondents from this matching process, however, because the estimated values for the log-odds of a correspondence audit and a field audit were outside of the range of common support. So, ultimately, we were successful in matching 1,317 of the 1,363 audited respondents in our sample to an unaudited control.

Descriptive Statistics for Audited Respondents

Overall, the response rate to our survey was approximately 29.4 percent. Among the respondents are 1,363 self-employed taxpayers who experienced an audit of one of the returns they filed for Tax Years 2010 through 2015. Overall, 62 percent of the audited respondents are male, and the mean age is 57 years with a range from 20 to 99. A majority of the audited respondents holds at least a high-school degree and works full-time. The audited taxpayer sample includes 295 individuals who state that they are currently not working; most of these individuals (209) are retired. See Table 4.2 for additional details on the demographic composition of this sample.

TABLE 4.2, Socio-Economic and Demographic Characteristics of Audited Respondents

N	1,317	
Gender		
Male	812	
Female	505	
Age		
Mean	57.4	
SD	12.4	
Range	20-99	
Education		
Elementary school	13	
Some high school	36	
High school graduate	189	
Some college	265	
College graduate	443	
Post-graduate work	338	
Vocational school	21	
not sure/refused	12	
Employment status		
Working part-time	216	
Working full-time	806	
Not working	295	
Employment type		
Employed by someone else	269	
Self-employed	528	
Both	225	
Unemployment type		
On temporary layoff from a job	9	
Looking for work	14	
Retired	209	
Disabled	27	
Other	36	

Table 4.3 provides a breakdown of audited respondents by audit type and outcome. Under our sampling design, the cell counts were roughly evenly divided according to audit type; however, we specified higher target counts for positive adjustment and no change audit outcomes than for refunds.

TABLE 4.3, Number of Audited Schedule C Taxpayers by Audit Type and Audit Outcome

	Audit type			
Audit outcome	Field	Office	Correspondence	Total
Positive adjustment (+)	202	200	201	603
No change (0)	182	168	153	503
Tax refund (-)	70	85	102	257
Total	454	453	456	1,363

We next investigate whether audited taxpayers recall their examination experience. Table 4.4 shows that only 63.8 percent of audited self-employed taxpayers acknowledge that they have been audited in the past five years. However, we observe substantial differences between audit types. Audit awareness is particularly low in the case of correspondence audits, where only 39.7 percent acknowledge having been audited. In contrast, 72 percent of those receiving a field examination recall the audit, and nearly 80 percent of those receiving an office audit recall the experience. This may be an indication that taxpayers do not view an interaction that fails to include face-to-face contact as an actual "audit." Audit awareness is generally higher in the case of positive tax adjustments than when the examination results in either no adjustment or a tax refund. Surprisingly, only 56 percent of audited taxpayers who received a refund as a result of the examination recall the audit.

TABLE 4.4, Awareness of Audit of Schedule C Taxpayers by Audit Type and Outcome

	Audit type			
Audit outcome	Field	Office	Correspondence	Total
Positive adjustment (+)	75.7	80.0	50.2	68.7
No change (0)	70.3	79.2	33.3	62.0
Tax refund (-)	65.7	81.2	28.4	56.0
Total	72.0	79.9	39.7	63.8

Note. Reported number express the percentage of individuals choosing the option "Audit" as the reason for the contact among those who reported having any contact with the IRS in the past six years.

We also asked the respondents whether they had any contact with the IRS in the past six years. While awareness of having been audited is surprisingly low, most audited taxpayers at least remember having been in contact with the IRS. However, a solid 17 percent of audited taxpayers did not even acknowledge having had contact with the IRS in the past six years. As Table 4.5 shows, the percentage of taxpayers with no recollection of any contact with the IRS is highest within the correspondence audit group, especially if the audit outcome was either no adjustment (33.3 percent) or a refund (34.3 percent).

TABLE 4.5, Awareness of Contact with the IRS of Schedule C Taxpayers by Audit Type and Outcome

	Audit type			
Audit outcome	Field	Office	Correspondence	Total
Positive adjustment (+)	85.6	92.5	76.6	84.9
No change (0)	85.7	89.3	66.7	81.1
Tax refund (-)	87.1	94.1	65.7	80.9
Total	85.9	91.6	70.8	82.8

Note: Reported number express the percentage of individuals choosing the option "Yes" for the item "In the past six years, have you had any contact with the IRS?"

Although the analysis so far has focused on how one's recollection of either having been audited or having had some other contact with the IRS varies with the audit type and audit outcome, it is likely that other factors also play a role in taxpayer recollection. For instance, audits are often conducted when an amended return has been filed, although such audits are sometimes rather cursory. In fact, approximately 15 percent of the audit cases in our survey sample involved an examination of an amended return. It is possible that taxpayers may have perceived such an examination as an ordinary part of the filing process for an amended return rather than as an actual audit. In addition, the ability to recollect an audit may be a positive function of the recency of the examination, as memories of the experience may tend to fade over time. Another potentially relevant factor is whether the tax practitioner was hired to prepare the return. Taxpayers may not be as attuned to IRS interactions when they are largely handled by a paid professional. To account for these factors, we have run logit regressions with audit awareness and IRS contact awareness as dependent variables. The explanatory variables include:

Correspondence: Dummy for a correspondence audit.

Field: Dummy for a field audit.

Refund: Dummy for an audit resulting in a tax refund.

No Change: Dummy for an audit resulting in no change in tax liability.

Distant Audit: Dummy for an audit that closed 3 or more years prior to the survey.

Distant Years: Number of years prior to the survey that the audit closed minus 3 (Equals 0 if survey took place less than 3 years since audit closed).

Amended Return: Dummy for amended return audit.

Paid Preparer: Dummy for a paid tax return preparer.

The omitted dummy variables are for audits resulting in a positive tax adjustment and for audits that closed less than three years prior to the survey.

Table 4.6 presents the estimated marginal effects from our logit specification of the likelihood of a respondent recalling an audit that took place within the past six years. Compared to respondents who experienced an office audit, those who experienced a correspondence audit are 33.9 percentage points less likely to recall the experience (all else being equal), and those who experienced a field audit are 6.2 percentage points less likely to remember the audit.

After controlling for other factors, a taxpayer is less likely to recall an audit that results in a refund or no change in tax liability than an audit that results in a positive tax adjustment, although the estimated percentage point differential is statistically significant only in the case of a no change audit (4.5 percentage points).

Taxpayers are relatively less likely to recall an audit that occurred in the more distant past.

All else being equal, a respondent whose audit closed three years prior to the survey is 1.1 percentage points less likely to recall the audit than a respondent whose audit closed more recently. Furthermore, each additional year between the audit close date and the date of the survey is associated with another 9.4 percentage point decline in the likelihood of recollection. So, for example, a taxpayer whose audit closed six years prior to the survey is 29.3 percentage points less likely to recall the examination than a taxpayer whose audit closed within three years of the survey date.

TABLE 4.6, Logit Estimated Marginal Effects for Likelihood of Audit Awareness

Variable	Marginal Effect	t-Statistic
Correspondence	-0.3390	-10.31
Field	-0.0621	-2.15
Refund	-0.0374	-0.96
No Change	-0.0453	-1.68
Distant Audit	-0.0110	-0.30
Distant Years	-0.0940	-5.11
Amended Return	-0.0677	-1.59
Paid Preparer	-0.0169	-0.67

The results indicate that respondents who are audited for an amended return as well as those who rely on paid tax return preparation are relatively less likely to recall having been audited. However, these estimates are not statistically significant.

Table 4.7 reports the estimated marginal effects for our logit specification of the likelihood of recalling contact with the IRS in the past six years. Compared to respondents who experienced an office audit (all else being equal), those who received a correspondence audit are 16.8 percentage points less likely to recall having had contact with the IRS, while those who experienced a field audit are 4.7 percentage points less likely to remember the contact.

A taxpayer whose audit closed three years prior to the survey date is 2.3 percentage points less likely to recall having had contact with the IRS than one whose audit has closed more recently. Furthermore, each additional year between the audit close date and the date of the survey is associated with another 5.1 percentage point drop in the likelihood of recollection. The outcome of the audit, having filed an amended return, and the mode of tax preparation are jointly statistically insignificant factors in explaining the propensity to recall IRS contact (F-statistic = 2.39; p-value=0.66).

TABLE 4.7, Logit Estimated Marginal Effects for Likelihood of Recollecting IRS Contact

Variable	Marginal Effect	t-Statistic
Correspondence	-0.1682	-5.67
Field	-0.0471	-2.12
Refund	0.0124	0.41
No Change	-0.0186	-0.83
Distant Audit	-0.0228	-0.75
Distant Years	-0.0511	-3.70
Amended Return	-0.0298	-0.85
Paid Preparer	-0.0166	-0.80

IMPACT OF AUDITS ON TAXPAYER ATTITUDES AND PERCEPTIONS

In this section, we apply multivariate analysis of covariance (MANCOVA) and cluster analysis techniques to our matched sample to investigate how the attitudes and perceptions of self-employed taxpayers are impacted by different types of audits (field, office, or correspondence) as well as different types of audit outcomes (positive tax adjustment, no change, or tax refund). This analysis takes advantage of our matched sample of audited and unaudited survey respondents. The unaudited survey respondents in this matched sample provide a basis for inferring how the audited respondents' attitudes and perceptions would have differed under the counterfactual scenario where they had not been audited.

Our first model, (Model 1) analyzes differences in tax-related perceptions and attitudes as a function of whether a Schedule C taxpayer has been audited. In Model 2 we incorporate audit type (field audit, office audit, correspondence audit) as a second independent factor (in addition to the presence or absence of an audit). In Model 3 we replace audit type with audit outcome (positive tax adjustment, no tax change, or tax refund) as the second independent factor. In all models, we control for age and gender as covariates. Lastly, we present the results of a cluster analysis that differentiates between groups of taxpayers as a function of their tax-related perceptions and attitudes.

Model 1: Overall Effect of Audits

To investigate how tax-related attitudes and perceptions vary among taxpayers, we have conducted a multivariate analysis of covariance (MANCOVA) using audit experience (audited vs. not audited) as the independent factor and our survey scales (as presented in Table 4.1) as the dependent variables. This analysis permits us to test whether the average value of a survey scale differs across the two audit groups after controlling for gender and age. The *F*-statistics indicate that the overall mean differences in reported survey scale values between audited and unaudited taxpayers are jointly statistically significant $[F(22, 2577) = 12.59, p < .001, \eta_n^2 = .10]$. ¹¹

¹¹ The *F*-statistic is based on the Wilks Lambda test of the null hypothesis that the difference in the mean values of each of the survey scale variables between the audited respondents and their controls is equal to zero (after controlling for the effects of age and gender). As indicated by the p-value of 0.001, the value of this statistic exceeds the threshold for statistical significance at any conventional level. Thus, the null hypothesis is rejected (the mean value of one or more scale variables differs between audited taxpayers and their controls). The statistic η_p² is a measure of the scale effect of an audit. It represents the additional share of the unexplained variation from a model that only controls for age and gender that can be accounted for when audit status is included in the specification as a factor.

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Figure 4.2 shows estimated means and 95% confidence intervals for each variable by audit experience group. If confidence intervals do not overlap, there is a statistically significant difference between audited and unaudited taxpayers. For inferential details, see Table B1 of Appendix B, which shows the estimated means and standard errors by audit experience group and univariate *F*-statistics for each dependent variable.

Audited taxpayers perceive a higher risk of audit, sense a higher degree of coercive power within the IRS, possess lower levels of trust in the IRS, are relatively less motivated by voluntary compliance, and are relatively more likely to agree with the statement that taxes are taken away from them rather than a contribution to society. At the same time, they perceive a lower severity of fines and report lower tax knowledge.

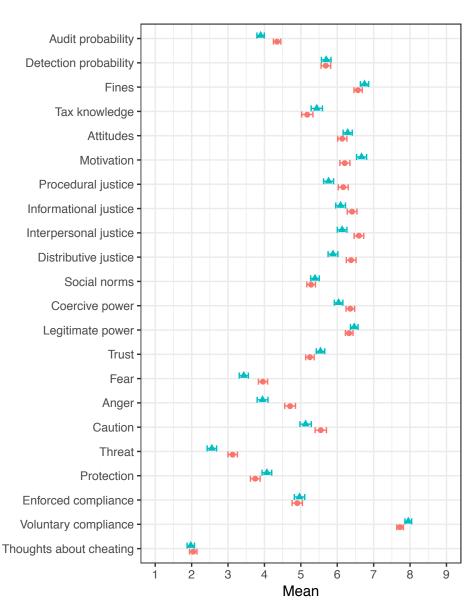
Interestingly, audited taxpayers perceive higher degrees of procedural justice, informational justice, interpersonal justice, and distributive justice than the unaudited control group. It is important to point out that the items used to measure justice perceptions slightly differed between the two audit groups. While audited taxpayers were asked to indicate their justice perceptions regarding their most recent audit, unaudited taxpayers were asked to imagine being audited by the IRS. Therefore, this result indicates that those who have actually experienced an audit view the examination as more transparent, respectful, and appropriate in its outcomes than those who just imagine what the experience would be like. Simply put, experienced fairness exceeds expected fairness.

The survey responses reveal that experiencing an audit induces strong negative emotions. Audited taxpayers report higher levels of fear, anger, threat, and caution when thinking about the IRS. Moreover, audited taxpayers feel less protected by the IRS. We do not observe differences in the perceived detection probability, attitudes towards paying taxes, perceptions of legitimate power or enforced compliance, or social norms between the two audit experience groups.

The results from Model 1 provide an initial insight into the overall group differences between audited and unaudited Schedule C taxpayers. A deeper investigation of these differences is undertaken in the following models where we further break down the results by audit type and audit outcome.

FIGURE 4.2, Estimated Means and 95% Confidence Intervals by Audit Experience





Model 2: Accounting for Different Audit Types

In our second model we introduce audit type as an additional factor for explaining tax-related perceptions and attitudes, while the dependent variables remain unchanged. The model predictors are audit experience (audited vs. not audited), audit type (field audit vs. office audit vs. correspondence audit), and the interaction of these two factors. The *F*-static confirms the previously established mean scale score differences across the two audit experience groups $[F(22, 2573) = 13.03, p < .001, \eta_p^2 = .10]$ after controlling for age and gender. Additionally, there are significant differences in survey responses across different audit types $[F(44, 5148) = 3.43, p < .001, \eta_p^2 = .03]$ and a significant interaction effect between audit experience and audit type $[F(44, 5148) = 3.43, p < .001, \eta_p^2 = .02]$.

As depicted in Figure 4.3, the previously reported differences between audited and unaudited taxpayers are relatively stable across the three different audit types. One exception from this pattern is observable in the justice scales, which drive the overall significant interaction effect. Figure 4.3 shows that the self-reported measures of procedural, informational, interpersonal, and distributive justice are higher among individuals who have experienced¹² a field or office audit than among their unaudited counterparts. However, there is no significant difference in fairness perceptions when comparing unaudited taxpayers with taxpayers who have experienced a correspondence audit. Moreover, Figure 4.4 reveals that perceived fairness levels are lower for audited taxpayers who have experienced a correspondence audit than they are for those who have experienced an office or field audit. In contrast, there are no significant differences in perceived fairness across unaudited taxpayers who have experienced different types of audits. This suggests that the result obtained from Model 1 (individuals who recently experienced an audit view it as more transparent, respectful, and appropriate in their outcomes than those who did not) is driven by individuals who experienced a more personal face-to-face interaction with the IRS.

¹² Figures 4.3 and 4.4 are based on the same data, but provide slightly different perspectives. While it is straightforward to infer information on the stability of differences in attitudes and perceptions between audited and unaudited taxpayers across the three types of audits using Figure 4.3, Figure 4.4 is better suited for investigating differences across the three audit type categories, conditional on a given audit status. Consult Table B2 of Appendix B for cell means and univariate *F*-statistics.

FIGURE 4.3, Estimated Means and 95% Confidence Intervals by Audit Experience and Audit Type



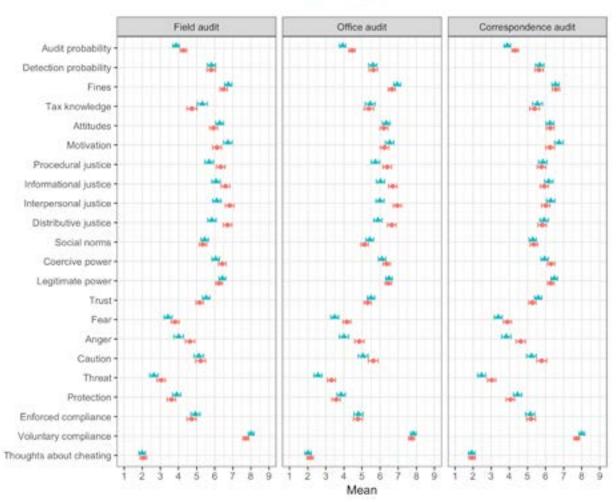
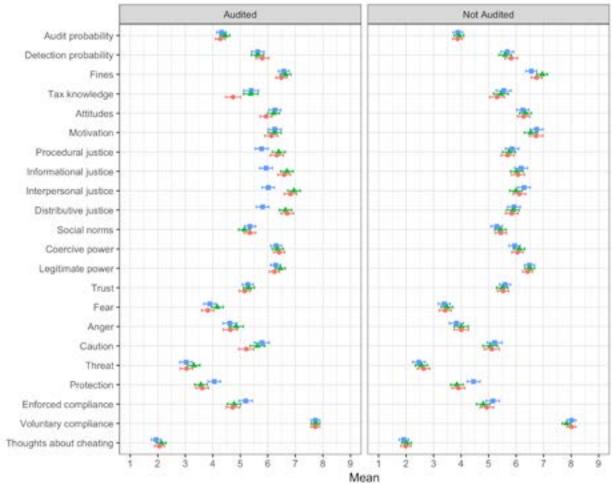


FIGURE 4.4, Estimated Means and 95% Confidence Intervals by Audit Type and Audit Experience





Model 3: Accounting for different audit outcomes

Model 3 replaces audit type with audit outcome as the second factor for explaining tax-related perceptions and attitudes, while the dependent variables remain unchanged. The model predictors are audit experience (audited vs. not audited), audit type (field audit vs. office audit vs. correspondence audit), and the interaction of these two factors. The *F*-statistic confirms the previously established mean differences between the two audit experience groups $[F(22, 2573) = 11.46, p < .001, \eta_p^2 = .09]$. Additionally, we observe significant differences in survey responses between the three audit outcome groups $[F(44, 5148) = 5.96, p < .001, \eta_p^2 = .05]$ and a significant interaction effect between audit experience and audit outcome $[F(44, 5148) = 2.88, p < .001, \eta_p^2 = .02]$.

For most variables the previously reported differences between audited and unaudited taxpayers are present within each of the three outcome categories (see Figure 4.5). However, Figures 4.5 and 4.6 illustrate some differential effects.¹³ While tax-related attitudes and perceptions are only affected by audit outcomes, irrespective of whether a taxpayer has actually been audited, the perceived audit probability and feelings of anger and threat are highest when taxpayers experience a positive adjustment.

We again observe an interesting pattern of differential interaction effects for perceived justice. Taxpayers who receive a refund or no tax change as a result of an audit perceive the audit to be more just than unaudited taxpayers. Audited taxpayers who receive a positive tax adjustment, however, do not differ from unaudited taxpayers in their justice perceptions. We find a similar result for trust. Trust levels do not differ between audited and unaudited taxpayers in the cases of a refund or no tax change, but trust in the IRS decreases when audits result in an additional tax assessment. At the same time, this group (audited taxpayers with a positive tax adjustment) report high levels of anger and perceptions of coercive power.

¹³ Figures 4.4 and 4.5 are based on the same data, but provide slightly different perspectives. While it is straightforward to infer information on the stability of differences between audited and unaudited taxpayers across the three audit outcomes from Figure 4.4, Figure 4.5 is better suited for detecting differences across the three audit outcome categories, conditional on a given audit status. Consult Table B3 of the supplementary material for cell means and univariate *F*-statistics.

FIGURE 4.5, Estimated Means and 95% Confidence Intervals by Audit Experience and Audit Outcome



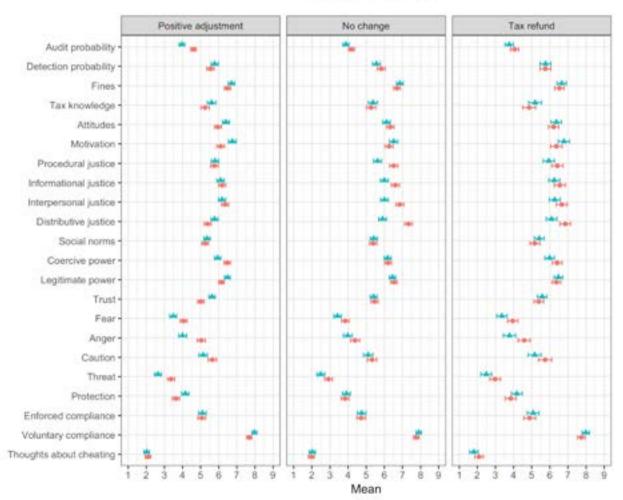
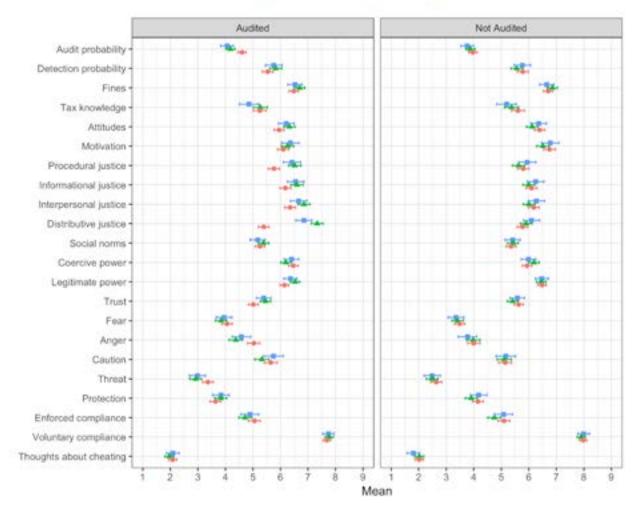


FIGURE 4.6, Estimated Means and 95% Confidence Intervals by Audit Outcome and Audit Experience





The above models address all relevant main effects as well as the potential two-way interactions between audit experience and audit type and between audit experience and audit outcome. However, there also could be a two-way interaction between audit type and audit outcome as well as, potentially, a three-way interaction between all three factors (audit experience, audit type, and audit outcome). To explore these possibilities, we have estimated a fully saturated model that accounts for all possible interactions among these three factors (and which continues to also account for the roles of age and gender in taxpayer attitudes and perceptions). The estimation results rule out both a three-way interaction [F (88, 10256) = 0.04, p = .220] and a two-way interaction between audit type and audit outcome [F(88, 10256) = 0.04, p = .066], which suggests that our earlier models adequately capture all relevant interactions among our three factors.

Recency of Audits

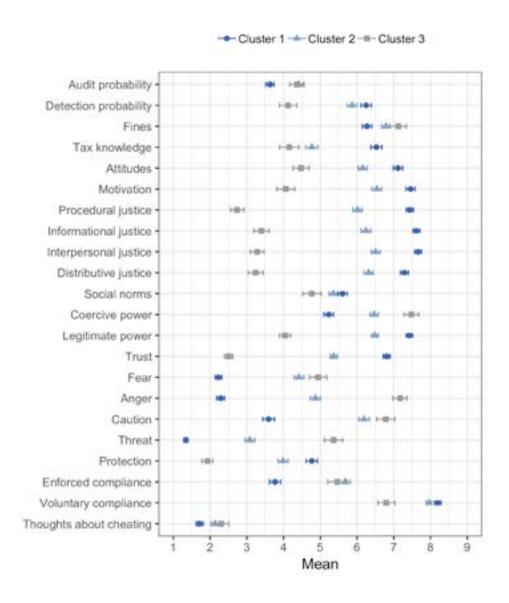
At the time of the survey, some of the self-employed taxpayers in our sample were the subject of ongoing audits, while others experienced examinations that closed up to six years earlier. It can be hypothesized that memories fade away over time and that tax-related perceptions and attitudes are subject to change due to memory biases. To explore whether the recency of an audit influences taxpayer attitudes and perceptions, we split the sample of audited respondents into two categories: those who experienced an audit within three years of the survey date and those who experienced a more distant audit. We then performed a MANCOVA with three independent factors (audit recency category, audit type, and audit outcome) and gender and age as covariates. Our initial specification included all three main effects, all three pairwise interactions between these factors, and a three-way interaction among the factors. After finding that the three-way interaction and the pairwise interactions involving audit recency were statistically insignificant, we next estimated a more parsimonious model that included the three main effects and a single interaction between audit type and audit outcome. Although this model indicates a significant overall main effect of audit recency on taxpayer attitudes and perceptions, a closer examination indicates a statistically insignificant relationship between audit recency and most of the survey scales. The two exceptions involve perceptions of the likelihood of an audit and the likelihood that an audit is successful in detecting cheating. More recently audited taxpayers tend to report significantly higher levels of both audit risk and audit detection. So, while the impact of audits on perceptions of risk tend to fade over time, their impact on taxpayer perceptions of justice, emotions towards the agency, and other tax-related attitudes persist.

Taxpayer Segmentation

To segment taxpayers into groups that share certain tax-related attitudes and perceptions, we have performed a Ward cluster analysis that includes all survey scales. The resulting dendrogram points to a solution involving three clusters. Figure 4.7 depicts the three cluster centers for each survey scale. A MANCOVA with all survey scales as dependent variables, the cluster variable as the main explanatory variable, and gender and age as additional covariates confirms strong discrimination of tax-related perceptions and attitudes between

the three groups $[F(44, 5154) = 95.64, p < .001, \eta_p^2 = .45]$. Univariate analyses further show that there is a significant mean difference across at least two of the three groups for each of the survey scales, which implies that all of the tax-related attitudes and perceptions contribute to the cluster grouping. The largest differences between clusters is observed for our survey scales representing trust, negative emotions, justice, and motivations to comply. Next, we briefly describe each cluster.

FIGURE 4.7, Means and 95% Confidence Intervals by Cluster Solution



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Cluster 1 (n = 985) is best described as taxpayers with positive tax-related attitudes and perceptions. Members of this cluster report high levels of trust in the IRS and give the Agency high rankings with regard to justice and legitimate power. Members of this cluster believe their tax payments contribute to society and they have positive attitudes toward paying taxes. There is an absence of negative emotions towards the IRS, and members of the group indicate that they feel protected by the IRS.

Taxpayers in Cluster 2 (n = 1,175) report average rankings for almost all survey scales. While members of this group view paying taxes as a contribution to society, they possess only a limited degree of trust in the IRS and report moderate levels of negative emotions towards the Agency, such as anger and fear.

Cluster 3 (n = 474) is the polar opposite of Cluster 1. Members of this group lack trust in the IRS and possess negative attitudes toward paying taxes. Whereas members of Cluster 1 view their tax payments as a contribution to society, members of Cluster 3 view their payments as money that has been taken away from them. They perceive low levels of justice in the tax system and in their dealings with the IRS, and they express strong negative emotions towards the Agency. Like the members of Cluster 2, they report moderate levels of fear. However, members of Cluster 3 express much higher levels of other negative emotions. They report feeling angry, threatened, and cautious all at the same time.

To distinguish between the groups, we refer to members of Cluster 1 as taxpayers with "positive attitudes and perceptions," Cluster 2 as taxpayers with "moderate attitudes and perceptions," and Cluster 3 as taxpayers with "negative attitudes and perceptions."

The sharp differences across the three groups reflects substantial heterogeneity among self-employed taxpayers in their tax-related attitudes and perceptions. Figure 4.8 illustrates the cluster shares within the overall sample as well as the audit and matched control groups. When comparing the proportions of taxpayers falling into the three clusters by audit experience (audited vs. not audited), we observe a shift in tax-related perceptions and attitudes that is attributable to the audit experience. A comparison of the middle and right panels of Figure 4.8 reveals that, after experiencing an audit, there is a shift in membership away from Cluster 1 and into Clusters 2 and 3. Thus audits overall are associated with a modest deterioration in tax-related attitudes and perceptions.

FIGURE 4.8, Cluster Assignments by Audit Experience

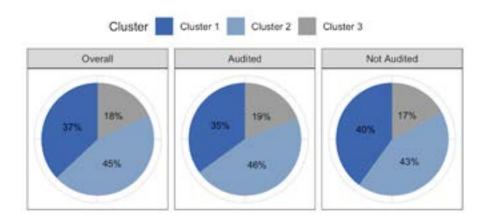
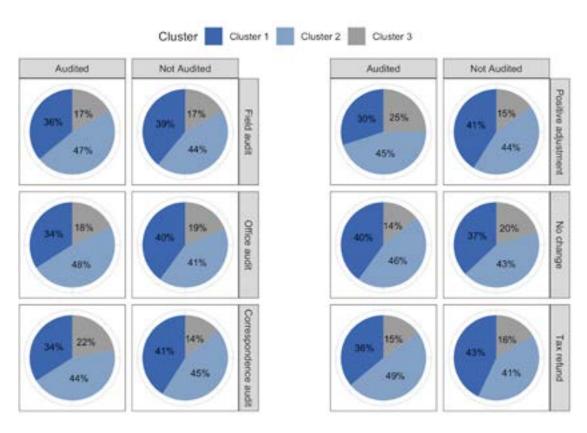


FIGURE 4.9, Cluster Assignments by Audit Experience and Audit Type/Audit Outcome



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Figure 4.9 provides a finer breakdown of group membership according to audit type and audit outcome. The left panel illustrates cluster shares by audit type both for audited taxpayers and their matched unaudited counterparts. Among those respondents who received a correspondence audit, the share belonging to Cluster 3 (22 percent) substantially exceeds that observed for the matched control group (14 percent), while the share belonging to Cluster 1 (34 percent) is much lower than that observed for the matched control group, which is 41 percent. These marked differences in cluster shares suggest that correspondence audits have a detrimental impact on taxpayer attitudes.

While the main discrepancy for correspondence examination cases between the audited taxpayers and their unaudited matched controls concerns the shares in Clusters 1 and 3, the main discrepancy for office audit cases concerns the shares in Clusters 1 and 2. For this audit category, the membership of Cluster 2 is larger for the audited taxpayers than their matched controls (48 percent vs. 41 percent) and the membership of Cluster 2 is smaller (34 percent vs. 40 percent). Since a shift in from Cluster 1 to Cluster 2 is less extreme than a shift from Cluster 1 to Cluster 3, field audits appear to be less detrimental to taxpayer attitudes and perceptions than correspondence audits.

In the case of field audits, audited taxpayers and their matched controls again show a discrepancy with respect to the shares of respondents following into Clusters 1 and 2. However, the magnitude of this discrepancy (essentially a 3 percentage point shift from Cluster 1 to Cluster 2 when comparing the audit group to the matched control group) is more modest than that observed in the case of office audits (essentially a 6 or 7 percentage point shift). Therefore, it appears that field audits are the least detrimental to taxpayer attitudes and perceptions, while correspondence audits are the most detrimental.

The right panel in Figure 4.9 provides a breakdown of cluster shares by audit outcome. Comparing the cluster shares for the audited taxpayers against those for their matched controls, we observe that no change audits are associated with a substantial reduction of the Cluster 3 share (from 20 percent to 14 percent) and a corresponding expansion in the shares for both Clusters 1 and 2. So, although these audits yield no additional tax revenue, they do appear to have a beneficial impact on taxpayer attitudes and perceptions.

In contrast, audits resulting in a positive tax adjustment (and therefore an increase in tax revenue) appear to have a detrimental impact on taxpayer attitudes and perceptions. Compared to their matched controls, audited taxpayers exhibit a much lower membership in Cluster 1 (30 percent vs. 41 percent) and a much higher membership in Cluster 3 (25 percent vs. 15 percent).

Interestingly, audits resulting in a tax refund also appear to have a somewhat detrimental impact on taxpayer attitudes and perceptions, albeit not to the same degree as those that result in an additional tax assessment. For this group of taxpayers, audits are associated with a 7 to 8 percentage point shift in shares from Cluster 1 to Cluster 2. Perhaps this is an indication that taxpayers who receive a tax refund as a result of an audit tend to feel somewhat frustrated that they were forced to undergo an audit despite having overpaid their tax obligation. Alternatively, perhaps they are relatively more likely to perceive their selection for audit as a sign of undeserved mistrust by the IRS.

CONCLUDING REMARKS

In this study, we have explored how taxpayer attitudes are shaped by different types of audits and different audit outcomes using a matched sample of audited and unaudited survey respondents. In addition, we have examined whether taxpayers can be segmented into groups based on a common set of shared attitudes and perceptions towards paying taxes, and if so, how audits influence membership within these groups. Our findings indicate that many of the audited respondents do not recall the examination, and that the rate of recollection depends on both the type of audit that was conducted and the outcome of the examination. Overall, only 64 percent of audited Schedule C filers acknowledge having been audited, including about 45 percent of those who received a refund as a result of their examination.

Audit recollection is especially poor among those taxpayers who have experienced a correspondence audit (below 40 percent), which suggests that some taxpayers may not perceive correspondence examinations as actual audits. In the case of field and office examinations, a substantial majority of participants do remember being audited (72 percent and 80 percent, respectively), suggesting that face-to-face audits might have a stronger effect on taxpayer attitudes and behavior. At the same time, individuals who have experienced a field or office audit report higher levels of fairness in the examination than taxpayers who have experienced a correspondence audit. suggesting that face-to-face audits might be better suited to deter evasion and establish high levels of compliance. The results further show that that taxpayers are relatively more likely to recall more recent audits as well as examinations that result in a positive tax adjustment. All else equal, respondents who experience an audit of an amended return are relatively less likely to recall the examination. An important question for future research is whether behavioral responses to audits tend to fade over time along with memories of the examination.

With regard to the effects of different audit outcomes on taxpayer attitudes, we find that individuals who have received an additional tax assessment as a result of their examination perceive a higher risk of future audits and lower levels of procedural and distributive justice than those who have received a refund or no tax adjustment. This suggests that the deterrent effect of audits might depend on the outcome of the examination, a finding that complements earlier work by TAS (TAS ARC 2015, Audit Impact Study), which identifies differential behavioral responses to tax audits associated with different audit outcomes. At the same time, taxpayers who have received an additional tax assessment express lower levels of trust in the IRS and perceive higher levels of coercive power within the Agency. Further, they report stronger feelings of anger and threat than their matched unaudited counterparts.

Our cluster-based analysis of the survey responses suggest that self-employed taxpayers can be constructively divided into three groups in accordance with their shared attitudes towards paying taxes, their motives to comply, trust in, and negative emotions towards the IRS. The first group possesses positive attitudes towards the IRS and views paying taxes as a contribution to society. It perceives the IRS as trustworthy and shows no negative emotions towards the IRS. The second group possesses neutral to slightly positive attitudes towards the IRS. While this group views paying taxes as a contribution to society, it has only a moderate degree of trust in the IRS, and it harbors some negative emotions towards the Agency. The third group possesses negative attitudes towards the IRS. More specifically, this group reports that paying taxes feels like something is taken away from them. Trust in the IRS is low within this group, and its members express strong negative emotions towards the IRS.

Our results indicate that the share of taxpayers who hold negative attitudes towards the IRS is largest among individuals who have experienced a correspondence audit, suggesting that face-to-face audits have a more positive effect on taxpayer attitudes. Surprisingly, we find that the subsample of

respondents who received a tax refund as a result of their examination has a lower share individuals with positive attitudes towards the IRS than the subsample that experienced no adjustment to their taxes. This suggests that taxpayers who learn that they have been overly compliant in the past might perceive the audit as undeserved negative attention or even as a sign of mistrust by the IRS.

An important direction for future research is to examine whether changes in taxpayer attitudes and perceptions that are induced by audits are linked to changes in actual taxpayer reporting behavior.

REFERENCES

- Allingham, M., & Sandmo, A. (1972). Income Tax Evasion: A Theoretical Analysis. *Journal of Public Economics*, 1, 323-338.
- Alm, J., Jackson, B. R., & McKee, M. (1992). Estimating the Determinants of Taxpayer Compliance with Experimental Data. *National Tax Journal*, 45(1), 107-114.
- Alm, J., Jackson, B. R., & McKee, M. (2009). Getting the word out: Enforcement information dissemination and compliance behavior. *Journal of Public Economics*, 93, 392-402.
- Alm, J., Kirchler, E., & Muehlbacher, M. (2012). Combining Psychology and Economics in the Analysis of Compliance: From Enforcement to Cooperation. *Economic Analysis and Policy*, 42(2), 133-151.
- Alm, J., McClelland, G. H., & Schulze, W. D. (1992). Why do people pay taxes? *Journal of Public Economics*, 48, 21-38.
- Alm, J., & Torgler, B. (2011). Do ethics matter? Tax compliance and morality. *Journal of Business Ethics*, 101, 635-651.
- Andreoni, J., Erard, B., & Feinstein, J. (1998). Tax compliance. *Journal of Economic Literature*, 36(2), 818-860.
- Beer, S., Kasper, M., Kirchler, & Erard, B. (2015). Audit impact study. *National Taxpayer Advocate 2015 Annual Report to Congress*, 2, 68-98.
- Bies, R.J., & Moag, J. S. (1986). Interactional justice: Communication criteria of fairness. In R. J. Lewicki, B. H. Sheppard, & M. H. Bazerman (Eds.), *Research on negotiation in organizations*, (Vol. 1, pp. 43-55). Greenwich, Conn.: JAI Press.
- Colquitt, J. A. (2001). On the dimensionality of organizational justice: A construct validation of a measure. *Journal of Applied Psychology*, 86(3), 386-400.
- DeBacker, J., Heim, B. T., Tran, A., & Yuskavage, A. (2015). Once Bitten, Twice Shy? The Lasting Impact of IRS Audits on Individual Tax Reporting. Technical report.
- Dubin, J.A. (2007). Criminal investigation enforcement activities and taxpayer noncompliance. *Public Finance Review 35*(4), 500-529.
- Dubin, J.A., Graetz, M.J., & Wilde, L.L. (1990). The effect of audit rates on the federal individual income tax, 1977–1986. *National Tax Journal*, 43(4), 395-409.
- Eriksen, K., & Fallan, L. (1996). Tax knowledge and attitudes towards taxation; A report on a quasi-experiment. *Journal of Economic Psychology*, 17(3), 387-402.
- Feld, L.P. & Frey, B.S. (2007). Tax Compliance as the Result of a Psychological Tax Contract: The Role of Incentives and Responsive Regulation, 29(1), 102-120.

- Gangl, K., Hofmann, E., & Kirchler, E. (2015). Tax authorities' interaction with taxpayers: A conception of compliance in social dilemmas by power and trust. *New Ideas in Psychology*, *37*, 13–23.
- Gemmel, N., & Ratto, M. (2012). Behavioral Responses to Taxpayer Audits: Evidence from Random Taxpayer Inquiries. *National Tax Journal* 65(1), 33-58.
- Greenberg, J. (1990). Organizational Justice: Yesterday, Today, and Tomorrow, *Journal of Management*, 16(2), 399-432.
- Hallsworth, M., List, J. A., Metcalfe, R. D., & Vlaev, I. (2017). The behavioralist as tax collector: Using natural field experiments to enhance tax compliance. *Journal of Public Economics*, 148, 14-31.
- Hofmann, E., Gangl, K., Kirchler, E., & Stark, J. (2014). Enhancing Tax Compliance through Coercive and Legitimate Power of Tax Authorities by Concurrently Diminishing or Facilitating Trust in Tax Authorities. *Law & Policy*, 36(3), 290-313.
- Hofmann, E., Voracek, M., Bock, C., & Kirchler, E. (2017). Tax compliance across sociodemographic categories: Meta-analyses of survey studies in 111 countries. *Journal of Economic Psychology, 62*, 63-71.
- Huddy, L., & Khatib, N. (2007). American patriotism, national identity, and political involvement. *American journal of political science*, 51(1), 63-77.
- IRS (2016). Tax Gap Estimates for Tax Years 2008-2010. Retrieved from https://www.irs.gov/newsroom/the-tax-gap.
- Kastlunger, B., Kirchler, E., Mittone, L., & Pitters, J. (2009). Sequences of audits, tax compliance, and taxpaying strategies. *Journal of Economic Psychology*, 30, 405-418.
- Kemp, S. (2008). Lay perceptions of government economic activity. In A. Lewis (Ed.), *The Cambridge handbook of psychology and economic behaviour* (pp. 255-280). Cambridge, UK: Cambridge University Press.
- Kirchler, E. (1997). The unequal equality: Social stereotypes about female and male entrepreneurs. *Revue Internationale de Psychologie Sociale, 10,* 63-77.
- Kirchler, E. (1999). Reactance to taxation: Employers attitudes towards taxes. *The Journal of Socio-Economics*, 28(2), 131–138.
- Kirchler, E. (2007). The economic psychology of tax behaviour. Cambridge: Cambridge University Press.
- Kirchler, E., Hoelzl, E., & Wahl, I. (2008). Enforced versus voluntary tax compliance: the "slippery slope" framework. *Journal of Economic Psychology*, 29(2), 210-225.
- Kirchler, E., & Maciejovsky, B. (2001). Tax compliance within the context of gain and loss situations, expected and current asset position, and profession. *Journal of Economic Psychology*, 22(2), 173-194.
- Kleven, H. J., Knudsen, M., Kreiner, C. T., Pedersen, S. L., & Saez, E. (2011). Unwilling or Unable to Cheat? Evidence from a Tax Audit Experiment in Denmark. *Econometrica*, 79(3), 651-692.
- Lederman, L. (forthcoming). Does Enforcement Crowd Out Voluntary Tax Compliance? B.Y.U. Law Review.
- Lewis, A. (1979). An empirical assessment of tax mentality. Public Finance, 34(2), 245-257.
- McCaffery, E. J., & Baron, J. (2004). Framing and taxation: Evaluation of the tax policies involving household composition. *Journal of Economic Psychology*, 25(6), 679-705.

- Mittone, L., Panebianco, F., & Santoro, A. (2017). The bomb-crater effect of tax audits: Beyond the misperception of chance. *Journal of Economic Psychology, 61,* 252-243.
- Olsen, J., Kasper, M., Kogler, C., Muehlbacher, S., & Kirchler, E. (2018). Mental accounting of income tax and value added tax among self-employed business owners. *Journal of Economic Psychology*. https://doi.org/10.1016/j.joep.2018.12.007
- Prinz, A. (2004). Steuermoral und Religiösität in Ost- und Westdeutschland. Schmollers Jahrbuch, Zeitschrift für Wirtschafts- und Sozialwissenschaften, 124, 511-537.
- Rand, D. G., Greene, J. D., & Nowak, M. A. (2012). Spontaneous giving and calculated greed. *Nature*, 489, 427-430.
- Roberts, M. L., Hite, P.A., & Bradley, C. F. (1994). Understanding attitudes towards progressive taxation. *Public Opinion Quaterly*, 58(2), 165-190.
- Slemrod, J., Blumenthal, M., & Christian, C. (2001). Taxpayer response to an increased probability of audit: Evidence from a controlled experiment in Minnesota. *Journal of Public Economics*, 79(3), 455-483.
- Sussman, A. B., & Olivola, C. Y. (2011) Axe the Tax: Taxes Are Disliked More than Equivalent Costs. *Journal of Marketing Research, 48*, 91-101.
- Terry, D. J., & Hogg, M. A. (1996). Group norms and the attitude-behavior relationship: A role for group identification. *Personality and Social Psychology Bulletin*, 22, 776-793.
- Torgler, B. (2005). Tax morale and direct democracy. *European Journal of Political Economy*, 21(2), 525–531.
- Tyler, T. R. (2006). Psychological perspectives on legitimacy and legitimation. *Annual Review of Psychology*, *57*, 375-400.
- Tyler, T.R., Goff, P., & MacCoun, R. (2015). The impact of psychological science on policing in the United States: Procedural justice, legitimacy, and effective law enforcement. *Psychological Science in the Public Interest*, 16(3), 75-109.
- Wahlund, R. (1992). Tax changes and economic behavior. The case of tax evasion. *Journal of Economic Psychology*, 13(4), 657-677.
- Welch, M. R., Xu, Y., Bjarnason, T., Petee, T., O'Donnell, P., & Magro, P. (2005). "But Everybody Does It".": The Effects of Perceptions, Moral Pressures, and Informal Sanctions on Tax Cheating. *Sociological Spectrum*, 25(1), 21-52.
- Wenzel, M. (2005). Motivation or rationalisation? Causal relations between ethics, norms and tax compliance. *Journal of Economic Psychology*, 26, 491-508.
- Wenzel, M. (2007). The multiplicity of taxpayer identities and their implications for tax ethics. *Law and Policy*, 29(1), 31-50.
- Wilson, J. L. F., & Sheffrin, S. (2005). Understanding surveys of taxpayer honesty. *Finanzarchiv*, 61(2), 256-274.

APPENDIX A: SURVEY INSTRUMENT

Programming Notes:

All names on the sample list qualify for the survey in one of three groups. Group is indicated in sample and used for skipping throughout:

- Wage Earners (WE)
- ID Theft (ID)
- Audit Experience (AE)

All questions below have two numbers in two columns. For programming, use the numbers in the left column.

[1] Introduction [ALL RESPONDENTS]]

INTRO1:

Hello, may I speak with [INSERT NAME FROM LIST]?

NOTE: YOU MUST SPEAK WITH THE RESPONDENT LISTED ONLY

NOTE: IF CORRECT RESPONDENT IS NOT AVAILABLE - SCHEDULE CALLBACK

INTRO2:

Hello.

My name is [...]. I am from the [name of company]. We are conducting a survey on how people perceive the tax system and the Internal Revenue Service (IRS). You have been randomly selected from qualified individuals to take part in this survey. This survey might take up to 20 minutes and is part of a research project, conducted by the Taxpayer Advocate Service, which aims to improve the understanding of taxpayer attitudes, perceptions, and behaviors.

The questions are about your views and experiences when dealing with taxes and the IRS, rather than about your specific, personal data. All of your answers are completely anonymous; they will be compiled and added to other responses. We will summarize the findings and share the results with Congress.

Thank you for agreeing to take part in this survey!

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Unless otherwise noted, please indicate your responses on a scale from 1 to 9. I will define the low and high points of the scale for each group of questions.

[2] Attitudes (A) [ALL RESPONDENTS]

I am now going to ask you a few questions on taxation and the government.

To what extent do you agree or disagree with the following statements on a scale from (1) I do not agree at all to (9) I agree completely? How about...

Ido not ag	ree at all (1)	 I agree 	completely (9)

			1	2	3	4	5	6	7	8	9
1	TS1	Taxes help to ensure that the government operates smoothly.	0	0	0	0	0	0	0	0	0
2	TS2	Taxes fund important federal government benefits and services.	0	0	0	0	0	0	0	0	0
3	TS3	Taxes fund important state government benefits and services.	0	0	0	0	0	0	0	0	0
4	GE1	The federal government spends tax dollars wisely.	0	0	0	0	0	0	0	0	0
5	GE2	The state government spends tax dollars wisely.	0	0	0	0	0	0	0	0	0
6	GE3	The federal government is involved in areas best left to the private sector.	0	0	0	0	0	0	0	0	0
7	GE4	The state government is involved in areas best left to the private sector.	0	0	0	0	0	0	0	0	0

I would now like to ask you a few questions on your personal values.

To what extent do you agree or disagree with the following statements on a scale from (1) I do not agree at all to (9) I agree completely?

I do not agree at all (1) - I agree completely (9)

			1	2	3	4	5	6	7	8	9
8	PA1	Every person is responsible for his or her own success.	0	0	0	0	0	0	0	0	0
9	PA2	The government is responsible to support the poor.	0	0	0	0	0	0	0	0	0
10	NI1	Being a member of the American community is important to me.	0	0	0	0	0	0	0	0	0
11	NI2	Being a member of my local community is important to me.	0	0	0	0	0	0	0	0	0
12	RA1	Religion is important for society.	0	0	0	0	0	0	0	0	0
13	RA2	Traditional values are important to me.	0	0	0	0	0	0	0	0	0

[3] Tax knowledge (TK) [ASK EVERYONE Q14]

14	Who usually prepares your tax returns?	, , ,	O Professional tax preparer	, ,	
		(continue to Q15)	(2) (skip to Q18)	(skip to Q18)	

[PROGRAMMING INSTRUCTION: If the answer is "2 Professional tax preparer", or "3 Someone else", please skip to Q18 (TK4).]

[SELF PREPARED [ONLY ASK Q15-Q17 IF Q14=1]]

When you think about filing your last tax return, to what extent do you agree or disagree with the following statements on a scale from (1) I do not agree at all to (9) I agree completely?

I do not agree at all (1) - I agree completely (9)

			1	2	3	4	5	6	7	8	9
15	TK1	I had a good understanding of what was expected from me when I filed my tax return.	0	0	0	0	0	0	0	0	0
16	TK2	I felt competent when doing my taxes.	0	0	0	0	0	0	0	0	0
17	TK3	I was confident that the deductions and credits I claimed were correct.	0	0	0	0	0	0	0	0	0

[IF Q14=1, SKIP to Q21]

[SOMEONE ELSE PREPARED [ONLY ASK IF Q14=2 or 3]]

Suppose you had to prepare your next tax return yourself.

To what extent do you agree or disagree with the following questions on a scale from (1) I do not agree at all to (9) I agree completely?

			1	2	3	4	5	6	7	8	9
18	TK4	If you were to prepare your federal tax return, do you think you would have a good understanding of what would be expected from you?	0	0	0	0	0	0	0	0	0
19	TK5	Do you think you would feel competent preparing your own taxes?	0	0	0	0	0	0	0	0	0
20	TK6	Do you think that you would know which deductions and credits you are entitled to?	0	0	0	0	0	0	0	0	0

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[4] Audit experience (AE) and ID theft (ID) [ONLY ASK IF SAMPLE SAYS AUDIT (AE) or ID THEFT (ID); ELSE (WE) SKIP TO Q21W]]

[EVERYONE EXCEPT WAGE EARNERS]

I would now like to ask you a few questions on how you perceive the IRS and what kind of experiences you have had with the IRS.

21	AE1	In the past six years, have you had any cont IRS?	act with the	O Yes	O No (skip to Q24)	O Not sure (skip to Q24)
22	AE2	[ONLY ASK IF Q21=YES] What was the reason for the contact? [READ RESPONSES]		O Audit	O Other (please spe [DO NOT READ: If reason including a not "Other"] — (sk	more than one audit, select "Audit"
23	AE3	[ONLY ASK IF Q22=Audit] What was the result of the audit? [READ RESPONSES]	DNR- Did not have an audit	O owe more tax	O no change in tax	O owed less tax
24	ID1	In the past three years, has someone else u your ID to claim a tax refund, or has the IRS you to validate your legitimate refund claim	contacted	O Yes	O No	O Not sure

[SKIP TO Q25A IF (SAMPLE=AUDIT) AND (Q21=YES) AND (Q22=Audit) AND (Q23 NOT EQUAL to "Did not have audit")] [SKIP TO Q25AF IF (SAMPLE=AUDIT) AND ((Q21=No or Not Sure) OR (Q22=Other) OR (Q23=Did not have an audit)] [SKIP TO Q25I IF (SAMPLE= ID THEFT) AND (Q24=Yes)]

[SKIP TO Q25IF IF (SAMPLE=ID THEFT) AND (Q24=No or Not Sure)]

[WAGE EARNERS [ONLY ASK IF SAMPLE=WAGE EARNERS; ELSE SKIP ACCORDING TO INSTRUCTION ABOVE]

READ: I would now like to ask you a few questions on how you perceive the IRS and what kind of experiences you have had with the IRS

21W	AE1	In the past six years, have you had any cor IRS?	ntact with the	O Yes	O No (skip to Q24)	O Not sure (skip to Q24)
22W	AE2	What was the reason for the contact?		O Audit	O Other (please spe [DO NOT READ: If reason including a not "Other"] — (s.	more than one audit, select "Audit"
23W	AE3	What was the result of the audit?	DNR- Did not have an audit	O owe more tax	O no change in tax	O owed less tax
24W	ID1	In the past three years, has someone else used your ID to claim a tax refund, or has contacted you to validate your legitimate re	the IRS	O Yes	O No	O Not sure

[SKIP TO Q25A IF (SAMPLE=WAGE) AND (Q21W=Yes) AND (Q22W=Audit) AND (Q23W NOT EQUAL to "Did not have audit")] [SKIP TO Q25AF IF (SAMPLE=WAGE) AND ((Q21W=No or Not Sure) AND (Q24W=No or Not Sure) OR (Q23W=Did not have an audit)]

[SKIP TO Q25I IF (SAMPLE= WAGE) AND (Q24W=Yes)]

[SKIP TO Q25AF IF (SAMPLE=WAGE) AND (Q24W=No or Not Sure)]

[5] Justice perceptions (JP): Procedural justice (PJ), Informational justice (IJ), Interpersonal justice (IP), Distributive justice (DJ)]

[AUDIT]

[PROGRAMMING: Ask the following questions Q25A – Q36A (PJ1 through DJ3) only IF (SAMPLE=AUDIT) AND (Q22=Audit) OR IF (SAMPLE=WAGE) AND (Q22=Audit)]

READ: When you think about your most recent tax audit.

To what extent do you agree or disagree with the following statements on a scale from (1) I do not agree at all to (9) I agree completely.

		1	2	3	4	5	6	7	8	9
PJ1	The IRS procedures for handling my audit were free of bias.	0	0	0	0	0	0	0	0	0
PJ2	The IRS provided accurate information.	0	0	0	0	0	0	0	0	0
PJ3	The way my audit was conducted upheld ethical and moral standards.	0	0	0	0	0	0	0	0	0
IJ1	The IRS employees explained their procedures thoroughly.	0	0	0	0	0	0	0	0	0
IJ2	The IRS made it clear what was expected of me.	0	0	0	0	0	0	0	0	0
IJ3	The IRS employees were candid in their communications with me.	0	0	0	0	0	0	0	0	0
IP1	I was treated respectfully throughout the process.	0	0	0	0	0	0	0	0	0
IP2	I was given the opportunity to express my side.	0	0	0	0	0	0	0	0	0
IP3	The IRS employees showed a genuine interest in trying to be fair.	0	0	0	0	0	0	0	0	0
DJ1	The audit outcome was appropriate.	0	0	0	0	0	0	0	0	0
DJ2	The audit outcome reflected my previous tax behavior.	0	0	0	0	0	0	0	0	0
DJ3	The audit outcome was justified.	0	0	0	0	0	0	0	0	0
	PJ2 PJ3 IJ1 IJ2 IJ3 IP1 IP2 IP3 DJ1 DJ2	PJ2 The IRS provided accurate information. PJ3 The way my audit was conducted upheld ethical and moral standards. IJ1 The IRS employees explained their procedures thoroughly. IJ2 The IRS made it clear what was expected of me. IJ3 The IRS employees were candid in their communications with me. IP1 I was treated respectfully throughout the process. IP2 I was given the opportunity to express my side. IP3 The IRS employees showed a genuine interest in trying to be fair. DJ1 The audit outcome was appropriate. DJ2 The audit outcome reflected my previous tax behavior.	PJ1 The IRS procedures for handling my audit were free of bias. PJ2 The IRS provided accurate information. PJ3 The way my audit was conducted upheld ethical and moral standards. IJ1 The IRS employees explained their procedures thoroughly. IJ2 The IRS made it clear what was expected of me. IJ3 The IRS employees were candid in their communications with me. IP1 I was treated respectfully throughout the process. IP2 I was given the opportunity to express my side. IP3 The IRS employees showed a genuine interest in trying to be fair. DJ1 The audit outcome was appropriate. DJ2 The audit outcome reflected my previous tax behavior.	PJ1 The IRS procedures for handling my audit were free of bias. PJ2 The IRS provided accurate information. PJ3 The way my audit was conducted upheld ethical and moral standards. IJ1 The IRS employees explained their procedures thoroughly. IJ2 The IRS made it clear what was expected of me. IJ3 The IRS employees were candid in their communications with me. IP1 I was treated respectfully throughout the process. IP2 I was given the opportunity to express my side. IP3 The IRS employees showed a genuine interest in trying to be fair. DJ1 The audit outcome was appropriate. DJ2 The audit outcome reflected my previous tax behavior.	PJ1 The IRS procedures for handling my audit were free of bias. PJ2 The IRS provided accurate information. PJ3 The way my audit was conducted upheld ethical and moral standards. IJ1 The IRS employees explained their procedures thoroughly. IJ2 The IRS made it clear what was expected of me. IJ3 The IRS employees were candid in their communications with me. IP1 I was treated respectfully throughout the process. IP2 I was given the opportunity to express my side. IP3 The IRS employees showed a genuine interest in trying to be fair. DJ1 The audit outcome was appropriate. DJ2 The audit outcome reflected my previous tax behavior.	PJ1 The IRS procedures for handling my audit were free of bias. PJ2 The IRS provided accurate information. PJ3 The way my audit was conducted upheld ethical and moral standards. IJ1 The IRS employees explained their procedures thoroughly. IJ2 The IRS made it clear what was expected of me. IJ3 The IRS employees were candid in their communications with me. IP1 I was treated respectfully throughout the process. IP2 I was given the opportunity to express my side. IP3 The IRS employees showed a genuine interest in trying to be fair. DJ1 The audit outcome was appropriate. DJ2 The audit outcome reflected my previous tax behavior. O O O O O O O O O O O O O O O O O O O	PJ1 The IRS procedures for handling my audit were free of bias. PJ2 The IRS provided accurate information. PJ3 The way my audit was conducted upheld ethical and moral standards. D 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	PJ1 The IRS procedures for handling my audit were free of bias. O O O O O O O O O O O O O O O O O O O	PJ1 The IRS procedures for handling my audit were free of bias. OOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOO	PJ1 The IRS procedures for handling my audit were free of bias. O O O O O O O O O O O O O O O O O O O

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[AUDIT GROUP WHO DID NOT REMEMBER BEING AUDITED]

 $[PROGRAMMING: Ask\ the\ following\ questions\ Q25AF-Q36AF\ (PJ1\ through\ DJ3)\ only\ IF\ (SAMPLE=AUDIT)\ AND\ ((Q21=No\ or\ Not\ Sure)\ OR\ (Q22=Other))\ OR\ IF\ (SAMPLE=WAGE)\ AND\ (Q21=No\ or\ Not\ Sure)\ AND\ (Q24=No\ or\ Not\ Sure)\]$

READ: Suppose you were audited by the IRS.

Regardless of the end result of the audit, to what extent do you agree or disagree with the following statements on a scale from (1) I do not agree at all (9) I agree completely

		I think	1	2	3	4	5	6	7	8	9
25AF	PJ1	The IRS procedures for handling my audit would be free of bias.	0	0	0	0	0	0	0	0	0
26AF	PJ2	The IRS would provide accurate information.	0	0	0	0	0	0	0	0	0
27AF	PJ3	The way my audit would be conducted would uphold ethical and moral standards	0	0	0	0	0	0	0	0	0
28AF	IJ1	The IRS employees would explain their procedures thoroughly.	0	0	0	0	0	0	0	0	0
29AF	IJ2	The IRS would make it clear what was expected of me.	0	0	0	0	0	0	0	0	0
30AF	IJ3	The IRS employees would be candid in their communications with me.	0	0	0	0	0	0	0	0	0
31AF	IP1	I would be treated respectfully throughout the process.	0	0	0	0	0	0	0	0	0
32AF	IP2	I would be given the opportunity to express my side.	0	0	0	0	0	0	0	0	0
33AF	IP3	The IRS employees would show a genuine interest in trying to be fair.	0	0	0	0	0	0	0	0	0
34AF	DJ1	The audit outcome would be appropriate.	0	0	0	0	0	0	0	0	0
35AF	DJ2	The audit outcome would reflect my previous tax behavior.	0	0	0	0	0	0	0	0	0
36AF	DJ3	The audit outcome would be justified.	0	0	0	0	0	0	0	0	0

[IDENTITY THEFT]

 $[PROGRAMMING: Ask\ the\ following\ questions\ Q25I-Q36I\ (PJ1\ through\ DJ3)\ only\ IF\ (SAMPLE=\ ID\ THEFT)\ AND\ (Q24=Yes)\ OR\ IF\ (SAMPLE=\ WAGE)\ AND\ (Q22=Other)\ AND\ (Q24=Yes)]$

READ: When you think about your identity theft matter, to what extent do you agree or disagree with the following statements on a scale from (1) I do not agree at all to (9) I agree completely.

			r do not agree at an (±) r agree completely (., (-,		
			1	2	3	4	5	6	7	8	9
251	PJ1	The IRS procedures for handling my identity theft matter were free of bias.	0	0	0	0	0	0	0	0	0
261	PJ2	The IRS provided accurate information related to my identity theft matter.	0	0	0	0	0	0	0	0	0
271	PJ3	The way my identity theft matter was conducted upheld ethical and moral standards.	0	0	0	0	0	0	0	0	0
281	IJ1	The IRS employees thoroughly explained their procedures for dealing with my identity theft matter.	0	0	0	0	0	0	0	0	0
291	IJ2	The IRS made it clear what was expected of me.	0	0	0	0	0	0	0	0	0
301	IJ3	The IRS employees were candid in their communications with me.	0	0	0	0	0	0	0	0	0
311	IP1	I was treated respectfully throughout the process.	0	0	0	0	0	0	0	0	0
321	IP2	I was given the opportunity to express my side.	0	0	0	0	0	0	0	0	0
331	IP3	The IRS employees showed a genuine interest in trying to be fair.	0	0	0	0	0	0	0	0	0
341	DJ1	My identity theft matter outcome was appropriate.	0	0	0	0	0	0	0	0	0
351	DJ2	My identity theft matter outcome reflected my previous behavior.	0	0	0	0	0	0	0	0	0
361	DJ3	My identity theft matter outcome was justified.	0	0	0	0	0	0	0	0	0

[IDENTITY THEFT GROUP WHO DID NOT REMEMBER HAVING IDENTITY STOLEN]

[PROGRAMMING: Ask the following questions Q25IF - Q36IF (PJ1 through DJ3) only IF (SAMPLE=ID THEFT) AND (Q24=No or Not Sure)]

READ: Suppose the IRS would not give you the money it owes you because someone else unlawfully used your ID to claim a tax refund.

To what extent do you agree or disagree with the following questions on a scale from (1) I do not agree at all (9) I agree completely? I think...

I do not agree at all (1) - I agree completely (9)

			1	2	3	4	5	6	7	8	9
25IF	PJ1	The IRS procedures for handling my identity theft matter would be free of bias.	0	0	0	0	0	0	0	0	0
26IF	PJ2	The IRS would provide accurate information.	0	0	0	0	0	0	0	0	0
27IF	PJ3	The way my identity theft matter would be conducted would uphold ethical and moral standards.	0	0	0	0	0	0	0	0	0
28IF	IJ1	The IRS employees would explain their procedures thoroughly.	0	0	0	0	0	0	0	0	0
29IF	IJ2	The IRS would make it clear what was expected of me.	0	0	0	0	0	0	0	0	0
30IF	IJ3	The IRS employees would be candid in their communications with me.	0	0	0	0	0	0	0	0	0
31IF	IP1	I would be treated with respect throughout the process.	0	0	0	0	0	0	0	0	0
32IF	IP2	I would be given the opportunity to express my side.	0	0	0	0	0	0	0	0	0
33IF	IP3	The IRS employees would show a genuine interest in trying to be fair.	0	0	0	0	0	0	0	0	0
34IF	DJ1	The outcome of my identity theft matter would be appropriate.	0	0	0	0	0	0	0	0	0
35IF	DJ2	The outcome of this matter would reflect my previous behavior.	0	0	0	0	0	0	0	0	0
36IF	DJ3	The outcome of my identity theft matter would be justified.	0	0	0	0	0	0	0	0	0

[6] Deterrence factors (DF) [ASK EVERYONE]

READ: Please tell me your thoughts about statements concerning Federal Income Tax audits on a scale of 1 to 9 with 1 being extremely unlikely and 9 being extremely likely. When you think about tax audits...

Extremely unlikely (1) - Extremely likely (9)

			1	2	3	4	5	6	7	8	9
37	DF1	how likely is it that an average self-employed taxpayer is audited in 2017?	0	0	0	0	0	0	0	0	0
38	DF2	how likely is it that you are going to be audited in 2017?	0	0	0	0	0	0	0	0	0
39	DF3	how likely is it that the IRS actually detects cheating in an audit?	0	0	0	0	0	0	0	0	0

READ: Now, please use a scale of 1 to 9 with 1 being not severe at all and 9 being very severe.

Not severe at all (1) - Very severe (9)

			1	2	3	4	5	6	7	8	9
40	DF4	When you think about tax audits, how severe are the penalties for underreporting?	0	0	0	0	0	0	0	0	0

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[7] Perceived compliance (PC) [ASK EVERYONE]

READ: Please think about the attitude of other taxpayers towards paying taxes.

To what extent do you agree or disagree with the following statements about other taxpayers on a scale from (1) I do not agree at all to (9) I agree completely?

I do not agree at all (1) - I agree completely (9)

			1	2	3	4	5	6	7	8	9
41	PC1	Most taxpayers pay all of the taxes that they are supposed to pay.	0	0	0	0	0	0	0	0	0
42	PC2	Most taxpayers think that they should honestly declare cash earnings on their tax return.	0	0	0	0	0	0	0	0	0
43	PC3	Most taxpayers think that it is ok to overstate tax deductions on their tax return.	0	0	0	0	0	0	0	0	0

READ: Now please use a scale from (1) I have never thought about cheating to (9) I always think about cheating...

I do not agree at all (1) - I agree completely (9)

			1	2	3	4	5	6	7	8	9
44	PC4	How often have you yourself thought about cheating on your tax returns?	0	0	0	0	0	0	0	0	0

[8] Coercive power (CP) [ASK EVERYONE]

READ: Please tell me now to what extent do you agree or disagree with the following statements, which concern the IRS in general.

Again, the scale ranges from (1) I do not agree at all to (9) I agree completely. In my opinion...

I do not agree at all (1) $\,$ – I agree completely (9)

			1	2	3	4	5	6	7	8	9
45	CP1	the IRS enforces compliance with the tax laws	0	0	0	0	0	0	0	0	0
46	CP2	the IRS has no sympathy for taxpayers.	0	0	0	0	0	0	0	0	0
47	CP3	the IRS pursues taxpayers.	0	0	0	0	0	0	0	0	0

[9] Legitimate power (LP) [ASK EVERYONE—CONTINUE FROM PREVIOUS GRID]

			1	2	3	4	5	6	7	8	9
48	LP1	the IRS operates professionally.	0	0	0	0	0	0	0	0	0
49	LP2	IRS employees are experts in their job.	0	0	0	0	0	0	0	0	0
50	LP3	the IRS has the right to collect taxes.	0	0	0	0	0	0	0	0	0

[10] Trust (T) [ASK EVERYONE—CONTINUE FROM PREVIOUS GRID]

			1	2	3	4	5	6	7	8	9
51	T1	the IRS is trustworthy.	0	0	0	0	0	0	0	0	0
52	T2	the IRS is cooperative.	0	0	0	0	0	0	0	0	0
53	T3	the IRS has good intentions.	0	0	0	0	0	0	0	0	0
54	T4	IRS employees act in my best interest.	0	0	0	0	0	0	0	0	0
55	T5	the IRS does not try to fool taxpayers.	0	0	0	0	0	0	0	0	0
56	T6	the IRS acts on behalf of the American citizens.	0	0	0	0	0	0	0	0	0
57	Т7	the IRS will work with you if you have difficulty paying your taxes.	0	0	0	0	0	0	0	0	0
58	Т8	the IRS is more concerned with collecting as much as it can, than with collecting the correct amount of tax.	0	0	0	0	0	0	0	0	0

[11] Enforced compliance (EC) and voluntary compliance (VC) [ASK EVERYONE]

READ: I would now like to ask you to what extent do you agree or disagree with the following statements on a scale from (1) I do not agree at all to (9) I agree completely.

When you pay your taxes, you do so...

I do not agree at all (1) - I agree completely (9)

			1	2	3	4	5	6	7	8	9
59	EC1	because you are afraid of punishment.	0	0	0	0	0	0	0	0	0
60	VC1	to support your country and your fellow citizens.	0	0	0	0	0	0	0	0	0
61	EC2	because of the risk of being audited.	0	0	0	0	0	0	0	0	0
62	VC2	because for you it is the right thing to do.	0	0	0	0	0	0	0	0	0
63	EC3	because the IRS would detect any misreporting.	0	0	0	0	0	0	0	0	0
64	VC3	because you regard it as your civic duty.	0	0	0	0	0	0	0	0	0

[12] Motivations to comply (M) [ASK EVERYONE]

READ: When you pay your taxes, do you ...

Completely forced to do so (1) - Completely voluntary (9)

			1	2	3	4	5	6	7	8	9
65	M1	feel that something is taken away from you or that you contribute to society? Please use a scale from (1) definitely taken away from me to (9) definitely contributing to society.	0	0	0	0	0	0	0	0	0

We are almost done with the survey.

Improving Notices

[13] Emotions [ASK EVERYONE]

READ: The following statements address your feelings towards the IRS.

The answering scale ranges from (1) not at all to (9) very strongly.

When you think about the IRS, to what extent do you feel...

Not at all (1) - Very strongly (9)

			1	2	3	4	5	6	7	8	9
66	E1	anxious. [Repeat scale]	0	0	0	0	0	0	0	0	0
67	E2	desperate.	0	0	0	0	0	0	0	0	0
68	E3	nervous.	0	0	0	0	0	0	0	0	0
69	E4	frustrated.	0	0	0	0	0	0	0	0	0
70	E5	angry.	0	0	0	0	0	0	0	0	0
71	E6	cautious.	0	0	0	0	0	0	0	0	0
72	E7	hunted.	0	0	0	0	0	0	0	0	0
73	E8	threatened.	0	0	0	0	0	0	0	0	0
74	E9	protected.	0	0	0	0	0	0	0	0	0
75	E10	secure.	0	0	0	0	0	0	0	0	0

[14] Demographics

Finally, I have a few questions about you.

76	D1	For classification purposes only, are you male or female?	O Male	O Female	O [DNR] Other	O Not sure/refus	ed
			I				
77	D2	How old are you?	Years [En	iter number o	r RF for Refused]		

[ONLY ASK Q78 If unwilling to indicate age in Q77, use the question reading the age ranges below:]

78. D2a: Which of the following categories includes your age?

Are you ...

 1
 Under 18
 7
 60 to 64 years

 2
 18 to 24 years
 8
 65 to 74 years

 3
 25 to 34 years
 9
 75 to 84 years

 4
 35 to 44 years
 10
 85 years and over

 5
 45 to 54 years
 11
 DO NOT READ Not sure/Refused

 6
 55 to 59 years

79. D3: What is the highest level of education you have completed?

(DO NOT READ LIST - SELECT ONE ANSWER.)

Elementary school
 Some high school
 High school graduate
 Some college
 College graduate
 Post-Graduate work
 Vocational school
 DO NOT READ Not sure/Refused

80. D4: Please indicate your employment status - select all that apply

(if not working, go to Q81b)

- 1 Working part-time
- 2 Working full-time
- 3 Not working (skip to Q81b)

81a. D4a: You indicated you are currently working, are you

- 1 ... employed by someone else
- 2 ... self-employed
- 3 ... both

81b. D4b: You indicated you are not currently working, are you

- 1 ... on temporary layoff from a job
- 2 ... looking for work
- 3 ... retired
- 4 ... disabled
- 5 ... other

One last item, since this research is performed for a government agency we are required to obtain approval to gather information from you. The Office of Management and Budget approved this research effort. If you would like, I can read the requirement and approval number to you.

Note: If they want the information read to them read the box below.

The Paperwork Reduction Act requires that the IRS display an OMB Control Number on all public information requests. The OMB Number for this study is 1545-1432. Also, if you have any comments regarding the time estimates associated with this study or suggestions on making this process simpler, please write to the, Internal Revenue Service, Special Services Section, SE:W:CAR:MP:T:M:SP, 1111 Constitution Ave. NW, Washington, DC 20224.

Appendix B: MANCOVA Results

TABLE B1, Estimated Means, Standard Errors, and Univariate F-statistics for Model 1*

	Audit exp	erience	
Variable	Audited	Not audited	F-statistic
Audit probability	4.35 (0.05)	3.90 (0.05)	$F(1, 2598) = 38.48, p < .001, \eta_p^2 = .02$
Detection probability	5.69 (0.07)	5.70 (0.07)	$F(1, 2598) = 0.01, p = .922, \eta_p^2 = .00$
Fines	6.57 (0.06)	6.75 (0.06)	$F(1, 2598) = 4.66, p = .031, \eta_p^2 = .00$
Tax knowledge	5.18 (0.08)	5.44 (0.08)	$F(1, 2598) = 5.42, p = .020, \eta_p^2 = .00$
Attitudes	6.14 (0.06)	6.29 (0.06)	$F(1, 2598) = 2.69, p = .101, \eta_p^2 = .00$
Motivation	6.21 (0.07)	6.67 (0.07)	$F(1, 2598) = 21.33, p < .001, \eta_p^2 = .01$
Procedural justice	6.17 (0.07)	5.76 (0.07)	$F(1, 2598) = 16.60, p < .001, \eta_p^2 = .01$
Informational justice	6.41 (0.07)	6.09 (0.07)	$F(1, 2598) = 10.68, p = .001, \eta_p^2 = .00$
Interpersonal justice	6.60 (0.07)	6.13 (0.07)	$F(1, 2598) = 23.53, p < .001, \eta_p^2 = .01$
Distributive justice	6.38 (0.07)	5.88 (0.07)	$F(1, 2598) = 26.89, p < .001, \eta_p^2 = .01$
Social norms	5.28 (0.06)	5.39 (0.06)	$F(1, 2598) = 1.50, p = .221, \eta_p^2 = .00$
Coercive power	6.36 (0.06)	6.04 (0.06)	$F(1, 2598) = 14.67, p < .001, \eta_p^2 = .01$
Legitimate power	6.33 (0.05)	6.47 (0.05)	$F(1, 2598) = 3.35, p = .067, \eta_p^2 = .00$
Trust	5.25 (0.06)	5.54 (0.06)	$F(1, 2598) = 11.91, p < .001, \eta_p^2 = .01$
Fear	3.96 (0.06)	3.43 (0.06)	$F(1, 2598) = 33.87, p < .001, \eta_p^2 = .01$
Anger	4.71 (0.08)	3.95 (0.08)	$F(1, 2598) = 50.21, p < .001, \eta_p^2 = .02$
Caution	5.55 (0.08)	5.13 (0.08)	$F(1, 2598) = 13.71, p < .001, \eta_p^2 = .01$
Threat	3.13 (0.07)	2.56 (0.07)	$F(1, 2598) = 37.48, p < .001, \eta_p^2 = .01$
Protection	3.75 (0.07)	4.07 (0.07)	$F(1, 2598) = 11.10, p < .001, \eta_p^2 = .00$
Enforced compliance	4.90 (0.07)	4.96 (0.07)	$F(1, 2598) = 0.38, p = .539, \eta_p^2 = .00$
Voluntary compliance	7.73 (0.05)	7.95 (0.05)	$F(1, 2598) = 11.62, p < .001, \eta_p^2 = .00$
Thoughts about cheating	2.05 (0.05)	1.98 (0.05)	$F(1, 2598) = 0.85, p = .356, \eta_0^2 = .00$

^{*}F-statistics relate to the main effect of audit experience on the respective variable. The model covariates include age = 57.12 $[F(22, 2577) = 9.60, p < .001, \eta_p^2 = .08]$, and gender = 1.39 (1=male, 2=female) $[F(22, 2577) = 4.76, p < .001, \eta_p^2 = .04]$.

TABLE B2, Estimated means, standard errors, and univariate F-statistics for Model 2*

	Audit experience						
	Audited			Not audited	!	•	
Variable	Field audit	Office audit	Correspondence audit	Field audit	Office audit	Correspondence audit	F-statistic
							$F(1, 2594) = 38.36, p < .001, \eta_p^2 = .02$
Audit probability	4.28 (0.09)	4.45 (0.09)	4.32 (0.09)	3.87 (0.09)	3.93 (0.09)	3.89 (0.09)	$F(2, 2594) = 0.84$, p = .434, $\eta_p^2 = .00$
probability							$F(2, 2594) = 0.23, p = .797, \eta_p^2 = .00$
							$F(1, 2594) = 0.01, p = .927, \eta_p^2 = .00$
Detection probability	5.80 (0.12)	5.63 (0.12)	5.64 (0.12)	5.82 (0.12)	5.60 (0.12)	5.68 (0.12)	$F(2, 2594) = 1.52, p = .220, \eta_p^2 = .00$
probability							$F(2, 2594) = 0.04$, p = .958, $\eta_p^2 = .00$
							$F(1, 2594) = 4.69, p = .030, \eta_p^2 = .00$
Fines	6.49 (0.10)	6.65 (0.10)	6.58 (0.10)	6.75 (0.10)	6.95 (0.10)	6.55 (0.10)	$F(2, 2594) = 2.87, p = .057, \eta_p^2 = .00$
							$F(2, 2594) = 1.58, p = .206, \eta_p^2 = .00$
							$F(1, 2594) = 5.64, p = .018, \eta_p^2 = .00$
Tax knowledge	4.74 (0.14)	5.38 (0.14)	5.40 (0.14)	5.31 (0.14)	5.45 (0.14)	5.55 (0.14)	$F(2, 2594) = 6.16$, p = .002, $\eta_p^2 = .01$
Miowicugo							$F(2, 2594) = 1.94, p = .145, \eta_p^2 = .00$
	5.94 (0.11)	6.21 (0.11)	6.26 (0.11)	6.27 (0.11)	6.34 (0.11)	6.25 (0.11)	$F(1, 2594) = 2.77, p = .096, \eta_p^2 = .00$
Attitudes							$F(2, 2594) = 1.36$, p = .256, $\eta_p^2 = .00$
							$F(2, 2594) = 1.22, p = .295, \eta_p^2 = .00$
	6.13 (0.12)	6.25 (0.12)	6.25 (0.12)	6.73 (0.12)	6.53 (0.12)	6.74 (0.12)	$F(1, 2594) = 21.46, p < .001, \eta_p^2 = .01$
Motivation							$F(2, 2594) = 0.40, p = .672, \eta_p^2 = .00$
							$F(2, 2594) = 0.86, p = .425, \eta_p^2 = .00$
							$F(1, 2594) = 16.94, p < .001, \eta_p^2 = .01$
Procedural justice	6.33 (0.12)	6.40 (0.12)	5.77 (0.12)	5.69 (0.12)	5.74 (0.12)	5.85 (0.12)	$F(2, 2594) = 2.35, p = .095, \eta_p^2 = .00$
juotioo							$F(2, 2594) = 6.06$, p = .002, $\eta_p^2 = .01$
			5.70 (0.12) 5.94 (0.12)	6.07 (0.12)			$F(1, 2594) = 10.99, p < .001, \eta_p^2 = .00$
Informational justice	6.60 (0.12)	6.70 (0.12)			6.03 (0.12)	6.18 (0.12)	$F(2, 2594) = 3.81, p = .022, \eta_p^2 = .00$
justice							$F(2, 2594) = 8.66, p < .001, \eta_p^2 = .01$
			12) 6.02 (0.12)				$F(1, 2594) = 24.29, p < .001, \eta_p^2 = .01$
Interpersonal justice	6.83 (0.12)	6.95 (0.12)		6.12 (0.12)	5.99 (0.12)	6.29 (0.12)	$F(2, 2594) = 4.85, p = .008, \eta_p^2 = .00$
justice							$F(2, 2594) = 15.90, p < .001, \eta_p^2 = .01$
			5.81 (0.12)				$F(1, 2594) = 27.80, p < .001, \eta_p^2 = .01$
Distributive justice	6.71 (0.12)	2) 6.64 (0.12)		5.84 (0.12)	5.88 (0.12)	5.92 (0.12)	$F(2, 2594) = 7.39, p < .001, \eta_p^2 = .01$
justice							$F(2, 2594) = 10.42, p < .001, \eta_p^2 = .01$
							$F(1, 2594) = 1.49, p = .223, \eta_p^2 = .00$
Social norms	5.35 (0.11)	5 (0.11) 5.15 (0.11)	5.35 (0.11)	5.44 (0.11)	5.43 (0.11)	5.30 (0.11)	$F(2, 2594) = 0.53, p = .586, \eta_p^2 = .00$
							$F(2, 2594) = 1.30, p = .273, \eta_p^2 = .00$

^{*}For each of the survey scales, the first F-statistic relates to the main effect of audit experience, the second to the main effect of audit type, and the third one to the interaction between these two variables. The covariates include age = 57.12 [F(22, 2573) = 9.25, p < .001, η_p^2 = .07] and gender = 1.39 (1=male, 2=female) [F(22, 2573) = 4.51, p < .001, η_p^2 = .04].

	Audited			Not audited	i	
Field audit	Office audit	Correspondence audit	Field audit	Office audit	Correspondence audit	F-statistic
						$F(1, 2594) = 14.73, p < .001, \eta_p^2 = .01$
6.41 (0.10)	6.36 (0.10)	6.31 (0.10)	6.05 (0.11)	6.11 (0.10)	5.95 (0.10)	$F(2, 2594) = 0.69, p = .504, \eta_p^2 = .00$
						$F(2, 2594) = 0.19, p = .830, \eta_p^2 = .00$
						$F(1, 2594) = 3.37, p = .066, \eta_p^2 = .00$
6.24 (0.09)	6.46 (0.09)	6.29 (0.09)	6.42 (0.09)	6.49 (0.09)	6.49 (0.09)	$F(2, 2594) = 1.24, p = .291, \eta_p^2 = .00$
						$F(2, 2594) = 0.45, p = .636, \eta_p^2 = .00$
						$F(1, 2594) = 11.98, p < .001, \eta_p^2 = .01$
5.16 (0.10)	5.31 (0.10)	5.27 (0.10)	5.53 (0.10)	5.50 (0.10)	5.60 (0.10)	$F(2, 2594) = 0.40, p = .670, \eta_{\rm p}^2 = .00$
						$F(2, 2594) = 0.42, p = .658, \eta_0^2 = .00$
						$F(1, 2594) = 33.75, p < .001, \eta_p^2 = .01$
3.82 (0.11)	4.16 (0.11)	3.90 (0.11)	3.42 (0.11)	3.49 (0.11)	3.39 (0.11)	$F(2, 2594) = 2.06, p = .127, \eta_p^2 = .00$
						$F(2, 2594) = 0.80, p = .449, \eta_p^2 = .00$
4.64 (0.13)	4.85 (0.13)		4.01 (0.13)	4.00 (0.13)	3.83 (0.13)	$F(1, 2594) = 50.11, p < .001, \eta_p^2 = .02$
		4.62 (0.13)				$F(2, 2594) = 1.13, p = .323, \eta_p^2 = .00$
						$F(2, 2594) = 0.38, p = .686, \eta_p^2 = .00$
5.22 (0.14)		5.79 (0.14)	5.12 (0.14)	5.06 (0.14)	5.22 (0.14)	$F(1, 2594) = 13.46, p < .001, \eta_0^2 = .02$
	5.62 (0.14)					$F(2, 2594) = 2.82, p = .060, \eta_{\rm p}^2 = .00$
						$F(2, 2594) = 1.87, p = .154, \eta_p^2 = .00$
						$F(1, 2594) = 37.35, p < .001, \eta_0^2 = .02$
3.04 (0.12)	3.31 (0.11)	3.03 (0.11)	2.64 (0.12)	2.56 (0.12)	2.47 (0.12)	$F(2, 2594) = 1.31, p = .271, \eta_0^2 = .00$
						$F(2, 2594) = 1.14, p = .321, \eta_0^2 = .00$
						$F(1, 2594) = 11.33, p < .001, \eta_p^2 = .00$
3.62 (0.12)	3.57 (0.12)	4.05 (0.12)	3.90 (0.12)	3.85 (0.12)	4.45 (0.12)	$F(2, 2594) = 12.82, p < .001, \eta_0^2 = .01$
,		. ,	,			$F(2, 2594) = 0.17, p = .841, \eta_0^2 = .00$
						$F(1, 2594) = 0.41, p = .520, \eta_0^2 = .00$
4.73 (0.13)	4.77 (0.13)	5.20 (0.13)	4.94 (0.13)	4.81 (0.13)	5.15 (0.13)	$F(2, 2594) = 5.40, p = .005, \eta_0^2 = .00$
		(0.20)				$F(2, 2594) = 0.53, p = .587, \eta_0^2 = .00$
						$F(1, 2594) = 11.68, p < .001, \eta_0^2 = .00$
7.72 (0.08)	7.73 (0.08)	7.73 (0.08)	8.01 (0.08)	7.83 (0.08)	8.01 (0.08)	$F(2, 2594) = 0.74, p = .480, \eta_p^2 = .00$
, ,	. ,	. ,	, ,	. ,	. ,	$F(2, 2594) = 0.86, p = .425, \eta_0^2 = .00$
						$F(1, 2594) = 0.87, p = .353, \eta_0^2 = .00$
2.06 (0.09)	2.13 (0.09)	1.94 (0.09)	1.99 (0.09)	2.02 (0.09)	1.92 (0.09)	$F(2, 2594) = 1.28, p = .277, \eta_p^2 = .00$
2.00 (0.09)	(0.00) 2.10 (0.00)	1.57 (0.05) 1.55 (0.05)	2.02 (0.00) 1.02 (0.	()	, , , ,	
	6.41 (0.10) 6.24 (0.09) 5.16 (0.10) 3.82 (0.11) 4.64 (0.13) 5.22 (0.14) 3.04 (0.12) 4.73 (0.13) 7.72 (0.08)	Field audit Office audit 6.41 (0.10) 6.36 (0.10) 6.24 (0.09) 6.46 (0.09) 5.16 (0.10) 5.31 (0.10) 3.82 (0.11) 4.16 (0.11) 4.64 (0.13) 4.85 (0.13) 5.22 (0.14) 5.62 (0.14) 3.04 (0.12) 3.31 (0.11) 4.73 (0.13) 4.77 (0.13) 7.72 (0.08) 7.73 (0.08)	Field audit Office audit Correspondence audit 6.41 (0.10) 6.36 (0.10) 6.31 (0.10) 6.24 (0.09) 6.46 (0.09) 6.29 (0.09) 5.16 (0.10) 5.31 (0.10) 5.27 (0.10) 3.82 (0.11) 4.16 (0.11) 3.90 (0.11) 4.64 (0.13) 4.85 (0.13) 4.62 (0.13) 5.22 (0.14) 5.62 (0.14) 5.79 (0.14) 3.04 (0.12) 3.31 (0.11) 3.03 (0.11) 3.62 (0.12) 3.57 (0.12) 4.05 (0.12) 4.73 (0.13) 4.77 (0.13) 5.20 (0.13) 7.72 (0.08) 7.73 (0.08) 7.73 (0.08)	Field audit Office audit audit Correspondence audit Field audit 6.41 (0.10) 6.36 (0.10) 6.31 (0.10) 6.05 (0.11) 6.24 (0.09) 6.46 (0.09) 6.29 (0.09) 6.42 (0.09) 5.16 (0.10) 5.31 (0.10) 5.27 (0.10) 5.53 (0.10) 3.82 (0.11) 4.16 (0.11) 3.90 (0.11) 3.42 (0.11) 4.64 (0.13) 4.85 (0.13) 4.62 (0.13) 4.01 (0.13) 5.22 (0.14) 5.62 (0.14) 5.79 (0.14) 5.12 (0.14) 3.04 (0.12) 3.31 (0.11) 3.03 (0.11) 2.64 (0.12) 4.73 (0.13) 4.77 (0.13) 5.20 (0.13) 4.94 (0.13) 7.72 (0.08) 7.73 (0.08) 7.73 (0.08) 8.01 (0.08)	Field audit Office audit Correspondence audit Field audit Office audit 6.41 (0.10) 6.36 (0.10) 6.31 (0.10) 6.05 (0.11) 6.11 (0.10) 6.24 (0.09) 6.46 (0.09) 6.29 (0.09) 6.42 (0.09) 6.49 (0.09) 5.16 (0.10) 5.31 (0.10) 5.27 (0.10) 5.53 (0.10) 5.50 (0.10) 3.82 (0.11) 4.16 (0.11) 3.90 (0.11) 3.42 (0.11) 3.49 (0.11) 4.64 (0.13) 4.85 (0.13) 4.62 (0.13) 4.01 (0.13) 4.00 (0.13) 5.22 (0.14) 5.62 (0.14) 5.79 (0.14) 5.12 (0.14) 5.06 (0.14) 3.04 (0.12) 3.31 (0.11) 3.03 (0.11) 2.64 (0.12) 2.56 (0.12) 4.73 (0.13) 4.77 (0.13) 5.20 (0.13) 4.94 (0.13) 4.81 (0.13) 7.72 (0.08) 7.73 (0.08) 7.73 (0.08) 8.01 (0.08) 7.83 (0.08)	Field audit Correspondence audit Field audit Not audited Correspondence audit 6.41 (0.10) 6.36 (0.10) 6.31 (0.10) 6.05 (0.11) 6.11 (0.10) 5.95 (0.10) 6.24 (0.09) 6.46 (0.09) 6.29 (0.09) 6.42 (0.09) 6.49 (0.09) 6.49 (0.09) 5.16 (0.10) 5.31 (0.10) 5.27 (0.10) 5.53 (0.10) 5.50 (0.10) 5.60 (0.10) 3.82 (0.11) 4.16 (0.11) 3.90 (0.11) 3.42 (0.11) 3.49 (0.11) 3.39 (0.11) 4.64 (0.13) 4.85 (0.13) 4.62 (0.13) 4.01 (0.13) 4.00 (0.13) 3.83 (0.13) 5.22 (0.14) 5.62 (0.14) 5.79 (0.14) 5.12 (0.14) 5.06 (0.14) 5.22 (0.14) 3.04 (0.12) 3.31 (0.11) 3.03 (0.11) 2.64 (0.12) 2.56 (0.12) 2.47 (0.12) 4.73 (0.13) 4.77 (0.13) 5.20 (0.13) 4.94 (0.13) 4.81 (0.13) 5.15 (0.13) 7.72 (0.08) 7.73 (0.08) 7.73 (0.08) 8.01 (0.08) 7.83 (0.08) 8.01 (0.08)

^{*}For each of the survey scales, the first F-statistic relates to the main effect of audit experience, the second to the main effect of audit type, and the third one to the interaction between these two variables. The covariates include age = 57.12 [F(22, 2573) = 9.25, p < .001, η_p^2 = .07] and gender = 1.39 (1=male, 2=female) [F(22, 2573) = 4.51, p < .001, η_p^2 = .04].

TABLE B3, Estimated Means, Standard Errors, and Univariate F-statistics for Model 3

	Audit experience							
	Audited			Not Audited				
Variable	Positive adjustment	No change	Tax refund	Positive adjustment	No change	Tax refund	F-statistic	
							$F(1, 2594) = 28.79, p < .001, \eta_p^2 = .01$	
Audit probability	4.61 (0.08)	4.19 (0.09)	4.06 (0.12)	3.97 (0.08)	3.88 (0.09)	3.76 (0.12)	$F(2, 2594) = 8.75, p < .001, \eta_p^2 = .01$	
							$F(2, 2594) = 2.58, p = .076, \eta_p^2 = .00$	
							$F(1, 2594) = 0.01, p = .944, \eta_p^2 = .00$	
Detection probability	5.54 (0.10)	5.83 (0.11)	5.76 (0.15)	5.78 (0.10)	5.56 (0.11)	5.77 (0.15)	$F(2, 2594) = 0.32, p = .729, \eta_p^2 = .00$	
producting							$F(2, 2594) = 2.83, p = .059, \eta_p^2 = .00$	
							$F(1, 2594) = 3.60, p = .058, \eta_p^2 = .00$	
Fines	6.49 (0.09)	6.70 (0.10)	6.53 (0.13)	6.70 (0.09)	6.85 (0.10)	6.65 (0.13)	$F(2, 2594) = 2.27, p = .103, \eta_p^2 = .00$	
							$F(2, 2594) = 0.11, p = .899, \eta_p^2 = .00$	
							$F(1, 2594) = 5.00, p = .025, \eta_p^2 = .00$	
Tax knowledge	5.24 (0.12)	5.27 (0.13)	4.86 (0.18)	5.60 (0.12)	5.37 (0.13)	5.19 (0.18)	$F(2, 2594) = 3.41, p = .033, \eta_p^2 = .00$	
							$F(2, 2594) = 0.58, p = .560, \eta_p^2 = .00$	
	5.95 (0.10)	6.33 (0.11)	6.21 (0.15)	6.39 (0.10)	6.12 (0.11)	6.36 (0.15)	$F(1, 2594) = 1.77, p = .184, \eta_p^2 = .00$	
Attitudes							$F(2, 2594) = 0.43, p = .648, \eta_p^2 = .00$	
							$F(2, 2594) = 5.20, p = .006, \eta_p^2 = .00$	
		6.26 (0.12)	6.36 (0.16)	6.75 (0.11)	6.51 (0.12)	6.78 (0.16)	$F(1, 2594) = 17.26$, p < .001, $\eta_p^2 = .01$	
Motivation	6.10 (0.11)						$F(2, 2594) = 0.88, p = .413, \eta_p^2 = .00$	
							$F(2, 2594) = 1.60, p = .202, \eta_p^2 = .00$	
							$F(1, 2594) = 18.02, p < .001, \eta_p^2 = .01$	
Procedural justice	5.76 (0.11)	6.52 (0.12)	6.42 (0.16)	5.80 (0.11)	5.63 (0.12)	5.94 (0.16)	$F(2, 2594) = 5.83, p = .003, \eta_p^2 = .00$	
							$F(2, 2594) = 8.95, p < .001, \eta_p^2 = .01$	
			6.55 (0.16)				$F(1, 2594) = 10.32, p = .001, \eta_p^2 = .00$	
Informational justice	6.18 (0.10)	6.60 (0.11)		6.10 (0.10)	6.00 (0.11)	6.25 (0.16)	$F(2, 2594) = 2.26$, p = .105, $\eta_p^2 = .00$	
,							$F(2, 2594) = 2.88, p = .056, \eta_p^2 = .00$	
							$F(1, 2594) = 21.57, p < .001, \eta_p^2 = .01$	
Interpersonal justice	6.35 (0.10)	6.85 (0.11)	6.66 (0.15)	6.18 (0.10)	6.01 (0.11)	6.28 (0.15)	$F(2, 2594) = 1.75, p = .173, \eta_p^2 = .00$	
,							$F(2, 2594) = 5.17$, p = .006, $\eta_p^2 = .00$	
							$F(1, 2594) = 36.96, p < .001, \eta_p^2 = .01$	
Distributive justice	5.39 (0.10)	7.33 (0.11)	6.85 (0.15)	5.77 (0.10)	5.90 (0.11)	6.10 (0.15)	$F(2, 2594) = 55.92, p < .001, \eta_p^2 = .04$	
							$F(2, 2594) = 38.73, p < .001, \eta_p^2 = .03$	
	·					·	$F(1, 2594) = 1.92, p = .167, \eta_p^2 = .00$	
Social norms	5.25 (0.09)	5.38 (0.10)	5.17 (0.14)	5.35 (0.09)	5.42 (0.10)	5.41 (0.14)	$F(2, 2594) = 0.64, p = .528, \eta_p^2 = .00$	
							$F(2, 2594) = 0.34, p = .711, \eta_p^2 = .00$	

^{*}For each of the survey scales, the first F-statistic relates to the main effect of audit experience, the second to the main effect of audit outcome, and the third one to the interaction between these two variables. The covariates include age = 57.12 [F(22, 2573) = 9.88, p < .001, η_p^2 = .08] and gender = 1.39 (1=male, 2=female) [F(22, 2573) = 4.76, p < .001, η_p^2 = .04]

	Audit experience					_	
	Audited				Not Audited		
Variable	Positive adjustment	No change	Tax refund	Positive adjustment	No change	Tax refund	F-statistic
							$F(1, 2594) = 13.03, p < .001, \eta_p^2 = .01$
Coercive power	6.47 (0.09)	6.20 (0.10)	6.41 (0.14)	5.94 (0.09)	6.18 (0.10)	5.99 (0.14)	$F(2, 2594) = 0.01, p = .993, \eta_p^2 = .00$
							$F(2, 2594) = 3.83, p = .022, \eta_p^2 = .00$
							$F(1, 2594) = 2.24, p = .134, \eta_0^2 = .00$
Legitimate	6.15 (0.08)	6.53 (0.09)	6.36 (0.12)	6.48 (0.08)	6.45 (0.09)	6.47 (0.12)	$F(2, 2594) = 2.23, p = .107, \eta_p^2 = .00$
power							$F(2, 2594) = 2.98, p = .051, \eta_p^2 = .00$
							$F(1, 2594) = 7.93, p = .005, \eta_0^2 = .00$
Trust	5.01 (0.09)	5.46 (0.10)	5.39 (0.14)	5.63 (0.09)	5.41 (0.10)	5.58 (0.14)	$F(2, 2594) = 1.28, p = .280, \eta_0^2 = .00$
							$F(2, 2594) = 6.43, p = .002, \eta_p^2 = .01$
							$F(1, 2594) = 30.76, p < .001, \eta_p^2 = .01$
Fear	4.06 (0.10)	3.84 (0.11)	3.95 (0.15)	3.49 (0.10)	3.41 (0.11)	3.35 (0.15)	$F(2, 2594) = 1.17, p = .309, \eta_0^2 = .00$
							$F(2, 2594) = 0.32, p = .727, \eta_p^2 = .00$
	5.03 (0.11)			4.00 (0.11)	3.98 (0.12)		$F(1, 2594) = 43.25, p < .001, \eta_p^2 = .02$
Anger		4.38 (0.12)	4.58 (0.17)			3.77 (0.17)	$F(2, 2594) = 4.87, p = .008, \eta_p^2 = .00$
							$F(2, 2594) = 3.54, p = .029, \eta_0^2 = .00$
							$F(1, 2594) = 13.29, p < .001, \eta_p^2 = .01$
Caution	5.65 (0.12)	5.32 (0.13)	5.74 (0.18)	5.14 (0.12)	5.11 (0.13)	5.16 (0.18)	$F(2, 2594) = 1.54, p = .215, \eta_p^2 = .00$
							$F(2, 2594) = 0.93, p = .394, \eta_0^2 = .00$
							$F(1, 2594) = 30.47, p < .001, \eta_p^2 = .01$
Threat	3.37 (0.10)	2.92 (0.11)	2.98 (0.15)	2.64 (0.10)	2.49 (0.11)	2.49 (0.15)	$F(2, 2594) = 4.69, p = .009, \eta_0^2 = .00$
							$F(2, 2594) = 1.10, p = .334, \eta_0^2 = .00$
							$F(1, 2594) = 9.20, p = .002, \eta_p^2 = .00$
Protection	3.64 (0.10)	3.83 (0.11)	3.84 (0.16)	4.15 (0.10)	3.91 (0.11)	4.18 (0.15)	$F(2, 2594) = 0.57, p = .565, \eta_0^2 = .00$
							$F(2, 2594) = 2.10, p = .123, \eta_0^2 = .00$
							$F(1, 2594) = 0.61, p = .434, \eta_p^2 = .00$
Enforced	5.06 (0.11)	4.72 (0.12)	4.89 (0.17)	5.10 (0.11)	4.75 (0.12)	5.08 (0.17)	$F(2, 2594) = 4.66, p = .010, \eta_p^2 = .00$
compliance							$F(2, 2594) = 0.19, p = .831, \eta_p^2 = .00$
							$F(1, 2594) = 10.16, p = .001, \eta_p^2 = .00$
Voluntary	7.69 (0.07)	7.77 (0.08)	7.74 (0.11)	7.97 (0.07)	7.90 (0.08)	7.99 (0.11)	$F(2, 2594) = 0.09, p = .917, \eta_p^2 = .00$
compliance			(,,,==,				$F(2, 2594) = 0.54, p = .581, \eta_p^2 = .00$
							$F(1, 2594) = 1.72, p = .190, \eta_p^2 = .00$
Thoughts about cheating	2.09 (0.08)	1.97 (0.09)	2.10 (0.12)	2.02 (0.08)	2.02 (0.09)	1.81 (0.12)	$F(2, 2594) = 0.60, p = .548, \eta_p^2 = .00$

^{*}For each of the survey scales, the first F-statistic relates to the main effect of audit experience, the second to the main effect of audit outcome, and the third one to the interaction between these two variables. The covariates include age = 57.12 [$F(22, 2573) = 9.88, p < .001, \eta_p^2 = .08$] and gender = 1.39 (1=male, 2=female) [$F(22, 2573) = 4.76, p < .001, \eta_p^2 = .04$]

Improving Notices

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A Study of the IRS Offer in Compromise Program for Business Taxpayers

EXECUTIVE SUMMARY¹

An offer in compromise (OIC) is an agreement between a taxpayer and the government that settles a tax liability for payment of less than the full amount owed. The IRS has authority to accept offers pursuant to Internal Revenue Code (IRC) § 7122. TAS Research conducted this analysis to study how business taxpayers (Business Master File (BMF)) use the OIC program and the impact of the OIC program on future compliance of business taxpayers. For the purposes of this study, "BMF taxpayer" is defined as a taxpayer who filed a Form 941, *Employer's Quarterly Federal Tax Return*, and then either a Form 1065, U.S. Return of Partnership Income, Form 1120, U.S. Corporation Income Tax Return, Form 1120S, U.S. Income Tax Return for S Corporation, or a Schedule C, Profit or Loss From Business (Sole Proprietorship).

To study the impact of the OIC program, TAS Research examined taxpayers' filing and payment compliance subsequent to an accepted OIC. BMF taxpayers with accepted OICs are about half as likely to become noncompliant in filing or paying their future BMF tax obligations for five years after the IRS accepts the OIC than BMF taxpayers whose OICs were not accepted. When considering only those BMF taxpayers who continued to operate, the difference in subsequent filing and payment compliance rates were more pronounced. For instance, filing noncompliance beyond five years after the consideration of an OIC is nearly three times higher for BMF taxpayers whose OIC was not accepted than for a BMF taxpayers with an accepted OIC. In other words, approximately 91 percent of BMF taxpayers with an accepted OIC were in filing compliance beyond five years after the OIC consideration compared to 82 percent of BMF taxpayers without an accepted OIC.

TAS Research also analyzed the number of taxpayers who submit multiple OICs within 180 days, referred to as "churning." Between 2007 and 2016, between approximately four percent and nine percent of taxpayers submitting an OIC had an incident of "churning" with an accepted OIC in approximately 30 percent to 45 percent of the cases. This indicates that business taxpayers are trying to submit successful OICs even if it sometimes takes multiple attempts.

TAS Research looked at how the amount offered on returned or rejected OICs compares to what the IRS has actually been able to collect. TAS Research found that nearly 40 percent of rejected or returned OICs had an amount offered that was greater than the amount collected. In fact, the average amount offered for this population of OICs was more than two times the average amount ultimately collected, and the median amount offered was more than five times the median amount collected.

For rejected OICs in particular, TAS Research looked at what the IRS determined to be the Reasonable Collection Potential (RCP), which is the calculation of all of the taxpayer's assets, income, and liabilities. Depending on the business entity type, TAS Research found that the RCP is about seven to ten times greater than the amount offered and 20 to 30 times what has been collected subsequently. By rejecting these OICs, the IRS not only loses an opportunity to collect revenue, but it misses out on the improved compliance effect that comes with accepted OICs.

¹ The principal authors of this study are Kate Leifeld, Stacie Swanson, and Jeff Wilson.

INTRODUCTION

Taxpayers who cannot pay their tax debt in full have options. For instance, a taxpayer may qualify for a monthly payment plan, referred to as an installment agreement.² Some taxpayers can also qualify for a status called currently not collectible (CNC) if payment of the debt would create an economic hardship.³ As will be discussed below, CNC based on hardship is not an option for all business types.

An OIC allows the taxpayer to offer an amount less than the total amount owed in full satisfaction of the debt. This study focuses on OICs from BMF taxpayers with tax debts. OICs are particularly important to BMF taxpayers because they are unable to obtain relief from IRS levies on the basis of economic hardship. Generally, under IRC § 6343(a)(1)(D), the IRS must release a levy if it determines that the levy is creating an economic hardship; however, under regulations, the IRS only extends this relief to individual taxpayers.⁴

Treasury Regulations provide three grounds for an OIC:

- Doubt as to liability;⁵
- Doubt as to collectability;⁶ and
- Effective tax administration (ETA).⁷

As part of the compromise, the taxpayer agrees to remain fully compliant with all filing and paying requirements for five years after acceptance of the OIC.⁸ If a taxpayer fails to stay in compliance, the entire liability, minus the amount paid with the OIC, plus penalties and interest may be reinstated.⁹ Thus, OICs represent an opportunity for the IRS to transform a taxpayer's noncompliant behavior into compliant behavior, without assuming any additional risk.

Notwithstanding the merits of the OIC program, historically the IRS has a lower OIC acceptance rate for BMF taxpayers than individual taxpayers (Individual Master File (IMF)). This study attempts to determine whether by returning or rejecting OICs from businesses, the IRS is missing opportunities to collect revenue and to enable businesses to obtain a fresh start.

The study confirmed that on average BMF OICs have a lower acceptance rate compared to IMF OICs. In fact, the average acceptance rate for IMF OICs is approximately 44 percent while BMF OICs have

- 2 Internal Revenue Code (IRC) § 6159.
- 3 Internal Revenue Manual (IRM) 5.16.1.2, Currently Not Collectible Procedures (Sept. 18, 2018).
- 4 Treas. Reg. 301.6343-1(b)(4). See also IRM 5.11.2.3.1.4, Economic Hardship (Apr. 15, 2014). For further discussion of this issue, see National Taxpayer Advocate 2011 Annual Report to Congress 537-543.
- Treas. Reg. 301.7122-1(b)(1). Doubt as to liability exists where there is a genuine dispute as to the existence or amount of the correct tax liability under the law. Doubt as to liability does not exist where the liability has been established by a final court decision or judgment concerning the existence or amount of the liability.
- Treas. Reg. 301.7122-1(b)(2). Doubt as to collectability exists in any case where the taxpayer's assets and income are less than the full amount of the liability.
- Treas. Reg. 301.7122-1(b)(3). There are two grounds for Effective Tax Administration (ETA) offers: 1) If the Secretary determines that, although collection in full could be achieved, collection of the full liability would cause the taxpayer economic hardship within the meaning of Treas. Reg. § 301.6343-1 and; 2) If there are no grounds for an offer under the other offer in compromise (OIC) criteria, the IRS may compromise to promote effective tax administration where compelling public policy or equity considerations identified by the taxpayer provide a sufficient basis for compromising the liability. Compromise will be justified only where, due to exceptional circumstances, collection of the full liability would undermine public confidence that the tax laws are being administered in a fair and equitable manner.
- 8 IRS, Form 656-B, Offer in Compromise (Rev. June 2018).
- 9 IRM 5.8.9.4, Actions on Post-Accepted Offers, Potential Default Cases (Jan. 12, 2017).

an acceptance rate of about 24 percent. However, the study also found that the noncompliance rate of BMF taxpayers with an accepted OIC is generally less than the noncompliance rate for businesses unable to obtain an accepted OIC. For instance, when we consider payment compliance for the five years following the OIC consideration, BMF taxpayers with an accepted OIC have a payment compliance rate of 83 percent compared to 75 percent for BMF taxpayers without an accepted OIC. And in approximately 40 percent of rejected OIC cases, TAS Research determined that the offered amount was nearly three times more than the amount actually collected.

BACKGROUND

OIC is one of several collection alternatives

When a taxpayer is unable to fully pay their debt, the IRS may use collection alternatives. One such option is through a series of monthly payments (referred to as installment agreements).¹⁰ With respect to individual taxpayers, if paying the tax debt creates an economic hardship for the taxpayer, the IRS may stop collection activity and consider the taxpayer to be CNC.¹¹ However, the option of CNC-economic hardship is not available to corporations and only to limited liability corporations (LLCs) and partnerships in certain situations.¹² Even though a tax delinquency may be paid over time or reported CNC, penalties and interest continue to accrue during the ten year (or more) period in which the IRS must collect the liability.¹³

The third option is an OIC. An OIC is an agreement between a taxpayer and the government that settles a tax liability for payment of less than the full amount owed.¹⁴ The objectives of the OIC program are to:

- Affect collection of what can reasonably be collected at the earliest possible time and at the least cost to the government;
- Achieve a resolution that is in the best interest of both the business and the government;
- Provide the business a fresh start toward future voluntary compliance with all filing and payment requirements; and
- Secure collection of revenue that may not be collected through any other means.¹⁵

¹⁰ IRC § 6159; IRM 5.14.1.1.1, Background (July 16, 2018)

¹¹ IRM 5.16.1.2, Currently Not Collectible Procedures (Sept. 18, 2018).

¹² Id.

¹³ The IRS generally has ten years to collect a tax debt once it is assessed, which is referred to as the collection statute expiration date (CSED). IRC § 6502. Some events may extend or suspend the CSED. In particular, the CSED is suspended during the period an OIC is pending, for 30 days immediately following the rejection of the OIC, and for any period when a timely filed appeal from the rejection is being considered by Appeals. Treas. Reg. § 301.7122-1(i). In some cases, the IRS may choose to reduce to judgment the liability on which a notice of federal tax lien has been filed. This means the IRS would bring suit in federal district court. Once the judgment is in place, the IRS is not limited to the 10-year CSED period. 28 U.S.C. § 3201.

¹⁴ IRC § 7122.

¹⁵ IRM 1.2.14.1.17, Policy Statement 5-100 (Jan. 30, 1992); IRM 5.8.1.2.4, Overview, Objectives (Sept. 23, 2008).

Legal Requirements for Acceptable OICs

According to the Internal Revenue Code, for the OIC to be processable, the taxpayer must:

- Include a partial payment (referred to as a "TIPRA payment") with the OIC; and 16
- Pay any applicable user fee.¹⁷

In April 2016, the IRS announced that OICs submitted by a taxpayer who had not filed all necessary tax returns (based on internal research) would be returned to the taxpayer as not processable.¹⁸ In February 2017, the IRS further announced the IRS will keep the payments sent with OICs that are not processed and returned for lack of filing compliance.¹⁹

Otherwise, the IRS *may* return the user fee and initial payment to the taxpayer when an OIC is returned as not processable.²⁰ The IRS will keep payments made on rejected OICs.²¹

The Reasonable Collection Potential Calculation Plays a Vital Role in the OIC Acceptance Process

The IRS will accept an OIC when it is unlikely that a tax liability can be collected in full and the amount offered reflects reasonable collection potential.²² Additionally, unless special circumstances exist, OICs will not be accepted if the IRS believes the liability can be paid in full as a lump sum, by installment payments extending through the remaining statutory period for collection, or through other means of collection.²³ The IRS first conducts an analysis to see if the taxpayer can afford to pay the liability through the liquidation of existing assets or an installment agreement. Once the IRS confirms that the taxpayer will not able to pay the debt through these methods, the IRS then determines the taxpayer's RCP, which will consider all of the taxpayer's income, assets, expenses, and liabilities.²⁴ Unless special circumstances exist, the RCP will serve as the basis for an acceptable OIC amount.²⁵

¹⁶ IRC §§ 7122(c)(1), 7122(d)(3)(C). For lump sum offers, the partial payment must be 20 percent of the OIC amount. For a periodic payment OIC, the partial payment must consist of the first installment payment. IRC §§ 7122(c)(1)(A)–(B).

¹⁷ IRC § 7122(c)(2). If an individual taxpayer qualifies for the low-income waiver, he or she will not be required to send any payment with the OIC. IRS, Form 656-B, Offer in Compromise (June 2018). Additionally, Treasury regulations require taxpayers to make the OIC in writing, sign the OIC under penalty of perjury, and include all of the information "prescribed or requested by the Secretary." Treas. Reg. § 301.7122-1(d)(1). If an OIC meets the minimum criteria for consideration, the IRS deems it processable. IRM 5.8.2.3 (May 14, 2013).

¹⁸ IRS, Memorandum for Director, Specialty Collection Offers, Liens & Advisory, Offer in Compromise Filing Compliance and Case Perfection, SBSE-05-0416-0015 (Apr. 13, 2016).

¹⁹ IRS, Memorandum for Director, Specialty, Offers, Liens & Advisory, Offer in Compromise Filing Compliance and Case Perfection, SBSE-05-0217-0020 (Feb. 23, 2017). See also Policy Changes Made by the IRS to the Offer in Compromise Program Makes It More Difficult for Taxpayers to Submit Acceptable Offers, supra.

²⁰ IRM 5.8.2.5, Not Processable (May 25, 2018); IRM 5.8.7.2, Returns (Oct. 07, 2016).

²¹ IRS, Form 656, Offer in Compromise (June 2018). A rejected OIC differs from a returned OIC in that the IRS has reviewed the facts of the case prior to rejection, and the taxpayer receives appeal rights when the OIC is rejected. IRM 5.8.7.7, Rejection (Oct. 7, 2016).

²² IRM 1.2.14.1.17, Policy statement 5-100 (Jan. 30, 1992).

²³ IRM 5.8.1.2.3, Policy (May 5, 2017).

²⁴ IRM 5.8.5.2, Ability to Pay (Mar. 23, 2018).

²⁵ IRM 5.8.1.2.3, *Policy* (May 5, 2017).

BMF OIC Acceptance Rates Show a Slight Increase

The following figure shows the OIC receipts, dispositions, and acceptances for IMF and BMF taxpayers since FY 2010. The IRS began accepting a larger percentage of OICs in FY 2011 and reached its highest acceptance rate in 2013 with 43.7 percent. The current rate of OIC acceptances remains about 38 percent.²⁶

FIGURE 5.1, Individual and Business OIC Receipts, Dispositions and Acceptances since 2010²⁷

FY	Receipts	Acceptances	Dispositions	Acceptance Rate
2010	56,539	13,886	52,104	26.7%
2011	59,411	19,562	57,836	33.8%
2012	63,801	23,628	62,597	37.7%
2013	74,217	30,840	70,622	43.7%
2014	67,935	26,924	64,322	41.9%
2015	66,600	27,417	64,479	42.5%
2016	62,937	26,663	65,858	40.5%
2017	62,243	25,326	66,549	38.1%

TAS analysis of IRS OIC data show that from 2007 to 2017, approximately 450,000 IMF taxpayers submitted OICs and about 44 percent of them were ultimately accepted.²⁸

FIGURE 5.2, OIC Receipts, Dispositions and Acceptances for Individual Taxpayers²⁹

FY	Receipts	Acceptances	Dispositions	Acceptance Rate
2010	48,378	15,606	45,537	34.3%
2011	51,022	20,523	50,034	41.0%
2012	57,805	25,752	54,909	46.9%
2013	63,069	29,022	59,079	49.1%
2014	59,017	29,522	58,936	50.1%
2015	57,619	25,619	53,931	47.5%
2016	52,188	26,150	56,280	46.5%
2017	50,042	24,906	54,817	45.4%

²⁶ National Taxpayer Advocate 2017 Annual Report to Congress vol. 2 49. The acceptance rate is the numbers of accepted OICs in a fiscal year divided by the total number of OIC investigations closed by the IRS during that same fiscal year. These figures include both Individual Master File (IMF) and Business Master File (BMF) taxpayers. Fiscal year (FY) 2018 numbers were not included in this study because not enough time had elapsed to provide analysis.

²⁷ National Taxpayer Advocate 2017 Annual Report to Congress vol. 2 49.

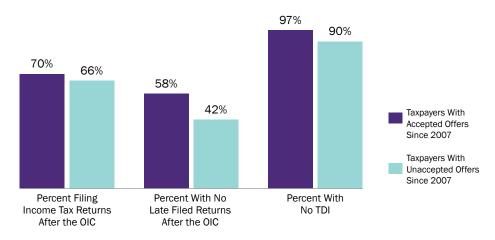
²⁸ IRS, CDW. Individual Master File (IMF) Oct. 2017.

²⁹ Id. The table only shows data from FY 2010 through FY 2017.

Furthermore, the National Taxpayer Advocate's study on IMF OICs last year established that accepting an OIC may improve an IMF taxpayer's future compliance. Figure 5.3 compares filing compliance and the incidence of taxpayer delinquent investigations (TDIs) between IMF taxpayers with accepted OICs and all taxpayers with unaccepted OICs.³⁰

FIGURE 5.331



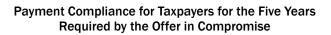


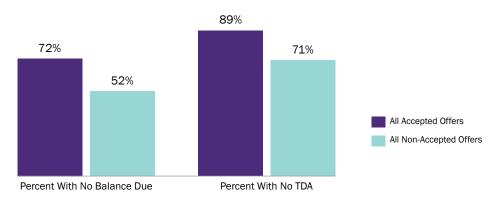
³⁰ A taxpayer delinquent investigation (TDI) is part of the Return Delinquency (RD) Program, which works responses to notices that are issued to taxpayers that have been identified as liable to file and have not filed a tax return by the Return Due Date (RDD). IRM 5.19.22.2, What Is The BMF Return Delinquency Program? (Jan. 2, 2015).

³¹ IRS, CDW. Business Master File (BMF) Oct. 2017.

Figure 5.4 shows the payment compliance for IMF taxpayers by looking at the incidence of balances due and taxpayer delinquent accounts (TDAs).³²

FIGURE 5.4³³





However, while the IRS has accepted more OICs in recent years, its acceptance rate for OICs submitted by BMF taxpayers is still over 20 percentage points less than its acceptance rate for OICs submitted by IMF taxpayers. From FYs 2010 to 2017, the acceptance rate for IMF OICs was approximately 44 percent, but the acceptance rate for BMF OICs was about 24 percent.³⁴

FIGURE 5.5, OIC Receipts, Dispositions and Acceptances for Business Entities

FY	Receipts	Acceptances	Dispositions	Acceptance Rate
2010	5,972	864	5,979	14.5%
2011	6,262	1,158	6,928	16.7%
2012	6,576	1,543	7,547	20.4%
2013	6,811	1,471	6,887	21.4%
2014	6,573	1,477	7,048	21.0%
2015	6,237	1,630	6,813	23.9%
2016	5,348	1,594	6,697	23.8%
2017	4,721	1,512	5,710	26.5%

³² A taxpayer delinquent account (TDA) occurs when a taxpayer has a balance due. IRM 5.19.22.2.1, *BMF Return Delinquency Overview* (July 7, 2016). In particular, it occurs after the final collection notice is issued. IRS, Document 6209, Section 8A, *Master File Codes* (2018).

³³ We derived the presence of unfiled returns and balances due by examining the collection status of the module from the IMF.

³⁴ IRS, CDW IMF Oct. 2017; IRS, CDW BMF and BMF Dec. 2017.

Although the IRS has begun accepting more BMF OICs in the last three years, increasing from 21 percent in 2014 to 26.5 percent in FY 2017, the BMF acceptance rate is still less than the IMF acceptance rate, which was 45.4 percent in FY 2017.

The recent increase in acceptance of BMF OICs may be partly explained by a change in IRM guidance. For example, IRM 5.8.11.4.3, which relates to determining the appropriate OIC amount for ETA OICs, offered this guidance for BMF OICs in 2013:

When compromising based on IRM 5.8.11.2.2.1 paragraphs 4, 5, and 8, in business cases in particular, the Service must be cautious to avoid providing financial advantages through the forgiveness of tax debt. This may create the appearance that the delinquent business has been able to profit from its failure to pay, giving it a competitive advantage over other, fully compliant businesses. For this reason, the Service will generally insist that a compromise with an operating business provide for payment of the full amount of tax, exclusive of interest and penalties.³⁵

The current IRM section does not include this language. Instead, it says:

the offer amount should be for an amount deemed reasonable based on the specific facts of the case, generally the Service will insist that a compromise with an operating business provide for payment of the full amount of the remaining tax balance, exclusive of interest and penalties. If the taxpayer is an operating business impacted by the fraudulent act of a PSP [payroll service provider], the full amount of the remaining tax balance, exclusive of interest and penalties, may not be required based on the taxpayer's situation.³⁶

Considering the recent, slight improvements in the BMF OIC acceptance rate, TAS Research studied the impact of the OIC program on subsequent compliance of BMF taxpayers. When the IRS rejects an OIC, the IRS must continue to devote additional resources to collect these liabilities, while missing a significant opportunity to change taxpayer behavior toward ongoing voluntary filing and payment compliance. This study will look at how the IRS uses the OIC program and ways in which it can be improved for the benefit of taxpayers and the IRS alike.

OBJECTIVES

- Quantify the number of BMF taxpayers who have submitted multiple OICs within 180 days (churning);
- Determine the collection and filing status of the BMF returns with an OIC;
- Determine how much revenue collection potential is lost by not accepting OICs (i.e., what revenue is collected versus what is offered for those returned or rejected OICs while also considering the RCP as determined by the IRS).
- Compare the OIC acceptance rates at the two centralized OIC processing sites, Memphis and Brookhaven, to identify any variations.

³⁵ IRM 5.8.11.4.3(2)(c) (Sept. 23, 2008).

³⁶ IRM 5.8.11.4.3(2)(c) (Aug. 5, 2015).

METHODOLOGY

This study includes all three types of OICs submitted by different types of BMF taxpayers. To begin the OIC process, a taxpayer submits Form 656, *Offer in Compromise*, with the required financial documentation and user fee. TAS Research analyzed the accounts of BMF taxpayers who submitted an OIC from 2007 to 2017 to the IRS.³⁷

To determine the entity type in the population of OIC BMF returns, TAS research obtained the Master File Transcript (MFT) Code of the return and treated them as follows:

- MFT Code = 6: Partnership;
- MFT Code = 2: Corporation;
- Sole Proprietorship if the taxpayer identification number (TIN) of the business matched the employer identification number (EIN) of the Schedule C; and
- Other: any remaining after the above identifications were treated as missing and analyses of the Form 941s were done separately.

To complete these objectives, TAS Research had to obtain the MFT Code of the return and assign the appropriate entity types as they matched. To begin, TAS Research selected those with MFT Code 6 to select the partnerships, and those with MFT Code 2 to select the corporations. Those that were remaining were matched to the EIN of Schedule C, *Profit or Loss From Business (Sole Proprietorship)*, from Form 1040 returns to determine which ones were sole proprietors. The results are as follows:

FIGURE 5.6, Type and Number of Each Business Entity Studied

Type of Business Entity	Number of Taxpayers	
Partnerships ^a	4,283	
Corporations	20,963	
Schedule C Sole Proprietors	12,009	
Unknown ^b	7,965	
Total	45,220	

a Some entities filed both partnership and corporate income tax returns at various times but were considered as corporations for our analysis. An additional 1,789 taxpayers had an identified entity type such as a not-for-profit organization, or trust, or estate.

b Many of these unidentified taxpayers were identified as sole proprietorships based on the employer identification number (EIN) reported on schedule C; however, in many instances more than one taxpayer reported the same EIN on his or her Schedule C. If this situation occurred, these taxpayers were considered as unidentified.

^{37 &}quot;BMF taxpayer" is defined as a taxpayer who filed a Form 941, Employer's Quarterly Federal Tax Return, and then either a Form 1065, U.S. Return of Partnership Income, Form 1120, U.S. Corporation Income Tax Return, Form 1120S, U.S. Income Tax Return for S Corporation, or a Schedule C, Profit or Loss From Business (Sole Proprietorship).

To determine if the taxpayer submitted churning OICs, TAS Research selected all OICs closed as either rejected, ³⁸ withdrawn/terminated, ³⁹ or returned as not processable. ⁴⁰ The IRS defines "churning" as a new OIC submitted within 180 days after one of the previously indicated OIC disposition types. ⁴¹ TAS Research also identified taxpayers that had an OIC accepted by the IRS to distinguish them from taxpayers whose OIC was returned or rejected. ⁴²

To determine the payment and filing status of the subsequent BMF returns with an OIC, TAS Research obtained the status codes of the modules for returns due for both five years and up to ten years after the year in which the offer was submitted.⁴³ TAS Research detected if any payment delinquency was present and if a payment delinquency reached TDA status.⁴⁴ TAS Research also completed an analysis of filing and payment compliance for only those entities who remained in business after the IRS either accepted or did not accept the OIC.

TAS Research requested and obtained from the IRS a list of BMF taxpayers whose OICs were returned or rejected by the IRS from 2009 through 2013, the amount of these OICs, and, in the case of rejected OICs, the amount of RCP determined by the IRS.⁴⁵ The IRS defines RCP as the amount that can be collected from all available means, including administrative and judicial collection remedies. RCP is generally the sum of taxpayers' assets, future income for the life of the statutory period for collection, amounts collectible from third parties (*e.g.*, assets involved in a fraudulent conveyance from the taxpayer), and taxpayer assets which are beyond the reach of the government (*e.g.*, taxpayer assets in foreign countries).⁴⁶ TAS Research compared the amount subsequently collected from these taxpayers to the amount that was submitted on the rejected OIC, while also considering the RCP calculated by the IRS.⁴⁷

Research used the Transaction Code (TC) 780 to determine if there was an accepted OIC for the taxpayer. An accepted OIC can be identified by a TC 780 posting to the delinquent taxpayer accounts.

To determine which campus processed the offer, Research determined the state where the taxpayer submitted the OIC and then used the following data to determine the campus from the following Collection website:

http://mysbse.web.irs.gov/collection/toolsprocesses/CaseRes/oic/recordsrequest/16188.aspx

- 38 Transaction Code 481.
- 39 Transaction Code 482.
- 40 Transaction Code 483.
- 41 IRS, IRS Offers in Compromise, An Analysis of Various Aspects of the OIC Program 2 (Sept. 2004).
- 42 Transaction code 780.
- 43 Data is from the BMF on the IRS CDW. TAS analyzed the BMF tax returns due for the entity in the years following the year in which the IRS accepted the OIC.
- 44 Any tax return with a status greater than 12 indicates that the return has been in balance due status. In addition, a status of 22, 24, or 26 indicates a TDA. A TDA occurs when a taxpayer has a balance due. 5.19.22.2.1, *BMF Return Delinquency Overview* (July 7, 2016). In particular, it occurs after the final collection notice is issued. IRS, Document 6209, Section 8A, *Master File Codes* (2018).
- 45 This study includes an examination of all rejected or returned OICs, and whether the OIC was submitted based on doubt as to collectability, doubt as to liability, or effective tax administration. However, the IRS generally only computes reasonable collection potential (RCP) for rejected OICs.
- 46 IRM 5.8.4.3.1, Components of Collectability (Apr. 30, 2015).
- 47 The amount offered was obtained from an extract provided by the IRS from its Automated OIC System. Subsequent payments are captured by the IRS as Transaction Code 670. For rejected OICs, the TC 670 date was used only if it was after the date of the first TC 480 (when a processable OIC is submitted). We also examined the presence of any taxpayer refunds offset against the liability after rejection.

Memphis – Business is in the following states:

Alabama, Arkansas, Florida, Georgia, Hawaii, Idaho, Kentucky, Louisiana, Mississippi, North Carolina, New Mexico, Nevada, Oklahoma, Oregon, Tennessee, Texas, Washington, Wisconsin

Brookhaven – Business is in the following states:

Alaska, Arizona, California, Colorado, Connecticut, Delaware, District of Columbia, Illinois, Indiana, Iowa, Kansas, Maine, Maryland, Massachusetts, Michigan, Minnesota, Missouri, Montana, Nebraska, New Hampshire, New Jersey, New York, North Dakota, Ohio, Pennsylvania, Rhode Island, South Carolina, South Dakota, Utah, Vermont, Virginia, West Virginia, Wyoming, Puerto Rico or has a foreign address

FINDINGS

Since 2007, quantify the number of business taxpayers who have submitted multiple OICs within 180 days (also known as churning)

TAS Research used the Compliance Data Warehouse to select the population of BMF taxpayers that submitted an OIC between 2007 and 2017.⁴⁸ This analysis resulted in the detection 47,004 unique BMF taxpayers who submitted an OIC for approximately 390,000 modules.⁴⁹

Churned OICs are ones in which the taxpayer makes multiple OIC submissions within a 180-day period. There are many reasons why an OIC may need to be perfected. For instance, the IRS may return a taxpayer's OIC as not processable when the taxpayer does not submit the required user fee or Tax Increase and Prevention Reconciliation Act (TIPRA) payment, or when the taxpayer is not in filing compliance.⁵⁰ The change in processability for OICs submitted by taxpayers who are not in filing compliance is a relatively new change in procedure.⁵¹ Prior to this change, if the IRS determined that a taxpayer was not in filing compliance, the IRS would process the OIC and contact the taxpayer to discuss any late tax returns and allow the taxpayer time to file them within a specified period of time.⁵² Also, generally the IRS will reject the OIC if it determines that the amount offered is not sufficient based on its calculation of the RCP.⁵³

To determine if the taxpayers submitted churned OICs, TAS Research calculated the date from when an OIC was rejected/returned/terminated to when a second OIC was submitted. If the amount of time was less than six months, the subsequent OIC was counted as a churned OIC. Overall, approximately

⁴⁸ IRS, CDW, BMF Dec. 2017. Transaction Code 480 dated after 2007.

⁴⁹ Modules refer to a tax form (indicated by a MFT Code) and a period associated with that tax form. For example, a taxpayer may submit an offer for each quarter of their 2010 Form 941, *Employer's Quarterly Federal Tax Return Liabilities*. As discussed in this section, many taxpayers will submit multiple OICs for the same liabilities.

⁵⁰ IRM 5.8.2.4.1, *Determining Processability* (May 25, 2018), contains a complete list of reasons causing the IRS to deem an OIC as not processable.

Memorandum from Director, Collection Policy to Director, Specialty Collection, Liens & Advisory (Apr. 13, 2016) (on file with TAS). For more information on this topic, see National Taxpayer Advocate 2017 Annual Report to Congress, vol. 2 42-60; National Taxpayer Advocate 2014 Annual Report to Congress 218-224; National Taxpayer Advocate 2009 Annual Report to Congress 196-212; The National Taxpayer Advocate's 2014 Annual Report To Congress: Hearing Before the H. Subcomm. On Govt. Operations of the H. Comm.On Oversight And Government Reform, 114th Cong. 23 (Apr. 15, 2015) (statement of Nina E. Olson, National Taxpayer Advocate).

⁵² IRM 5.8.3.6(1), Perfecting Field Cases (July 28, 2015); IRM 5.8.3.7(1), Perfecting COIC Cases (Dec. 7, 2015).

⁵³ IRM Exhibit 5.8.1-1, Common Abbreviations Used in the IRM (May 5, 2017). See also Policy Changes Made by the IRS to the Offer in Compromise Program Makes It More Difficult for Taxpayers to Submit Acceptable Offers, supra.

6.6 percent of taxpayers submitted churned OICs on BMF tax liabilities. The churning rate for BMF taxpayers is slightly lower than the churning rate of about ten percent of IMF taxpayers.⁵⁴ This analysis suggests that most BMF taxpayers do not submit OICs merely to delay collection.

FIGURE 5.7, Churning Counts and Acceptance Rates for All Churned BMF OICs

Year of first TC 480	Count	Number of Taxpayers Who Churned	Percent of Taxpayers Who Churned	Count of Taxpayers Who Churned With Accepted OIC	Percent of Taxpayers Who Churned With Accepted OIC
2007	5,313	381	7.2%	130	34.1%
2008	4,474	305	6.8%	92	30.2%
2009	3,698	221	6.0%	70	31.7%
2010	4,741	304	6.4%	123	40.5%
2011	4,665	392	8.4%	171	43.6%
2012	4,693	312	6.6%	124	39.7%
2013	4,828	331	6.9%	145	43.8%
2014	4,513	351	7.8%	121	34.5%
2015	4,032	217	5.4%	79	36.4%
2016	3,221	114	3.5%	28	24.6%
Total ^a	44,178	2,928	6.6%	1,083	37.0%

a Businesses submitted 2,826 OIC in 2017; however, when TAS Research extracted the data for this study in early 2018, sufficient time had not elapsed to determine the churning rate. We have been unable to determine why both the number of OICs submitted and the acceptance rate of churned OICs decreased beginning in 2016; however, this decrease could be occurring because of the IRS's decision to no longer consider OICs from taxpayers with return delinquencies as processable.

Furthermore, about 37 percent of taxpayers who had a churned OIC ultimately had an accepted OIC. While the IRS certainly has reason to reject or return some OICs, the data indicate that many taxpayers with rejected or returned OICs are trying to resolve their tax delinquencies with a perfected OIC. In addition, this data indicates it may take some taxpayers multiple attempts to perfect their OICs.

When the IRS returns or rejects an OIC and the taxpayer subsequently submits a new OIC, the IRS expends additional resources by reworking the OIC. Moreover, taxpayers may become deterred or prevented from submitting another OIC, which could negatively impact future voluntary filing and payment compliance, as discussed below. For instance, a taxpayer may borrow money from a friend or family member to finance the filing fee and initial payment, a source of income the IRS normally would not have access to, only to have the OIC returned and the initial payment kept by the IRS. A taxpayer in this situation may be unable to submit a second, perfected OIC.

Figures 5.8 through 5.11 explore the number of taxpayers who had churned OICs and if these taxpayers ultimately received an accepted OIC, according to their business entity type (partnership, corporation, or sole proprietorship).

FIGURE 5.8, Churn and Acceptance Rates by Entity Type Between 2007 and 2016⁵⁵

	% Partnership Churn	% Partnership Churn with Acceptance Rate	% Corp Churn	% Corp Churn with Acceptance Rate	% Sole Prop. Churn	% Sole Prop Churn with Acceptance Rate
2007	13.07%	26.53%	10.40%	22.93%	12.38%	36.32%
2008	10.96%	24.39%	11.06%	16.75%	13.13%	31.21%
2009	10.90%	14.29%	9.89%	19.14%	12.03%	43.48%
2010	12.64%	30.36%	10.44%	27.78%	14.00%	46.24%
2011	12.16%	33.96%	12.17%	30.65%	14.35%	47.37%
2012	11.53%	23.08%	13.07%	23.34%	11.44%	57.60%
2013	11.85%	38.60%	12.27%	27.15%	11.46%	62.40%
2014	13.03%	29.31%	15.26%	24.15%	11.43%	46.67%
2015	9.21%	28.57%	9.74%	20.00%	10.07%	38.38%
2016	7.36%	18.18%	6.71%	9.52%	6.61%	14.29%
Total	11.44%	27.95%	11.30%	23.36%	11.98%	43.54%

FIGURE 5.9, Churning Counts and Acceptance Rates for All Churned Partnership OICs⁵⁶

Year of first TC 480	Count	Number of Taxpayers Who Churned	Percent of Taxpayers Who Churned	Count of Taxpayers Who Churned with Accepted OIC	Percent of Taxpayers Who Churned with Accepted OIC
2007	375	49	13.07%	13	26.53%
2008	374	41	10.96%	10	24.39%
2009	321	35	10.90%	5	14.29%
2010	443	56	12.64%	17	30.36%
2011	436	53	12.16%	18	33.96%
2012	451	52	11.53%	12	23.08%
2013	481	57	11.85%	22	38.60%
2014	445	58	13.03%	17	29.31%
2015	380	35	9.21%	10	28.57%
2016	299	22	7.36%	4	18.18%
Total	4,005	458	11.44%	128	27.95%

The IRS accepted about 28 percent of OICs from partnerships with churned OICs during the years 2007 through 2016. The percent of partnerships with churning OICs is approximately 11 percent, which is similar to the overall rate for all the BMF OICs. Figure 5.10 depicts the prevalence of churning and subsequent acceptance in OICs submitted by corporations.

⁵⁵ IRS, CDW BMF Dec. 2017.

⁵⁶ Id.

FIGURE 5.10, Churning Counts and Acceptance Rates for All Churned Corporation OICs⁵⁷

Year of first TC 480	Count	Number of Taxpayers Who Churned	Percent of Taxpayers Who Churned	Count of Taxpayers Who Churned with Accepted OIC	Percent of Taxpayers Who Churned with Accepted OIC
2007	1,972	205	10.40%	47	22.93%
2008	1,727	191	11.06%	32	16.75%
2009	1,638	162	9.89%	31	19.14%
2010	2,068	216	10.44%	60	27.78%
2011	2,038	248	12.17%	76	30.65%
2012	2,196	287	13.07%	67	23.34%
2013	2,372	291	12.27%	79	27.15%
2014	2,116	323	15.26%	78	24.15%
2015	1,899	185	9.74%	37	20.00%
2016	1,564	105	6.71%	10	9.52%
Total	19,590	2,213	11.30%	517	23.36%

The percent of corporations with churning OICs is approximately 11 percent, which is similar to the overall percent for all the business entities. However, only 23 percent of these churned OICs were ultimately accepted, which is the lowest rate for the most common three business entities. Figure 5.11 examines the churning of OICs submitted by sole proprietorships.

FIGURE 5.11, Churning Counts and Acceptance Rates for All Churned Sole Proprietorship OICs⁵⁸

Year of first TC 480	Count	Number of Taxpayers Who Churned	Percent of Taxpayers Who Churned	Count of Taxpayers Who Churned with Accepted OIC	Percent of Taxpayers Who Churned with Accepted OIC
2007	1,713	212	12.38%	77	36.32%
2008	1,318	173	13.13%	54	31.21%
2009	956	115	12.03%	50	43.48%
2010	1,236	173	14.00%	80	46.24%
2011	1,192	171	14.35%	81	47.37%
2012	1,093	125	11.44%	72	57.60%
2013	1,091	125	11.46%	78	62.40%
2014	1,050	120	11.43%	56	46.67%
2015	983	99	10.07%	38	38.38%
2016	741	49	6.61%	7	14.29%
Total	11,373	1,362	11.98%	593	43.54%

⁵⁷ IRS, CDW BMF Dec. 2017.

⁵⁸ *Id.*

Again, the percent churning is approximately 12 percent which is about what the overall percent is for all the BMF entities. However, the acceptance rate of sole proprietors with churned OICs is almost 44 percent, which is much higher than the acceptance rate for other business entity types with churned OICs.

Determine the collection and filing status of the BMF returns with an accepted OIC

Figure 5.12 provides a comparison of the subsequent compliance for those taxpayers whose OICs the IRS did or did not accept. These include all returns filed by the business, not just delinquent income tax returns. TAS Research explored four different measures of subsequent compliance:

- The presence of a TDA;⁵⁹
- The presence of a TDI;⁶⁰
- The presence of a balance due (not arising to the level of a TDA); and
- The presence of an unfiled return (not arising to the level of a TDI).

FIGURE 5.12, Filing and Payment Compliance Five and Ten Years or More After OIC Was Submitted⁶¹

	OIC Not Accepted			OIC Accepted		
Measure/Result	Count	Non- compliant	Percent Non-Compliant	Count	Non- compliant	Percent Non-Compliant
TDA During Five Years After OIC Acceptance	33,961	5,184	15.3%	13,043	893	6.8%
TDI During Five Years After OIC Acceptance	33,961	2,883	8.5%	13,043	417	3.2%
TDA During All Years After OIC Acceptance	33,961	2,645	7.8%	13,043	359	2.8%
TDI During All Years After OIC Acceptance	33,961	2,212	6.5%	13,043	274	2.1%
Balance Due During Five Years After OIC Acceptance	33,961	8,480	25.0%	13,043	2,203	16.9%
Balance Due During All Years After OIC Acceptance	33,961	4,034	11.9%	13,043	769	5.9%
Unfiled Return During Five Years After OIC Acceptance	33,961	6,073	17.9%	13,043	1,146	8.8%
Unfiled Return During All Years After OIC Acceptance	33,961	3,751	11.0%	13,043	579	4.4%

⁵⁹ A TDA occurs when a taxpayer has a balance due. IRM 5.19.22.2.1, *BMF Return Delinquency Overview* (July 7, 2016). In particular, it occurs after the final collection notice is issued. IRS, Document 6209, Section 8A, *Master File Codes* (2018).

A TDI is part of the Return Delinquency (RD) Program, which works responses to notices that are issued to taxpayers that have been identified as liable to file and have not filed a tax return by the RD. IRM 5.19.22.2, What Is The BMF Return Delinquency Program? (Jan. 2, 2015).

⁶¹ IRS, CDW, BMF Sept. 2018.

TAS Research examined the four measures for two different time periods: the first five years after the year in which the IRS accepted the OIC, and for all years after the year in which the IRS accepted the OIC.⁶² The results indicate that BMF taxpayers with accepted OICs are significantly more compliant when considering the measures above. The noncompliance rate of taxpayers with an accepted OIC is generally less than half of the noncompliance rate for businesses unable to obtain an accepted OIC. For example, only 6.8 percent of businesses with an accepted OIC have a TDA within the five years after the OIC acceptance, compared to 15.3 percent of businesses whose OIC the IRS did not accept. Similarly, only 3.2 percent of businesses where the IRS accepted an OIC had a TDI within five years after the acceptance of their OIC, compared to 8.5 percent of taxpayers whose OIC the IRS did not accept. The differences in TDA and TDI compliance rates beyond five years after the OIC acceptance or rejection show an even wider disparity, with those businesses with accepted OICs having a significantly better level of both filing and payment compliance.

When Businesses That Stay in Operation Are Considered, Results Are Even Stronger

Businesses often submit OICs after they have decided to end their operation. Therefore, TAS Research examined which businesses continued their operations by determining which businesses continued to file subsequent returns (or have a requirement to file) after the IRS accepted or rejected their OIC. Figure 5.13 duplicates Figure 5.12, but only for those taxpayers continuing to have tax due returns (even if the tax due was timely filed and paid). The data shows that in all but one category (having a TDI more than five years out), BMF taxpayers with an accepted OIC were much more likely to be compliant than BMF taxpayers without an accepted OIC. Even so, the group having a TDI more than five years out still had better compliance when an OIC was accepted (an approximately 94 percent compliance rate for BMF taxpayers with an accepted OIC compared to 86 percent compliance rate for BMF taxpayers without an accepted OIC).

When it comes to payment compliance, BMF taxpayers with an accepted OIC had an approximately 44 percent compliance rate during the five years after OIC acceptance. This compares to a nearly 32 percent compliance rate for BMF taxpayers without an accepted OIC. Perhaps one way to improve the compliance rate for BMF taxpayers with an accepted OIC even more is to send reminders in the beginning of the year to adjust withholdings and make estimated payments.

⁶² The terms of an OIC allow the IRS to default an accepted OIC when the taxpayer accrues additional liabilities or fails to file within five years after the IRS accepts the OIC.

FIGURE 5.13, Filing and Payment Compliance Five and Ten Years or More After OIC Was Submitted for Only In-Business Taxpayers⁶³

	OIC Not Accepted ^a		OIC Accepted			
Measure/Result	Count	Non- compliant	Percent Non- Compliant	Count	Non- compliant	Percent Non- Compliant
TDA During Five Years After OIC Acceptance	12,475	5,184	41.56%	3,950	893	22.61%
TDI During Five Years After OIC Acceptance	12,475	2,352	18.85%	3,950	379	9.59%
TDA During All Years After OIC Acceptance	12,475	2,645	21.20%	3,950	359	9.09%
TDI During All Years After OIC Acceptance	12,475	1,761	14.12%	3,950	245	6.20%
Balance Due During Five Years After OIC Acceptance	12,475	8,480	67.98%	3,950	2,203	55.77%
Balance Due During All Years After OIC Acceptance	12,475	4,034	32.34%	3,950	769	19.47%
Unfiled Return During Five Years After OIC Acceptance	12,475	5,177	41.50%	3,950	1,044	26.43%
Unfiled Return During All Years After OIC Acceptance	12,475	3,088	24.75%	3,950	518	13.11%

a To determine the year of business, research used either the last year of an accepted OIC or the last year of a rejected OIC. Research excluded any offer that is still open or that was accepted or rejected in 2017.

Determine How Much Revenue Collection Potential Is Lost By Not Accepting OICs

Figures 5.14 through 5.17 show that in a majority of the cases, the IRS's analysis works as it should with rejected and returned OICs because the amount offered is often less than what was ultimately collected by about twice as much. However, when further analysis is done, *TAS Research also determined that almost 40 percent of rejected OICs were for more than was ultimately collected.* Specifically, in these instances, the amount offered was nearly three times the amount actually collected, as shown in Figure 5.14. Figures 5.15 through 5.17 compare the amount offered and the amount collected for partnerships, corporations, and sole-proprietorships, respectively. By rejecting these OICs, the IRS not only loses an opportunity to collect revenue, but it misses out on the improved compliance effect that comes with accepted OICs.

FIGURE 5.14, Amounts Offered and Collected for All Returned or Rejected BMF OICs Compared to Returned or Rejected OICs Where the OIC Amount Was Greater Than Payment⁶⁴

	ALL Returned/Rejected OICs						
	Count	Mean	Median	Total			
Offered	7,295	\$29,447	\$6,000	\$214,817,800			
Collected	6,317	\$44,849	\$9,020	\$283,311,550			
	All I	Returned/Rejected O	ICs with Offer > Payn	nent			
	Count	Mean	Median	Total			
Offered	2,828	\$45,044	\$10,000	\$127,384,853			
Collected	2,828	\$12,846	\$1,554	\$36,328,386			

FIGURE 5.15, Amounts Offered and Collected for All Returned or Rejected Partnership OICs Compared to Returned or Rejected Partnership OICs Where the OIC Amount Was Greater Than Payment⁶⁵

	ALL Returned/Rejected Partnership OICs						
	Count Mean Median Total						
Offered	878	\$35,625	\$5,000	\$31,279,406			
Collected	709	\$34,655	\$7,120	\$24,570,594			
	All Returned/Rejected OICs with Offer > Payment						
	All F	Returned/Rejected O	Cs with Offer > Paym	nent			
	All F	Returned/Rejected O	Cs with Offer > Paym	nent Total			
Offered			· ·				

⁶⁴ IRS Automated OIC System Aug. 2017; IRS CDW BMF Sept. 2018. Some additional amounts may have been collected from Trust Fund Recovery Penalty assessments against individuals of corporations determined responsible for collecting trust fund taxes.

⁶⁵ IRS Automated OIC System Aug. 2017; IRS CDW BMF Sept. 2018.

FIGURE 5.16, Amounts Offered and Collected for All Returned or Rejected Corporation OICs Compared to Returned or Rejected Corporation OICs Where the OIC Amount Was Greater Than Payment⁶⁶

	ALL Returned/Rejected Corporation OICs						
	Count	Total					
Offered	4,347	\$34,695	\$48,000	\$150,818,185			
Collected	3,816	\$53,990	\$11,084	\$206,024,907			
	Returned/Rejected Corporation OICs with Offer > Payment						
	Returned	I/Rejected Corporation	on OICs with Offer > I	Payment			
	Returned Count	I/Rejected Corporation	on OICs with Offer > I	Payment Total			
Offered		· • ·					

FIGURE 5.17, Amounts Offered and Collected for All Returned or Rejected Sole Proprietor OICs Compared to Returned or Rejected Sole Proprietor OICs Where the OIC Amount Was Greater Than Payment⁶⁷

	ALL Returned/Rejected Sole Proprietor OICs						
	Count	Mean	Median	Total			
Offered	1,061	\$13,043	\$4,000	\$13,838,242			
Collected	921	\$21,010	\$6,000	\$19,350,635			
	Returned/Rejected Sole Proprietor OICs with OIC > Payment						
	Returned	/Rejected Sole Propr	ietor OICs with OIC >	Payment			
	Returned Count	/Rejected Sole Propr	ietor OICs with OIC >	Payment Total			
Offered				, 			

Regardless of entity type, Figures 5.14 through 5.17 show that, overall, the IRS collected more than was offered. However, for nearly 39 percent of the cases, the OIC amount was much more than what the IRS ultimately collected. On average, among these cases, the amount offered was more than three times what was collected in the subsequent years. For partnerships, the amount offered was nearly *ten* times the amount actually collected. When considering the nearly four in ten OICs where the amount offered was greater than the amount collected, the median amount offered was more than six times the median amount collected.

⁶⁶ IRS Automated OIC System Aug. 2017; IRS CDW BMF Sept. 2018.

⁶⁷ Id.

When the IRS rejects an OIC, as opposed to returning it as not processable, the IRS computes a specific dollar amount it believes is the RCP. TAS Research also looked at the RCP for the BMF OICs that were rejected. Figures 5.18 through 5.25 show the amount offered compared to the amounts subsequently collected and the RCP for rejected OICs. The data is then broken down by business entity type.

FIGURE 5.18, All Offered, Collected, and RCP Amounts with Rejected OICs⁶⁸

	All Rejected OICs with RCP						
	Count	Mean	Median	Total			
Offered	2,775	\$28,754	\$7,152	\$79,793,191			
Collected	2,487	\$49,030	\$11,436	\$121,936,743			
RCP	2,775	\$403,127	\$113,066	\$1,118,678,499			

The above table shows that the percent that was offered was approximately seven percent of the RCP, in addition, what was ultimately collected was about 10 percent of the RCP. Again, the table below shows the percentage of the offered amount and collected amount to the RCP is insignificant (12 percent and five percent respectively). Of the 2,775 rejected partnership OICs, 1,038 (or approximately 37 percent) had an OIC greater than the subsequent payments.

FIGURE 5.19, All Offered, Collected, and RCP Amounts With Rejected OICs – When the OIC Amount Is Greater Than Subsequent Payments Collected⁶⁹

	All Rejected OICs							
	Count	Mean	Median	Total				
Offered	1,038	\$40,576	\$10,563	\$42,117,880				
Collected	1,038	\$15,495	\$1,959	\$16,083,995				
RCP	1,038	\$331,507	\$128,796	\$344,104,001				

Overall, Figures 5.18 through 5.25 show that the RCP for the entities in this population is significantly overestimated. *In fact, depending on business entity type, the RCP is about seven to ten times greater than the amount offered and 20 to 30 times what has been collected subsequently.* In addition to the impact on revenue collection, inflating the RCP may discourage OIC submissions, with the concurrent impact on subsequent compliance.

⁶⁸ IRS Automated OIC System Aug. 2017; IRS CDW BMF Sept. 2018.

⁶⁹ Id.

FIGURE 5.20, Offered, Collected, and RCP Amounts for Partnerships With Rejected OICs⁷⁰

	Rejected Partnership OICs							
	Count	Mean	Median	Total				
Offered	292	\$20,459	\$5,921	\$5,974,098				
Collected	248	\$34,573	\$9,231	\$8,574,124				
RCP	292	\$215,159	\$97,551	\$62,826,537				

FIGURE 5.21, Offered, Collected, and RCP Amounts for Partnerships With Rejected OICs When the OIC Is Greater Than Subsequent Payments Collected⁷¹

	Rejected Partnership OICs							
	Count	Mean	Median	Total				
Offered	107	\$28,882	\$10,000	\$3,090,341				
Collected	107	\$7,787	\$1,550	\$833,183				
RCP	107	\$210,744	\$109,774	\$22,549,598				

FIGURE 5.22, Offered, Collected, and RCP Amounts for Corporations With Rejected OICs72

	Rejected Corporation OICs							
	Count	Mean	Median	Total				
Offered	1,588	\$37,305	\$10,000	\$59,239,821				
Collected	1,437	\$62,258	\$15,192	\$89,465,223				
RCP	1,588	\$496,646	\$141,478	\$788,673,719				

⁷⁰ IRS Automated OIC System Aug. 2017; IRS CDW BMF Sept. 2018.

⁷¹ *Id.*

⁷² Id.

FIGURE 5.23, Offered, Collected, and RCP Amounts for Corporations With Rejected OICs When the OIC Is Greater Than Subsequent Payments Collected⁷³

	Rejected Corporation OICs							
	Count	Mean	Median	Total				
Offered	617	\$53,911	\$14,091	\$33,263,376				
Collected	617	\$21,066	\$2,571	\$12,997,627				
RCP	617	\$414,590	\$154,839	\$255,802,007				

FIGURE 5.24, Offered, Collected, and RCP Amounts for Sole Proprietorships With Rejected OICs⁷⁴

	Rejected Sole Proprietor OICs							
	Count	Mean	Median	Total				
Offered	483	\$12,901	\$4,050	\$6,230,942				
Collected	441	\$22,401	\$7,362	\$9,878,670				
RCP	483	\$185,772	\$83,450	\$89,727,724				

FIGURE 5.25, Offered, Collected, and RCP Amounts for Sole Proprietorships With Rejected OICs When the OIC is Greater Than Subsequent Payments Collected⁷⁵

	Rejected Sole Proprietor OICs							
	Count	Mean	Median	Total				
Offered	178	\$16,345	\$6,450	\$2,909,466				
Collected	178	\$5,794	\$1,000	\$1,031,330				
RCP	178	\$171,005	\$87,789	\$30,438,947				

Determine the campus that processed the OICs and accepted the OICs

Several Low Income Taxpayer Clinics and other stakeholders have expressed concerns to the National Taxpayer Advocate that OICs are not worked consistently between the two campuses, Memphis and Brookhaven, which process the initial offer.⁷⁶

⁷³ IRS Automated OIC System Aug. 2017; IRS CDW BMF Sept. 2018.

⁷⁴ Id.

⁷⁵ *Id.*

⁷⁶ Low Income Taxpayer Clinics (LITCs) assist low income individuals who have a tax dispute with the IRS, and provide education and outreach to individuals who speak English as a second language (ESL). TAS, Low Income Taxpayer Clinics, https://taxpayeradvocate.irs.gov/about/litc. See IRC § 7526.

FIGURE 5.26, OIC Acceptance Rates by Campus Processing OIC⁷⁷

Year	Business OICs Processed by Memphis	Percentage of OICs Accepted	Business OICs Processed by Brookhaven	Percentage of OICs Accepted	
2007	2,007	23.9%	3,301	25.2%	
2008	1,659	18.7%	2,812	20.0%	
2009	1,446	23.4%	2,249	25.3%	
2010	1,812	26.3%	2,928	25.8%	
2011	1,774	29.2%	2,889	32.4%	
2012	1,885	30.9%	2,803	34.4%	
2013	1,853	30.2%	2,972	33.1%	
2014	1,716	32.2%	2,796	35.5%	
2015	1,409	32.4%	2,619	35.5%	
2016	1,184	27.5%	2,035	31.9%	
2017	989	8.4%	1,835	9.5%	

Although, overall, for the past 11 years, the difference in the acceptance rates of business offers is only about two percent. The difference between the business OIC acceptance rates widened from 2011 to 2016, with Brookhaven's business OIC acceptance rate being 4.4 percentage points higher than OICs processed at the Memphis site in 2016. The difference between the OIC acceptance rates has come down to a much smaller difference in 2017. Currently, we do not see a significant difference in OIC processing between the two sites.

CONCLUSIONS

OICs benefit both the IRS and the taxpayer. The IRS collects as much as it can, based on the taxpayer's reasonable collection potential, conditioned on the taxpayer remaining in compliance. The taxpayer is able to move on with a "fresh start." This is particularly important to BMF taxpayers who do not have access to the full array of collection alternatives available to IMF taxpayers. TAS research shows that accepting an OIC positively impacts future filing and payment compliance for BMF taxpayers. However, in over a third of rejected OICs, our research shows that the IRS overinflated the RCP, leading to a rejected OIC.

When read in conjunction with the National Taxpayer Advocate's IMF OIC study from last year, TAS Research has shown that the OIC program is an important tool for revenue collection, taxpayer health and welfare, and continued compliance.

Overall, since 2007, the percentage of BMF taxpayers who have submitted an OIC, and subsequently churn, is approximately seven percent. The IRS accepted the OICs of over a third of those taxpayers with churned OICs, suggesting that taxpayers are often trying to submit successful OICs and the IRS could save resources by working with these taxpayers to perfect OICs rather than returning them.

⁷⁷ IRS, CDW BMF Dec. 2017. Decisions may not have been made on 2017 OICs when the data for this report was pulled in 2018.

- BMF taxpayers with accepted OICs have a higher rate of remaining in filing and payment compliance for the five years after the IRS accepts the OIC than compared to BMF taxpayers whose OICs were not accepted. Taxpayers with accepted OICs have even better compliance beyond five years when compared to businesses who had their OICs returned or rejected. When considering only those taxpayers who continued to operate, the difference in subsequent filing and payment compliance rates were more pronounced in favor of those businesses having an accepted OIC. For instance, filing compliance for all years after OIC acceptance is about 12 percentage points higher for a BMF taxpayer continuing to operate with an accepted OIC than for a BMF taxpayer with a rejected OIC.
- The IRS often overestimates the business taxpayer's RCP. In fact, the RCP is overestimated by about eight times what was offered and about 20 times what was ultimately collected.

RECOMMENDATIONS

Congress intended for the IRS to take a flexible approach in using the OIC as a collection tool. For businesses, it may be the only viable collection alternative. While the IRS accepts many OICs, the percentage of accepted BMF OICs is less than that of IMF OICs. The IRS also returns or rejects many OICs that could be perfected by working with the taxpayer. And in a substantial number of cases, the IRS rejected an OIC and then failed to collect as much as the taxpayer offered to satisfy the liability. Yet, taxpayers with accepted OICs have better subsequent filing and payment compliance. With these facts in mind, the National Taxpayer Advocate makes the following recommendations:

- The IRS should devote more resources to working with taxpayers to perfect OICs it would otherwise reject or return. Securing acceptable OICs could save the IRS money by preventing resources from being spent collecting the uncompromised delinquency and by obtaining the increased filing and payment compliance that generally accompanies accepted OICs. It also reduces the effort to reopen a case in the case of churned OICs.
- The IRS should study a sample of returned and rejected OICs to determine factors which indicate that the IRS is likely to collect an amount less than what has been offered to compromise the liability. Given the large differential between RCP and the amount offered for some rejected OICs, taxpayers may become discouraged, unable, or unwilling to amend their OICs. As part of this study, the IRS should also determine what factors lead to an inflated RCP so that, in future situations with similar circumstances, the IRS could determine a more realistic amount of RCP, which may result in more accepted OICs.
- The IRS should consider further improving its IRM guidance. For instance, to encourage consideration of specific facts and circumstances for each business, the IRS should eliminate the general assumption that an operating business should provide payment for the full amount of remaining tax and focus on the actual facts and circumstances in which the business operates.

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Further Analyses of "Federal Tax Liens and Letters: Effectiveness of the Notice of Federal Tax Liens and Alternative IRS Letters on Individual Tax Debt Resolution"

Further Analyses of "Federal Tax Liens and Letters: Effectiveness of the Notice of Federal Tax Liens and Alternative IRS Letters on Individual Tax Debt Resolution" ¹

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The principal authors of the study are Terry Ashley, Laura Baek, Joe Saldana, Stacie Swanson, and Jeff Wilson. For more information, please see Ishani Roy, Brett Collins, Alex Turk, Alan Plumley, Terry Ashley, and Jeff Wilson, Internal Revenue Service, Federal Tax Liens and Letters: Effectiveness of the Notice of Federal Tax Liens and Alternative IRS Letters on Individual Tax Debt Resolution (This study will appear in an upcoming IRS Research Bulletin.)

EXECUTIVE SUMMARY

A federal tax lien (FTL) arises when the IRS assesses a tax liability and sends the taxpayer notice and demand for payment, and the taxpayer does not fully pay the debt within ten days.² However, an FTL is not sufficient to protect the government's interest in the taxpayer's assets against other creditors. To establish its interest in property with respect to other competing interests, the IRS must file a Notice of Federal Tax Lien (NFTL). NFTLs establish priority of the government's interest in a taxpayer's property with respect to certain creditors by putting the public, including third-party creditors, on notice of an existing statutory lien.³ In the past, the IRS generally filed an NFTL on all unresolved cases with unpaid balance of assessment of over \$10,000 before transferring the case from its Automated Collection System (ACS) to the collection queue.⁴ In 2011, the IRS began its Fresh Start initiative and suspended the routine filing of an NFTL on ACS unresolved cases before the cases were transferred to the collection queue, unless the unpaid balance of the assessments was over \$25,000.⁵ However, a 2014 report issued by the Treasury Inspector General for Tax Administration (TIGTA) recommended the IRS begin filing an NFTL on tax liabilities with unpaid assessments of over \$10,000.⁶

The National Taxpayer Advocate persuaded the IRS to conduct a study to determine if the NFTL or one of three alternative collection letters were more effective in reducing the balances owed by taxpayers. The IRS selected a random sample of about 13,000 taxpayers who generally owed between \$10,000 and \$25,000, dividing the sample taxpayers into five relatively equal groups: a group receiving an NFTL; three groups receiving one of three alternative collection letters requesting payment of the balance, emphasizing collection alternatives, and providing information where the taxpayer could receive additional assistance; and a control group. TAS was primarily responsible for creating the three alternative collection letters, while IRS Research Analysis and Applied Statistics (RAAS) performed most of the initial analyses and drafted the study report. The study, which will be published in an upcoming IRS Research Bulletin, determined that the sample group receiving the NFTL saw the greatest reduction in the balance owed for both the year immediately after treatment and the combined two-year period subsequent to treatment. Nevertheless, TAS believes there are some additional findings from the study data that should be highlighted to help inform IRS policy on when to file an NFTL. These items are summarized hereafter.

About 93 percent of the dollars collected in the five groups are from taxpayers where an analysis of systemic data indicates the taxpayers' income exceed their allowable living expenses (ALE) or the taxpayer possesses an asset, which could possibly be used to satisfy all or part of the balance

- 3 IRC §§ 6321, 6322, and 6323(a).
- The collection queue is a holding area where unresolved cases go prior to being assigned to a revenue officer for in-person collection when resources become available. Collection releases cases from the collection queue based on a priority assigned to each case. Internal Revenue Manual (IRM) 1.4.50.8.3, Queue (Sept. 12, 2014). The IRS may not file a new Notice of Federal Tax Lien (NFTL) for an additional assessment when an NFTL has already been filed for the original assessment.
- See National Taxpayer Advocate 2012 Annual Report to Congress 408, 403-425 (Most Serious Problem: Although the IRS "Fresh Start" Initiative Has Reduced the Number of Lien Notices Filed, the IRS Has Failed to Determine Whether Its Lien Policies are Clearly Supported by Either Increased Taxpayer Compliance or Revenue).
- Treasury Inspector General for Tax Administration (TIGTA), Ref. No. 2014-30-052, Delinquent Taxes May Not Be Collected Because Required Research Was Not Always Completed Prior to Closing Some Cases as Currently Not Collectible (Aug. 25, 2014).
- 7 Taxpayer Advocate Service (TAS) Research reviewed the data and provided comments.

Internal Revenue Code (IRC) §§ 6321 and 6322. IRC § 6201 authorizes the IRS to assess all taxes owed. IRC § 6303 provides that within 60 days of the assessment the IRS must provide notice and demand for payment to any taxpayer liable for an unpaid tax.

OIC Study

due. TAS believes the IRS can construct a filter to determine when the IRS should routinely file an NFTL.

- The alternative collection letters induce as many or even more taxpayers to make payments as the NFTL, even though the NFTL generally results in a greater reduction in the balance due. Because of this fact, the IRS needs to consider whether its messaging in other collection notices should be designed to elicit money from taxpayers likely unable to afford these payments.
- A finding of the soon-to-be published study is that the monthly alternative collection letter generated a greater reduction in the balance due during the second year after taxpayers received the letter than during the second year after the taxpayer received the NFTL.⁸ Overall, the monthly letter was the next most effective treatment.⁹ Monitoring the test cases over the next several years will help determine if the reduction in the balance due continues to decrease beyond two years after the IRS filed the NFTL, and if at the same time, the reduction in the balance due continues to increase for those receiving the monthly alternative collection letter.
- Taxpayers receiving the NFTL are less likely to have a Taxpayer Delinquent Account (TDA) than any of the three groups who received an alternative collection letter, although the difference is only statistically significant for the first alternative collection letter (Letter 5696C).¹¹⁰ Taxpayers in the group receiving the NFTL were more likely to have an unfiled return for the year after the treatment occurred, but the difference was not statistically significant. All of the treatment groups were less likely than the control group to have a Taxpayer Delinquent Investigation (TDI) for the next income tax return due after treatment; however, the difference to the control group was not statistically significant at the 95 percent confidence level.¹¹¹
- Taxpayers receiving the NFTL were actually more likely to report increased income during the year in which the NFTL was filed, indicating that the NFTL was not generally affecting a taxpayer's ability to earn future income. However, for the segment of taxpayers without the apparent wherewithal to satisfy their liability, income decreased in the year after treatment (the filing of an NFTL or issuance of an alternative collection letter) by at least ten percent in all groups. This data may suggest that a significant life event caused the taxpayer to be unable to resolve the liability.

TAS concurs with the study finding that an NFTL is generally the most effective at reducing the balance due, when compared to other alternative collection letters. However, TAS also believes that the IRS should consider a taxpayer's facts and circumstances before deciding to file an NFTL. Furthermore, the findings indicate that the IRS can use systemic data to determine with a high probability which taxpayers have the wherewithal to pay towards the liability, indicating the filing of an NFTL may be an effective course of action. Nevertheless, routinely filing the NFTL in only those cases where the taxpayer appears to have the ability to pay toward the liability (but has not done so) will reduce what the IRS pays in fees to file the NFTL, while reducing burden for those taxpayers without a current likely ability to pay towards their liability.

⁸ The amount of reduction in the balance due is a statistically significant in some, but not all, models.

⁹ The IRS only mailed the letter for nine months.

Taxpayer Delinquent Accounts (TDAs) are collection accounts that remain unresolved at the conclusion of the collection notice process and have been designated for additional collection activity (e.g., Automated Collection Systems (ACS) or the Collection Field function (CFf)). A taxpayer may have multiple TDAs (e.g., one for each delinquent tax period).

¹¹ IRM 5.1.11.1.2, *Tax Delinquency Investigations* (TDI/Del Ret) (June 2, 2004). When a taxpayer's unfiled return reaches TDI status, the IRS has assigned the delinquent return for active research by Collection personnel to determine if the return has tax due and, if so, to secure the return from the taxpayer.

INTRODUCTION

When a taxpayer has a balance due shown on a return that is unpaid at the time of filing, the IRS sends the taxpayer a series of notices asking the taxpayer to resolve the balance due. If these notices are unsuccessful, most delinquencies are then assigned to the Automated Collection System (ACS) for additional collection actions, including the issuance of letters requesting the taxpayer call the IRS to resolve the balance due or enforced collection action such as the issuance of levy on the taxpayer's wages or bank account, if the amount cannot be paid in full.¹² However, if these actions do not satisfy the delinquent accounts, ACS will transfer the cases to a holding area (the collection queue) for eventual assignment to a revenue officer (RO). The IRS generally files an Notice of Federal Tax Lien (NFTL) on unpaid liabilities of a certain dollar amount before ACS transfers these cases to the collection queue.¹³ Once in the queue, the unpaid delinquencies will await assignment to a revenue officer to conduct inperson collection activities, since prior remote collection activities have been unsuccessful in resolving the liability. However, revenue officer resources are limited, and cases are assigned from the queue for in-person collection based on their relative priority to other cases in the collection queue.¹⁴ Therefore, taxpayer delinquencies may sit in the collection queue for an extended period of time before assignment to a revenue officer. Because of this delay, ACS often chooses to file an NFTL to establish its priority in any equity in assets which the taxpayer may have.¹⁵

An NFTL protects the government's interests in a taxpayer's property against subsequent purchasers, secured creditors, and junior lien holders when past due taxes are owed.¹⁶ A federal tax lien (FTL) arises when the IRS assesses a tax liability, sends the taxpayer notice and demand for payment, and the taxpayer does not fully pay the debt within ten days of the notice and demand.¹⁷ An FTL is effective as of the date of assessment and attaches to all of the taxpayer's property and rights to property, whether real or personal, including those acquired by the taxpayer after that date.¹⁸ This lien continues against the taxpayer's property until the liability either has been fully paid or is legally unenforceable.¹⁹ This statutory lien is sometimes called the "secret" lien, because third parties—and usually the taxpayer—have no knowledge of the existence of this lien or the underlying tax debt.²⁰ However, to put third parties on notice and establish the priority of the government's interest in a taxpayer's property against subsequent purchasers, secured creditors, and junior lien holders, the IRS must file an NFTL in the appropriate location, such as a county register of deeds.²¹

- 13 IRM 5.19.5.9.7, E9 NFTL Determinations (Follow-Up to LT39) (May 2, 2016).
- 14 See Most Serious Problem: Field Collection: The IRS Has Not Appropriately Staffed and Trained Its Field Collection Function to Minimize Taxpayer Burden and Ensure Taxpayer Rights Are Protected, supra.
- 15 IRM 5.19.4.5.1, Notice of Federal Tax Lien Filing Determinations (Jan. 1, 2015); IRM 5.12.1.2, Introduction to Liens (July 11, 2018).
- 16 IRC §§ 6321 and 6323.
- 17 IRC §§ 6321 and 6322. IRC § 6201 authorizes the IRS to assess all taxes owed. IRC § 6303 provides that within 60 days of the assessment the IRS must provide notice and demand for payment to any taxpayer liable for an unpaid tax.
- 18 IRC § 6321; IRM 5.12.2.2, Taxpayer Contact (Nov. 9, 2015).
- 19 IRC § 6322.
- 20 IRC § 6321.
- 21 IRC § 6323(f); Treas. Reg. § 301.6323(f)-1; IRM 5.12.2.8 (Oct. 30, 2009); IRM 5.12.1.2, Introduction to Liens (July 11, 2018).

¹² The ACS call center assigns incoming calls to contact representatives or tax examiners who work with taxpayers. ACS's telephone call center is designed to get taxpayers into the phone-based system as quickly as possible by sending them to the first available contact representative or tax examiner who can assist them, regardless of where the assistor is located geographically. See Most Serious Problem: IRS's Automated Collection System (ACS): ACS Lacks a Taxpayer-Centered Approach, Resulting in a Challenging Taxpayer Experience and Generating Less Than Optimal Collection Outcomes for the IRS, supra.

OIC Study

Both the IRS and the Taxpayer Advocate Service have conducted studies regarding the effectiveness of the NFTL. These studies focused on the dollars paid by taxpayers who became subject to an NFTL, as well as on their subsequent filing and payment compliance and the taxpayer's ability to earn future income. However, prior IRS randomized field studies of the effect of the NFTL were limited to a relatively small segment of the taxpayer population.²² The prior TAS study used a propensity score matching methodology to retroactively determine the likelihood of the filing of an NFTL; however, other factors not possible to control for in the propensity matching may have influenced whether an NFTL was actually filed.²³

The recent study, which is the subject of this report, has the advantage of allowing for a randomized field experiment representing a broad spectrum of taxpayers.²⁴ Furthermore, the taxpayers were randomly assigned to a group receiving the NFTL, a control group (not receiving the NFTL or an alternative collection letter), or one of three groups receiving an alternative collection letter (but where an NFTL is not filed). Therefore, this study covers a broad range of taxpayers, and randomly assigns taxpayers to one of the five groups (four treatment groups and a control group) instead of assigning to an NFTL or non-NFTL group after the fact.

Specifically, this study focused on individual taxpayers transferred from ACS to the collection queue and owing between \$10,000 and \$25,000 of delinquent taxes. As part of its Fresh Start initiative, the IRS suspended filing an NFTL in instances where the individual taxpayer owed not more than \$25,000, prior to being transferred to the collection queue.²⁵ About 13,000 individual taxpayers were randomly assigned to five groups, one group receiving an NFTL, three groups each receiving a letter advising of the balance due, as well as providing different collection alternatives (but the IRS did not file an NFTL),²⁶ and a control group where the taxpayer did not receive an NFTL or an alternative letter.

While RAAS and TAS, in conjunction with the IRS Small Business and Self-Employed (SB/SE) function, conducted the study jointly, RAAS conducted most of the initial research of how effective each of the four treatments were in comparison to the control group. RAAS explored the change in the balance owed by each of the five groups. The change in balance owed reflects any taxpayer payments toward the liability in addition to any abatements of tax, penalty, or interest, or the accrual of new liabilities. RAAS presented this study at the 2018 IRS/Tax Policy Center Research Conference and their final report will be published in an upcoming Statistics of Income Research Bulletin. The study found that the NFTL was effective in reducing the balance owed when compared to the control group. While noting some effect in reducing the module balance compared to the control group, the study also found

²² For more information, see Ishani Roy, Brett Collins, Alex Turk, Alan Plumley, Terry Ashley, and Jeff Wilson, Internal Revenue Service, Federal Tax Liens and Letters: Effectiveness of the Notice of Federal Tax Liens and Alternative IRS Letters on Individual Tax Debt Resolution (This study will appear in an upcoming IRS Research Bulletin).

²³ National Taxpayer Advocate 2011 Annual Report to Congress vol. 2, 91-111 (Research Study: Estimating the Impact of Liens on Taxpayer Compliance Behavior and Income).

²⁴ Ishani Roy, Brett Collins, Alex Turk, Alan Plumley, Terry Ashley, and Jeff Wilson, IRS, Federal Tax Liens and Letters: Effectiveness of the Notice of Federal Tax Liens and Alternative IRS Letters on Individual Tax Debt Resolution (This study will appear in an upcoming IRS Research Bulletin).

²⁵ National Taxpayer Advocate 2015 Annual Report to Congress 112-122 (Most Serious Problem: Notices of Federal Tax Lien (NFTL): The IRS Files Most NFTLs Based on Arbitrary Dollar Thresholds Rather Than on a Thorough Analysis of a Taxpayer's Financial Circumstances and the Impact on Future Compliance and Overall Revenue Collection). At the time of the initiative, the IRS made a policy decision to reprogram ACS to file Notices of Federal Tax Lien (NFTLs) only where the unpaid balance of assessment is over \$25,000. However, the IRS did not update the IRM or issue interim guidance reflecting this change. The IRS does not routinely file an NFTL on cases transferred to the queue where the taxpayer owes less than \$10,000.

²⁶ One of the three groups received a collection alternative letter for nine consecutive months as opposed to the other two groups which only received a single collection alternative letter.

that the NFTL was more effective at reducing the balance owed by taxpayers than the other collection alternative letters. We do not dispute the findings of the study; however, we are publishing these supplemental findings of this research study to highlight the following:²⁷

- It is important to review a taxpayer's income and assets in determining the amount actually
 collectible.
- Collection treatments often induce taxpayers to make payments, even though they likely cannot afford these payments.
- The recipients of the monthly collection letter had a greater reduction in their balance owed in the second year after the treatment than recipients of the NFTL.
- Taxpayers receiving an NFTL were somewhat less likely to have a new TDA, compared to taxpayers who received the alternative collection letter, but somewhat more likely to have a subsequent TDI.
- As a group, taxpayers receiving the NFTL did report a reduction in income for the year during which the NFTL was filed, however taxpayers with incomes not in excess of their allowable living expenses (ALE) (and also not having the presence of a systemically detected asset) were likely to report a reduction in income regardless of whether the IRS filed an NFTL against the taxpayer or issued an alternative collection letter.

These additional findings provide additional information regarding when the IRS should routinely file an NFTL.

Furthermore, the National Taxpayer Advocate is concerned that the initial study focused on a narrow definition of "effectiveness," one that does not comport with several taxpayer rights, namely the *right to privacy* and the *right to a fair and just tax system*.

BACKGROUND

The IRS has filed NFTLs at varying rates over the past several years. Figure 6.1 depicts the total NFTLs filed by the IRS during the past ten years.²⁸ This figure also separately shows only liens filed by ACS over the past ten years, since this study focuses on liens filed by ACS.

FIGURE 6.1

Total and ACS NFTLs Filed by Fiscal Year

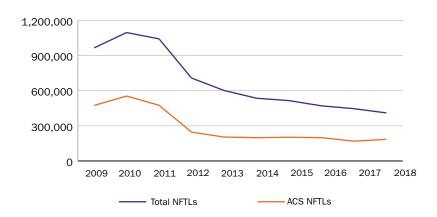
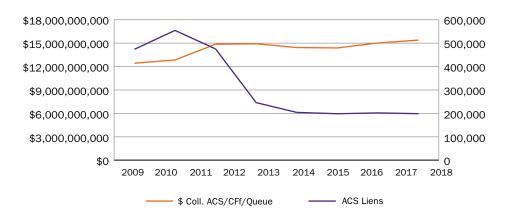


Figure 6.2 compares ACS liens filed to revenue collected by the IRS. *The graph does not show a correlation between liens filed and total revenue.* We include both the dollars collected directly by ACS, the Collection Field function (CFf), and the queue as well as the dollars collected from taxpayers in ACS, CFf, or the collection queue through installment agreements, since the filing of an NFTL by ACS may affect the dollars collected through each of these avenues.

²⁸ Fiscal year (FY) ending Collection Activity Reports 5000-2 and 5000-6 for FYs 2009 through 2018. Amounts collected through refund offsets are not included because the IRS would collect these amounts regardless of any assignment of a balance due case to a Collection function.

FIGURE 6.229

Number of Liens Filed by ACS vs. Certain Categories of Dollars Collected (Inflation Adjusted to 2018 Dollars)



As previously discussed, the IRS files an NFTL to protect its interest in taxpayer's assets, so that the IRS may satisfy as much of the taxpayer's delinquencies from the eventual liquidation of these assets.³⁰ As part of its Fresh Start initiative, the ACS no longer filed NFTL's on liabilities between \$10,000 and \$25,000 prior to transferring these liabilities to the queue.³¹ However, this change in procedure was never officially adopted or incorporated into the IRM. As a result, a 2014 Treasury Inspector General for Tax Administration (TIGTA) audit recommended the IRS again file NFTLs on taxpayers with liabilities in this dollar range before transferring the liabilities to the collection queue.³² When notified of this potential change in procedure, the National Taxpayer Advocate persuaded SB/SE to test the effectiveness of the NFTL filing with the effectiveness of new collection alternative letters. SB/SE agreed to this proposal and RAAS agreed to participate in the design of this test and the subsequent analysis of the study results.

TAS worked to design two alternative letters to be sent to two different groups of taxpayers, instead of these taxpayers receiving an NFTL. Both letters informed the taxpayer of available collection alternatives. Both letters emphasized the effect on the unresolved liability of the accrual of penalties and interest; however, one letter focused on available collection alternatives, while the other letter emphasized the availability of the Taxpayer Advocate Service and the potential to obtain assistance from a Low Income Taxpayer Clinic. The second collection alternative letter was also sent monthly (for nine consecutive months) to a separate group of study taxpayers. A limitation to the letters was that they had

²⁹ Dollars collected from balance due accounts assigned to ACS, Collection Field function (CFf) or the collection queue and installment agreement dollars collected from ACS, the collection queue or the CFf. FY 2009–2018 Collection Activity Reports 5000-2 and 5000-6.

³⁰ IRC § 6323(f); Treas. Reg. § 301.6323(f)-1; IRM 5.12.2.3, Notice of Federal Tax Lien Filing Determination (Pre-filing Considerations) (Oct. 14, 2013).

³¹ IRS, IR-2011-20, IRS Announces New Effort to Help Struggling Taxpayers Get a Fresh Start; Major Changes Made to Lien Process (Feb. 24, 2011).

³² TIGTA, Ref. No. 2014-30-080, Declining Resources Have Contributed to Unfavorable Trends in Several Key Automated Collection System Business Results (Sept. 18, 2014).

to be computer-generated letters capable of being sent by ACS. Therefore, the letters were not user-friendly or aesthetically pleasing and potentially less likely to be opened and read by the taxpayer.³³

The design of the alternative letters and the modification of routine IRS procedures took about 18 months to accomplish. By Spring 2016, ACS was able to randomly select about 2,500 taxpayers into each of the five sample groups. Overall, ACS assigned a total of over 13,000 taxpayers to the five groups. The change in these taxpayers' module balance was measured for the one and two-year period subsequent to the treatment (issuance of an NFTL or alternative letter).

OBJECTIVES

This study contains five specific objectives:

- Compare the dollars collected by taxpayers with incomes exceeding computed IRS ALE standards (or the presence of systemically detected assets) to taxpayers with incomes not in excess of their ALEs (and no systemically detected assets).³⁴
- 2. Determine the prevalence of taxpayers below IRS ALE standards (and without known assets) making payments in response to one of the treatments.
- 3. Highlight the dollars collected in each group during the second year after the treatment was applied.
- 4. Determine the payment and filing compliance rates for each group subsequent to the treatment.
- 5. Determine the income of taxpayers in each group subsequent to the treatment.

METHODOLOGY

This report builds on the previous RAAS and TAS study, which compared the effectiveness of filing an NFTL on one sample group of taxpayers to three other groups of similar taxpayers who received an alternative collection letter and to a control group who did not receive an NFTL or alternative collection letter. For the first two objectives, we computed the ALE for taxpayers in each group. For each of the taxpayers in the groups, we used the maximum of total positive income (TPI) from their tax year (TY) 2016 return or the sum of income reported by third-parties on the following information return documents: Form 1099-INT, *Interest Income*; Form 1099-DIV, *Dividends and Distributions*; Form 1099-R, *Distributions From Pensions, Annuities, Retirement or Profit-Sharing Plans, IRAs, Insurance Contracts, etc.*; Form 1099-B, *Proceeds From Broker and Barter Exchange Transactions*; Form 1099-MISC, *Miscellaneous Income*; Form SSA-1099, *Social Security Benefit Statement*; and Form W-2, *Wage and Tax Statement*.³⁵ The national standard ALEs were determined from the total exemptions claimed on TY 2016 return.³⁶ If the total exemption amounts on the respective tax return were zero, we allowed a national standard for a household size of one. Similarly, if the indicated tax return is unfiled, we determined the national standard from a household size of one. We used the ZIP code of the taxpayer's TY 2016 return to determine the housing and utility allowance for the taxpayer. If the taxpayer had

³³ See Literature Review: Improving Notices Using Psychological, Cognitive, and Behavioral Science Insights, infra.

³⁴ We explain the calculations to determine a taxpayer's Allowable Living Expense (ALE) in the Methodology section of this report.

³⁵ Total Positive Income (TPI) is calculated by summing the positive values from the following income fields from a taxpayer's tax year (TY) 2014 individual income tax return: wages; interest; dividends; distribution from partnerships, small business corporations, estates, or trusts; Schedule C net profits; Schedule F net profits; and other income such as Schedule D profits and capital gains distributions. Losses reported for any of these values are treated as zero.

³⁶ IRM 5.15.1.8, Allowable Expense Overview (Aug. 29, 2018).

not filed a tax return for TY 2016, we used the national minimum housing and utility allowance for a household size of one. If the taxpayer could be claimed as a dependent by someone else, we did not give the taxpayer a housing and utility allowance. We also used the ZIP code from the taxpayer's TY 2016 return to map to the appropriate Metropolitan Statistical Area (MSA) or region to determine transportation vehicle operating expenses.³⁷ If the return was not filed, we used the lowest national amount of vehicle operating expense for any region. The taxpayer entity was allowed one operating expense if a primary exemption was claimed and two operating expenses if the return also reported an exemption for the spouse. We determined health care expenses based on the age of the taxpayer as reported on the applicable tax return. If the taxpayer did not file a tax return for the indicated tax year, we considered the individual to be under the age of 65. Only taxpayer entities who claimed both a primary and a secondary exemption were allowed two expenses for out-of-pocket health care (amount depending on the age of each individual). Finally, we determined the taxpayer had asset(s) if the taxpayers received a Form 1098 reporting mortgage interest paid or if they had a Schedule A reporting mortgage interest paid or property tax paid or if the taxpayer received a third-party information document reporting total interest, dividends, or golden parachute payments of \$100 or the sale of stock of at least \$1,000.

For the third objective, we merely highlight findings from RAAS's soon to be published report on this study. For the fourth objective, we examine the taxpayer's filing compliance for TYs 2016 and 2017. To determine the payment and filing status of the taxpayers in each group, TAS Research obtained the collection status codes of the modules for returns due for TYs 2016 and 2017. TAS Research also detected if any payment delinquency was present and if a payment delinquency reached Taxpayer Delinquent Account (TDA) status.³⁸ For the fifth objective, we determined each taxpayer's total income reported on their individual income tax return due after the initial treatment during 2016.

³⁷ IRM 5.15.1.8, *Allowable Expense Overview* (Aug. 29, 2018).

³⁸ Taxpayer Delinquent Accounts (TDAs) are collection accounts that remain unresolved at the end of the collection notice process and have been designated for additional collection activity (e.g., ACS or the CFf). A taxpayer may have multiple TDAs (e.g., one for each delinquent tax period).

FINDINGS

Objective 1: Comparing Dollars Collected by Whether the Taxpayer Has an Apparent Ability to Pay

TAS Research analyzed the dollars collected in the first year and in the second year for taxpayers in each of the five groups by whether or not either the taxpayer's total positive income exceeded his or her calculated ALE standards or whether we could systemically detect the presence of an asset. Figure 6.3 shows that about three quarters of the taxpayers in the any of the five groups had total positive income exceeding their ALE or had the presence of a systemically detected asset. However, taxpayers with income in excess of the ALE or with a systemically detected asset paid about 93 percent of the dollars collected in both first year and second year after treatment.

FIGURE 6.3, Dollars Collected During First and Second Year for Taxpayers by Whether They Had Income Exceeding ALE or a Systematically Detected Asset³⁹

	First Year Payments				Second Year Payments			
	Count	Percent	Payments	Percent of Total Payments	Count	Percent	Payments	Percent of Total Payments
Taxpayer's TPI Not Exceeding ALE/No Systemically Detected Assets	3,398	25.7%	\$3,054,518	7.0%	3,398	25.7%	\$6,262,029	7.3%
Taxpayer's TPI Exceeding ALE or a Systemically Detected Asset	9,803	74.3%	\$40,808,206	93.0%	9,803	74.3%	\$80,083,421	92.7%
Totals	13,201	100.0%	\$43,862,725	100.0%	13,201	100.0%	\$86,345,449	100.0%

For at least the first two years, the data suggest that the IRS would lose little revenue by only filing the NFTL on those taxpayers where there is an indication of either an asset or income exceeding their ALE, which could be used to pay down the liability. While the IRS may be concerned that it cannot accurately determine income in excess of ALE or the presence of an asset through systemic means, the data show that this method will detect those taxpayers who provide nearly all of the revenue. At the same time, the IRS could avoid costs associated with less productive liens while also not burdening nearly a quarter of these taxpayers with a likely unproductive NFTL.

³⁹ IRS, Compliance Data Warehouse (CDW) Individual Master File subsequent payments (Transaction Code 670). The margin of the proportion of taxpayers or payments does not exceed plus or minus 1.5 percent at the 95 percent confidence level.

Objective 2: Determine the Prevalence of Taxpayers Making Payments

An analysis of each of the five groups shows that the NFTL and all of the alternative collection letters induce taxpayers with incomes not exceeding their maximum calculated ALE to make a payment during the first year after treatment.⁴⁰ Figure 6.4 shows that each of the treatments (NFTL and letter groups one through three) are more likely to generate a payment from taxpayers with incomes at or below their ALEs when compared to the control group.⁴¹

FIGURE 6.4, Taxpayers with Maximum Calculated ALE⁴² Greater Than or Equal to Income and Whether These Taxpayers Made a Payment During the First Year After Treatment⁴³

Group Description	Sample Size	Number and Percent Who Paid		Number and Percent of Taxpayers At or Below ALE and No Known Assets		Number and Percent of Taxpayers At or Below ALE and No Known Assets Who Paid	
NFTL	2,996	1,522	51.00%	731	24.40%	200	27.36%
Letter 1 (5696C)	2,564	1,214	47.00%	585	22.82%	149	25.47%
Letter 2 (5701C)	2,571	1,233	48.00%	598	23.26%	175	29.26%
Letter 2 monthly (5702C)	2,583	1,288	50.00%	581	22.49%	167	28.74%
Control	2,487	1,019	41.00%	635	25.53%	140	22.05%

In fact, two of the letter groups are as likely or slightly more likely than the NFTL group to generate a payment from a taxpayer unlikely to be able to afford the payment. This issue is also relevant in light of recent research the IRS has conducted regarding the redesign of various collection notices to generate more revenue and to avert personal contact between the IRS and the taxpayer.⁴⁴

⁴⁰ IRM 5.15.1.8 (Aug. 29, 2018). For local standards such as housing and utility expenses, the IRS allows the local standard or the amount actually paid monthly, whichever is less.

⁴¹ When considering all study taxpayers, the percentage of payments made between the two groups depicted in Figure 6.3 is significant at the 95 percent confidence level.

⁴² IRM 5.15.1.8(5), *Allowable Expense Overview* (Aug. 29, 2018). A taxpayer who claims an expense under the local standards is allowed the lesser of the amount spent or the local standard. Our analysis allocated the maximum amount of the local standard for the taxpayer's circumstance.

⁴³ IRS, CDW Individual Returns Transaction File, Individual Transaction File, and Information Returns Master File (Oct. 2018). Each of the treatment groups was more likely to have a payment compared to the control group at the 95 percent confidence interval. At the 95 percent confidence level, no statistical difference existed between the five groups in the number of taxpayers with income at or below their ALEs and no systemically detected asset. At the 95 percent confidence level, only taxpayers receiving the one-time Letter 5702C were more likely than the control group to have taxpayers with incomes at or below their ALEs and no systemically detected asset who submitted a payment.

The IRS has completed two studies testing potential redesigns to the ACS Letter 16, which is another notice sent to elicit payment from a taxpayer and the first notice (CP-14) issued to a taxpayer who has accrued a delinquent balance. Both studies show that redesigned notices can effectively influence taxpayer behavior. IRS, ACS LT 16 Notice Redesign Test Pilot Report (Sept. 27, 2017); IRS, CP14 Notice Redesign Test Report (Apr. 18, 2018). However, a focus of both studies is to reduce person-to-person contact with the IRS in addition to generating more revenue and case resolutions. These studies did not measure whether the reduction of person-to-person contact increased the risk of collecting revenue from taxpayers who actually could not afford to pay. Moreover, the studies drove taxpayers to streamlined installment agreements—rather than other, possibly more suitable, collection alternatives. See National Taxpayer Advocate 2016 Annual Report to Congress vol. 2 53-66 (Research Study: The Importance of Financial Analysis in Installment Agreements (IAs) in Minimizing Defaults and Preventing Future Payment Noncompliance).

OIC Study

Objective 3: Dollars Collected During the Second Year of Treatment

The RAAS analysis clearly shows that the NFTL generated a greater reduction in the amount owed by the taxpayer in the first year and for the total of the first and second years after the treatment (either filing of an NFTL or issuance of an alternative collection letter). Figure 6.5, reprinted from RAAS's study demonstrates that the NFTL is responsible for greater marginal effects (*i.e.*, the increased likelihood of a taxpayer reducing the amount owed when considering only the type of treatment) compared to other factors likely influencing the change in the balance owed by the taxpayer. However, when comparing the reduction in amount owed by the taxpayer during the second year after treatment, the monthly alternative collection letter actually generated greater marginal effects than the NFTL (see italicized cells below).⁴⁵

FIGURE 6.5, Marginal Treatment Effects for Ordinal and Multinomial Models⁴⁶

Treatment		Marginal Effect Ordinal Models			Marginal Effect Multinomial Models		
Model	(vs. R=0)	R=2	R=1	R=1 or R=2	R=2	R=1	R=1 or R=2
Year 1	NFTL	0.034	0.084	0.118	0.048	0.063	0.111
$(b_1 - b_0)$	Letter 1 (5696C)	0.011	0.033	0.044	0.014	0.029	0.043
	Letter 2 (5701C)	0.010	0.032	0.043	0.012	0.030	0.042
	Letter 2 Monthly (5702C)	0.014	0.040	0.054	0.011	0.045	0.056
2 Years	NFTL	0.045	0.061	0.106	0.060	0.038	0.098
$(b_2 - b_0)$	Letter 1 (5696C)	0.019	0.032	0.052	0.019	0.031	0.051
R* ₂	Letter 2 (5701C)	0.017	0.029	0.045	0.026	0.014	0.040
	Letter 2 Monthly (5702C)	0.027	0.041	0.068	0.026	0.043	0.069
Year 2	NFTL	0.011	0.024	0.035	0.025	0.004	0.029
(b ₂ - b ₁)	Letter 1 (5696C)	0.009	0.029	0.037	0.011	0.024	0.035
	Letter 2 (5701C)	0.006	0.021	0.027	0.015	0.009	0.024
	Letter 2 Monthly (5702C)	0.015	0.043	0.057	0.021	0.036	0.057

⁴⁵ The larger impact attributed to the monthly collection alternative letter was not statistically in every model. The marginal effects are the odds that one of the independent variables (in this case the type of treatment, an NFTL or one of the three collection alternative letters) will decrease the balance owed by the taxpayer.

⁴⁶ This table is a reproduction of a portion of Table 7 in the RAAS study: Ishani Roy, Brett Collins, Alex Turk, Alan Plumley, Terry Ashley, and Jeff Wilson, Internal Revenue Service, Federal Tax Liens and Letters: Effectiveness of the Notice of Federal Tax Liens and Alternative IRS Letters on Individual Tax Debt Resolution (This study will appear in an upcoming IRS Research Bulletin).

Objective 4: Payment and Filing Compliance.

We examined the payment and filing compliance of taxpayers in each of the study groups for the next individual tax returns due after the IRS applied the treatment (NFTL or alternative collection letter). Figure 6.6 displays this data.

FIGURE 6.6, Payment and Filing Compliance for the Next Individual Income Tax Return Due After Each Type of Treatment⁴⁷

Group	Group Size (taxpayers)	Taxpayers with Balance Due	Percent with Balance Due	Taxpayers with TDA	Percent with TDA	Taxpayers with Unfiled Return	Percent with Unfiled Return	Taxpayers with TDI	Percent with TDI
NFTL	2,996	663	*22.13%	338	11.28%	217	7.24%	76	2.54%
Letter 1 (5696C)	2,564	633	*24.69%	359	14.00%	178	6.94%	68	2.65%
Letter 2 (5701C)	2,571	604	23.49%	315	12.25%	178	6.92%	61	2.37%
Letter 2 monthly (5702C)	2,583	565	21.87%	312	12.08%	182	7.05%	68	2.63%
Control	2,487	539	21.67%	293	11.78%	186	7.48%	86	3.46%

Although a large difference in payment compliance does not exist, this table shows that taxpayers receiving the NFTL are less likely to have a TDA than any of the three groups who received an alternative collection letter, although the difference is only statistically significant for the first alternative collection letter (Letter 5696C).⁴⁸ However, taxpayers in the group receiving the NFTL were more likely to have an unfiled return for the year after the treatment occurred, but the difference was not statistically significant. All of the treatment groups were less likely to have a TDI for the next income tax return due after treatment, however the difference to the control group was not statistically significant at the 95 percent confidence level.

We also looked at the payment and filing compliance of only those taxpayers where we did not detect the presence of assets or income is excess of their calculated ALE. Figure 6.7 contains this information.

⁴⁷ IRS, CDW IMF (Oct. 2018).

⁴⁸ The difference between the group receiving the NFTL and Letter 5696C was statistically significant at the 95 percent confidence level (denoted by an asterisk).

FIGURE 6.7, Payment and Filing Compliance for Next Individual Income Tax Return Due After Each Type of Treatment for Taxpayers Who Did Not Have Income More than ALE or a Systemically Detected Asset⁴⁹

Group	Group Size	Count with Balance Due	Percent with Balance Due	Count with TDA	Percent with TDA	Count with Unfiled Return	Percent with Unfiled Return	Count with TDI	Percent with TDI
NFTL	731	68	9.30%	36	4.92%	27	3.69%	6	0.82%
Letter 1 (5696C)	585	62	10.60%	37	6.32%	15	2.56%	2	0.34%
Letter 2 (5701C)	598	71	11.87%	33	5.52%	23	3.85%	0	0.00%
Letter 2 monthly (5702C)	581	79	13.60%	40	6.88%	15	2.58%	3	0.52%
Control	635	74	11.65%	44	6.93%	18	2.83%	5	0.79%

When considering only the study taxpayers whose income did not exceed their ALE, the group of taxpayers receiving the NFTL are somewhat less likely to have a balance due or TDA, compared to the groups receiving an alternative collection letter. However, we again see the group with the NFTL as being more likely to have an unfiled return or TDI than the groups receiving the alternative collection letter in lieu of the NFTL; however, the cell counts are too small to say that a meaningful difference exists. The IRS was unable to include cases with both TDAs and TDIs in the groups receiving alternate collection letters; however, the IRS was able to include taxpayers with both TDAs and TDIs in the NFTL and control groups. Taxpayers with TDIs may be more likely to have unfiled returns in the future, which may explain these results.

Objective 5: Subsequent Income

We also examined whether the filing of the NFTL seemed to hinder a taxpayer's ability to earn future income. Figure 6.8 shows that the median total income increased from TY 2015 to TY 2016 when considering taxpayers who filed a return for both tax years for all groups except for those who received a monthly alternative collection letter.

FIGURE 6.8, Effect of Collection Treatment on Income in Subsequent Years for All Sample Taxpayers⁵⁰

Group	Tax Year 2015 Total Income	Tax Year 2016 Total Income	Percent Change
NFTL	\$54,992	\$59,104	7.5%
Letter 1 (5696C)	\$59,319	\$60,856	2.6%
Letter 2 (5701C)	\$57,160	\$57,538	0.7%
Letter 2 monthly (5702C)	\$63,208	\$59,453	-5.9%
Control	\$54,240	\$57,400	5.8%

We see similar trends for total positive income and adjusted gross income. When considering taxpayers who also filed in TY 2017, the total income increases in all five groups. We also looked at the change in median income for only those taxpayers where we could not systemically detect assets or detect income in excess of their ALE. Figure 6.9 depicts this data.

FIGURE 6.9, Effect of Collection Treatment on Income in Subsequent Year for Taxpayers with Income Not Greater Than ALE or the Presence of a Systemically Detected Asset⁵¹

Group	Tax Year 2015 Total Income	Tax Year 2016 Total Income	Percent Change
NFTL	\$19,566	\$15,964	-18.4%
Letter 1 (5696C)	\$17,881	\$15,381	-14.0%
Letter 2 (5701C)	\$18,213	\$16,039	-11.9%
Letter 2 monthly (5702C)	\$20,422	\$16,709	-18.2%
Control	\$18,211	\$15,226	-16.4%

When looking at these taxpayers, the total income decreased by more than ten percent in all groups, with taxpayers receiving the NFTL exhibiting the largest decrease at 18.4 percent; although the total income of taxpayers who received the monthly letter decreased by a not statistically different 18.2 percent. The fact that the total income decreased for all of these taxpayers suggests that some life event, such as the loss of a job, prevented these taxpayer's from resolving their balance(s) due and leading to the collection treatment. However, by TY 2017, income had started to rise in all five groups.

⁵⁰ The income data is based on only taxpayers who filed a TY 2016 individual income tax return, who also filed a TY 2015 individual income tax returns. IRS, CDW Individual Returns Transaction File (Nov. 2018).

⁵¹ IRS, CDW IRTF (Oct. 2018). The income data is based on only taxpayers who filed a TY 2016 individual income tax return, who also filed a Tax Year 2015 individual income tax returns. IRS, CDW Individual Returns Transaction File (Nov. 2018).

OIC Study

CONCLUSIONS

Based on the above analysis and findings, TAS makes the following conclusions:

- Taxpayers with income exceeding their calculated ALE or who have systemically detected assets account for about 93 percent of the payments made over two years regardless of the treatment (i.e., NFTL or alternative collection letter).
- Alternative collection letters are about as likely as an NFTL to induce taxpayers with income not exceeding their ALE to pay on their balance due; although the RAAS analysis indicates that taxpayers with NFTLs are more likely to reduce the amount of their unpaid balance.
- When considering the reduction in module balance during the second year after the treatment, taxpayers receiving the monthly alternative collection letter were more likely to reduce the amount of their balance due than taxpayers receiving the NFTL.
- Taxpayers who received an NFTL were less likely to have a subsequent balance due or TDA, but somewhat more likely to have a return delinquency.
- Considering taxpayers who filed both a TY 2015 and a TY 2016 return, taxpayers receiving an NFTL saw an increase in median income on the tax return due after the IRS filed the NFTL. We also observed this same phenomenon with most of the other sample groups including the control group.
- When considering those taxpayers without either systemically detected assets or income exceeding their calculated ALE, taxpayers in all groups saw a decrease in total income in the year following the treatment.

RECOMMENDATIONS

The National Taxpayer Advocate recommends that the IRS take the following actions:

- Use systemic data to estimate ALE and detect the presence of assets. TAS recommends that ACS not file an NFTL prior to contact with the taxpayer on those whose liabilities are between \$10,000 and \$25,000 when there is no indication of an asset and the taxpayer's income does not exceed his ALE
- Consider sending letters to taxpayers with income not exceeding their ALE designed to elicit a contact from these taxpayers rather than trying to elicit a payment.
- Conduct further study to determine the effect of an NFTL on filing subsequent returns.

APPENDIX 1: Letter 5696C

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B C D E F	below. Form Tax year [02 9V] [03 13P] [07 9V] [08 13P] [12 9V] [13 13P] [17 9V] [18 13P] [22 9V] [23 13P] [27 9V] [28 13P] Total due \$[32 12\$] Your current total amoun penalty and interest chareceive full payment by and any applicable penal as much as you can now ubelow.	Tax \$ [04 12\$] [09 12\$] \$ [14 12\$] [19 12\$] \$ [24 12\$] \$ [29 12\$] t due is \$[33 1: rges through [3: this date, we'l ties until you sing one of the	4 13D]. If we don't continue to charge intere pay the total balance due. payment options described within the past 14 days o	st Pay
	made payment arrangement			
		vings account. Vocan: nfirmation of your in advance	ly pay your tax bill direct When you pay online or from our payment	

Improving Notices

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You can also pay by debit or credit card for a small fee. To see all of our payment options, visit www.irs.gov/payments.

PAYMENT PLANS

If you can't pay the full amount you owe, pay as much as you can now and make arrangements to pay your remaining balance. Visit www.irs.gov/paymentplan for more information on installment agreements and online payment agreements. You can also call us at [35 23V] to discuss your options.

OFFER IN COMPROMISE

An offer in compromise allows you to settle your tax debt for less than the full amount you owe. If we accept your offer, you can pay with either a lump sum cash payment plan or periodic payment plan. To see if you qualify, use the Offer in Compromise Pre-Qualifier tool on our website. For more information, visit www.irs.gov/offers.

ACCOUNT BALANCE AND PAYMENT HISTORY

For information on how to obtain your current account balance or payment history, go to www.irs.gov/balancedue.

If you mail a payment, make your check or money order payable to the United States Treasury and provide on each payment:

- Name
- Address
- Taxpayer identification number
- Daytime telephone number
- Tax year
- Tax form

You can mail the payment to:

Internal Revenue Service
[36 50V]
[37 50V]

PAST DUE TAX RETURNS

To qualify for an online payment agreement, installment agreement, or offer in compromise, you must file all tax returns; however, you don't need to file all tax returns for us to consider placing your account in CNC status. If you're not required to file because your income is below the filing requirement, let us know, and we can close the filing requirement for that tax year. If your income is above the filing requirement, you must file the returns. If you need assistance filing your taxes, visit www.irs.gov/vita to see if you qualify for free tax return preparation by the Volunteer Income Tax Assistance program.

CURRENTLY NOT COLLECTIBLE

If paying your tax liability will cause you economic hardship so that you can't pay your reasonable basic living expenses, you may request that we place your account in currently not collectible (CNC) status. You can call us at [38 23V] to make this request. You'll need to gather complete financial information, including a list of your monthly expenses, before you call. If we agree that you can't pay, we can suspend collection action and classify your account as CNC. CNC does not mean the debt goes away. Applicable penalties and interest will still accumulate, and we may collect against you in the future if your financial situation improves.

IF YOU DON'T PAY OR MAKE PAYMENT ARRANGEMENTS
If you don't pay your tax bill or contact us to arrange payments, we will take action to collect what you owe. This can include:

http://serp.enterprise.irs.gov/databases/forms-ltrs-pubs.dr/crxltrs.dr/c.dr/5696c.htm

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- Filing a Notice of Federal Tax Lien (NFTL). An NFTL is a public notice of our claim against your property that will appear on your credit report and may harm your credit rating. We'll release the lien once you pay the taxes, penalties, interest, and recording fees in full. You can also request that we withdraw the lien if certain circumstances exist. Call us at the telephone number listed on this letter to find out more.
- Serving a Notice of Levy or seizing assets. We can collect the amount you owe from your wages, bank accounts, social security benefits, retirement, or other sources of income. We may also seize your car, home, or other property.
- Applying other tax refunds. We may apply any future federal or state tax refunds you receive to pay down the debt you owe.

If you disagree with the IRS's collection actions, you may be able to appeal the IRS's actions through Collection Due Process (CDP) or the Collection Appeals Program (CAP), depending on where you are in the collections process. For more information, see Publication 1660, Collection Appeal Rights.

PENALTIES AND INTEREST

We've provided a general explanation of the possible penalties and/or $% \left(1\right) =\left(1\right) \left(1\right) =\left(1\right) \left(1\right) \left($ interest we may have included in the current balance due on your account. If you want a specific explanation of how we computed the balance on your account, call us at the toll-free number shown in this letter, and we will send you a detailed computation.

** Filing and/or Paying Late -- IRC Section 6651 **

We assess a 5% monthly penalty for filing your return late and a 1/2%monthly penalty for not paying the tax you owe by the due date. When both penalties apply for the same month, the amount of the penalty for filing late for that month is reduced by the amount of the penalty for paying late for that month.

The failure-to-file or failure-to-pay penalty may not apply where you've shown that the failure is due to reasonable cause and not willful neglect.

We base the monthly penalty for filing late on the tax required to be shown on the return that you didn't pay by the original return due date, without regard to extensions.

We base the monthly penalty for paying late on the net unpaid tax at the beginning of each penalty month following the payment due date for

We charge the penalties for each month or part of a month the return or payment is late; however, neither penalty can be more than 25% in total.

Income tax returns are subject to a minimum late filing penalty when filed more than 60 days after the due date, including extensions. The minimum penalty is \$205(\$135 for returns due between 1/1/2009 and 12/31/2015, \$100 for returns due before 1/1/2009) or 100% of the tax required to be shown on the return that you didn't pay on time, whichever is less.

The penalty for paying late applies even if you filed the return on time. The due date for payment of the tax shown on the return generally is the return due date, without regard to extensions. You must pay increases in tax within 21 days of the date of our letter

http://serp.enterprise.irs.gov/databases/forms-ltrs-pubs.dr/crxltrs.dr/c.dr/5696c.htm

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Improving Notices

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demanding payment (10 business days if the amount in the letter is \$100,000 or more).

If we issue a Notice of Intent to Levy and you don't pay the balance due within 10 days of the date of the notice, the penalty for paying late increases to 1% per month.

For individuals who filed on time, the penalty decreases to 1/4% per month while an approved installment agreement with the IRS is in effect for payment of that tax.

** Interest -- IRC Section 6601 **

We are required by law to charge interest when you do not pay your liability on time. Generally, we calculate interest from the due date of your return (regardless of extensions) until you pay the amount you owe in full, including accrued interest and any penalty charges. Interest on some penalties accrues from the date we notify you of the penalty until it is paid in full. Interest on other penalties, such as failure to file a tax return, starts from the due date or extended due date of the return. Interest rates are variable and may change quarterly.

REMOVAL OR REDUCTION OF PENALTIES

We understand that circumstances - such as a serious illness or injury, a family member's death, or loss of financial records due to a natural disaster - may make it difficult for you to meet your taxpayer responsibility in a timely manner. If you would like us to consider removing or reducing any of your penalty charges, please do the following:

- Identify which penalty charges you would like us to remove or reduce (e.g. 2005 late filing penalty).
- For each penalty charge, explain why you believe removal or reduction is appropriate.
- Sign your statement, and mail it to us along with any supporting documents.

We'll review your statement and let you know whether we accept your explanation as reasonable cause to reduce or remove the penalty charge.

If you were penalized based on written advice from the IRS, we will remove the penalty if you meet the following criteria:

- You sent a written request to the IRS for written advice on a specific issue
- You gave us adequate and accurate information
- You received written advice from us
- You reasonably relied on our written advice and were penalized based on that advice

To request removal of penalties based on erroneous written advice from us, submit a completed Claim for Refund and Request for Abatement (Form 843) to the IRS service center where you filed your tax return.

ADDITIONAL INFORMATION

For more information about your rights and the IRS collection process, review Publication 1, Your Rights as a Taxpayer, and Publication 594, IRS Collection Process. You can get these and any of the other forms or publications mentioned in this letter by visiting www.irs.gov/formspubs or by calling 1-800-TAX-FORM (1-800-829-3676).

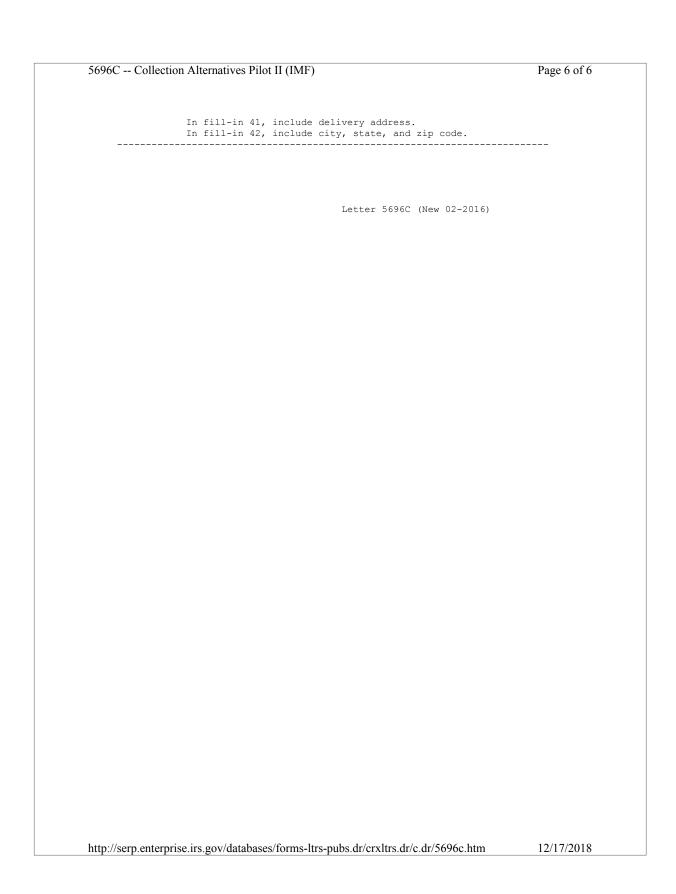
If you have questions, you can call us at [39 23V].

http://serp.enterprise.irs.gov/databases/forms-ltrs-pubs.dr/crxltrs.dr/c.dr/5696c.htm

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If you prefer, you can write to us at: Internal Revenue Service [40 50V] [41 50V] [42 50V] The IRS office whose number is listed above can best access your tax information and address your situation. You may also qualify for assistance from the Taxpayer Advocate Service (TAS) or a Low Income Taxpayer Clinic (LITC). TAS is an independent organization within the IRS that can help protect your taxpayer rights. TAS can offer you help if your tax problem is causing a hardship, or you've tried but haven't been able to resolve your problem with the IRS. If you qualify for TAS assistance, which is always free, TAS will do everything possible to help you. Visit www.taxpayeradvocate.irs.gov or call 1-877-777-4778. LITCs are independent from the IRS. LITCs serve individuals whose income is below a certain level and who need to resolve a tax problem with the IRS. LITCs provide professional representation before the IRS or in court on audits, appeals, tax collection disputes, and other issues for free or for a small fee. For more information and to find an LITC near you, see the LITC page at www.taxpayeradvocate.irs.gov/litcmap or IRS Publication 4134, Low Income Taxpayer Clinic List. This publication is also available by calling the IRS at 1-800-829-3676 or visiting your local IRS office. We're required to send a copy of this letter to both you and your spouse. Each copy contains the same information about your joint account. You only need to pay the amount due once. When you write, include a copy of this letter and provide in the spaces below, your telephone number and the hours we can reach you. Keep a copy of this letter for your records. Telephone Number ()_ Hours Sincerely yours, [43 35S] [44 35S] NOTE: In fill-in 36, include delivery address. In fill-in 37, include city, state, and zip code. NOTE: In fill-in 40, include unit name and mail stop. http://serp.enterprise.irs.gov/databases/forms-ltrs-pubs.dr/crxltrs.dr/c.dr/5696c.htm 12/17/2018



APPENDIX 2: Letter 5701C

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5696C -- Collection Alternatives Pilot II (IMF).txt
                                              Transmittal Number Date of Issue
16-04 04/04/2016
Department
of the
Treasury
                                               |Originating Office|Form Number
                                                SBSE:CO:HC:QTS:):CT | 5696C
                  IDRS
                  CORRESPONDEX
Internal
Revenue
Service
Title: Collection Alternatives Pilot II
Number of Copies
Original
                                      Distribution to:
                                                                           Former Letter
                                      1 to TP
OMB Clearance Number
                                      Expires
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Letters Considered in Revision:
   A Social security number: [01 12T]
       Dear [-30v]
       Our records show you have unpaid taxes for the tax periods listed
       below.
                           03
08
                                13P
13P
13P
                                                        04 125
09 125
14 125
19 125
                                                                                                  06 105
11 105
16 105
        02 9V
07 9V
                                                                                   105
   800
             94
              94
        22 9V
27 9V
       Total due $[32 125]
       Your current total amount due is $[33 12$], which includes penalty and interest charges through [34 130]. If we don't receive full payment by this date, we'll continue to charge interest and any applicable penalties until you pay the total balance due. Pay as much as you can now using one of the payment options described below.
       If you already paid your balance in full within the past 14 days or
       made payment arrangements, you can disregard this letter.
                                                    PAYMENT OPTIONS
       PAY NOW ELECTRONICALLY we offer free payment options to securely pay your tax bill directly from your checking or savings account, when you pay online or from your mobile device, you can:

    Receive instant confirmation of your payment
    Schedule payments in advance
    Modify a payment before the due date

       You can also pay by debit or credit card for a small fee. To see all
                                                            Page 1
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5696C -- Collection Alternatives Pilot II (IMF).txt of our payment options, visit www.irs.gov/payments.

PAYMENT PLANS If you can't pay the full amount you owe, pay as much as you can now and make arrangements to pay your remaining balance. Visit www.irs.gov/paymentplan for more information on installment agreements and online payment agreements. You can also call us at [35 23V] to discuss your options.

OFFER IN COMPROMISE
An offer in compromise allows you to settle your tax debt for less
than the full amount you owe. If we accept your offer, you can pay
with either a lump sum cash payment plan or periodic payment plan. To
see if you qualify, use the Offer in Compromise Pre-Qualifier tool on
our website. For more information, visit www.irs.gov/offers.

ACCOUNT BALANCE AND PAYMENT HISTORY For information on how to obtain your current account balance or payment history, go to www.irs.gov/balancedue.

If you mail a payment, make your check or money order payable to the United States Treasury and provide on each payment:

- Address
- Taxpayer identification number Daytime telephone number
- Tax year Tax form

You can mail the payment to:

Internal Revenue Service 36 50V 37 50V

PAST DUE TAX RETURNS
To qualify for an online payment agreement, installment agreement, or offer in compromise, you must file all tax returns; however, you don't need to file all tax returns for us to consider placing your account in CNC status. If you're not required to file because your income is below the filing requirement, let us know, and we can close the filing requirement for that tax year. If your income is above the filing requirement, you must file the returns. If you need assistance filing your taxes, visit www.irs.gov/vita to see if you qualify for free tax return preparation by the Volunteer Income Tax Assistance program.

CURRENTLY NOT COLLECTIBLE CURRENTLY NOT COLLECTIBLE

If paying your tax liability will cause you economic hardship so that
you can't pay your reasonable basic living expenses, you may request
that we place your account in currently not collectible (CNC) status.
You can call us at [38 23V] to make this request.
You'll need to gather complete financial information, including a list
of your monthly expenses, before you call. If we agree that you can't
pay, we can suspend collection action and classify your account as
CNC. CNC does not mean the debt goes away. Applicable penalties and
interest will still accumulate, and we may collect against you in the
future if your financial situation improves.

IF YOU DON'T PAY OR MAKE PAYMENT ARRANGEMENTS
If you don't pay your tax bill or contact us to arrange payments, we
will take action to collect what you owe. This can include:
- Filing a Notice of Federal Tax Lien (NFTL). An NFTL is a public
notice of our claim against your property that will appear on
Page 2

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your credit report and may harm your credit rating. We'll
release the lien once you pay the taxes, penalties, interest,
and recording fees in full. You can also request that we
withdraw the lien if certain circumstances exist. Call us at
the telephone number listed on this letter to find out more.
- Serving a Notice of Levy or seizing assets. We can collect the
amount you owe from your wages, bank accounts, social security
benefits, retirement, or other sources of income. We may also
seize your car, home, or other property.
- Applying other tax refunds. We may apply any future federal or
state tax refunds you receive to pay down the debt you owe.

If you disagree with the IRS's collection actions, you may be able to appeal the IRS's actions through Collection Due Process (CDP) or the Collection Appeals Program (CAP), depending on where you are in the collections process. For more information, see Publication 1660, Collection Appeal Rights.

PENALTIES AND INTEREST we've provided a general explanation of the possible penalties and/or interest we may have included in the current balance due on your account. If you want a specific explanation of how we computed the balance on your account, call us at the toll-free number shown in this letter, and we will send you a detailed computation.

** Filing and/or Paying Late -- IRC Section 6651 **

We assess a 5% monthly penalty for filing your return late and a 1/2% monthly penalty for not paying the tax you owe by the due date. When both penalties apply for the same month, the amount of the penalty for filing late for that month is reduced by the amount of the penalty for paying late for that month.

The failure-to-file or failure-to-pay penalty may not apply where you've shown that the failure is due to reasonable cause and not willful neglect.

We base the monthly penalty for filing late on the tax required to be shown on the return that you didn't pay by the original return due date, without regard to extensions.

We base the monthly penalty for paying late on the net unpaid tax at the beginning of each penalty month following the payment due date for that tax.

We charge the penalties for each month or part of a month the return or payment is late; however, neither penalty can be more than 25% in total.

Income tax returns are subject to a minimum late filing penalty when filed more than 60 days after the due date, including extensions. The minimum penalty is \$205(\$135 for returns due between 1/1/2009 and 12/31/2015, \$100 for returns due before 1/1/2009) or 100% of the tax required to be shown on the return that you didn't pay on time, whichever is less.

The penalty for paying late applies even if you filed the return on time. The due date for payment of the tax shown on the return generally is the return due date, without regard to extensions. You must pay increases in tax within 21 days of the date of our letter demanding payment (10 business days if the amount in the letter is \$100,000 or more).

Page 3

5696C -- Collection Alternatives Pilot II (IMF).txt

If we issue a Notice of Intent to Levy and you don't pay the balance
due within 10 days of the date of the notice, the penalty for paying
late increases to 1% per month.

For individuals who filed on time, the penalty decreases to 1/4% per month while an approved installment agreement with the IRS is in effect for payment of that tax.

** Interest -- IRC Section 6601 **

We are required by law to charge interest when you do not pay your liability on time. Generally, we calculate interest from the due date of your return (regardless of extensions) until you pay the amount you owe in full, including accrued interest and any penalty charges. Interest on some penalties accrues from the date we notify you of the penalty until it is paid in full. Interest on other penalties, such as failure to file a tax return, starts from the due date or extended due date of the return. Interest rates are variable and may change nuarterly. quarterly.

REMOVAL OR REDUCTION OF PENALTIES
We understand that circumstances - such as a serious illness or
injury, a family member's death, or loss of financial records due to
a natural disaster - may make it difficult for you to meet your
taxpayer responsibility in a timely manner. If you would like us to
consider removing or reducing any of your penalty charges, please do
the following:
- Identify which penalty charges you would like us to remove or
reduce (e.g. 2005 late filing penalty).
- For each penalty charge, explain why you believe removal or
reduction is appropriate.

reduction is appropriate. Sign your statement, and mail it to us along with any supporting documents.

we'll review your statement and let you know whether we accept your explanation as reasonable cause to reduce or remove the penalty

If you were penalized based on written advice from the IRS, we will remove the penalty if you meet the following criteria:

- You sent a written request to the IRS for written advice on a specific issue

 You gave us adequate and accurate information
 You received written advice from us
 You reasonably relied on our written advice and were penalized based on that advice

To request removal of penalties based on erroneous written advice from us, submit a completed Claim for Refund and Request for Abatement (Form 843) to the IRS service center where you filed your tax return.

ADDITIONAL INFORMATION For more information about your rights and the IRS collection process, review Publication 1. Your Rights as a Taxpayer, and Publication 594, IRS Collection Process. You can get these and any of the other forms or publications mentioned in this letter by visiting www.irs.gov/formspubs or by calling 1-800-TAX-FORM (1-800-829-3676).

If you have questions, you can call us at [39 23V].

If you prefer, you can write to us at:

Internal Revenue Service [40 SOV]

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41 50V 42 50V 5696C -- Collection Alternatives Pilot II (IMF).txt

The IRS office whose number is listed above can best access your tax information and address your situation. You may also qualify for assistance from the Taxpayer Advocate Service (TAS) or a Low Income Taxpayer Clinic (LITC).

TAS is an independent organization within the IRS that can help protect your taxpayer rights. TAS can offer you help if your tax problem is causing a hardship, or you've tried but haven't been able to resolve your problem with the IRS. If you qualify for TAS assistance, which is always free, TAS will do everything possible to help you. Visit www.taxpayeradvocate.irs.gov or call 1-877-777-4778.

LITCs are independent from the IRS. LITCs serve individuals whose income is below a certain level and who need to resolve a tax problem with the IRS. LITCs provide professional representation before the IRS or in court on audits, appeals, tax collection disputes, and other issues for free or for a small fee. For more information and to find an LITC near you, see the LITC page at www.taxpayeradvocate.irs.gov/litcmap or IRS Publication 4134, Low Income Taxpayer Clinic List. This publication is also available by calling the IRS at 1-800-829-3676 or visiting your local IRS office.

We're required to send a copy of this letter to both you and your spouse. Each copy contains the same information about your joint account. You only need to pay the amount due once.

When you write, include a copy of this letter and provide in the spaces below, your telephone number and the hours we can reach you. Keep a copy of this letter for your records.

Telephone Number ()______ Hours____

Sincerely yours,

[43 355] [44 355]

NOTE: In fill-in 36, include delivery address.
In fill-in 37, include city, state, and zip code.

NOTE: In fill-in 40, include unit name and mail stop.
In fill-in 41, include delivery address.
In fill-in 42, include city, state, and zip code.

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OIC Study

APPENDIX 3: Letter 5702C

5702C -- Collection Alternatives Pilot 4 (IMF/BMF) Page 1 of 7 |Transmittal Number|Date of Issue Department of the | 16-04 | 04/04/2016 Treasury -----|Originating Office|Form Number | SBSE:CO:HC:QTS:J:CT | 5702C IDRS CORRESPONDEX Internal Revenue Service Title: Collection Alternatives Pilot 4 Number of Copies | Distribution to: | Former Letter | 1 to TP OMB Clearance Number | Expires | | IMF/BMF Letters Considered in Revision: A Taxpayer identification number: [01 12T] Dear [-30V] This is a reminder that you have the following unpaid taxes: Tax vear Penalty [02 9V] \$ [04 12\$] \$ [05 10\$] \$ [06 10\$] [03 13P] [07 9V] [08 13P] [09 12\$] [10 10\$] [11 10\$] [13 13P] [14 12\$] [12 9V] \$ [15 10\$] \$ [16 10\$] [17 9V] [18 13P] [19 12\$] [20 10\$] [21 10\$] [24 12\$] \$ [25 10\$] \$ [26 10\$] [22 9V] Ε [23 13P] [28 13P] [27 9V] \$ [29 12\$] \$ [30 10\$] \$ [31 10\$] Total due \$[32 12\$] We notified you previously of this amount, but our records show you haven't resolved the balance due or made arrangements to do so. If we don't receive full payment of \$[33 14\$] by [34 13D], the amount of interest will increase and additional penalties may apply. WHAT YOU NEED TO DO IMMEDIATELY If you aren't currently working with us to resolve your account and agree with the amount due: - Pay the amount due of [35 14] within 10 days. Remember, we continue to charge penalty and interest until you pay the balance in - If you can't pay the amount due, pay as much as you can now and make payment arrangements that allow you to pay off the rest over time. - Visit www.irs.gov/payments for more information about: * Installment and payment agreements - download required forms or save time and money by applying on line if you qualify http://serp.enterprise.irs.gov/databases/forms-ltrs-pubs.dr/crxltrs.dr/c.dr/5702c.htm 12/17/2018 5702C -- Collection Alternatives Pilot 4 (IMF/BMF)

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* Automatic deductions from your bank account
     * Payroll deductions
     * Credit card payments
   - Or, call us at 1-800-829-3903 to discuss your options.
   If you already paid your balance in full within the past 14 days or
   made payment arrangements, you can disregard this letter.
  MAILING PAYMENTS
   If you mail a payment, make your check or money order payable to the
  United States Treasury and provide on each payment:
          - Name
          - Address
G
          - Taxpayer identification number
G
          - Daytime telephone number
G
G
          - Tax year
          - Tax form
G
G
   You can mail the payment to:
G
G
   Internal Revenue Service
G
   [36 50V]
G
   [37 50V]
G
   PAST DUE TAX RETURNS
G
  To qualify for an online payment agreement, installment agreement, or
G
  offer in compromise, you must file all tax returns; however, you don't
G
  need to file all tax returns for us to consider placing your account
G
   in currently not collectable status. If you're not required to file
G
  because your income is below the filing requirement, let us know and
   we can close the filing requirement for that tax year. If your income
   is above the filing requirement, you must file the returns. If you
G
   need assistance filing your taxes, visit www.irs.gov/vita to see if
   you qualify for free tax return preparation by the Volunteer Income
  Tax Assistance program.
   PAY NOW ELECTRONICALLY OR BY PHONE
Η
   The Electronic Federal Tax Payment System (EFTPS) is a free payment
Η
   service for paying taxes online or by phone. To use EFTPS, you must
Η
Η
   enroll online at www.eftps.gov (registration may take up to 7
Н
   business days to take effect). When you use the EFTPS website, you
Η
Н
       - Receive instant confirmation of your payment
       - Access payment history to review previous payments
Η
       - Schedule payments up to 365 days in advance
Н
       - Cancel a payment before the scheduled date
Н
       - Make a payment 24 hours a day, 7 days a week
- Authorize your financial institution or authorized third party
Н
Η
Н
         (such as an accountant or payroll provider) to schedule payments
Η
         for you.
Н
  You may also be able to pay by debit or credit card for a small fee,
Η
Η
   depending on the type of tax you owe. To see all of our payment
Η
   options, visit www.irs.gov/payments.
H PAYMENT PLANS
  If you can't pay the full amount you owe, pay as much as you can now
H and make arrangements to pay your remaining balance. Visit
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http://serp.enterprise.irs.gov/databases/forms-ltrs-pubs.dr/crxltrs.dr/c.dr/5702c.htm

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H www.irs.gov/paymentplan for more information on how to apply for
H installment agreements and online payment agreements. You can also
  call us at 1-800-[38 8V] to discuss your options.
H Small businesses that owe $25,000 or less in assessed tax, penalty,
  and interest can also apply online for an In-Business Trust Fund
Η
{\tt H} \quad {\tt Express \ Installment \ Agreement \ at \ www.irs.gov/paymentplan.}
Η
H OFFER IN COMPROMISE
H An offer in compromise allows you to settle your tax debt for less
H than the full amount you owe. If we accept your offer, you can pay
Η
   with either a lump sum cash payment plan or periodic payment plan.
H For more information, visit www.irs.gov/offers.
  PAYMENT HISTORY
Η
Н
   If you made payments through EFTPS, you can log on to your EFTPS
H account online to review payments you made by phone or online.
Η
H MAILING PAYMENTS
  If you mail a payment, make your check or money order payable to the
Н
Η
   United States Treasury and provide on each payment:
       - Name
Η
Н
       - Address
Н
       - Taxpayer identification number
       - Daytime telephone number
Η
Н
       - Tax year
Н
       - Tax form
Н
   CURRENTLY NOT COLLECTIBLE
```

If paying your tax liability will cause you economic hardship so that you can't pay your reasonable basic living expenses, you may request that we place your account in currently not collectible (CNC) status. You can call us at [39 23V] to make this request. You'll need to gather complete financial information, including a list of your monthly expenses, before you call. If we agree that you can't pay, we can suspend collection action and classify your account as CNC. CNC does not mean the debt goes away. Applicable penalties and interest will still accumulate, and we may collect against you in the future if your financial situation improves.

IF YOU DON'T PAY OR MAKE PAYMENT ARRANGEMENTS If you don't pay your tax bill or contact us to arrange payments, we will take action to collect what you owe. This can include:

- Filing a Notice of Federal Tax Lien (NFTL). An NFTL is a public notice of our claim against your property that will appear on your credit report and may harm your credit rating. We'll release the lien once you pay the taxes, penalties, interest, and recording fees in full. You can also request that we withdraw the lien if certain circumstances exist. Call us at the telephone number listed on this letter to find out more.
- Serving a Notice of Levy or seizing assets. We can collect the amount you owe from your wages, bank accounts, social security benefits, retirement, or other sources of income. We may also seize your car, home, or other property.
- Applying other tax refunds. We may apply any future federal or state tax refunds you receive to pay down the debt you owe.

PENALTIES AND INTEREST

We've provided a general explanation of the possible penalties and/or interest we may have included in the current balance due on your account. If you want a specific explanation of how we computed the balance on your account, call us at the toll-free number in this

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letter, and we will send you a detailed computation.

** Filing and/or Paying Late -- IRC Section 6651 **

We assess a 5% monthly penalty for filing your return late and a 1/2% monthly penalty for not paying the tax you owe by the due date. When both penalties apply for the same month, the amount of the penalty for filing late for that month is reduced by the amount of the penalty for paying late for that month.

The failure-to-file or failure-to-pay penalty may not apply where you've shown that the failure is due to reasonable cause and not willful neglect.

We base the monthly penalty for filing late on the tax required to be shown on the return that you didn't pay by the original return due date, without regard to extensions.

We base the monthly penalty for paying late on the net unpaid tax at the beginning of each penalty month following the payment due date for that tax.

We charge the penalties for each month or part of a month the return or payment is late; however, neither penalty can be more than 25% in total

Income tax returns are subject to a minimum late filing penalty when filed more than 60 days after the due date, including extensions. The minimum penalty is \$205(\$135\$ for returns due between 1/1/2009 and 12/31/2015, \$100 for returns due before 1/1/2009) or 100% of the tax required to be shown on the return that you didn't pay on time, whichever is less

The penalty for paying late applies even if you filed the return on time. The due date for payment of the tax shown on the return generally is the return due date, without regard to extensions. You must pay increases in tax within 21 days of the date of our notice demanding payment (10 business days if the amount in the notice is \$100,000 or more).

If we issue a Notice of Intent to Levy and you don't pay the balance due within 10 days of the date of the notice, the penalty for paying late increases to 1% per month.

For individuals who filed on time, the penalty decreases to 1/4% per month while an approved installment agreement with the IRS is in effect for payment of that tax.

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** Interest -- IRC Section 6601 **
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We are required by law to charge interest when you do not pay your liability on time. Generally, we calculate interest from the due date of your return (regardless of extensions) until you pay the amount you owe in full, including accrued interest and any penalty charges. Interest on some penalties accrues from the date we notify you of the penalty until it is paid in full. Interest on other penalties, such as failure to file a tax return, starts from the due date or extended due date of the return. Interest rates are variable and may change quarterly.

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I ** Late or incomplete [40 13V] return -- IRC Section [41 4N] ** ^{\rm T}
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http://serp.enterprise.irs.gov/databases/forms-ltrs-pubs.dr/crxltrs.dr/c.dr/5702c.htm

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I The penalty is \{42 6\} per [43 24V], for each month
I or part of a month the return was late or incomplete, for up to
  [44 2N] months.
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REMOVAL OR REDUCTION OF PENALTIES

We understand that circumstances - such as a serious illness or injury, a family member's death, or loss of financial records due to a natural disaster - may make it difficult for you to meet your taxpayer responsibility in a timely manner. If you would like us to consider removing or reducing any of your penalty charges, please do the following:

- Identify which penalty charges you would like us to reconsider (e.g. 2005 late filing penalty).
- For each penalty charge, explain why you believe it should be reconsidered.
- Sign your statement, and mail it to us.

We'll review your statement and let you know whether we accept your explanation as reasonable cause to reduce or remove the penalty charge.

If you were penalized based on written advice from the IRS, we will remove the penalty if you meet the following criteria:

- You sent a written request to the IRS for written advice on a specific issue.
- You gave us adequate and accurate information.
- You received written advice from us.
- You reasonably relied on our written advice and were penalized based on that advice.

To request removal of penalties based on erroneous written advice from us, submit a completed Claim for Refund and Request for Abatement (Form 843) to the IRS service center where you filed your tax return.

ADDITIONAL INFORMATION

If you have questions or want to discuss your balance, you can call us at [45 23V].

If you prefer, you can write to us at:

Internal Revenue Service [46 50V] [47 50V] [48 50V]

The IRS office whose number is listed above can best access your tax information and address your situation. You may also qualify for assistance from the Taxpayer Advocate Service (TAS).

TAS is an independent organization within the IRS that can help protect your taxpayer rights. TAS can offer you help if your tax problem is causing a hardship, or you've tried but haven't been able to resolve your problem with the IRS. If you qualify for TAS assistance, which is always free, TAS will do everything possible to help you. Visit www.taxpayeradvocate.irs.gov or call 1-877-777-4778.

When you write, include a copy of this letter and provide in the spaces below, your telephone number and the hours we can reach you. Keep a copy of this letter for your records.

http://serp.enterprise.irs.gov/databases/forms-ltrs-pubs.dr/crxltrs.dr/c.dr/5702c.htm

Telephone number () Hours
Sincerely yours,
[49 35s] [50 35s]
 NOTE: For IMF accounts, use par. G. For BMF accounts, use par. H.
 NOTE: In fill-in 36, include delivery address. In fill-in 37, include city, state, and zip code.
NOTE: NOTE: In fill-in 39, provide the contact phone number.
 NOTE: For fill-in 40 use "partnership" for MFT 06, "REMIC" for MFT 07, or "S corporation" for MFT 02.
 NOTE: For fill-in 41 use "6698" for MFT 06 and MFT 07, and "6699" for MFT 02.
 NOTE: For fill-in 42 use the amount from IRM 20.1.2.3.2(2) or IRM 20.1.2.5.2(2), as applicable.
 NOTE: For fill-in 43 use "partner" for MFT 06, "shareholder" for MFT 02 and "residual interest holder" for MFT 07.
 NOTE: For fill-in 44 use "5" or "12" as applicable.

5702C -- Collection Alternatives Pilot 4 (IMF/BMF) Page 7 of 7 NOTE: In fill-in 46 include unit name and mail stop. In fill-in 47, include delivery address.
In fill-in 48, include city, state, and zip code. Letter 5702C (New 02-2016) http://serp.enterprise.irs.gov/databases/forms-ltrs-pubs.dr/crxltrs.dr/c.dr/5702c.htm12/17/2018

Improving Notices Using Psychological, Cognitive, and Behavioral Science Insights

INTRODUCTION

In the National Taxpayer Advocate's Taxpayer Bill of Rights, the *right to be informed* is at the top of the list.¹ To adequately inform taxpayers, the IRS must clearly communicate with taxpayers their rights and obligations. One of the most common forms of correspondence between the IRS and taxpayers is from notices; the IRS sent over 175 million in fiscal year 2018.² The National Taxpayer Advocate has expressed concerns that IRS notices need well-researched makeovers to ensure that they reflect how taxpayers best perceive and comprehend written information.³ Psychological, cognitive science, and behavioral science research informs us of the best ways to design correspondence, such as IRS notices, to adapt to the way people think and understand. Coupled with using plain language,⁴ these insights may advise the IRS of the best ways to alter its notices to improve taxpayer understanding of:

- why the IRS is reaching out to a taxpayer;
- what is the most important information in the notice; and
- how a taxpayer can exercise his or her rights.

In fact, many governmental institutions, including the IRS, have already performed research on the effects of psychology and behavioral science on government programs, including letter and notice design.⁵ Accordingly, the IRS should apply the insights gained from the available research to redesign its notices.

DISCUSSION

The Existing Research in Psychology, Cognitive Science, and Behavioral Science Can Guide IRS Notice Redesign to Emphasize Taxpayer Understanding

Much of the research performed on communications by tax agencies focuses on getting better compliance or increasing tax revenue from citizens.⁶ This includes the IRS, which has attempted to use behavioral science insights with the goal of achieving increased revenue collection from taxpayers.⁷ However, the methods used to achieve better compliance or more revenue may, but do not necessarily,

- 1 See Taxpayer Bill of Rights (TBOR), www.TaxpayerAdvocate.irs.gov/taxpayer-rights. The rights contained in the TBOR are also codified in the Internal Revenue Code (IRC). See IRC § 7803(a)(3).
- The number of notices was pulled from Computer Paragraph (CP) and Correspondex letters from the IRS Notice Gatekeeper, notices from the Notice Delivery System not included on the Notice Gatekeeper site, and Individual Master File (IMF) and Business Master File (BMF) balance due notices based on cases being in notice status in the Accounts Receivable Doll Inventory files; see also Siegal+Gale, Making Paperwork Less Taxing (May 2011), https://siegelgale.com/wp-content/uploads/2011/05/Case-Study-IRS.pdf.
- 3 See Most Serious Problem: The IRS Fails to Clearly Convey Critical Information in Statutory Notices of Deficiency, Making it Difficult for Taxpayers to Understand and Exercise Their Rights, Thereby Diminishing Customer Service Quality, Eroding Voluntary Compliance, and Impeding Case Resolution, supra; Most Serious Problem: Collection Due Process Notices: Despite Recent Changes to Collection Due Process Notices, Taxpayers Are Still at Risk for Not Understanding Important Procedures and Deadlines, Thereby Missing Their Right to an Independent Hearing and Tax Court Review, supra; Most Serious Problem: Math Error Notices: Although the IRS Has Made Some Improvements, Math Error Notices Continue to Be Unclear and Confusing, Thereby Undermining Taxpayer Rights and Increasing Taxpayer Burden, supra.
- 4 See Plain Writing Act of 2010, Pub. L. No. 111-274, 124 Stat. 2861 (2010).
- 5 See, e.g., OECD, Behavioral Insights and Public Policy: Lessons from Around the World (2017); see also IRS, Behavioral Insights Toolkit (2017).
- 6 See, e.g., Stewart Kettle et. al., Behavioral Interventions in Tax Compliance: Evidence from Guatemala 27 (World Bank Group, Macroeconomics and Fiscal Mgmt. Global Prac. Group, Policy Research Working Paper No. 7690, 2016); IRS, Behavioral Insights Toolkit 15 (2017).
- See, e.g., IRS, ACS Optimization/RAAS ACS LT16 Notice Redesign Test Pilot Report 5 (Sept. 27, 2017); Research Study: Further Analyses of "Federal Tax Liens and Letters: Effectiveness of the Notice of Federal Tax Liens and Alternative IRS Letters on Individual Tax Debt Resolution," supra.

To improve taxpayer understanding, notices should be designed using **plain language** principles, which inform us of the best ways to communicate effectively. Such principles include adding helpful headings, using word choice that does not include jargon or overly technical words, and guiding the reader through the writing. Similarly, **simplification** of the message, sending more concise messages, and reducing the amount of information recipients must process, improves understanding and engagement. The simpler a task is to complete, the more likely it is that people will complete it. People can only handle so much information at a time, so simplification can limit the choices a taxpayer must consider and focus the active decisions taxpayers must make to only the most important ones.

Including too many available choices in a notice can lead to **choice overload**, where "the complexity of the decision problem faced by an individual exceeds the individual's cognitive resources." ¹⁴ This can make people less likely to make a choice or quickly choose one without thinking it through. ¹⁵ An effectively **organized** notice can help lessen the effects of choice overload by guiding a reader through it. This concept pairs with **choice architecture**, design that orders and presents the available options a reader has to ease the burden and avoid having the reader make too many choices in a row. ¹⁶

Another common behavioral tool that governments use to influence citizens is **nudging**, a method to steer people in a particular direction.¹⁷ In the tax context, nudging is often used to boost revenue collection,¹⁸ but it may also be used to frame notices in ways to boost taxpayer understanding and notice clarity. For example, notices could be designed to nudge people to take the necessary steps, or view

⁸ National Taxpayer Advocate 2016 Annual Report to Congress vol. 2 54, 60 (TAS Research and Related Studies: *The Importance of Financial Analysis in Installment Agreements (IAs) in Minimizing Defaults and Preventing Future Payment Noncompliance*).

⁹ Center for Plain Language, Five Steps to Plain Language, https://centerforplainlanguage.org/learning-training/five-steps-plain-language/ (last visited Oct. 2, 2018).

¹⁰ Id.

¹¹ See Nir Eyal with Ryan Hoover, Hooked: How to Build Habit-Forming Products (2014); David Bholat et. al., Enhancing Central Bank Communications with Behavioral Insights 17 (Bank of Eng., Staff Working Paper No. 750, 2018); Owain Service et. al., The Behavioural Insights Team, EAST Four Simple Ways to Apply Behavioural Insights 4 (2014).

¹² See Nir Eyal with Ryan Hoover, Hooked: How to Build Habit-Forming Products (2014).

¹³ David Bholat et. al., Enhancing Central Bank Communications with Behavioral Insights 17 (Bank of Eng., Staff Working Paper No. 750, 2018); IRS, Behavioral Insights Toolkit 13 (2017).

¹⁴ Alexander Chernev, Ulf Böckenholt & Joseph Goodman, Choice Overload: A Conceptual Review and Meta-analysis, 25 J. Consumer Psychol. 333, 335 (2015).

¹⁵ See id. at 334-337.

¹⁶ IRS, Behavioral Insights Toolkit 21 (2017).

¹⁷ See Deloitte Consulting LLP, Using the Nudge in Tax Compliance: Leveraging Behavioral Insights to Boost Tax Revenue 9 (2017).

¹⁸ Id. at 15 (2017).

certain information, in response to the notice. This can be used in conjunction with **reminders** to assist taxpayers with completing the necessary steps to achieve tax compliance.¹⁹

The research shows that seemingly small differences can make large impacts. For example, including information in a notice versus just including a website link to that information can lead to a much higher response rate and likelihood that taxpayers actually read the included information.²⁰ Similarly, **framing** the same information in different ways can influence its interpretation.²¹ Including payment information first, and a note that "nine out of ten people pay their tax on time" in a notice may frame it in a way that leads more taxpayers to pay what they owe. Alternatively, including information about the *right to petition to the U.S. Tax Court*, framed with different focuses (*e.g.*, "you may qualify for free legal assistance" versus "you may have to pay for legal assistance"), may lead to more or less people deciding to petition.

Moreover, the **tone** of a message can influence taxpayers.²² For example, the UK Her Majesty's Revenue and Customs (HMRC) refers to taxpayers as customers, and generally takes a friendlier tone in its communication.²³ Friendlier, less formal language has been shown to improve taxpayer responsiveness.²⁴ **Personalizing** the message, by including information directly related to a taxpayer, can also increase responsiveness.²⁵ This can be done by determining the **target audience** of a notice and tailoring the message to be most relevant to the issues of that audience, instead of sending out a generic, less **salient**, message.²⁶ Salient points are those that are particularly important to the taxpayer, and in the notice context, these points should be highlighted in a way that captures a taxpayer's attention so that taxpayers do not gloss over them to their detriment (for example, the deadline date by which the taxpayer must respond to the notice to retain their appeal rights).

Additionally, some research suggests that **typography** design can assist in improved clarity, understanding, and memory.²⁷ The Dutch government undertook a project to design a uniquely government font,²⁸ which would perhaps be useful for the IRS to consider to better ensure a consistent

¹⁹ See Deloitte Consulting LLP, Using the Nudge in Tax Compliance: Leveraging Behavioral Insights to Boost Tax Revenue 9 (2017); Saugato Datta & Sendhil Mullainathan, Behavioral Design: A New Approach to Development Policy 23 (2012).

²⁰ See Jeffrey R. Kling et. al., Comparison Friction: Experimental Evidence from Medicare Drug Plans, 127 Q. J. Econ. 199, 200-201 (2012).

²¹ THE SAGE HANDBOOK OF SOCIAL PSYCHOLOGY: CONCISE STUDENT EDITION 49 (Michael A. Hogg & Joel Cooper eds., 2007).

²² See, e.g., OECD, Building a Letter: Encouraging Customers About Their Interest-only Mortgages, in Behavioral Insights and Public Policy: Lessons from Around the World 208, 208-209 (2017).

²³ See, e.g., Her Majesty's Revenue and Customs (HMRC), *Internal Manual Tax Compliance Risk Management* (updated Mar. 13, 2017), https://www.gov.uk/hmrc-internal-manuals/tax-compliance-risk-management.

²⁴ See OECD, Building a Letter: Encouraging Customers About Their Interest-only Mortgages, in Behavioral Insights and Public Policy: Lessons from Around the World 208, 208-209 (2017).

²⁵ See Jeffrey R. Kling et. al., Comparison Friction: Experimental Evidence from Medicare Drug Plans, 127 Q. J. Econ. 199, 200-201 (2012); David Bholat et. al., Enhancing Central Bank Communications with Behavioral Insights 4, 17 (Bank of Eng., Staff Working Paper No. 750, 2018).

²⁶ See Center for Plain Language, Five Steps to Plain Language, https://centerforplainlanguage.org/learning-training/five-steps-plain-language/ (last visited Oct. 2, 2018).

²⁷ James Hartley, Lindsey Davies & Peter Burnhill, Alternatives in the Typographic Design of Questionnaires, 50 J. Occupational Organizational Psychol. 299, 299 (1977); Kai Kaspar et. al., A Matter of Font Type: The Effect of Serifs on the Evaluation of Scientific Abstracts, 50 Int'l J. Psychol. 372, 377 (2015); Thomas Wehr & Werner Wippich, Typography and Color: Effects of Salience and Fluency on Conscious Recollective Experience, 69 Psychol. Res. 138, 146 (2004).

²⁸ Designworkplan, *Dutch Government Identity*, https://www.designworkplan.com/read/rijksoverheid-sans-serif (last visited Oct. 4, 2018).

image with its notices, given that the IRS's thousands of various notices are written using many differing systems and authors.²⁹

To Effectively Apply the Above Psychological, Cognitive, and Behavioral Science Insights, the IRS Must Test and Experiment to Determine What Are the Most Effective Designs for Its Notices

While the existing research on psychological, cognitive, and behavioral science insights can and should inform the IRS's notice redesign, it is important to test newly designed notices to ensure that they actually improve the notices and enhance taxpayer understanding. Researched principles can work in one context, but fail in others,³⁰ or need tweaking to generate better effects.

The IRS has performed research and tested the effects of some of its newly designed notices, such as the LT16, though the LT16 study was designed with the goals of receiving more revenue, without considering the taxpayer's ability to pay, and reducing taxpayers' phone contacts with the IRS, despite the fact that many taxpayers rely on phone contacts to discuss and resolve their tax problems with the IRS.³¹ Further examination and experimentation with better designed studies, and using the available research can aid the IRS in its future notice redesign and work to the benefit of improved taxpayer understanding.

LITERATURE REVIEW

- 1. **Alain Samson**, *An Introduction to Behavioral Economics*, https://www.behavioraleconomics.com/resources/introduction-behavioral-economics/ (last visited Oct. 4, 2018).
 - "[O]ur minds must be understood relative to the environment in which they evolved. Decisions are not always optimal. There are restrictions to human information processing due to limits in knowledge (or information) and computational capacities."
 - "[S]alience, whereby information that stands out, is novel, or seems relevant is more likely to affect our thinking and actions."
 - "[T]he salience of options can also be manipulated by rearranging the ... environment."
 - "[T]he practice and philosophy behind nudges are not without criticism, since interventions occur without the awareness of the public on both the level of policy implementation and the psychological processes involved."
- 2. **Alexander Chernev, Ulf Böckenholt & Joseph Goodman**, *Choice Overload: A Conceptual Review and Meta-analysis*, 25 J. Consumer Psychol. 333, 334-337 (2015).
 - "The term choice overload—also referred to as overchoice—is typically used in reference to a scenario in which the complexity of the decision problem faced by an individual exceeds the individual's cognitive resources (Simon, 1955; Toffler, 1970). In this research, our main focus is

²⁹ See Siegal+Gale, Making Paperwork Less Taxing (May 2011), https://siegelgale.com/wp-content/uploads/2011/05/Case-Study-IRS.pdf.

³⁰ See, e.g., Holly A. Massett et. al., A Randomized Controlled Study Comparing the National Cancer Institute's Original and Revised Consent Form Templates, 39 Ethics & Hum. Res. 1, 4 (2017).

³¹ IRS, ACS Optimization/RAAS ACS LT16 Notice Redesign Test Pilot Report 5, 15 (Sept. 27, 2017).

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on a particular type of choice overload—one in which the decision complexity is caused, at least partially, by the (large) number of available decision alternatives (Iyengar & Lepper, 2000)."

"Offering consumers a large variety of options to choose from can have a two-pronged impact on choice: It can both benefit and hinder choice. The most intuitive benefit, featured prominently in economics research, is that the greater the number of options in the choice set, the higher the likelihood that consumers can find a close match to their purchase goals."

"[C]ompared to individuals not experiencing choice overload, those experiencing overload are (1) less likely to make a choice from a particular assortment (Iyengar & Lepper, 2000), (2) more likely to reverse their initial choice (Chernev, 2003b), (3) less likely to display a preference for larger assortments (Chernev, 2006), and (4) more likely to choose an option that can be easily justified (Sela et al., 2009)."

"[A] number of decision-task factors—including *time constraints, decision accountability, number* of attributes describing each option, and presentation format—are likely to influence the impact of assortment size on choice overload."

3. Canada Revenue Agency, Audit, Evaluation, and Risk Branch, External Administrative Correspondence (EAC) Evaluation Final Report 7, 26-27 (Sept. 2014).

"Plain language, clarity, readability, and understandability as it pertains to written correspondence are dependent on the following basic input elements:

- Content: the selection of information to be communicated
- Structure: how the information is organised, sequenced and linked
- Language: how the information is expressed in words including tone
- Design: the typography, layout and graphic design of the document

Readability must also consider the reader's response to the document:

- Their attitude and emotional response
- What they know from reading it
- What they are able to do as a result"

"An objective of the UK Her Majesty's Revenue and Customs (HMRC) is to ensure that correspondence is read, understood, and acted upon."

"Testing involves focus groups, individual interviews, and discussions with stakeholders which allows them to ask questions about understanding, layout, user-friendliness, and whether they perceive their letters as a call to action (to file, pay, provide information, etc.)."

"Some of the lessons learned by the United Kingdom are consistent with what plain language experts recommend to improve understandability (for example, make it easy, highlight key messages, and use personal language). They found that there is a minute window of opportunity to get a reader's attention, the average reader has an attention span of 2 minutes, and readers generally focus on headings, boxes, and images."

4. **Center for Plain Language**, *Five Steps to Plain Language*, https://centerforplainlanguage.org/learning-training/five-steps-plain-language/ (last visited Oct. 2, 2018).

"Identify and describe the target audience. Define the target groups that will use the document or website

- List and prioritize top tasks by audience group
- List what people need or need to know to complete the task
- List characteristics of the groups that should influence design (for example, age, computer experience...)"

"Structure the content to guide the reader through it

- Organize the content so that it flows logically
- Break content into short sections that reflect natural stopping points
- Write headings that help readers predict what is coming up"

"Work with the target user groups to test the design and content Test the design at multiple points

- Were audience needs, such as top tasks, prioritized based on user research?
- Did you test navigation labels and information organization for predictability?
- Did you test the content for readability and understandability?
- Did you test the final product?

Use evidence-based testing strategies

- Were the participants representative of the target groups?
- Did you test your design and content with enough people?
- How was understanding and ability to act measured?
- Was there a before-and-after comparison to demonstrate improvement?

Check that the final product is useful and usable

- Ask readers to describe who and what the document or site is intended for
- Have them show you how they would find the information they want or need
- Ask them to describe key concepts or processes in their own words
- Observe whether target users can finish key tasks easily and confidently
- Note where they stumble or misunderstand and rethink those parts of the site or document"
- 5. **David Bholat et. al.**, Enhancing Central Bank Communications with Behavioral Insights 4, 12, 17 (Bank of Eng., Staff Working Paper No. 750, 2018).

"In this research, we test whether reducing the amount of information in the Bank's *Inflation Report* summary improves comprehension and trust. In so doing, we both draw on the

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behavioural finance literature which has found that reducing the information which individuals need to process improves their engagement."

"[W]e test whether making the material more relatable to people's daily lives improves comprehension and trust. For example, previous studies have found that making information relevant to individual circumstances can increase engagement."

"We find that compared to the Monetary Policy Summary [the control], the Visual Summary improved the average comprehension score by 25% (0.5 points). The Reduced Text Summary improved the average comprehension score by 30% (0.6 points) relative to the Monetary Policy Summary, and the Relatable Summary improved direct comprehension scores by 42% (0.8 points) relative to the Monetary Policy Summary."

"We found a small but statistically significant difference in trust for participants that read the Relatable Summary."

6. **Deloitte Consulting LLP**, Using the Nudge in Tax Compliance: Leveraging Behavioral Insights to Boost Tax Revenue 9, 13, 15 (2017).

"So what is a Nudge? Its a concept from behavioral science and economics that steers people in particular direction but that also allow them to preserve their freedom of choice and does not impose any significant material incentives."

"A reminder is a nudge[.] Also a warning.... A subsidy is not a nudge[.] Nor is a fine/jail sentence[.]"

"In 2013, the Ministry of Manpower in Singapore improved its reminder letters by:

- 1. Simplifying the language used
- 2. Including a social norm message saying '96% of employers pay their levy on time.'
- 3. Printing the bills on pink paper typically used for debt collection."

"Adding the sentence 'nine out of ten people pay their tax on time' boosted voluntary payments[.]"

7. **Derek M. Jones**, The 7 ± 2 Urban Legend 5 (2002).

"Chunking is a common technique used by people to help them remember information. A chunk is a small set of items (the value 4±1 is seen in many studies) having a common, strong, association with each other (and a much weaker one to items in other chunks)."

8. **Designworkplan**, *Dutch Government Identity*, https://www.designworkplan.com/read/rijksoverheid-sans-serif (last visited Oct. 4, 2018).

"The Rijksoverheid Sans, an easy to read typeface with a large x-height. This allows maximum legibility for heading text, signage, wayfinding and other forms of visual identity."

"The name of the typeface is recognizable as "government" and will be used in every way of visual communication. The Rijksoverheid Sans will be used mainly for headings of text and in signage or wayfinding systems."

9. **Don Norman**, The Design of Everyday Things: Revised and Expanded Edition 8-9 (2013).

"The solution is human-centered design (HCD), an approach that puts human needs, capabilities, and behavior first, then designs to accommodate those needs, capabilities, and ways of behaving. Good design starts with an understanding of psychology and technology. Good design requires good communication ... indicating what actions are possible, what is happening, and what is about to happen. Communication is especially important when things go wrong.... Designers need to focus their attention on the cases where things go wrong, not just when things work as planned."

"Human-centered design is a design philosophy. It means starting with a good understanding of people and the needs that the design is intended to meet."

10. EOP NSTC, 2016 Soc. Behav. Sci. Team Ann. Rep. 31.

"The Earned Income Tax Credit (EITC) is one of the largest refundable credits, sending over \$66 billion in income assistance to more than 27 million working families in 2015 [M]illions of individuals—many of whom do not have children—who may be eligible do not claim the credit each year, either because they file their returns but do not claim the credit, or because they do not file at all."

"The IRS, academic researchers, and General Services Administration (GSA) members of SBST tested the impact of mailing notices about tax filing and EITC participation to potentially eligible individuals who did not file a tax return in recent years. Six variants of postcards and brochures that highlighted the benefits of the EITC were sent to individuals. The notices resulted in a modest, but statistically significant, increase in the rate of tax filing (37.8 compared to 36.8 percent), which in turn increased EITC filing rates. Conditional on filing, there were no significant differences in the fraction of individuals claiming the EITC, suggesting that the primary barrier to increasing EITC claims for this population is getting individuals to file a return."

11. **Eric P. Bettinger et. al.**, The Role of Simplification and Information in College Decisions: Results From the H&R Block FAFSA Experiment 1, 3 (Working Paper No. 15361, 2009), http://www.nber.org/papers/w15361.

"As studies of other benefit programs have demonstrated ... a program's mere existence does not ensure take-up for everyone eligible and interested. Seemingly small differences in sign-up procedures and marketing can lead to large differences in participation."

"The analysis suggests that individuals who received assistance with the FAFSA and information about aid were substantially more likely to submit the aid application."

12. Erich Kirchler, The Economic Psychology of Tax Behaviour 130, 134 (2007).

"Humans are limited information processors. The more complex and less transparent a situation is, the more participants deviate from what the rational model predicts. People often fail to grasp the full range of alternatives in order to select the best, especially in decision-making situations involving risk."

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"Depending on the wording of a decision task, people perceive prospects as losses or gains, and preference orders may consequently be reversed."

- 13. Gabriel D. Carroll et. al., Optimal Defaults and Active Decisions, 124 Q. J. Econ. 1639, 1641-1642 (2009).
 - "[D]efaults powerfully influence outcomes without restricting choices[.]"

"Active decision mechanisms are an intriguing, though imperfect, alternative to defaults. On the positive side, active decisions avoid the biased outcomes introduced by defaults because active decisions do not corral agents into a uniform default choice. The active decision mechanism encourages agents to think about an important decision and avoid procrastinating. On the negative side, an active decision mechanism compels agents to struggle with a potentially time-consuming decision—which they may not be qualified to make—and then explicitly express their choice at a time which may be inconvenient."

14. **Holly A. Massett et. al.**, A Randomized Controlled Study Comparing the National Cancer Institute's Original and Revised Consent Form Templates, 39 IRB: ETHICS & Hum. Res. 1, 4 (2017).

"[T]he aim of this randomized controlled study was to investigate if a more concise consent form resulted in different levels of comprehension and satisfaction among a group of colorectal cancer survivors. The first hypothesis, that knowledge would be higher for the concise group, was not supported: both groups had similarly high knowledge scores."

"Older age and having more education were key predictors of increased comprehension when other variables were controlled for."

"The second hypothesis also was not supported: there were no differences in satisfaction scores for the two consent forms."

"Though the literature indicates that shorter consent forms could result in greater satisfaction, some studies have also found that the length of the consent form has a much lower effect on satisfaction than originally hypothesized."

15. **IRS**, Behavioral Insights Toolkit 13, 21, 24 (2017).

"Having too many choices or decisions can lead to choice overload or decision fatigue."

"Take steps to avoid decision fatigue when important decisions are being made Also, forms may be redesigned to avoid too many decisions in succession."

"Changing the way **options are ordered or presented** helps **reduce** *cognitive burden* and enable individuals to make better choices that are in line with their goals. Choice architecture also includes the use of **active choice** (being forced to make a decision, usually 'yes or no') and **defaults** ('opt-out' settings)."

"Forms created without considering all aspects of choice architecture could guide users to select options that are not optimal to the mission of an organization or the user—just because it was not implemented intentionally doesn't mean the architecture of the choices has no effect."

"Salience is the ability to **command attention** to something by **giving it more weight or putting it in a position** that will capture attention and influence choices."

"Messages should be matched carefully to their intended audience. Campaigns can be made salient by customizing messages to an individual's demographic."

16. **Iva W. Cheung**, *Plain Language to Minimize Cognitive Load: A Social Justice Perspective*, 60 IEEE Transactions on Prof. Comm. 448, 454 (2017).

"Applying plain-language principles is an evidence-based way to reduce cognitive load. Minimizing cognitive load increases the likelihood that people with heavy mental burdens will read and understand the communication."

17. **James Hartley, Lindsey Davies & Peter Burnhill**, Alternatives in the Typographic Design of Questionnaires, 50 J. Occupational Organizational Psychol. 299, 299 (1977).

"[W]e [the researchers] have argued that text should be printed on predetermined page-sizes (in particular the internationally approved standard sizes); that the vertical and horizontal spacing of text should be rational and consistent; and that space itself should be systematically manipulated to convey the structure of complex text more easily to the reader. We have shown this approach to be cost-effective when applied to the design of complex documents such as a college prospectus (Burnhill *et al.* 1975), to complex text (Hartley & Burnhill, 1976*b*) and to the layout of textbook indexes (Burnhill, Hartley & Davies, 1977)."

18. **Jane Root & Sue Stableford**, Easy-to-Read Consumer Communications: A Missing Link in Medicaid Managed Care, 24 J. HEALTH POL. & L. 1, 3-4 (1999).

"What 'Easy-to-Read' Means

Writing easy-to-read material requires much more than turning *currently* into *now*, *physician* into *doctor*, or *receive* into *get*. It means thinking carefully about who the audience is in order to determine what is 'need to know' information and what is 'nice to know.' It means eliminating much extra material that can overfill the page and overwhelm the reader. It means designing the piece with simple, appropriate illustrations that support the message and using twelve- to fourteen-point serif type in the body of the text. It means using lowercase letters (not all capitals), ample margins, and headers to aid organization. The writer must break long lists into shorter ones that are arranged categorically and state information in a sequence that will enable the readers to envision their own actions as they carry out the instructions. And the overall content and design must be friendly, appealing, and culturally appropriate—to gain readers' attention and increase their retention of important messages."

19. **Jeffrey R. Kling et. al.**, Comparison Friction: Experimental Evidence from Medicare Drug Plans, 127 Q. J. Econ. 199, 200-201 (2012).

"Simply making information available, however, does not ensure consumers will use it. We call *comparison friction* the wedge between the availability of comparative information and consumers' use of it."

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"[W]e followed the choices made by seniors who participated in an experiment we designed that reduced comparison friction by delivering personalized cost information to seniors via a letter. That personalized information used aspects of the match between consumers and the available plans (specifically, the differences in out-of-pocket costs of the drugs an individual takes) that could be readily observed.... A comparison group was given only the address of this website. The distinction between the groups was that the comparison group had to actively visit a website (or call Medicare's toll-free number, or seek information from a third party), whereas the intervention group had information delivered to them.... We found large effects of this simple intervention."

20. **Julie A. Ask**, Forrester Research, *Notifications: Build Your Best Practices. A Step-By-Step Guide to Notification Excellence* 3, 14 (Sept. 28, 2018).

"Elevating convenience improves customer experiences. Notifications can lift the cognitive load from a consumer or eliminate friction in processes both offline and online."

"Explain value in plain language. Articulating the value of notifications along with a promise to use extraordinary discretion in using the tool may seem obvious, but many apps still use generic templates from the OS rather than branded, customized requests that offer details. Be specific and tangible."

21. **Kai Kaspar et. al.**, A Matter of Font Type: The Effect of Serifs on the Evaluation of Scientific Abstracts, 50 Int'l J. Psychol. 372, 377 (2015).

"[T]he present results propose that serifs can have a significant beneficial value with respect to text evaluation."

"All in all, the present work indicates that serifs lead to a better evaluation of scientific abstracts and their content as far as all other letter features do not change."

22. **Karen A. Schriver**, On Developing Plain Language Principles and Guidelines, in Clear Communication: A Brief Overview, 55, 65-66 (Katrin Hallik & Kate. H. Whiteside, eds., 2014).

"Universal principle: There is a strong relationship between word length, word frequency, and word difficulty. The longer the word, the less frequent it is, and the harder it is to pronounce, the more likely it is to slow readers down and give them difficulty.

Evidence-based universal guideline: To make text easy to understand for most people, favor short words, high-frequency words, and simple words over long words, low-frequency words, and hard words.

Conditional principle: Professional groups may have their own subculture for language and prefer to use words and acronyms that are high frequency for them but low frequency for those outside of their group.

Evidence-based conditional guideline: If you are a member of a group with a special language subculture (*e.g.*, physicians, engineers, lawyers) and writing for the general public, avoid using words that are high-frequency within your group but not for people outside your group."

23. MDRC, News from the BIAS Project, BEHAVIORAL BUZZ, Sept. 2015.

"Research has shown that simplifying forms and providing information can increase take-up of government programs. Making messages clearer and easier to understand and streamlining choices can reduce procrastination and make it easier for clients to complete complex paperwork. Clear instructions, few required fields, and visual prompts that draw the eye to key information are examples of techniques than can improve applications and make it less likely that these forms are barriers to service receipt."

24. Nace Pusnik et. al., Effect of Typeface, Letter Case and Position on Recognition of Short Words Presented On-screen, 35 Behav. & Info. Tech. 442, 448 (2016).

"It seems that particular typeface properties, such as difference in stroke width, counter shape, white space and inclusion of serifs, may be crucial for faster word recognition. The important role of letter spacing was also confirmed by many other studies."

25. **Nelson Cowan**, The Magical Number 4 in Short-term Memory: A Reconsideration of Mental Storage Capacity, 24 Behav. & Brain Sci. 87, 114 (2000).

"The preponderance of evidence from procedures fitting these conditions strongly suggests a mean memory capacity in adults of three to five chunks."

"The fundamental capacity limit appears to coincide with conditions in which the chunks are held in the focus of attention at one time; so it is the focus of attention that appears to be capacity-limited."

26. Nir Eyal with Ryan Hoover, Hooked: How to Build Habit-Forming Products (2014).

"[Y]ears of distilled research and real-world experience resulted in the creation of the Hook Model: a four-phase process companies use to form habits. Through consecutive Hook cycles, successful products reach their ultimate goal of unprompted user engagement, bringing users back repeatedly, without depending on costly advertising or aggressive messaging."

"Fogg describes six 'elements of simplicity'—the factors that influence a task's difficulty. These are:

Time—how long it takes to complete an action.

Money—the fiscal cost of taking an action.

Physical effort—the amount of labor involved in taking the action.

Brain cycles—the level of mental effort and focus required to take an action.

Social deviance—how accepted the behavior is by others.

Non-routine—according to Fogg, 'How much the action matches or disrupts existing routines.'

To increase the likelihood that a behavior will occur, Fogg instructs designers to focus on simplicity as a function of the user's scarcest resource at that moment."

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27. **OECD**, Building a Letter: Encouraging Customers About Their Interest-only Mortgages, in Behavioral Insights and Public Policy: Lessons from Around the World 208, 208-209 (2017).

"The FCA and the industry wanted to increase engagement from customers with the letters that firms were providing. This was to ensure that customers thought about their repayment plans and to encourage them to contact their providers to discuss potential options."

"The five letters were:

- 1. Control: Standard letter written by the firm
- 2. **Riskless**: Removing the standard repossession risk warning ('Your home may be repossessed if you do not keep up repayments on your mortgage')
- **3. Non-personal**: Removing a table of personal data which included balance and time left on mortgage
- **4. Bullets**: Summarising the key information in bolded bullet points at the top of the letter, and
- Friendly: Removing the risk warning and re-writing the letter to be friendlier and more informal in tone.

The firm was able to monitor a number of outcomes including:

- Whether the customer proactively contacted the provider, and
- Whether the customer was open to discussing potential repayment options when contacted by the provider."

"The results of this trial show that less is more in this context and simplicity is likely to improve response rates. It appears that removing the risk warning on this letter (the warning was not mandated in this case) actually increased the response rate, particularly when combined with a more informal tone. It is possible this is because the risk warning might scare customers and lead them to put their head in the sand rather than engage with the firm."

28. **OECD**, *Encouraging Customers to Claim Redress, in* Behavioral Insights and Public Policy: Lessons from Around the World 205, 205-207 (2017).

"Using insights from behavioral science, the FCA ran a field trial on a real case: a firm that was voluntarily writing almost 200,000 customers about a failing in its sales process. The FCA developed seven amendments to the standard letter sent being sent (sic) by the firm to consumers due redress:

- 1. Urgency: Adding a message to 'act quickly' to a plain envelope
- 2. Visual cue: Using the FSA logo in the letter head
- **3. Salience**: Replacing the two bullet points at the top the letter with more salient bullet points
- **4. Simplification**: Making the body of the letter simpler and more concise, by reducing the text by 40%
- **5. Information/Time-Cost/Ease**: Including a sentence in bold explaining that the claims process would only take five minutes

- **6. Personalisation** with CEO signature: Using the firm CEO's signature to sign the letter, instead of a generic 'Customer Team'
- 7. Reminder: Sending a second letter three to six weeks after the first."

"The best combination—using **salient bullets** and a **reminder** letter—improved the response rate from 1.5% (the control) to almost 12%."

29. **Owain Service et. al.**, The Behavioural Insights Team: EAST: Four Simple Ways to Apply Behavioural Insights 4 (2014).

"Make it Easy

- Harness the power of defaults. We have a strong tendency to go with the default or pre-set
 option, since it is easy to do so. Making an option the default makes it more likely to be
 adopted.
- *Reduce the 'hassle factor' of taking up a service.* The effort required to perform an action often puts people off. Reducing the effort required can increase uptake or response rates.
- Simplify messages. Making the message clear often results in a significant increase in response
 rates to communications. In particular, it's useful to identify how a complex goal can be
 broken down into simpler, easier actions."
- 30. **Peter M. Tiersma**, Communicating with Juries: How to Draft More Understandable Jury Instructions 3-4, 16 (2009), http://ssrn.com/abstract=1507298.

"Use Logical Organization"

- Put the most important things first.
- Put the general before the specific.
- Put the overall statement or rule before any conditions or exceptions."

"[U]se headings. At least when a jury is given a written copy, having a heading or title at the top of each instruction will help jurors find the relevant instructions during their deliberations. Numbered lists are also useful. Whenever the jury is given various elements or factors to consider—the elements of a crime, for example, or factors to consider in determining the believability of witnesses—they should be presented in a list."

"Give Jurors Clear Guidance on How to Go About Their Task"

"Quite often, instructions consist of a jumble of abstract legal principles with little concrete guidance on how to go about the nitty-gritty of reaching a verdict and filling out the verdict form. Of course, unlike their British colleagues, American judges are usually discouraged from commenting on the evidence and explaining how it relates to the jurors' decision. Still, judges in most jurisdictions should be able to give jurors some concrete advice on how to proceed. Thus, in a breach-of-contract case the judge might instruct jurors that when they begin to deliberate, they should first decide whether there was a valid contract. If not, they should return a verdict for the defendant. On the other hand, if they decide that there was a valid contract, they will then need to decide whether it was breached. If not, verdict for the defense. If so, proceed to the issue of mitigation of damages. And so forth."

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31. **Robert P. Charrow & Veda R. Charrow**, Making Legal Language Understandable: A Psycholinguistic Study of Jury Instructions, 79 COLUM. L. REV. 1306, 1358-1359 (1979).

"This study set out to test three hypotheses: (1) that the standard jury instructions used in this study—when viewed as discourse—are not well understood by jurors; (2) that certain linguistic constructions are largely responsible for the incomprehensibility; and (3) that if the problematic linguistic constructions are appropriately altered, comprehension will dramatically improve, notwithstanding the "legal complexity" of any given instruction. The results ... support these hypotheses."

"The study provides evidence that there is more to legal language than merely 'jargon'—an esoteric vocabulary. Certain grammatical constructions and discourse structures found in the jury instructions appear to be recurring elements in legal language. Although these constructions are found in ordinary usage, they appear with much greater frequency in legalese and tend to characterize it as a distinct sublanguage. The results of the study also indicate that these constructions—rather than the legal complexity of the jury instructions—were responsible for comprehension problems."

"The results of this study—in conjunction with the results of other studies of jury instruction comprehension—underscore the fact that jury instructions are not written for their major intended audience."

32. **Saugato Datta & Sendhil Mullainathan**, Behavioral Design: A New Approach to Development Policy 23 (2012).

"[F] ollowing through on an intention requires a person to remember to take several steps, and it is easy to forget or neglect to do one of them. But missing a single step often derails the whole process. A timely reminder goes a long way towards mitigating these problems."

33. **Siegal+Gale**, *Making Paperwork Less Taxing* (May 2011), https://siegelgale.com/wp-content/uploads/2011/05/Case-Study-IRS.pdf.

"The IRS sends out more than 200,000,000 notices a year. A taxpayer can receive any one of over 1,000 different notices created by 120 different authors generated by more than 40 different systems. No wonder the public is often confused—and frustrated."

"[T]he differences among many letters reflected internal IRS structure, as opposed to taxpayer needs. Yet, despite the systems-driven structure, letter production did not take advantage of existing technological capabilities. And from a communications perspective, many letters lacked a logical framework and a consistent voice."

34. **Steven J. Sherman et. al.**, *Social Interference and Social Memory: The Interplay Between Systems*, in The SAGE Handbook of Social Psychology: Concise Student Edition 49 (Michael A. Hogg & Joel Cooper eds., 2007).

"Framing effects on memory

Framing refers to the idea that identical information can be presented in different ways such that there is a different focus or a different salience of certain aspects of information (Tversky and Kahneman, 1981). Different framings lead to different interpretations of information and thus

to different inferences about the value of certain decisions, the motives or goals of actors, and the attitudes or beliefs of those actors. Framing messages or events with a focus on gains versus losses (Tversky and Kahneman, 1981), as promoting or preventing certain outcomes (Higgins, 1998), or as focusing on the positive aspects of doing something versus the negative aspects of not doing something (Rothman and Salovey, 1997) have all been shown to have effects on subsequent judgments and decisions. Because different frames make salient certain aspects of information presented, allowing for different inferences, memory for information can be facilitated or inhibited, and biases in memory in a direction consistent with the framing are to be expected."

35. **Stewart Kettle et. al.**, *Behavioral Interventions in Tax Compliance: Evidence from Guatemala* 27 (World Bank Group, Macroeconomics and Fiscal Mgmt. Global Prac. Group, Policy Research Working Paper No. 7690, 2016).

"The trial presented in this paper ... [explores] the effects of tax reminders on declarations, rate of payment, and payment amount. A key contribution of this study is to show that social norms and the deliberate choice message can be effective at increasing both declaration and payment in the context of a developing country, for both individuals and firms."

"The best performing treatments were a deterrent message framing non-declaration as an intentional and deliberate choice, rather than oversight (designed to overcome status quo bias), and a social norms message, which referred to the 64.5 percent of taxpayers who had already paid this tax (designed to nudge taxpayers to join the status quo). These letters increased the rate of payment by 1.7 and 1.5 percentage points, respectively, compared to the control condition [and] also increased the average amount paid conditional on paying."

36. **Susan Weinschenk**, 100 Things You Should Know About People: #33: Bite-Sized Chunks Of Info Are Best, The Team W Blog (May 7, 2010), https://www.blog.theteamw.com/tag/progressive-disclosure/.

"Humans can only process small amounts of information at a time (consciously that is... the estimate is that we handle 40,000,000 pieces of information every second, but only 40 of those make it to our conscious brains). One mistake that web sites make is to give too much information all at once."

"There is no chunking ... there is not progressive disclosure. It's just all the information thrown on the page all at once. The result? You don't read it, you just leave."

- 37. **Susan Weinschenk**, *The Psychologist's View of UX Design*, UX MAGAZINE, May 19, 2010, https://uxmag.com/articles/the-psychologists-view-of-ux-design.
 - "It is better to show people a little bit of information and let them choose if they want more details. The fancy term for this is progressive disclosure."
 - "People can only look at so much information or read so much text on a screen without losing interest. Only provide the information that's needed at the moment (see progressive disclosure above).
 - Make the information easy to scan.
 - Use headers and short blocks of info or text."

- "If pages are cluttered people can't find information. Use grouping to help focus where the eye should look.
- Things that are close together are believed to 'go' together."
- 38. **Thomas Wehr & Werner Wippich**, Typography and Color. Effects of Salience and Fluency on Conscious Recollective Experience, 69 Psychol. Res. 138, 146 (2004).

"[T]he present study provides information about the impact of two stimulus attributes on recollective experience. It was observed that words written in unusual typography can stimulate a more detailed and clear memory. The same effect of stimulus salience on recollective experience was evoked by presentation of colored words in combination with the task to imagine the described object in that color."

39. William H. DuBay, The Principles of Readability 2, 56 (2004).

"Many experts, through much research, have compiled golden rules of documentation writing. These rules apply regardless of medium:

- Use short, simple, familiar words
- Avoid jargon.
- Use culture-and-gender-neutral language.
- Use correct grammar, punctuation, and spelling.
- Use simple sentences, active voice, and present tense.
- Begin instructions in the imperative mode by starting sentences with an action verb.
- Use simple graphic elements such as bulleted lists and numbered steps to make information visually accessible."

"The research on literacy has made us aware of the limited reading abilities of many in our audience. The research on readability has made us aware of the many factors affecting their success in reading. The readability formulas, when used properly, help us increase the chances of that success."

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YOUR VOICE AT THE IRS

