The Effects of EITC Correspondence Audits on Low-Income Earners[*]

John Guyton   Kara Leibel   Day Manoli   Ankur Patel   Mark Payne   Brenda Schafer

IRS   IRS   UT-Austin   Treasury   IRS   IRS

December 2019

Abstract

Each year, the United States Internal Revenue Service identifies taxpayers who may have erroneously claimed Earned Income Tax Credit (EITC) benefits and audits them through a mail correspondence process to verify their claims. This paper exploits the random variation arising from certain aspects of the audit selection process to estimate the impacts of these EITC correspondence audits on taxpayer behaviors. In the years after being audited, taxpayers are less likely to claim EITC benefits, and most of the reduction appears to be in EITC claims that may have been flagged for potential EITC noncompliance. Additionally, qualifying children on audited returns are more likely to be claimed by other taxpayers after the audits. These spillovers indicate that net overpayments may be less than gross overpayments, since ineligible qualifying children on audited returns could potentially be eligible qualifying children on other taxpayers' returns. Lastly, EITC correspondence audits affect real economic activity, as wage earners experience changes in the likelihood of having wage employment in the years after being audited.

I. Introduction

In countries around the world, tax authorities rely on audits to enforce tax codes and improve tax compliance. Understanding the impacts of these operational audits on taxpayer outcomes is essential for ensuring enforcement and compliance with tax laws and for gaining insights into taxpayers' decision-making. However, relatively little is known about the impacts of such operational audits, possibly due to a lack of data on operational audits or a lack of random variation in the selection of operational audits. This analysis aims to overcome these obstacles and provide insights into the impacts of operational audits on low-income earners' behaviors. Specifically, this paper presents an analysis of operational audits conducted by the United States Internal Revenue Service (IRS) in the context of administering the Earned Income Tax Credit (EITC). In this setting, we examine three central topics in tax enforcement research: deterrence of noncompliant behaviors, spillovers to other taxpayers, and impacts on real economic activity (in addition to tax-reporting behaviors).

The EITC, which has become the United States' largest wage subsidy anti-poverty program, is administered by the IRS. Tax administration research within the IRS and in academic contexts has demonstrated that each year, while a significant amount of EITC benefits subsidize working low-income households, concerns also arise about erroneous claims of EITC benefits.[1] Correspondence audits, which are operational audits conducted via mail, are a key enforcement tool to protect revenue and deter improper claims of EITC benefits. Historically, roughly 500,000 EITC correspondence audits were performed each year, but this figure has declined to around 350,000 in recent years.

We estimate the causal effects of these EITC correspondence audits on low-income earners' behavior by exploiting random variation within one part of the audit selection process. We emphasize that audit selection overall is not random or arbitrary, but there is random variation within a subsample of returns made available for audit. Specifically, random variation

---

[1] For evidence on EITC noncompliance and erroneous payments of EITC benefits, see Holtzblatt (1991), McCubbin (2000), Blumenthal, Erard, and Ho (2005), and Leibel (2014). Related to this literature, Saez (2010), Chetty Friedman, and Saez (2013), and Mortenson and Whitten (2018) present evidence on taxpayers who report self-employment income to maximize EITC benefits and tax refunds.

conditional on observables arises from the following EITC audit selection process. First, all tax returns are assessed for noncompliance risk. Returns that break certain rules or have other indicators of potential noncompliance are assigned a risk score and made available for audit. Returns with no indicators of potential noncompliance are neither assigned a risk score nor made available for audit. Returns are then selected for audit using the risk score as one important factor. Although the IRS does not make public the details of the selection process and the role of the risk score in that process, the process incorporates some random variation, particularly among the subsample of returns with low or intermediate risk scores. Thus, the selection process approximates random selection only conditional on having a low or intermediate risk score. By focusing on this subsample of returns with low or intermediate risk scores (again, recognizing that having a risk score at all implies these are still among those with higher risk of potential noncompliance in the EITC-claiming population), we are able to estimate the causal effects of EITC correspondence audits by exploiting the random variation in the selection process. We compare audited taxpayers with taxpayers who had similar risk scores but were not selected for audit, mimicking a randomized control trial. The self-employed analysis sample has 365,511 audited returns and 386,660 nonaudited returns. The wage earner analysis sample has 756,700 audited returns and 1,003,049 nonaudited returns. The analysis sample of audited returns covers roughly 30% of all EITC correspondence audits from 2008 to 2015.

Our analysis of audit outcomes in our sample shows that just over 75% of EITC correspondence audits have EITC benefits disallowed due to undelivered mail, nonresponse, or insufficient response.[2] Each of these three outcomes mechanically results in a full disallowance. A common assumption in tax administration research is that audits provide insight into the "true" incomes or circumstances of audited taxpayers. However, this result indicates that this assumption may not apply in the context of EITC correspondence audits because of undelivered mail, nonresponse or insufficient response.

---

[2] Insufficient response cases are those where the taxpayer engaged with the IRS and may have provided some documentation attempting to substantiate their claim but at some point discontinued communications and had their EITC disallowed. Ultimately these taxpayers did not sign and return a document agreeing to the exam outcome, but it is unknown whether these taxpayers did not formally agree because they continued to believe they were eligible for the credit or whether they agreed they were not eligible but did not sign the final document because they had little incentive to do so.

The relatively high nonresponse rate (47 percent for the self-employed and 43 percent for wage earners in our sample) is consistent with "recertification costs" being relatively high, even for potentially eligible individuals; specifically, perceived costs of understanding forms and obtaining necessary documentation may be high relative to average benefit amounts, which are roughly $4000 for the EITC amounts in our analysis sample. For examples related to recertification costs, see Bhargava and Manoli 2015 and Homonoff and Somerville 2019 for evidence on recertification costs for EITC and SNAP benefits respectively.[3] The high rate of nonresponse is also consistent with ineligible taxpayers who have knowingly claimed the EITC incorrectly behaving optimally by not engaging with the IRS, which they have little incentive to do if they know they cannot demonstrate eligibility.[4]

The widespread instances of undelivered mail, nonresponse, and insufficient response imply that a relatively small share of EITC correspondence audits have confirmed ineligibility based on information verified with the audited taxpayer: just 15% of all EITC correspondence audits are ones where the EITC is fully disallowed and the taxpayer signs the document agreeing to the exam outcome. Given the high rate of mechanical disallowances, it is natural to consider whether nonresponders or individuals with mechanical disallowances may actually have been eligible for EITC benefits but just unable to produce necessary documentation to substantiate eligibility. However, it is not possible to determine which returns or what percentage of nonresponses or mechanical disallowances would be confirmed ineligible or eligible if they had fully responded.

In the year immediately after an audit, EITC claiming decreases by about 30% and 50% for the self-employed and wage earner analysis samples, respectively, relative to the corresponding fraction claiming EITC benefits in the nonaudited group. The decreases in EITC claiming for the audited group relative to the nonaudited group fade out over subsequent years. However, the fade

---

[3] Here "recertification costs" are the costs of completing the process to substantiate eligibility. They do not refer specifically to "recertification" for EITC, which is the term used for taxpayers who have had their EITC (or other refundable credit) disallowed in the past and must submit Form 8862 before they may claim the credit again.

[4] It is not possible to distinguish between intentional and unintentional (or inadvertent) EITC claiming errors in the data. Liebman (2000), McCubbin (2000) and Burman (2003) discuss evidence on intentional versus unintentional errors in EITC claiming in the context of randomized audits and attribute between 28% and 50% of EITC errors to intentional errors. However, it is not clear how these statistics apply in the context of operational audits.

out is not driven by audited taxpayers who resume claiming EITC benefits. Instead, it is driven by nonaudited taxpayers who decrease filing EITC claims as qualifying children age out beyond EITC qualifying child age thresholds (younger than age 19 or younger than age 24 if a full-time student). We show that, for taxpayers with younger qualifying children, the differences between the audited and nonaudited groups after the audits are more persistent (i.e. they do not fade out). In terms of cumulative impacts over subsequent years after the audits, for every $1 that is audited, roughly $0.90 and $0.68 are unclaimed in years after the audits for the self-employed and wage earner analysis samples respectively. Further analysis indicates that, in the years after audit assignment, taxpayers in the nonaudited group have a higher likelihood of filing returns that are flagged for potential noncompliance. This indicates that the counterfactual returns for audited taxpayers (i.e. the returns that audited taxpayers may have filed had they not been audited) may have been returns that would have been flagged for potential noncompliance. Therefore, the cumulative effects over post-audit years may reflect deterrence of future EITC claims that would have been flagged for potential noncompliance (i.e future deterrence of potentially illegitimate claims when protecting current-year revenue).

Next, our results indicate that EITC correspondence audits have spillover impacts on other taxpayers through qualifying children. In particular, some qualifying children on audited returns are subsequently claimed as dependents on other taxpayers' tax returns. For example, in the year after being audited, the likelihood of qualifying children on the audited return being claimed by the audited taxpayer decreases by about 0.23 and 0.27 for the self-employed and wage earner analysis samples, respectively. About 70% (=0.16/0.23) and 52% (=0.14/0.27) of these respective decreases are due to qualifying children not being claimed by any taxpayer, and the remaining 30% and 48% of the reductions are due to qualifying children being claimed as dependents by other taxpayers.[5] Models in tax administration research often assume that only

---

[5] These results relate to recent evidence on reasons for errors in claiming EITC qualifying children in the year of audit. Leibel, Lin and McCubbin (2019) use data on randomized NRP audits and find that residency errors (or unsubstantiated residency) account for almost 80% of errors in claiming EITC qualifying children. Additionally, they find that many individuals who may have met the requirements to correctly claim children as EITC qualifying children did not file a tax return in the year the original claiming taxpayer was audited. In other cases, a taxpayer who may have been eligible to claim the qualifying child on an audited return did file a tax return but did not claim the EITC based on the child on the audited return. The qualifying child switching that we document could be driven in part by such individuals filing tax returns and claiming qualifying children in years after the EITC correspondence audits.

audited taxpayers are affected by audits, but these results indicate that operational audits have spillover impacts on other nonaudited taxpayers who subsequently claim the qualifying children on audited returns.

Additionally, the qualifying child's switch between taxpayers highlights a distinction between gross overclaims and net overclaims when assessing total dollars overclaimed in the context of EITC correspondence audits. Gross overclaims will include overclaims by taxpayers who incorrectly claim qualifying children. If a different taxpayer should have claimed a qualifying child, however, then the (under)claim by the other taxpayer should be subtracted from the gross overclaim by the audited taxpayer in order to assess net EITC overclaims (or the net monetary loss in terms of federal tax revenues). Under the extreme assumption that all qualifying children switches are from erroneous claims to proper claims, qualifying child switching could potentially account for roughly one-third to one-half of qualifying child changes in our analysis, so net overclaims could be significantly smaller than gross overclaims among the EITC audited population.[6] It is also possible that the switching of children indicates ongoing cooperative and strategic behavior among EITC-ineligible taxpayers, and that when one taxpayer is determined by audit to be ineligible to claim a particular child, another ineligible taxpayer takes their place claiming the child in subsequent years. To the extent this occurs, it would mitigate the potential difference between gross and net overclaims.

The analysis also indicates that EITC correspondence audits affect real economic activity in addition to tax reporting outcomes. In particular, for audited wage earners who have wage employment (i.e., have a W-2 reported to the IRS by their employer) in the year of selection, there are decreases in the likelihood of having wage employment in the years just after the EITC correspondence audit, and the decreases are larger for taxpayers with younger (ages 0-5) qualifying children. Quantitatively, these estimated changes in wage employment imply a labor force participation elasticity of about 0.28, which is consistent with prior quasi-experimental

---

[6] Leibel, Lin and McCubbin (2019) estimate that in cases where characteristics could be observed (which is a subset of their analysis population), roughly 4 percent of gross EITC overclaims could have been offset by correct claims of children. More broadly, about 10% of the EITC claims attributed to residency, relationship and tiebreaker errors could have been offset by other foregone claims.

estimates of participation elasticities.[7] However, we note that there are multiple caveats to bear in mind, since EITC correspondence audits may have effects beyond labor supply incentives. For audited wage earners without a W-2 in the year of selection, the likelihood of having a W-2 appears to gradually increase in the years after the audits. This may reflect gradual transitions from informal, cash-based employment to formal, W-2-documented employment after an EITC correspondence audit.

We note that the analysis sample differs from the general EITC population since returns in the analysis sample have all been flagged for some potential EITC noncompliance, but most returns in the general EITC population are not flagged for such potential noncompliance. We also note that the analysis sample differs from the full EITC correspondence audit population since the analysis sample includes only returns with lower and intermediate risk scores, whereas the full EITC correspondence audit population includes returns with the highest risk scores that are almost always audited. Related to external validity and generalizing our results to the broader EITC correspondence audit population or the broader EITC population, we present heterogeneity across risk score groups to indicate which results would apply to higher and lower risk populations.

Our analysis is related to prior tax enforcement research that examines the impacts of audits on taxpayer behavior. (See Slemrod 2016 for a survey of recent research on tax enforcement.) For example, Kleven et al. (2011) present results based on randomized audits and threat-of-audit notices in Denmark; Advani et al. (2017) examine the effects of randomized audits in the United Kingdom; and perhaps most closely, DeBacker et al. (2018) examine randomized IRS audits of EITC claimants. However, these studies do not examine operational audits. Instead, these studies examine impacts of randomized audits similar to those conducted by the IRS as part of the National Research Program (NRP). In the background section below, we discuss the differences between NRP-style audits and EITC correspondence audits in detail, but to summarize, they differ in multiple ways. First, in terms of samples sizes, between 2008 and 2016, the IRS

---

[7] Chetty et al. 2011 provides a survey of evidence on intensive and extensive margin labor supply elasticities, and Hoynes and Patel 2018 present more recent estimates of extensive margin elasticities based on EITC benefits. For additional studies on the effects of the EITC on labor supply and earnings, see Eissa and Liebman 1996, Meyer and Rosenbaum 2001, Meyer 2010, Chetty Friedman and Saez 2013.

conducted roughly 15,000 NRP audits each year and between roughly 1 to 1.5 million field and correspondence audits each year (see the annual IRS Data Book). Second, in terms of the nature of the audits, NRP audits often involve (possibly repeated) personal contact between a tax auditor and taxpayer via phone calls or in-person meetings, and the two parties work together to assess true income and true tax liability. In contrast, EITC correspondence audits often do not involve personal contact between tax auditors and taxpayers. Furthermore, EITC correspondence audits do not provide taxpayers with a designated tax auditor to assist them through the examination process. Instead, EITC correspondence audits are designed so that any auditor can assist the taxpayer. This means that the taxpayer can call the IRS at any time and be connected with someone who can help; with a single designated auditor, that may not be possible. However, the lack of a direct relationship with one auditor may mean that taxpayers find correspondence audits confusing or may not learn as much as they would otherwise. These factors can lead to higher nonresponse rates for correspondence audits than NRP-style audits. Consequently true income and true tax liability may often never be observed with EITC correspondence audits. Additionally, the characteristics of audited taxpayers differs between NRP audits and EITC correspondence audits since NRP audited taxpayers are not selected based on risk of potential noncompliance whereas taxpayers audited via EITC correspondence audits are selected based on risk of potential noncompliance. Given the widespread use of operational audits to enforce tax policies and policies in other settings and given the potential differences in behavioral responses to different types of audits, it is important for tax authorities, program administrators, and researchers to understand the impacts of operational audits on audited taxpayers.

The remainder of the paper is organized as follows. Section II describes the institutional background of EITC correspondence audits, the intuition for plausible impacts of EITC correspondence audits on taxpayer behavior, and the administrative data used in the analysis. Section III describes the empirical analysis and results, and Section IV concludes.

II. Background

A. The EITC Correspondence Audit Process

Each year, the IRS audits selected individual federal income tax returns to verify that income, deductions, or credits are being reported accurately. There are generally two types of operational audits: correspondence audits, which are conducted via mail, and field or face-to-face audits that are conducted at the taxpayer's home, place of business, tax preparer's office, or IRS office. Annual statistics on the number of correspondence and field audits are publicly available in the IRS Data Book and shown in Table 1.[8] As indicated by IRS Data Book statistics for fiscal years 2008 to 2016, for returns on which EITC is claimed, roughly 400,000 to 500,000 correspondence audits were conducted each year, compared to roughly 30,000 to 50,000 face-to-face audits. These numbers have been declining over time due to reductions in the IRS budget. The statistics in Table 1 also highlight that EITC correspondence and field audits make up considerable portions of all audits, with EITC correspondence audits being roughly 35% to 45% of all correspondence audits and EITC field audits roughly 10% of all field audits.

We focus our analysis on comparing returns selected for EITC correspondence audits with returns that appeared to have similar risk of noncompliance but were not selected for any type of audit. While the exact criteria used to select tax returns for audit are not made public by the IRS, we summarize the process for EITC correspondence audit selection as follows. As part of standard tax return processing, all returns claiming children for the EITC undergo a series of checks and comparison to relevant third-party data and past tax filing history. Returns that are flagged with indicators of potential noncompliance are assigned one or more risk scores, depending on the nature of the flagged condition, such as the number and types of rules potentially broken (where "rules" refer to IRS business rules or conditions used to identify potential noncompliance). Returns assigned a risk score are made available for audit, and the audit selection process is such that there is random variation in the selection of returns with intermediate or low risk scores (i.e., there is random selection conditional on observables using low and intermediate risk scores; audit selection is *not* completely random or arbitrary). Returns with no indicators of noncompliance are not assigned a risk score; thus, the returns with

---

[8] The 2016 IRS Data Book is available online at https://www.irs.gov/pub/irs-soi/16databk.pdf . The IRS Data Books for fiscal years 2010 through 2015 can be found at the same link, but with adjustments to the numbers to correspond to the desired fiscal year.

intermediate and low risk scores are still among the highest-risk returns in the population of EITC claimants.

Once an individual income tax return with EITC is assigned for a correspondence audit, a notification letter is automatically generated and sent to the taxpayer. This notice, which is typically a CP-75, informs the recipient that her tax return is being audited and requests that the taxpayer submit more information or documentation to support claimed tax benefits, as applicable; these may include EITC, other refundable credits, and dependency exemptions.[9] The type of supporting documentation requested depends on the issue that taxpayer must substantiate, and examples of supporting documentation are provided on the notice. For example, recipients may be asked to show that a qualifying child (QC) meets the relationship requirement by providing a birth certificate. School records may be used to demonstrate the residency requirement, and information on business income and expenses may be requested to verify self-employment. The CP-75 notice informs the taxpayer that she has 30 days to respond and that her refund is on hold until the audit is resolved.[10] CP-75 notices are typically sent within four to eight weeks after returns are filed. If the taxpayer does not respond within 30 days, the audit remains open and another notice is sent to the taxpayer, giving her more time to respond. If the taxpayer never responds, the audit will last approximately 6 months and will involve multiple notices, each giving the taxpayer the opportunity to respond. An audit may be resolved more quickly if the auditor and taxpayer agree on the outcome sooner, or it may last longer if the taxpayer continues to provide documentation and engage with the IRS.

The majority of EITC correspondence audits are pre-refund audits: Roughly 75% of correspondence audits that do not involve self-employment income are pre-refund audits, and roughly 90% of correspondence audits that involve self-employment income are pre-refund

---

[9] While the CP-75 notice explains that EITC, Additional Child Tax Credit (ACTC), and Premium Tax Credit benefits are on hold until the audit is resolved, CP-75A notices focus only on EITC benefits and do not impose a refund hold, and CP-75D notices specify holding only a portion of EITC benefits. Appendix Figure 1 presents an example of a CP-75 notice. An example can also be found on the IRS website at https://www.irs.gov/pub/notices/cp75_english.pdf. We acknowledge that this example CP-75 focuses on the Premium Tax Credit rather than the EITC. Notices regarding the EITC are similar, however, and we use this example because it appears on the IRS website.
[10] Only the portion of the refund associated with the EITC (and any other issue under audit) is frozen.

audits. The high ratio of pre-refund audits means that most taxpayers selected for EITC correspondence audit have their EITC refund frozen; they should therefore rapidly become aware of a problem even when audit notices go undelivered or unanswered by the taxpayer.

Once an EITC correspondence audit has been initiated, there are multiple possible outcomes. First, the audit notification may be undeliverable due to a bad or old mailing address, or the taxpayer simply may not respond to the notice. In both of these cases, EITC is ultimately disallowed in full, although prior to the disallowance additional steps are taken. For cases where the audit letter was undeliverable, the IRS has a process to research various data sources to try to locate a taxpayer's current mailing address, and timelines for the audit may be extended. In both undelivered mail and nonresponse cases, multiple notices are sent and a lengthy timeline is allowed before the audit is closed. If a taxpayer responds to the initial notice, the IRS will send a notice stating that more information is needed and explaining what is required or, if a decision has been reached, the outcome. If the EITC is disallowed, the taxpayer can: (1) respond to the notification and actively agree with the disallowance ("full disallowance with active agreement"); (2) respond to the notification and actively disagree with the disallowance (in the analysis below, this outcome applies to less than 2% of the analysis sample); or (3) not to respond to the notification and passively agree with the decision ("full disallowance with insufficient response"). If the EITC is allowed, it may be allowed or partially disallowed, depending on the information provided by the taxpayer.

As indicated in annual statistics reported in the IRS Data Book and shown in Table 1, each year roughly 85% to 90% of EITC correspondence audited returns result in changes to the return. Prior reports (National Taxpayer Advocate 2007, Schneller Chilton and Bochum 2011, and Government Accountability Office 2014) have demonstrated that nonresponse and insufficient response—potentially due to confusion, feeling intimidated by the audit process, or undelivered mail—are factors in some disallowances. We provide more details on audit outcomes in the summary statistics reported below.

In most cases, when EITC benefits are disallowed, taxpayers are notified of the change via a final report, explaining the changes to the taxpayer's account in detail and asking for the

taxpayer to sign and return the report. Taxpayers also generally receive a CP-79 Notice. This notice explains that to claim EITC benefits in the future, the taxpayer must include Form 8862 with the tax return filed for the year in which they resume claiming EITC.[11] Form 8862 includes questions to verify the taxpayer's eligibility for EITC benefits (and other potentially applicable refundable tax credits). Taxpayers may also be banned from claiming the EITC for the next two years (reckless disregard) or 10 years (willful disregard).

In addition to operational correspondence and field audits, the IRS also conducts audits through the IRS National Research Program (NRP). These NRP audits are intended to help the IRS detect possible areas of noncompliance and assess its success and effectiveness in collecting tax revenues. In terms of sample sizes, about 15,000 NRP audits were carried out each year between 2008 and 2016. NRP audits are selected using a stratified random sample that is then weighted to create estimates for the national population of tax filers. The population for operational audits, in contrast, is not intended to be representative of the national population of all tax filers, since the operational audit population only selects returns that may have potential noncompliance. More than 1.5 million operational audits of all types, including EITC audits, were conducted each year between 2008 and 2016.

Appendix Figures 4 and 5 provide examples of the letter and notification documents sent to taxpayers who are selected for NRP audits. We note multiple differences between these documents and those used for EITC correspondence audits. First, the letter for NRP audits explains that the return was selected at random to improve tax compliance and better understand fairness in the tax system. The letter also explains that there will be a telephone conversation between the tax auditor and taxpayer to explain the examination process, and the notice emphasizes that there may not be any errors on the tax return. Each of these elements differs from the CP-75 notice used in EITC correspondence audits.

---

[11] Appendix Figures 2 and 3 present examples of a CP-79 notice and Form 8862, respectively. More information about the CP-79 notice is available on the IRS website at https://www.irs.gov/individuals/understanding-your-cp79-notice.

Perhaps more important than the differences in notices, the nature of NRP audits differs significantly from that of correspondence audits. NRP audits are intended to detect possible areas of noncompliance, but operational audits are conducted because risk factors have been detected. For NRP audits, efforts are made to contact and assist taxpayers through the audits, and hence there are explicit strategies for minimizing nonresponse and confusion. In addition, taxpayers may learn about tax law and how to be tax compliant from tax auditors. In contrast, EITC correspondence audits often involve limited assistance from a tax auditor. As a result, nonresponse and insufficient response can be critical factors, since taxpayers must navigate the examination processes by themselves (or with a tax preparer) without the assistance of a designated tax auditor. As we document, nonresponse and insufficient response are common outcomes for EITC correspondence audits, and these can affect long-term impacts of these audits.

B. Conceptual Framework

Before turning to the empirical analysis, we provide some intuition for how we expect EITC correspondence audits could plausibly affect taxpayer behavior. We start by considering a scenario in which a taxpayer's return has been identified as potentially having a rule violation since the empirical analysis below focuses on such returns. (Even though the more common outcome for all EITC recipients is that the tax return passes screening and is determined not to have any potential rule violations, we ignore this scenario since it does not apply to our analysis sample.) Assuming that there is noncompliance, a taxpayer may have committed a rule violation intentionally or unintentionally. If the return is selected for audit, a taxpayer with an unintentional rule violation may choose not to respond to the EITC correspondence audit, or the taxpayer may try to respond but ultimately provide insufficient documentation for recertification. In subsequent years, the taxpayer may stop filing a return or claiming EITC benefits return because they do not expect to be eligible for the EITC. Furthermore, if the taxpayer's rule violation was (perceived to be) related to claiming a qualifying child, the child may subsequently be claimed (potentially legitimately) on another taxpayer's return.

Continuing with the scenario that there is a rule violation but now assuming a taxpayer committed the violation intentionally, such a taxpayer may choose to not respond to the EITC correspondence audit or may respond but not be able to provide sufficient documentation. In subsequent years, the taxpayer may continue making intentional errors and erroneously claiming EITC benefits. In such a case, the taxpayer may be identified for potential risk or selected for another audit. Because taxpayers with the highest risk scores are highly likely to be audited, it is not possible to construct a valid non-audited control group for such taxpayers. For this reason, the empirical analysis below focuses on tax returns with lower and intermediate risk scores, for which there are both audited and non-audited cases. This sample restriction likely reduces the fraction of taxpayers who make repeated intentional errors in the sample, and likely increases the fraction of taxpayers who make one-time, potentially unintentional errors in the sample.

Next, we consider the scenario in which potential noncompliance has been identified but there may not be an actual rule violation. We note that we do not expect this scenario to apply to a large majority of cases in the analysis sample because IRS enforcement analysis has devoted significant efforts to identifying actual rule violations and the returns in the analysis sample have some potential rule violations with both audited and non-audited returns. In cases that have minimal risk of any rule violations, there would be no audit selection of these returns, and thus it would not be possible to form a treatment group for the empirical analysis. If there is no rule violation, a taxpayer may still choose not to respond to the EITC correspondence audit, or the taxpayer may respond and provide insufficient documentation. Both of these cases would lead to a mechanical disallowance. Nonetheless, we expect that, if there is no rule violation, a taxpayer would have an easier time responding with appropriate documentation than if there was an actual rule violation.

In terms of potential heterogeneity in the impacts of EITC correspondence audits, taxpayers with higher risk scores may be more likely to have intentional errors, so these taxpayers may be less likely to change behaviors due to EITC correspondence audits. Also, taxpayers with younger qualifying children may have larger responses to the EITC correspondence audits since these taxpayers could potentially have claimed EITC benefits for a longer period of time than those with older qualifying children.

C. Data

Data used in the empirical analysis are based on the population of tax returns that claimed EITC benefits and were scored for potential noncompliance from 2008 through 2015. The 2008 restriction is imposed because data for some mailed notices for EITC correspondence audits are only available from 2008 onward. The 2015 restriction is imposed so that outcomes can be observed for at least 1 year after selection for scoring, and outcome data are available through 2016.

The analysis sample is constructed from this population of scored returns by imposing the following sample restrictions. First, we focus only on single or head-of-household tax returns so that the analysis only requires that one individual (the primary taxpayer on the single or head-of-household return) be tracked before and after being flagged for risk scoring. Second, we impose a common support sample restriction. Specifically, given that the research design is based on comparing observationally similar audited and scored-but-not-audited returns, data for analysis are identified by creating cells based on audit selection variables for each tax year, such as the types of rules potentially broken, the number of rules potentially broken, and risk scores. The sample is restricted to observations in cells that have both audited and nonaudited returns. This sample restriction ensures that there is a common support for the audit selection variables between the audited and scored-but-not audited samples. Observations in cells with only audited returns, such as high-risk returns, are dropped since there are no observationally similar nonaudited returns for comparison. Similarly, observations in cells with only nonaudited returns are dropped since there are no observationally similar audited returns for comparison. Third, since the analysis sample of audited and nonaudited returns is based on the first year that a tax return is identified to have any risk for potential noncompliance, we exclude any audited or nonaudited returns that are ever assigned to be audited in subsequent years after this first year. This sample restriction only excludes a small portion of returns after the common support sample restriction is imposed. The primary motivation for this sample restriction is ease of interpretation. In particular, this sample restriction makes it easier to interpret the audit treatment in the first year of potential noncompliance as a one-time treatment since none of the returns in

the audited or nonaudited groups are ever selected for audit in future years after the first year of audit assignment.

After imposing these sample restrictions, we refer to the remaining sample as the "analysis sample," which consists of both audited and scored but not audited tax returns. Also, we emphasize that while the analysis sample generally consists of lower and intermediate risk returns, all tax returns in the analysis sample are returns that have been identified to have some potential risk of noncompliance, and hence they are different from tax returns that are not flagged for risk of noncompliance.

We split the analysis sample into two groups: taxpayers who report self-employment (Schedule C) income on their selected tax returns, who are referred to as "Self-Employed," and taxpayers who do not have any self-employment income on their selected tax returns, who are referred to as "Wage Earners." This split is motivated by a couple of factors. First, for the Self-Employed, audits tend to focus on verifying self-employment business income; for Wage Earners, audits tend to verify qualifying child eligibility. Furthermore, the EITC correspondence audits in our analysis sample generally address fewer issues than audits of the higher risk returns that are excluded from our sample, and those issues tend to differ by whether or not the taxpayer has self-employment income. Second, prior research that has highlighted different responses to audits and threat-of-audit interventions across taxpayers with and without third-party verified income (Slemrod, Blumenthal, and Christian 2001; Kleven, Knudsen, Kreiner, Pedersen, and Saez 2011; Slemrod 2016). Lastly, we note that the definition of self-employed and wage earner samples follows definitions from prior literature (for examples, see Saez 2010 and Chetty, Friedman, and Saez 2013). As a result of defining wage earners based on taxpayers without self-employment income, the wage earner sample includes some individuals who do not have W-2 wage earnings forms despite reporting "wages, salaries, and tips" on their tax returns (IRS Form 1040). In the empirical analysis below, we present separate results for wage earners with and without W-2s in the year of selection.

The analysis samples consist of 365,511 audited taxpayers for the self-employed analysis sample and 756,700 audited taxpayers for the wage earner analysis sample. These audits make up

roughly one-third of all EITC correspondence audits over the analysis time period (2008 through 2015). Analysis samples on returns with low or intermediate risk scores also include 386,660 scored-but-not-audited self-employed taxpayers and 1,003,049 scored-but-not-audited wage earner taxpayers.

D. Summary Statistics and Graphical Analysis

Table 2 presents summary statistics for the analysis samples used in the empirical analysis below. We emphasize that these summary statistics apply only to the analysis sample and not necessarily to the full EITC correspondence audit population.[12] Summary statistics are presented separately for the Self-Employed and Wage Earners, and for each of these groups, statistics are presented for the following subgroups: audited tax returns, scored-but-not-audited returns, and a 1% random sample of EITC returns. For the 1% random sample of EITC returns, we correspondingly draw 1% random samples of single or head-of-household Self-Employed or Wage Earner EITC returns. We focus first on comparing audited and scored-but-not-audited returns with the random samples of EITC returns. We note that the analysis samples have a higher fraction of male head-of-household returns, and the primary taxpayers in the analysis samples are slightly younger than those in the general EITC population. About 50% of the taxpayers in the self-employed analysis sample have a W-2, and this is slightly higher than the corresponding 47% figure for the comparable general EITC population. For the analysis sample of wage earners, about 85% and 95% of the audited and nonaudited taxpayers have W-2s, whereas about 97% of the random sample of EITC returns for wage earners have W-2s. Furthermore, the analysis samples have slightly lower incomes and higher refund amounts (and are more likely to be on the maximum credit portion of the EITC benefit schedule) than the random sample of EITC returns. Analysis samples have a higher fraction of returns with one qualifying child, while the random sample of EITC returns is more evenly distributed across the numbers of qualifying children. Tax preparation methods appear to be roughly similar across the

---

[12] We do not present summary statistics for the full EITC correspondence audit population because the IRS does not make statistics on this population publicly available and because we aim to avoid any possible disclosure of audit selection criteria or risk assessment criteria based on comparisons between the lower-risk analysis samples and the full EITC correspondence audit population.

analysis samples and random samples of EITC returns, with a majority of returns involving a paid tax preparer and use of software (electronic filing).

Audit characteristics for the self-employed and wage earner analysis samples indicate that 90% and 75%, respectively, of EITC correspondence audits are pre-refund audits. For the self-employed analysis sample, roughly 90% of the audits focus on verifying Schedule C income and about 10% focus on verifying qualifying child eligibility. For the wage earners analysis sample, roughly 96% of the correspondence audits focus on verifying qualifying child eligibility. (Remaining audits could be multiple-issue audits or may focus on other aspects of income verification besides Schedule C verification.)

Table 3 presents audit outcomes for the analysis samples. Focusing first on full sample results, audit outcomes (which are mutually exclusive groups) show that almost 80% of audits in the analysis samples are reported as undelivered mail, nonresponse, or insufficient response. As noted earlier, insufficient response cases are those where a taxpayer initially responds to a correspondence audit request for supporting information but ultimately fails to agree to the audit adjustments in the final report. For the self-employed and wage earner analysis samples, roughly 13% and 16%, respectively, of EITC correspondence audits lead to a full disallowance with active agreement, or in other words, ineligibility was confirmed. About 6% to 7% of EITC correspondence audits have a full allowance, so eligibility was confirmed. Partial allowances constitute less than 2% of audit outcomes in the analysis samples.

Table 3 also presents statistics on audit outcomes across various subgroups. Across all subgroups, undelivered mail, nonresponse, and insufficient response generally account for most outcomes. Consistent with partial allowances being relatively rare outcomes, when rates of undelivered mail and nonresponse are lower, rates of both full allowance and full disallowance with insufficient response are higher. Rates of undelivered mail are roughly constant across age groups, and nonresponse decreases slightly with age, while full disallowance with active agreement and full allowance rates increase with age. Across income groups, undelivered mail and nonresponse rates decrease with higher income groups, and full allowance and full disallowance rates increase with income. (However, we note that for wage earners, partial

allowances appear to account for 27% of outcomes for taxpayers with earned income above $40,000.) Audited taxpayers with a paid tax preparer have higher rates of full allowance and full disallowance than audited taxpayers without paid tax preparers. Audited taxpayers with an EITC claim in the prior three years appear less likely to have undelivered mail or nonresponse and more likely to have full disallowance and full allowance than audited taxpayers without an EITC claim in the prior three years. Undelivered mail and nonresponse rates decrease across groups with more qualifying children, and rates of full allowance and full disallowance increase across groups with more qualifying children.

In the empirical analysis below, we examine heterogeneity in the effects of EITC correspondence audits based on the age of the youngest qualifying child on the selected return, regardless of whether a taxpayer has a W-2 in the year of selection, and the estimated propensity score. We discuss the motivations for each of these dimensions in more detail below, but in this section we discuss the differences in audit outcomes across these dimensions. For both the self-employed and wage earner analysis samples, audited taxpayers with younger qualifying children have slightly lower rates of full disallowance due to undelivered mail, nonresponse, or insufficient response and slightly higher rates of allowance. Audited taxpayers without a W-2 in the year of selection have higher rates of undelivered mail, and among wage earners, this group has a lower rate of full allowance than wage earners with a W-2 in the year of selection (0.015 versus 0.076).

Next, we create propensity score groups that capture groups with similar observables but different fractions of audited taxpayers. (We discuss the propensity score estimation in more detail in the empirical analysis below.) For example, the lowest quintile consists of the 20% of each analysis sample that has similar observables and the lowest fraction of audited individuals. Similarly, the highest quintile consists of the 20% of each analysis sample that has similar observables and the highest fraction of audited individuals. Across quintile groups, the fractions of audited individuals are 0.006, 0.101, 0.434, 0.852, and 0.992 for the self-employed analysis sample and 0.006, 0.050, 0.226, 0.890, and 0.996 for the wage earner analysis sample. Even though the fractions of audited individuals vary significantly across groups, audit outcomes for both analysis samples indicate that full disallowance due to undelivered mail, nonresponse, or

insufficient response account for at least 70% of the outcomes for audited taxpayers in each group. Nonetheless, audited taxpayers in the lowest quintile do have higher rates of partial and full allowance than audited taxpayers in the highest quintile (0.195 versus 0.062 for the self-employed analysis sample and 0.148 versus 0.075 for the wage earner analysis sample).

Overall, nonresponse rates do slightly increase across the risk score quintiles (more for the self-employed than the wage earners), and full and partial allowance rates decrease across the risk score quintiles. This suggests that nonresponse could be positively correlated with possibly making intentional errors that could lead to higher risk scores. However, even if there were such a correlation, some nonresponders could potentially be eligible for EITC benefits if they were to respond with sufficient documentation. Without more information on the nonresponders, it is not possible to determine which nonresponders or what percentage of nonresponders would be confirmed as eligible or ineligible if they were to have responded.

Related to audit outcomes, Figure 1 presents plots of EITC claiming, tax filing, and qualifying child claiming with separate series for the random sample of EITC returns and different audit outcome groups. Similar to the empirical analysis below, each outcome is examined both before and after the year of selection so that differences across the groups and across the years since selection can be visually inspected. The plots indicate mostly similar trends in the outcomes across the groups in the years prior to selection. In the years immediately after selection, the outcomes appear similar for the random sample of EITC returns, returns that were scored but not audited, and audited returns that ultimately allowed the EITC. However, there are noticeably different trends after selection for returns that were audited and ultimately disallowed the EITC. Following the audits, returns with disallowances show decreases in the likelihood of claiming EITC benefits, decreases in the likelihood of filing tax returns, and increases in the likelihood that the qualifying children claimed on the audited returns are subsequently claimed by other taxpayers.

The graphical patterns suggest multiple insights. First, EITC disallowance due to correspondence audits may reduce subsequent EITC claiming, possibly through reductions in tax filing. Second, given that there do not appear to be sharp, differential changes in outcomes for audited taxpayers

whose EITC is ultimately allowed, the effects of EITC correspondence audits on taxpayers may be driven primarily by the disallowance of EITC benefits as opposed to simply being selected for a correspondence audit and receiving a request for supplemental information. Third, EITC correspondence audits may have spillover effects on nonaudited taxpayers through qualifying children who were previously claimed on an audited return but are subsequently claimed by other taxpayers.

IV. Empirical Analysis

A. Research Design

Our research design exploits the random variation in audit assignment to estimate the causal effects of EITC correspondence audits on taxpayer outcomes. Because the random assignment of audit status is conditional on observables, we first reweight the analysis data using inverse probability weighting, then estimate a generalized difference-in-differences regression specification using the reweighted data. The difference-in-differences regression specification with the reweighted data mimics an RCT (randomized controlled trial) in which the differences between the randomly assigned treatment (audited) and control (nonaudited) groups are estimated for each year before and after random assignment. For each outcome of interest, we present graphical evidence and regression estimates for differences between the audited and scored-but-not-audited (nonaudited) groups for each year before and after the year of audit selection. Evidence for the years prior to the year of selection helps to confirm the comparability of the groups prior to the year of selection. Even though pre-audit selection differences may be small or statistically insignificant, we present difference-in-differences estimates for the impacts of EITC correspondence audits on outcomes of interest. Rather than simply relying on post-audit selection differences, the difference-in-differences estimates explicitly subtract any pre-selection differences between audited and nonaudited groups from post-audit selection differences. This allows us to be more confident that the estimates reflect causal impacts of EITC correspondence audits and not any other pre-existing difference between these groups.

We use inverse probability weighting to ensure that observables are balanced between treatment and control groups and eliminate bias due to selection on observables. Weights are estimated as follows. First, we define an indicator variable A_i that is equal to 1 if individual i was selected for an EITC correspondence audit. Next, we pool the samples of audited and scored-but-not-audited individuals and estimate the propensity score via the following regression specification:

$$A_i = \beta X_i + u_i$$

where X_i denotes a rich set of covariates we discuss in more detail below. Intuitively, the propensity score captures the (estimated) probability that an observation with observables X is assigned to be audited. We then obtain predicted values from this regression, $\widehat{p}_i = \widehat{Pr}(A_i = 1 | X_i)$, and use these predicted values to compute weights. We use weights $\widehat{w}_i = \frac{1}{1-\widehat{p}_i}$ for the scored-but-not-audited individuals and $\widehat{w}_i = \frac{1}{\widehat{p}_i}$ for the audited individuals. Intuitively, these weights balance observables between the audited and scored-but-not audited returns by "up-weighting" audited returns that have observables similar to scored-but-not audited returns and scored-but-not-audited returns that have observables similar to audited returns, and similarly, by "down-weighting" audited returns that have observables similar to other audited returns and scored-but-not-audited returns that have observables similar to other scored-but-not-audited returns. Weights are estimated separately for the self-employed and wage earner samples.

Covariates for estimating the weights include dummies for gender, head-of-household filing status, tax preparation method, year of birth, income percentile (measured in fifty 2% bins), number of qualifying children claimed on the flagged return, and indicators for filing, claiming EITC, and having a W-2 in each of the last 3 calendar years. Most importantly, the covariates also include controls based on audit selection criteria. These variables are not made public by the IRS, so we can only summarize these covariates by mentioning that these audit selection controls include fixed effects for groups based on the types of rules potentially broken, the number of rules potentially broken, and the tax year of the return. Overall, the R^2 values from these regressions for computing the weights are 0.639 and 0.763, respectively, for the self-employed and wage earner analysis samples.

Figure 2 presents the fraction audited by percentiles of the estimated propensity scores for both the self-employed and wage earner analysis samples. We note two features from these plots. First, for both analysis samples, observations with low and high estimated propensity scores do have, respectively, low and high fractions of taxpayers who were actually assigned to be audited. Thus, the observables used to predict audit assignment appear to correlate with the actual outcomes, as expected. Second, a significant portion of the estimated propensity score distribution has substantial fractions of both audited and nonaudited taxpayers. Observations that have similar observables but different audit assignment will be up-weighted, and observations with observables that closely predict audit assignment (i.e., observations at the low and high ends of estimated propensity score distributions) will be down-weighted. We also examine heterogeneity across groups with different estimated propensity scores below. However, we note that some caution is warranted when making comparisons across observations at different propensity scores because individuals with different estimated probabilities of audit may have potentially broken different types of rules, different numbers of rules, or had other differences in audit selection variables.

Table 4 presents summary statistics on the reweighted samples. For both the self-employed and wage earner analysis samples, reweighting reduces differences between the audited and scored-but-not-audited returns relative to the differences shown in Table 2 (which reports summary statistics for the unweighted data). In particular, differences in gender are smaller for the self-employed relative to the difference in Table 2, and for wage earners, differences in gender, age, income, and benefits measures are all smaller. We do not present formal statistical tests of these differences because the large sample sizes lead to statistical significance even for nonmeaningful differences. Instead, in the empirical analysis below, we present graphical evidence on the reweighted differences between the audited and nonaudited returns for several outcomes. This graphical evidence indicates that differences based on the reweighted data are close to 0 and stable in the years prior to audit assignment so that any difference can be subtracted from the post-audit differences to estimate causal effects of the EITC correspondence audits.

Using the reweighted data, we employ a difference-in-differences strategy to exploit the random variation in audit assignment and estimate the causal effects of correspondence audits on taxpayer outcomes. First, we define event time as the years since the year of random assignment of audit status. Specifically, for individual i in year t, event time e_{it} is defined as $e_{it} = a_i - t$ where a_i denotes the year that individual i's tax return is flagged and either randomly assigned for an EITC correspondence audit or not. Next, the impacts of EITC correspondence audits on an outcome y are estimated via the following regression specification:

$$ y_{it} = \sum_{k=-7}^{4} \beta^k \mathbf{1}(e_{it} = k) + \sum_{k=-7}^{4} \delta^k A_i \mathbf{1}(e_{it} = k) + \varepsilon_{it}. $$

The coefficients β^k reflect the means of the outcome variable at each event time for the scored-but-not-audited group, and the coefficients δ^k reflect the differences in the means for the audited group relative to the nonaudited group for each event time. Standard errors for the coefficients are clustered based on tax year, year of random assignment, and the indicator for being audited or not. We plot estimated β^k and δ^k coefficients from the regressions. Additionally, we estimate difference-in-differences estimates of the impacts of correspondence audits on outcome y at event time $k = +1, +2, \dots$ by subtracting the average pre-selection difference from the post-selection difference at event time k:

$$ d^k = \delta^k - 0.333(\delta^{-2} + \delta^{-3} + \delta^{-4}). $$

We examine a variety of outcomes for primary taxpayers on audited and scored-but-not-audited returns, including claiming EITC benefits, reporting self-employment income, filing a tax return (as either a primary or secondary taxpayer), and tax refund amounts. Additionally, we estimate a similar regression specification based on tracking qualifying children claimed on audited and nonaudited tax returns across tax years before and after being selected for risk assessment. Specifically, the regression specification is the same as the regression specification described above, but instead of using the subscript i to refer to an individual taxpayer, the subscript i refers to a qualifying child claimed on an audited or scored-but-not-audited return. By tracking qualifying children, we are able to examine the extent to which qualifying children on audited

returns are likely to be claimed as qualifying children by other taxpayers after the audits, as well as the characteristics of the (primary) taxpayers claiming audited qualifying children before and after EITC correspondence audits.

B. Results

1. Impacts on EITC Claiming and Tax Outcomes

Figures 3A-D present the estimated impacts of EITC correspondence audits on EITC claiming and tax filing for the self-employed and wage earner analysis samples. For self-employed taxpayers, there are some differences between audited and nonaudited taxpayers in the pre-audit assignment trends for EITC claiming and tax filing. For wage earner taxpayers, pre-audit trends for these outcomes appear more similar for audited and nonaudited taxpayers. For both the self-employed and wage earner samples, the plots demonstrate that in the year just after audit assignment, there are significant decreases in EITC claiming and tax filing (as either a primary or secondary taxpayer) for the audited group relative to the nonaudited group.

As shown in Table 5, declines in the likelihood of filing are smaller than declines in the likelihood of EITC claiming. This indicates that in addition to reducing EITC claiming through decreases in filing, EITC correspondence audits also appear to cause individuals to subsequently not claim EITC benefits even when they file tax returns. Over subsequent years after an EITC correspondence audit, the impacts on EITC claiming, tax filing, and tax refunds fade out. This fade out appears to be due to qualifying children's aging beyond EITC qualifying child age thresholds (younger than age 19 or younger than age 24 for full-time students), so that EITC claiming, tax filing, and tax refunds for the nonaudited group ultimately converge to the corresponding rates and values for the audited group; taxpayers with younger qualifying children have more persistent differences in EITC claiming, tax filing and tax refunds with the nonaudited group not converging to the corresponding rates and values for the audited group.

To evaluate the change in EITC claiming after the EITC correspondence audits relative to baseline EITC claiming, we use EITC claiming of the scored-but-not-audited taxpayers as a

baseline, counterfactual for what EITC claiming would have been for audited taxpayers if they had not been assigned to an EITC correspondence audit. Specifically, we compute the change in EITC claiming each year after the audits as a fraction of baseline EITC claiming for the scored-but-not-audited taxpayers in each corresponding year after the audits. These estimates are presented in Appendix Table 1. Decreases in EITC claiming after the audits are significant relative to the baseline mean EITC claiming rates for the scored-but-not-audited groups: In the year just after the audits, the changes in EITC claiming as a fraction of the baseline means are 0.37 and 0.51, respectively, for the self-employed and wage earner analysis samples. We also express the change in average tax refunds received after the audits (which accounts for changes in not claiming refundable credits and withholding) as a fraction of the average tax refund received by the nonaudited group. These estimates are also shown in Appendix Table 1, and they are similar in magnitude to the effects based on EITC claiming, and they also fade out over subsequent years after the audits.

In terms of cumulative effects over the years after the audits, the estimates in Table 5 indicate that for every $1 of tax refunds that is subject to an EITC correspondence audit, total future tax refunds are lower by $0.90 (standard error = 0.19) and $0.68 (0.14) for the self-employed and wage earner analysis samples respectively. (These estimates are based on the sum of the estimated effects on tax refunds in Table 5 and then dividing this sum by the average refund amount in the year of audit for each corresponding sample.)

Is the reduction in EITC claiming in the years after the audits a reduction in potentially eligible EITC claiming or a reduction in potentially ineligible claiming?

By construction, both audited and nonaudited taxpayers in the analysis sample are never selected for audit in the years after the year of initial selection. However, in the years after the year of audit assignment, audited and nonaudited taxpayers in the analysis sample could still file tax returns that are flagged for potential EITC compliance. To address this question about whether counterfactual EITC claims (i.e. EITC claims that may have been made by audited taxpayers had they not been assigned for audit) may have been potentially noncompliant or not, we examine characteristics of returns over subsequent years for nonaudited (counterfactual) taxpayers relative

audited taxpayers. These results are presented in Table 5, and they are illustrated in Figures 3E and F. Overall, the results indicate that, in years after audit assignment, nonaudited (counterfactual) taxpayers have a higher likelihood of filing returns that are flagged for potential noncompliance, so that audits appear to have deterred these kinds of returns from being filed over subsequent years.

Turning to the results in Table 5, for the self-employed analysis sample, the decrease in the likelihood of having a flagged return in the year immediately after the EITC correspondence audits is 0.24, and this is larger than the decrease in EITC claiming (0.21). This indicates that the decrease in EITC claims corresponds to a decrease in claims that may have been flagged for potential EITC noncompliance, and furthermore, some of the EITC claims that do continue after the audits are more likely to be compliant (not flagged for potential EITC noncompliance). For wage earners, the decrease in the likelihood of having a flagged return is 0.24, and this is slightly smaller than the decrease in EITC claims (0.28). This indicates that roughly 86% (0.24/0.28) of the decrease in EITC claims correspondence to a decrease in EITC claims that may have been flagged for EITC noncompliance, and the remaining 14% corresponds to a decrease in EITC claims that may not have been flagged for potential EITC noncompliance. Therefore, the reductions in EITC claims in years after the EITC correspondence audits appear to mostly reflect deterrence of future potentially noncompliant EITC claims as opposed to discouraging future potentially compliant EITC claims.

Heterogeneity

We have examined heterogeneity in the impacts of EITC correspondence audits along various dimensions. Appendix Figure 6 presents the effects of EITC correspondence audits on the likelihood of claiming EITC benefits split by gender of the selected taxpayer, the number of qualifying children claimed on the selected return, whether the selected taxpayer had a paid tax preparer and whether the selected taxpayer may owe a tax payment if refundable credits were disallowed (i.e. whether W-2 withholding exceed any tax liability). Examining heterogeneity based on gender and the number of qualifying children is motivated by prior literature on labor supply responses to EITC benefits, particularly among single mothers. Examining heterogeneity

based on access to a paid tax preparer is motivated by the intuition that paid tax preparers may mitigate any misperceptions and help with any corrections for taxpayers. Examining heterogeneity based on potentially owing a tax payment if refundable credits are disallowed is based on the intuition that individuals may not be affected by receiving a smaller than expected tax refund, but they may be affected by having to make a payment instead of receiving a refund. Overall, we do not find clear evidence of heterogeneity in responses to EITC correspondence audits based on these dimensions.

We also examine heterogeneity in the impacts of EITC correspondence audits across ages of the youngest qualifying child claimed on the selected return. Intuitively, taxpayers with older qualifying children may not be forgoing as much money as taxpayers with younger qualifying children, because older qualifying children may age out beyond EITC qualifying age thresholds. Table 6 presents the effects of EITC correspondence audits on EITC claiming and tax refunds received, split by the age of the youngest qualifying child claimed on the selected tax return. For both the self-employed and wage earner analysis samples, these results indicate larger and more persistent decreases in EITC claiming and tax refunds received for taxpayers with younger qualifying children. For the self-employed, the cumulative decrease in tax refunds over seven years after audit selection is roughly $5,500 for taxpayers with younger (ages 0-5) qualifying children and roughly $1,100 for taxpayers with older (ages 13+) qualifying children. For wage earners, the cumulative decrease in tax refunds over seven years after the audit selection is roughly $6,100 for taxpayers with younger (ages 0-5) qualifying children and roughly $3,800 for taxpayers with older (ages 13+) qualifying children.

2. Spillovers through Qualifying Children and Net Overpayments

Figure 4 illustrates the impacts of EITC correspondence audits on outcomes related to tracking the qualifying children claimed on audited and nonaudited returns.[13] The first outcome we

---

[13] For the analysis of the sample of qualifying children, we include dummies for the ages (in years) of qualifying children when calculating weights for them. (These dummies are in addition to the variables included when calculating weights for primary taxpayers.) This explicitly ensures that the age distribution is similar across qualifying children in the audited and nonaudited groups. Thus, any differential patterns in claiming qualifying children are not due to differences in their age distribution across the audited and nonaudited groups.

examine for qualifying children is an indicator equal to one if the qualifying child is claimed as a dependent by the primary taxpayer on the selected return in any years before or after the year of selection. These results, shown in plots A and B of Figure 4 for the self-employed and wage earner groups, respectively, demonstrate that just after an EITC correspondence audit, there is a sharp decrease in the likelihood that qualifying children on audited tax returns are claimed as dependents on subsequent tax returns by the selected taxpayers. This is consistent with the sharp decreases in the probabilities of claiming EITC benefits and filing tax returns for audited taxpayers in the years just after the audits.

We also examine changes in the likelihood of qualifying children on selected returns being claimed as a dependent on any tax return (including those filed by other taxpayers). Results are shown in plots C and D of Figure 4 for the self-employed and wage earners, respectively. These plots show a decrease in the likelihood of being claimed as a dependent on any tax return. Turning to the quantitative results in Table 5, difference-in-differences estimates indicate that for qualifying children in both the self-employed and wage earner groups, the decrease in the likelihood of being claimed as a dependent on any tax return is smaller (in absolute value) than the decrease in the likelihood of being claimed as a dependent by the selected taxpayer. This indicates that while many of the qualifying children claimed on audited tax returns are not subsequently claimed on any tax return after an EITC correspondence audit, many of the qualifying children also switch to being claimed as dependents by other taxpayers. Thus, EITC correspondence audits appear to have spillovers to other taxpayers.

For qualifying children in the self-employed group, in the year after being audited, the likelihood of being claimed by the selected taxpayer decreases by 0.23 and the likelihood of being claimed as a dependent on any tax return decreases by 0.16. Thus, the likelihood of being claimed as a dependent by another taxpayer increases by roughly 0.07. For qualifying children in the wage earner group, in the year after being audited, the likelihood of being claimed by the selected taxpayer decreases by 0.27 and the likelihood of being claimed as a dependent on any tax return decreases by 0.14. Thus, the likelihood of being claimed as a dependent by another taxpayer increases by roughly 0.13. Over subsequent years after an EITC correspondence audit, changes in the likelihood of being claimed as a dependent mostly fade out as qualifying children age

beyond the age thresholds for qualifying children. The estimates above also indicate that, after EITC correspondence audits, a relatively small share of all qualifying children claimed on audited returns is subsequently not claimed on any return after the audits. This may indicate that taxpayers are generally aware of the tax benefits associated with claiming dependents and that current enforcement procedures may be effective for verifying the existence of qualifying children. There may be some circumstances under which the data or documentation necessary to verify EITC-qualifying relationships between taxpayers and qualifying children is more difficult for eligible taxpayers to obtain than to switch the child to a return of a different taxpayer in subsequent years. For the latter claim to be compliant, however, the new taxpayer must also have resided with the qualifying child more than half the year, so that calls into question whether a significant amount of switching can be explained by compliant behavior by taxpayers in both the year of audit *and* subsequent years.

Next, we examine EITC amounts associated with qualifying children on audited and scored-but-not-audited returns. While EITC claiming may decrease for audited taxpayers after the audits, EITC amounts associated with qualifying children on audited returns may not decrease significantly, since some of the qualifying children on audited returns are subsequently claimed as dependents by other taxpayers. Plots E and F of Figure 4 show changes in EITC amounts associated with qualifying children, and corresponding difference-in-differences estimates are presented in Table 5. Overall, the changes in EITC benefits associated with qualifying children on audited returns are relatively small.

We have examined heterogeneity in the effects of EITC correspondence audits along multiple dimensions. Similar to the analysis of heterogeneity in the effects on EITC claiming and tax outcomes, we do not find much evidence of heterogeneity in the effects of EITC correspondence audits on qualifying child outcomes along the dimensions of gender of the selected taxpayer, number of qualifying children claimed on the selected tax return, or the use of a paid tax preparer for the selected tax return. Across ages of qualifying children, however, we find evidence that older qualifying children are more likely to not be claimed after an EITC correspondence audit, and younger qualifying children are more likely to switch to being claimed as dependents on other taxpayers' returns.

Table 6 presents the effects of EITC correspondence audits on the likelihood of being claimed by the selected taxpayer and by any taxpayer, split by the age of the qualifying child in the year of selection. For both the self-employed and wage earner groups, there are larger decreases in the likelihood of being claimed by the audited taxpayer for younger qualifying children than older qualifying children, and there are larger decreases in the likelihood of being claimed as a dependent by any taxpayer for older qualifying children than for younger qualifying children. We focus on the first year after an audit, but these patterns continue for other years after the audits as well. For the self-employed, the decrease in being claimed by any taxpayer accounts for about 88% (=.153/.174) of the decrease in being claimed by the selected taxpayer for older (ages 13+) qualifying children, and about 49% (=.140/.283) for younger (ages 0-5) qualifying children. Thus, switching to being claimed as a dependent by other taxpayers accounts for the remaining 12% for older qualifying children and about 51% for younger qualifying children. For wage earners, the decrease in the rate of being claimed by any taxpayer accounts for about 71% (=.163/.230) of the decrease in the rate of being claimed by the selected taxpayer for older (ages 13+) qualifying children, and about 41% (=.120/.296) for younger (ages 0-5) qualifying children. Thus, the switch to being claimed as a dependent by other taxpayers accounts for the remaining 29% of older qualifying children and about 59% of younger qualifying children.

These spillovers to other taxpayers' claiming qualifying children on audited tax returns and the lack of sharp changes in EITC amounts associated with the qualifying children highlight the distinction between gross overclaims of EITC benefits and net overclaims of EITC benefits. Aggregate gross overclaims of EITC benefits include any overclaims of EITC benefits arising from taxpayers' erroneously claiming qualifying children. However, if some of the erroneously claimed qualifying children should have been claimed as qualifying children by other taxpayers—who then would have received EITC benefits—these underclaims of EITC benefits for these other taxpayers could be net out from the aggregate gross overclaims to determine how many dollars were actually overclaimed in aggregate. Results based on our analysis samples indicate that roughly one-third to one-half of changes in claiming qualifying children after audits can be accounted for by the qualifying children being claimed by other taxpayers. Thus, under the extreme assumption that all of these qualifying children move from taxpayers returns on

which they were erroneously claimed to ones in which they are properly claimed, aggregate net overclaims could be two-thirds or one-half as large as aggregate gross overclaims among the EITC correspondence audits in our sample.

3. Impacts on Employment and Earnings

In this section we analyze the impacts of EITC correspondence audits on real economic activity: specifically, wage employment and wage earnings.[14] Wage employment is measured based on having a W-2 reported by an employer to the IRS, and wage earnings are measured as the amounts reported on W-2s. Before turning to any results, we discuss possible theoretical channels and mechanisms through which EITC correspondence audits may affect the likelihood of having a W-2 for wage employment.

First, a significant body of prior research on the labor supply effects of EITC benefits has highlighted how the EITC provides incentives for individuals to participate in the labor force (i.e., extensive margin labor supply incentives), so that they will have positive earned income and qualify for EITC benefits. (For examples, see Eissa and Liebman 1996, Meyer and Rosenbaum 2001, Meyer 2010, Chetty Friedman and Saez 2013, and Hoynes and Patel 2018.) If some audited taxpayers (possibly erroneously) perceive that they are no longer eligible for the EITC, labor force participation (the likelihood of having a W-2) may decrease after an EITC correspondence audit because of the perceived reduction in extensive margin labor supply incentives.

While this first channel is based on perceptions and losses of EITC incentives, a potential second channel through which the EITC correspondence audits may affect labor force participation is through the loss of EITC benefits and reduced tax refunds. The loss of benefits may leave audited taxpayers less able to finance the costs associated with employment (such as

---

[14] We have also examined changes in the likelihood of having 1099-MISC (contractor employment) income. This analysis did not indicate any statistically significant or economically meaningful changes in the likelihood of having contractor employment income. Roughly 10% to 20% of the taxpayers in the self-employed analysis sample have 1099-MISC income in any tax year, and roughly 3% to 7% of taxpayers in the wage earner analysis sample have 1099-MISC income in any tax year.

transportation and childcare). Moreover, since individuals with younger children are more likely to have childcare costs, these decreases in labor force participation may be larger for them.

Separate from these impacts through EITC incentives and benefits, EITC correspondence audits may also have a direct impact on the likelihood of having a W-2 for wage employment. For example, some wage earners may not have a W-2 in the year of selection but may still have earned income from cash-based employment. After an EITC correspondence audit, these taxpayers may seek to obtain formal, W-2-documented employment instead of informal, cash-based employment.

Based on these possible mechanisms, we present the impacts of EITC correspondence audits on the likelihood of having a W-2 first for the full self-employed and wage earner analysis samples, and then we examine the impacts for taxpayers with and without a W-2 in the year of selection and based on the age of the youngest qualifying child. Figure 5 presents plots for the likelihood of having wage employment (i.e. the fraction with a W-2) for these groups, and Table 7 presents the corresponding difference-in-differences estimates. Plot A in Figure 5 for the self-employed analysis sample illustrates that there may be slight increases in the likelihood of having wage employment in the years after an audit, though these results are generally not statistically significant. Plot B of Figure 5 for the wage earner analysis sample shows gradual increases in the likelihood of having wage employment, and the change in the likelihood of having wage employment is statistically significant by 7 years after EITC correspondence audits. Plots C and D of Figure 5 for wage earners with and without W-2s in the year of selection, respectively, indicate that the increases in wage employment appear to be driven by increases for wage earners who do not have W-2s in the year of selection. For wage earners who do have a W-2 in the year of selection, the graphical evidence indicates decreases in the likelihood of having a W-2 for wage employment in the years after the audits relative to the years before. Furthermore, plot E indicates slightly larger decreases in wage employment for wage earners with a W-2 in the year of selection and with younger qualifying children, and plot F indicates slightly larger increases in wage employment for wage earners who do not have a W-2 in the year of selection and had younger qualifying children.

Estimates in Table 7 indicate that wage earners with a W-2 in the year of selection and younger (ages 0-5) qualifying children have a 0.03 decrease in the likelihood of wage employment in the year after the audits. To put the magnitude of this change in wage employment in perspective, we compute the implied extensive margin (labor force participation) elasticity. The numerator of the elasticity expresses the change in wage employment as a fraction of the baseline mean ($\frac{0.03}{0.93} = 0.032$). The denominator of the elasticity is the change in the average marginal net-of-tax rate. Since much of the analysis sample in in the phase-in portion of the EITC benefit schedule and the marginal tax rates in the EITC phase-in portion of the benefit schedule are 0.34, 0.40, and 0.45 for taxpayers with one, two, and three or more qualifying children, respectively, we use the phase-in (subsidy) rate of 0.40 as a rough average marginal net-of-tax rate for audited taxpayers. Next, since the percentage change in EITC claiming is about 40% for wage earners, we assume that about 40% of audited wage earners perceive a loss of labor force participation incentives from losing EITC benefits. The denominator of the elasticity is then $(0.40) * \left(\frac{0.40}{1.40}\right) = (0.40 * .286) = 0.114$. Based on these assumptions, the implied participation elasticity is $\left(\frac{0.032}{0.114}\right) = 0.280$. We note that assuming a higher fraction of audited taxpayers' perceiving losses in EITC labor force participation incentives implies a lower elasticity. In the extreme case, in which all audited taxpayers perceive losses of EITC participation incentives just after the audits, the implied participation elasticity is $\left(\frac{0.032}{0.286}\right) = 0.112$. These estimates are consistent with prior evidence on participation elasticities. Chetty et al. (2011) survey evidence on extensive margin (labor force participation) elasticities and show that quasi-experimental evidence indicates elasticities of roughly 0.25. Hoynes and Patel (2018) present more recent evidence based on the EITC and find slightly larger participation elasticities of roughly 0.40 to 0.75. Thus, these estimates are consistent with this prior evidence. However, we note that there are multiple caveats to keep in mind. First, this estimate is based on transitions from being employed to not having wage employment when losing EITC benefits. In contrast, prior EITC-based estimates of labor supply elasticities are based on transitions into employment when gaining larger EITC benefits. Second, the observed changes in labor force participation following EITC correspondence audits may be driven by (mis)perceptions, qualifying child changes, or other factors affected by EITC correspondence audits and not just labor supply incentives.

We examine changes in the distributions of W-2 wages over subsequent years after being selected for the audited or nonaudited group. For this analysis, we follow a distribution regression strategy by creating indicators for having W-2 wage earnings in $5,000 wage bins centered around $0, $5,000, $10,000, … and ≥ $40,000 and then estimating the above event time regression specifications separately for each indicator. These estimates are presented in Appendix Tables 2 and 3. Overall, estimates for the $0 wage earnings bin are consistent with the extensive margin wage employment results described above. For the other wage earnings bins, the results are frequently small and statistically insignificant, and no clear patterns of changes in the distributions of wage earnings emerge.

4. Heterogeneity Based on Estimated Propensity Score

We examine heterogeneity across groups with different estimated propensity scores (i.e., different estimated probabilities of audit) to examine whether the results are robust to focusing explicitly on observations with similar observables but different audit assignment and to examine heterogeneity across groups with different fractions of observations that were assigned to be audited. As described above, when computing inverse probability weights, we estimate the propensity score, or probability of being assigned to audit based on covariates that include the types of rules potentially broken, numbers of rules potentially broken, and other audit selection variables. While it is not possible to present differences across groups with different types of rules potentially broken or other specific audit selection variables, because the IRS does not publicly disclose these variables, we are able to examine differences across groups with different estimated probabilities of being assigned to be audited.

Figure 2 presents the fraction of individuals who are audited by percentiles of estimated propensity scores for both the self-employed and wage earner samples. The plots demonstrate that while there are audited and nonaudited individuals in each percentile bin due to the common support sample restriction, the lowest percentiles and highest percentiles have relatively low overlapping audited and nonaudited individuals, while the middle percentiles have higher overlapping audited and nonaudited populations. Based on this overlap in the middle of the percentile distribution, we divide each analysis sample into quintiles (20 percentile bins) based

on estimated propensity scores and then focus on observations in the 2nd quintile (20th percentile up to 40th percentile), 3rd quintile (40th percentile up to the 60th percentile), and 4th quintile (60th percentile up to the 80th percentile). For the self-employed and wage earner samples, respectively, the estimated probabilities of audit across these groups are roughly 0.10, 0.43, and 0.85 and 0.05, 0.23, and 0.89. Thus, observations in the 4th quintile have distinctly higher estimated probabilities of being audited than observations in the other two lower quintiles.

Figures 6 and 7 present results across these different quintiles for EITC claiming, employment and qualifying child outcomes. (Appendix Tables 4 and 5 present the corresponding estimates with standard errors.) Across each of the different samples, the impacts of the EITC correspondence audits are largest for taxpayers with lower risk scores. In Figure 6, the plots for EITC claiming show that for each sample, groups with lower estimated probabilities of being audited (2nd and 3rd quintiles) have sharper decreases in EITC claiming in subsequent years after EITC correspondence audits than the quintile with the higher estimated probability of audit (4th quintile). The plots for having a W-2 for wage employment show that the labor force participation patterns discussed above are most pronounced for quintiles with lower estimated probabilities of being audited (2nd and 3rd quintiles). Specifically, for wage earners with a W-2 in the year of selection, the decrease in the likelihood of having a W-2 for wage employment just after EITC correspondence audits are largest and most persistent for the 2nd and 3rd quintiles. For wage earners without a W-2 in the year of selection, the gradual increase in the likelihood of having a W-2 for wage employment is more pronounced for the 2nd and 3rd quintiles.

In Figure 7, the plots for qualifying child outcomes indicate that qualifying children on the lower risk returns have the largest decrease in the likelihood of being claimed by the selected taxpayer (-0.37) or by any taxpayer (-0.19). These estimates also indicate that qualifying children claimed on audited returns with lower risk scores are most likely to switch to being claimed by other taxpayers. For example, for wage earners in the second quintile, the decrease in the likelihood of being claimed by any taxpayer accounts for roughly 51% of the decrease in the likelihood of being claimed by the selected taxpayer, so switching accounts for the remaining 49%. In contrast, for the third quintile, the decrease in the likelihood of being claimed by any taxpayer accounts for about 90% (0.17/0.19) of the decrease in the likelihood of being claimed by the

selected taxpayer, so switching only accounts for about 10% of the change in being claimed by the selected taxpayer.

Why might the effects of the EITC correspondence audits be largest for taxpayers with lower risk scores? Intuitively, EITC correspondence audits may be most surprising or unexpected for taxpayers in the lower quintiles perhaps because any errors may have been more likely to be unintentional. Taxpayers most surprised by the audits may be most likely to discontinue claiming EITC benefits after an EITC correspondence audit and most likely to experience the labor force participation changes described above. Similarly, for taxpayers in the highest quintiles, a higher share of these individuals may have made intentional errors and may be less dissuaded from making future errors by an EITC correspondence audit.

Overall, these results provide insights into the possible heterogeneity and mechanisms behind the main impacts described above, and these results indicate that the main results are robust to dropping outliers with low or high estimated probabilities of audit (though this may not be surprising, given that these observations would get relatively low weighting based on inverse probability weighting).

5. Heterogeneity Based on Self-Employed EITC Maximizers

Prior analysis has documented widespread EITC maximizing or bunching behavior among EITC recipients with self-employment income (see Saez 2010, Chetty Friedman and Saez 2013, and Mortenson and Whitten 2018). Specifically, this behavior refers to EITC recipients with self-employment income who report exactly or very close to EITC Kink 1, which is the minimum earned income necessary to receive maximum EITC benefits. Motivated by this prior research, we examine differences in audit outcomes and subsequent behaviors across different levels of earned income relative to EITC Kink 1. These results are presented in Figure 8. Plot A presents the distributions of earnings relative to EITC Kink 1 for the self-employed analysis sample and a random sample of EITC recipients with self-employment income. The plot highlights that, consistent with the random sample of EITC recipients with self-employment income, there is widespread EITC maximizing behavior in the self-employed analysis sample, and the analysis

sample consists of a higher fraction of taxpayers who report earned income at or just around EITC Kink 1 relative to the random sample.

Plot B in Figure 8 illustrates that audit outcomes do not appear to vary much across different levels of earned income relative to EITC Kink 1. The result that the full disallowance rate does not vary substantially around EITC Kink 1 may be striking, given the clear spike in the distribution of returns at EITC Kink 1.

Plots C through F of Figure 8 presents plots of EITC claiming across different levels of earnings relative to EITC Kink 1 and across different event times before and after the year of selection. These plots are constructed by categorizing taxpayers into bins of earned income relative to EITC Kink 1 in the year of selection. Then, within each bin, we calculate the fraction of taxpayers who claim the EITC at different years before and after the year of selection. These plots illustrate that audited taxpayers with earned income close to EITC Kink 1 in the year of selection appear to have patterns similar to audited taxpayers with earned incomes further away from EITC Kink 1 in the year of selection. Thus, audited EITC maximizers appear to respond to EITC correspondence audits similar to the way non-EITC maximizers respond. In each year after selection, the decrease in EITC claiming for audited taxpayers relative to nonaudited taxpayers is similar across different levels of earned income relative to EITC Kink 1. If EITC maximizers had larger (smaller) decreases in EITC claiming rates after a correspondence audit than non-maximizers, we would have expected more of a V-shaped (hump-shaped) pattern in the differences across earned income relative to EITC Kink 1. Based on these results, the factors behind EITC-maximizing or bunching decisions may be independent from the factors behind responses to EITC correspondence audits. For example, between two EITC claimants with self-employment income, one may be more likely to report earned income at EITC Kink 1 than the other—but when audited, these taxpayers appear equally likely to not respond (or not provide a sufficient response) and not claim EITC benefits subsequently.

V. Conclusions

This project exploits the random variation that arises from audit selection processes to estimate how correspondence audits, the most common type of operational audits, affect taxpayer behaviors. Empirical analysis documents that roughly 80% of EITC correspondence audits in the analysis sample have outcomes of undelivered mail, nonresponse, or insufficient response. As a result, true incomes are often never observed in these audits (even though this is often a common assumption in tax enforcement models of audits), and cases of disallowances with confirmed ineligibility make up only 15% of EITC correspondence audits in the analysis sample.

The analysis provides insights for three central topics in tax enforcement: deterrence, spillovers, and impacts on real economic activity. Regarding deterrence, there are significant decreases in EITC claiming and tax filing following the audits, and these decreases appear to be consistent with having deterred potentially erroneous claims, although some audited taxpayers may leave benefits on the table by forgoing potentially legitimate EITC claims. Regarding spillovers, qualifying children on audited tax returns are often claimed by other taxpayers after the audits, so EITC correspondence audits appear to cause spillovers to these taxpayers. Regarding changes in real economic activity, audited taxpayers undergo changes in the likelihood of having wage employment in the years after a EITC correspondence audit, and the changes appear larger for taxpayers with younger (ages 0-5) qualifying children than older (ages 13+) qualifying children.

The impacts on many outcomes appear to fade out over subsequent years. This fade out appears to be driven by qualifying children's aging beyond EITC qualifying child age thresholds, thereby causing the EITC claiming rate for the nonaudited group to gradually converge to the lower EITC claiming rate of the audited group. For taxpayers with younger qualifying children, differences between the audited and nonaudited groups are more persistent. Future research may consider the impacts of soft-touch post-audit assignment outreach to audited and nonaudited taxpayers. For example, clarifications of rules may be sent to taxpayers who file intermediate-risk returns but are not randomly selected for audit. Similar clarifications of rules and reminders to file could be sent to audited taxpayers in the years after audit. Overall, further research can help improve the design and efficiency of operational audits by aiming to reduce undelivered mail and increase appropriate responses and by aiming to decrease potential mistakes by taxpayers in years after EITC correspondence audits.

References

Advani, A., Elming, W., & Shaw, J. (2017). The Dynamic Effects of Tax Audits (No. W17/24). Institute for Fiscal Studies.

Bastian, J., & Michelmore, K. (2018). The Long-Term Impact of the Earned Income Tax Credit on Children's Education and Employment Outcomes. *Journal of Labor Economics*, forthcoming.

Bhargava, S., & Manoli, D. (2015). Psychological frictions and the incomplete take-up of social benefits: Evidence from an IRS field experiment. *American Economic Review*, 105(11), 3489-3529.

Blumenthal, M., Erard, B., & Ho, C. C. (2005). Participation and Compliance with the Earned Income Tax Credit. *National Tax Journal*, 189-213.

Burman, L. (2003). Tax Evasion, IRS Priorities, and the EITC: Statement of Leonard E. Burman before the United States House of Representatives Committee on the Budget; On Waste, Fraud, and Abuse In Federal Mandatory Programs.

Chetty, R., Friedman, J. N., & Saez, E. (2013). Using Differences in Knowledge across Neighborhoods to Uncover the Impacts of the EITC on Earnings. *American Economic Review*, 103(7), 2683-2721.

Chetty, R., Guren, A., Manoli, D., & Weber, A. (2011). Are micro and macro labor supply elasticities consistent? A review of evidence on the intensive and extensive margins. *American Economic Review*, *101*(3), 471-75.

Dahl, G. B., & Lochner, L. (2012). The Impact of Family Income on Child Achievement: Evidence from the Earned Income Tax Credit. *American Economic Review*, 102(5), 1927-56.

Dahl, Gordon B., and Lance Lochner. 2017. The Impact of Family Income on Child Achievement: Evidence from the Earned Income Tax Credit: Reply. *American Economic Review*, 107(2): 629-31.

DeBacker, J., Heim, B. T., Tran, A., & Yuskavage, A. (2018). The Effects of IRS Audits on EITC Claimants. *National Tax Journal*, *71*(3), 451-484.

Eissa, N., & Liebman, J. B. (1996). Labor Supply Response to the Earned Income tax credit. The *Quarterly Journal of Economics*, 111(2), 605-637.

Evans, W. N., & Garthwaite, C. L. (2014). Giving Mom a Break: The Impact of Higher EITC Payments on Maternal Health. *American Economic Journal: Economic Policy*, 6(2), 258-90.

Government Accountability Office, (2014). "IRS Correspondence Audits: Better Management Could Improve Tax Compliance and Reduce Taxpayer Burden." Report to the Committee on Finance, U.S. Senate. GAO-14-479.

Holtzblatt, J. (1991). Administering Refundable Tax Credits: Lessons from the EITC Experience. In Proceedings of the Annual Conference on Taxation Held under the Auspices of the National Tax Association-Tax Institute of America (Vol. 84, pp. 180-186). National Tax Association.

Homonoff, T. & Somerville, J. (2019). "Program Recertification Costs: Evidence from SNAP." New York University, working paper.

Hoynes, H., Miller, D., & Simon, D. (2015). Income, the Earned Income Tax Credit, and Infant Health. *American Economic Journal: Economic Policy*, 7(1), 172-211.

Hoynes, H. W., & Patel, A. J. (2018). Effective Policy for Reducing Poverty and Inequality? The Earned Income Tax Credit and the Distribution of Income. *Journal of Human Resources*, *53*(4), 859-890.

Kleven, H., Knudsen, M., Kreiner, C., Pedersen, S., & Saez, E. (2011). Unwilling or Unable to Cheat? Evidence from a Tax Audit Experiment in Denmark. *Econometrica*, 79(3), 651-692.

Leibel, K. (2014). "Tax Compliance and Sources of Error for the Earned Income Tax Credit Claimed on 2006-2008 Returns." Internal Revenue Service, Technical Paper.

Leibel, K., Lin, E., & McCubbin J. (2019). "Social Welfare Considerations of EITC Qualifying Child Noncompliance." United States Treasury, Office of Tax Analysis, working paper

Liebman, J. (2000). Who are the Ineligible EITC Recipients? *National Tax Journal*, 1165-1186.

Lundstrom, Samuel. 2017. The Impact of Family Income on Child Achievement: Evidence from the Earned Income Tax Credit: Comment. *American Economic Review*, 107(2): 623-28.

Manoli, D., & Turner, N. (2018). Cash-on-Hand & College Enrollment: Evidence from Population Tax Data and the Earned Income Tax Credit. *American Economic Journal: Economic Policy*, forthcoming.

Maxfield, M. (2013). The effects of the Earned Income Tax Credit on Child Achievement and Long-Term Educational Attainment. Michigan State University Job Market Paper. November.

McCubbin, J. (2000). EITC noncompliance: The determinants of the misreporting of children. *National Tax Journal*, 1135-1164.

Meyer, B. D. (2010). The Effects of the Earned Income Tax Credit and Recent Reforms. *Tax policy and the economy*, 24(1), 153-180.

Meyer, B. D., & Rosenbaum, D. T. (2001). Welfare, The Earned Income Tax Credit, and The Labor Supply of Single Mothers. *The Quarterly Journal of Economics*, 116(3), 1063-1114.

Mortenson, J., & Whitten, A. (2017). Bunching to Maximize Tax Credits: Evidence from Kinks in the US Tax Schedule. *American Economic Journal: Economic Policy*, forthcoming.

National Taxpayer Advocate (2007). "2007 Annual Report to Congress" Volume 2.

OECD, Forum on Tax Administration Compliance Sub-group. (2004). "Use of Random Audit Programs."

Saez, E. (2010). Do Taxpayers Bunch at Kink Points? *American Economic Journal: Economic Policy*, 2(3), 180-212.

Schneller, J. P., Chilton, A. S., & Boehm, J. L. (2011). The Earned Income Tax Credit, Low-Income Workers, and the Legal Aid Community. *Columbia Journal of Tax Law*, 3, 176.

Slemrod, J. (2016). Tax compliance and enforcement: New research and its Policy Implications. University of Michigan, Ross School of Business working paper 1302.

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.

Strully, K. W., Rehkopf, D. H., & Xuan, Z. (2010). Effects of Prenatal Poverty on Infant Health: State Earned Income Tax Credits and Birth Weight. *American Sociological Review*, 75(4), 534-562.

Table 1: IRS Audit Frequencies & Outcomes

Year	EITC Correspondence Audits			EITC Field Audits		
	Returns Examined	Returns Examined as Percentage of All Individual Correspondence Audits	Percentage of Returns Examined with No Change	Returns Examined	Returns Examined as Percentage of All Individual Field Audits	Percentage of Returns Examined with No Change
2008	420,879	0.379	0.074	41,378	0.096	0.100
2009	450,524	0.399	0.072	33,301	0.074	0.105
2010	551,836	0.434	0.083	33,366	0.072	0.100
2011	536,174	0.447	0.105	38,198	0.073	0.101
2012	513,156	0.444	0.083	45,375	0.090	0.086
2013	492,251	0.451	0.091	46,311	0.099	0.076
2014	437,430	0.445	0.102	43,559	0.109	0.066
2015	439,862	0.441	0.092	38,170	0.101	0.101
2016	391,490	0.475	0.072	36,717	0.107	0.094

Notes: Statistics are taken from the IRS Databook for the corresponding years. The table reports data from Table 9a: Examination Coverage. The statistics reported in the table are based on total business and nonbusiness returns with Earned Income Credit benefits. Statistics are based on returns examined by fiscal year.

Table 2: Summary Statistics

Variable	Self-Employed						Wage Earners					
	Audited N = 365,511		Scored but Not Audited N = 386,660		1% Random Sample of EITC Returns N = 330,116		Audited N = 756,700		Scored but Not Audited N = 1,003,049		1% Random Sample of EITC Returns N = 1,203,713	
	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.
Fraction Male	0.650	0.477	0.499	0.500	0.389	0.487	0.663	0.473	0.634	0.482	0.328	0.469
Age	34.757	12.888	33.628	12.028	39.281	11.479	35.391	13.463	34.510	12.895	36.516	11.125
Fraction with Filing Status = HOH	0.758	0.428	0.771	0.420	0.580	0.494	0.812	0.391	0.822	0.383	0.639	0.480
Total Income	14243.730	4587.185	14418.230	4978.760	12141.940	465933.100	16874.320	5597.028	18136.250	7485.576	17674.780	11756.560
Wages on Form 1040	4632.967	8952.542	5025.337	9563.727	5747.565	11845.260	16509.430	5513.489	17611.820	7452.472	16994.870	10678.680
Has Wage Income on Form 1040	0.474	0.499	0.502	0.500	0.454	0.498	1.000	0.000	1.000	0.000	1.000	0.000
Has Form W-2	0.533	0.499	0.566	0.496	0.474	0.499	0.851	0.357	0.948	0.222	0.967	0.178
Schedule C Income	9195.000	7764.192	8943.540	8389.926	6191.168	465750.900	0.000	0.000	0.000	0.000	0.000	0.000
Adjusted Gross Income	13493.840	4557.446	13672.110	4976.358	11998.150	79464.500	16828.670	5596.350	18088.550	7475.893	17562.530	11770.210
Balance Due (refund if negative)	-4511.999	1849.333	-4774.322	1840.863	-2751.619	3269.059	-6325.029	1940.439	-5741.880	2098.198	-4033.304	3087.181
Earned Income	13223.190	3952.481	13353.920	4158.117	12248.630	7786.941	16480.530	5476.843	17561.750	7394.250	16879.830	10700.600
Fraction with 1 Qualifying Child	0.472	0.499	0.514	0.500	0.331	0.471	0.489	0.500	0.668	0.471	0.396	0.489
Fraction with 2 Qualifying Children	0.458	0.498	0.256	0.436	0.252	0.434	0.448	0.497	0.247	0.431	0.254	0.435
Fraction with 3+ Qualifying Children	0.068	0.252	0.229	0.420	0.076	0.264	0.062	0.241	0.082	0.275	0.074	0.261
EITC Amount	4011.067	1139.873	4107.049	1273.041	2433.629	1937.279	3754.269	1017.954	3246.864	1232.020	2051.956	1650.786
Fraction on Phase-In	0.270	0.444	0.267	0.442	0.480	0.500	0.158	0.365	0.184	0.387	0.387	0.487
Fraction on Maximum Credit	0.629	0.483	0.618	0.486	0.326	0.469	0.485	0.500	0.353	0.478	0.174	0.379
Fraction on Phase-Out	0.101	0.301	0.115	0.319	0.194	0.396	0.356	0.479	0.464	0.499	0.439	0.496
Fraction Filing with Paid Preparer	0.620	0.485	0.638	0.481	0.692	0.462	0.591	0.492	0.562	0.496	0.567	0.495

Notes: Statistics are based on tax returns in 2008 through 2015. Dollar values are CPI-adjusted to 2016.

Table 3: Audit Outcomes

	Self-Employed						Wage Earners					
	Undelivered Mail	Nonresponse	Full Disallowance with Insufficient Response	Full Disallowance with Active Agreement	Partial Allowance	Full Allowance	Undelivered Mail	Nonresponse	Full Disallowance with Insufficient Response	Full Disallowance with Active Agreement	Partial Allowance	Full Allowance
Full Sample	0.111	0.472	0.215	0.131	0.010	0.056	0.126	0.433	0.196	0.159	0.013	0.067
Age < 31, Men	0.123	0.543	0.200	0.096	0.007	0.028	0.133	0.499	0.186	0.126	0.009	0.042
Ages 31-40, Men	0.112	0.486	0.226	0.124	0.011	0.036	0.131	0.463	0.207	0.144	0.014	0.035
Ages 41-50, Men	0.117	0.456	0.224	0.144	0.012	0.040	0.137	0.427	0.212	0.166	0.015	0.038
Ages 51+, Men	0.124	0.431	0.217	0.164	0.013	0.044	0.150	0.370	0.211	0.198	0.016	0.048
Age < 31, Women	0.107	0.486	0.211	0.123	0.008	0.061	0.128	0.458	0.176	0.154	0.010	0.069
Ages 31-40, Women	0.098	0.405	0.223	0.139	0.014	0.115	0.126	0.398	0.190	0.164	0.017	0.100
Ages 41-50, Women	0.083	0.370	0.229	0.176	0.015	0.122	0.090	0.336	0.212	0.194	0.017	0.146
Ages 51+, Women	0.074	0.315	0.232	0.219	0.016	0.139	0.082	0.252	0.207	0.249	0.020	0.183
Earned income < $10k	0.125	0.511	0.178	0.133	0.007	0.042	0.151	0.491	0.153	0.142	0.012	0.048
Earned income $10k-$20k	0.110	0.467	0.223	0.126	0.011	0.059	0.137	0.438	0.190	0.148	0.011	0.071
Earned income $20k-$30k	0.056	0.377	0.261	0.206	0.019	0.071	0.086	0.399	0.230	0.199	0.017	0.062
Earned income $30k-$40k	0.045	0.371	0.256	0.232	0.012	0.077	0.063	0.377	0.230	0.227	0.022	0.074
Earned income $40k+	0.000	0.231	0.500	0.154	0.038	0.077	0.018	0.310	0.221	0.097	0.265	0.071
No paid preparer	0.143	0.501	0.185	0.112	0.012	0.042	0.156	0.440	0.187	0.142	0.015	0.053
Has paid preparer	0.091	0.455	0.233	0.142	0.009	0.064	0.106	0.428	0.202	0.171	0.011	0.076
No EITC claim in prior 3 years	0.149	0.526	0.186	0.100	0.006	0.029	0.182	0.468	0.176	0.119	0.009	0.042
Has EITC claim in prior 3 years	0.084	0.435	0.235	0.152	0.013	0.075	0.092	0.411	0.209	0.185	0.015	0.082
1 QC	0.121	0.493	0.185	0.135	0.009	0.052	0.162	0.458	0.161	0.132	0.014	0.068
2 QCs	0.107	0.475	0.233	0.122	0.012	0.046	0.101	0.421	0.234	0.166	0.011	0.062
3+ QCs	0.064	0.312	0.297	0.161	0.013	0.147	0.072	0.311	0.278	0.183	0.023	0.124
QC Age 0-5	0.086	0.442	0.251	0.133	0.010	0.073	0.098	0.414	0.220	0.170	0.011	0.081
QC Age 6-12	0.100	0.458	0.231	0.132	0.013	0.061	0.112	0.422	0.209	0.170	0.013	0.067
QC Age 13+	0.121	0.493	0.187	0.133	0.009	0.052	0.146	0.447	0.171	0.149	0.013	0.068
No W-2 in Year of Selection	0.137	0.492	0.195	0.108	0.009	0.055	0.330	0.489	0.112	0.044	0.008	0.015
Has W-2 in Year of Selection	0.088	0.455	0.233	0.151	0.011	0.056	0.091	0.423	0.211	0.180	0.014	0.076
Propensity Score Quintile 1 (Lowest)	0.082	0.352	0.252	0.117	0.087	0.107	0.086	0.397	0.202	0.165	0.050	0.097
Propensity Score Quintile 2	0.094	0.418	0.230	0.142	0.027	0.084	0.106	0.423	0.188	0.168	0.031	0.079
Propensity Score Quintile 3	0.113	0.457	0.209	0.133	0.007	0.075	0.146	0.429	0.184	0.145	0.014	0.077
Propensity Score Quintile 4	0.123	0.495	0.191	0.130	0.008	0.047	0.119	0.442	0.196	0.158	0.011	0.068
Propensity Score Quintile 5 (Highest)	0.101	0.467	0.236	0.129	0.011	0.051	0.130	0.428	0.199	0.163	0.012	0.063

Notes: Characteristics for heterogeneity are based on characteristics in the year of audit selection.

Table 4: Summary Statistics for Re-weighted Data

Variable	Self-Employed				Wage Earners			
	Audited N = 365,511		Scored but Not Audited N = 386,660		Audited N = 756,700		Scored but Not Audited N = 1,003,049	
	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.
Fraction Male	0.605	0.489	0.553	0.497	0.644	0.479	0.636	0.481
Age	35.234	12.745	35.123	12.609	35.330	13.183	35.027	13.119
Fraction with Filing Status = HOH	0.772	0.420	0.742	0.437	0.822	0.383	0.696	0.460
Total Income	14131.520	4839.955	13980.930	8817.164	17371.370	6555.368	19035.350	11596.380
Wages on Form 1040	4811.486	9388.026	4891.280	9995.730	16902.000	6482.468	18325.830	10885.660
Has Wage Income on Form 1040	0.475	0.499	0.459	0.498	1.000	0.000	1.000	0.000
Has Form W-2	0.526	0.499	0.523	0.499	0.858	0.349	0.842	0.365
Schedule C Income	8868.134	8143.666	8647.670	10004.000	0.000	0.000	0.000	0.000
Adjusted Gross Income	13386.700	4667.775	13229.490	8638.690	17323.220	6549.031	18911.540	11504.400
Balance Due (refund if negative)	-4479.057	1858.599	-4388.114	2066.984	-6007.470	1965.989	-5414.270	7349.169
Earned Income	13090.660	4037.852	12777.400	4853.127	16869.900	6443.334	16321.120	8913.222
Fraction with 1 Qualifying Child	0.538	0.499	0.549	0.498	0.602	0.489	0.593	0.491
Fraction with 2 Qualifying Children	0.352	0.478	0.268	0.443	0.336	0.472	0.194	0.396
Fraction with 3+ Qualifying Children	0.109	0.312	0.152	0.359	0.061	0.240	0.056	0.230
EITC Amount	3948.624	1169.683	3805.637	1358.498	3468.526	1120.911	2720.074	1544.230
Fraction on Phase-In	0.263	0.440	0.284	0.451	0.166	0.372	0.156	0.363
Fraction on Maximum Credit	0.633	0.482	0.585	0.493	0.440	0.496	0.338	0.473
Fraction on Phase-Out	0.103	0.304	0.131	0.337	0.394	0.489	0.506	0.500
Fraction Filing with Paid Preparer	0.613	0.487	0.600	0.490	0.578	0.494	0.506	0.500

Notes: Statistics are based on tax returns in 2008 through 2015. Dollar values are CPI-adjusted to 2016. Statistics are based on re-weighted data.

Table 5: Impacts of EITC Correspondence Audits, Difference-in-Difference Estimates

A. Self-Employed

	EITC Claiming	Filing Tax Return	Tax Refund	Return Flagged	Qualifying Child Claimed by Selected Taxpayer	Qualifying Child Claimed by Any Taxpayer	EITC Associated with Qualifying Child
1 Year After Audit	-0.209	-0.152	-1334.479	-0.241	-0.225	-0.156	-929.352
	(0.023)	(0.027)	(197.119)	(0.024)	(0.029)	(0.022)	(147.839)
2 Years After Audit	-0.113	-0.074	-803.786	-0.133	-0.150	-0.101	-610.037
	(0.024)	(0.029)	(199.067)	(0.023)	(0.027)	(0.021)	(140.880)
3 Years After Audit	-0.061	-0.033	-681.113	-0.078	-0.099	-0.068	-394.974
	(0.025)	(0.026)	(241.815)	(0.021)	(0.023)	(0.022)	(137.866)
4 Years After Audit	-0.024	0.001	-317.200	-0.040	-0.074	-0.054	-304.564
	(0.033)	(0.031)	(203.024)	(0.025)	(0.023)	(0.027)	(149.181)
5 Years After Audit	-0.026	-0.004	-378.990	-0.034	-0.051	-0.045	-232.310
	(0.036)	(0.034)	(234.715)	(0.020)	(0.026)	(0.032)	(182.196)
6 Years After Audit	-0.022	-0.002	-328.579	-0.036	-0.059	-0.058	-322.217
	(0.037)	(0.041)	(228.750)	(0.030)	(0.027)	(0.034)	(183.279)
7 Years After Audit	-0.002	0.014	-163.345	-0.015	-0.065	-0.058	-302.655
	(0.045)	(0.040)	(332.652)	(0.038)	(0.025)	(0.026)	(170.163)

B. Wage Earners

	EITC Claiming	Filing Tax Return	Tax Refund	Return Flagged	Qualifying Child Claimed by Selected Taxpayer	Qualifying Child Claimed by Any Taxpayer	EITC Associated with Qualifying Child
1 Year After Audit	-0.279	-0.137	-1673.809	-0.242	-0.268	-0.138	-499.239
	(0.036)	(0.038)	(213.534)	(0.027)	(0.043)	(0.028)	(218.726)
2 Years After Audit	-0.195	-0.103	-990.321	-0.149	-0.178	-0.082	-230.361
	(0.033)	(0.036)	(257.268)	(0.027)	(0.038)	(0.029)	(176.164)
3 Years After Audit	-0.133	-0.063	-809.243	-0.084	-0.117	-0.047	-59.624
	(0.030)	(0.043)	(181.154)	(0.022)	(0.038)	(0.032)	(165.578)
4 Years After Audit	-0.079	-0.009	-418.950	-0.048	-0.074	-0.026	50.993
	(0.031)	(0.042)	(171.733)	(0.023)	(0.038)	(0.038)	(165.812)
5 Years After Audit	-0.058	0.013	-158.848	-0.025	-0.022	0.020	239.023
	(0.028)	(0.041)	(261.456)	(0.023)	(0.023)	(0.044)	(157.823)
6 Years After Audit	-0.009	0.069	-52.775	-0.003	-0.009	0.040	288.549
	(0.036)	(0.052)	(183.240)	(0.014)	(0.023)	(0.050)	(177.152)
7 Years After Audit	-0.001	0.089	44.634	0.007	0.013	0.113	536.921
	(0.028)	(0.041)	(183.844)	(0.013)	(0.016)	(0.032)	(137.037)

Notes: Estimates are based on regression coefficients from regressing the outcome variable specified in the column heading on event time dummies, an indicator for being an audited individual, and interactions between the event time dummies and the audited indicator. Data used in the regressions is re-weighted using inverse probability weights. Standard errors are clustered based on tax year and audit assignment group (audited or non-audited) and the year of selection.

Table 6: Impacts of EITC Correspondence Audits, Heterogeneity by Qualifying Child Age

A. Self-Employed

	Dependent Variable = EITC Claiming			Dependent Variable = Tax Refunds			Dependent Variable = Qualifying Child Claimed by Selected Taxpayer			Dependent Variable = Qualifying Child Claimed by Any Taxpayer		
	QC Age 0-5	QC Age 6-12	QC Age 13+	QC Age 0-5	QC Age 6-12	QC Age 13+	QC Age 0-5	QC Age 6-12	QC Age 13+	QC Age 0-5	QC Age 6-12	QC Age 13+
1 Year After Audit	-0.256	-0.222	-0.197	-1852.945	-1402.943	-889.816	-0.283	-0.218	-0.174	-0.140	-0.122	-0.153
	(0.022)	(0.021)	(0.02)	(182.165)	(176.808)	(205.98)	(0.024)	(0.03)	(0.024)	(0.016)	(0.016)	(0.018)
2 Years After Audit	-0.161	-0.129	-0.084	-1252.101	-857.883	-417.733	-0.209	-0.146	-0.086	-0.088	-0.074	-0.078
	(0.024)	(0.025)	(0.02)	(190.926)	(188.739)	(199.815)	(0.025)	(0.03)	(0.02)	(0.014)	(0.014)	(0.017)
3 Years After Audit	-0.102	-0.076	-0.041	-859.728	-1527.378	-158.351	-0.158	-0.091	-0.035	-0.064	-0.040	-0.041
	(0.026)	(0.027)	(0.015)	(175.298)	(918.376)	(168.51)	(0.021)	(0.026)	(0.014)	(0.013)	(0.012)	(0.013)
4 Years After Audit	-0.067	-0.033	-0.002	-667.609	-345.866	62.239	-0.132	-0.068	-0.003	-0.055	-0.031	-0.015
	(0.030)	(0.034)	(0.022)	(205.226)	(160.364)	(169.795)	(0.022)	(0.026)	(0.013)	(0.012)	(0.013)	(0.014)
5 Years After Audit	-0.065	-0.030	0.002	-750.092	-350.357	21.854	-0.107	-0.039	0.016	-0.043	-0.024	-0.009
	(0.033)	(0.037)	(0.021)	(235.833)	(217.978)	(163.636)	(0.024)	(0.029)	(0.012)	(0.014)	(0.012)	(0.014)
6 Years After Audit	-0.061	-0.021	-0.001	-691.646	-207.763	58.646	-0.120	-0.045	0.023	-0.050	-0.029	-0.004
	(0.028)	(0.040)	(0.029)	(197.409)	(222.945)	(195.062)	(0.023)	(0.031)	(0.011)	(0.014)	(0.014)	(0.012)
7 Years After Audit	-0.042	0.005	0.004	-528.038	-84.721	102.513	-0.126	-0.044	0.026	-0.047	-0.022	0.001
	(0.035)	(0.046)	(0.019)	(262.992)	(327.742)	(208.65)	(0.02)	(0.034)	(0.01)	(0.017)	(0.016)	(0.011)

B. Wage Earners

	Dependent Variable = EITC Claiming			Dependent Variable = Tax Refunds			Dependent Variable = Qualifying Child Claimed by Selected Taxpayer			Dependent Variable = Qualifying Child Claimed by Any Taxpayer		
	QC Age 0-5	QC Age 6-12	QC Age 13+	QC Age 0-5	QC Age 6-12	QC Age 13+	QC Age 0-5	QC Age 6-12	QC Age 13+	QC Age 0-5	QC Age 6-12	QC Age 13+
1 Year After Audit	-0.340	-0.336	-0.258	-2132.000	-2016.932	-1504.116	-0.296	-0.296	-0.230	-0.120	-0.141	-0.163
	(0.026)	(0.020)	(0.047)	(232.386)	(183.47)	(190.73)	(0.031)	(0.032)	(0.054)	(0.014)	(0.016)	(0.036)
2 Years After Audit	-0.244	-0.239	-0.178	-1531.244	-664.384	-1157.565	-0.207	-0.203	-0.129	-0.074	-0.087	-0.086
	(0.026)	(0.022)	(0.038)	(211.307)	(703.907)	(150.39)	(0.03)	(0.032)	(0.041)	(0.014)	(0.017)	(0.034)
3 Years After Audit	-0.178	-0.169	-0.104	-1108.343	-982.192	-668.543	-0.150	-0.140	-0.064	-0.050	-0.058	-0.045
	(0.022)	(0.020)	(0.037)	(189.761)	(152.825)	(195.418)	(0.033)	(0.035)	(0.036)	(0.015)	(0.019)	(0.029)
4 Years After Audit	-0.115	-0.110	-0.064	-683.405	-594.563	-381.578	-0.113	-0.093	-0.022	-0.040	-0.044	-0.028
	(0.020)	(0.020)	(0.029)	(132.685)	(128.443)	(177.49)	(0.034)	(0.039)	(0.031)	(0.018)	(0.023)	(0.027)
5 Years After Audit	-0.094	-0.076	-0.042	-582.378	339.464	-242.339	-0.059	-0.030	0.011	-0.027	-0.019	0.002
	(0.019)	(0.021)	(0.023)	(126.986)	(886.901)	(175.193)	(0.018)	(0.021)	(0.023)	(0.01)	(0.013)	(0.023)
6 Years After Audit	-0.064	-0.054	-0.012	-422.251	-311.391	-94.760	-0.048	-0.013	0.020	-0.020	-0.008	0.003
	(0.034)	(0.027)	(0.027)	(185.383)	(145.807)	(157.237)	(0.02)	(0.023)	(0.022)	(0.012)	(0.017)	(0.017)
7 Years After Audit	-0.053	-0.040	0.008	-331.964	-253.519	77.869	-0.027	0.014	0.026	-0.012	0.012	0.021
	(0.025)	(0.020)	(0.023)	(177.414)	(110.365)	(134.411)	(0.013)	(0.017)	(0.021)	(0.012)	(0.015)	(0.013)

Notes: Estimates are based on regression coefficients from regressing the outcome variable specified in the column heading on event time dummies, an indicator for being an audited individual, interactions between the event time dummies and audited indicator. Data used in the regressions is re-weighted using inverse probability weights. Standard errors are clustered based on tax year and audit assignment group (audited or non-audited) and the year of selection.

Table 7: Impacts of EITC Correspondence Audits on Wage Employment

| | | | Dependent Variable = Has W-2 for Wage Employment | | | | | |
| | | | Wage Earners with W-2 in Year of Selection | | | Wage Earners without W-2 in Year of Selection | | |
	Self-Employed	Wage Earners	QC Age 0-5	QC Age 6-12	QC Age 13+	QC Age 0-5	QC Age 6-12	QC Age 13+
1 Year After Audit	-0.002	-0.024	-0.034	-0.025	-0.026	-0.006	0.007	0.029
	(0.026)	(0.045)	(0.013)	(0.015)	(0.020)	(0.041)	(0.033)	(0.027)
2 Years After Audit	0.007	-0.024	-0.035	-0.022	-0.017	-0.006	-0.006	0.037
	(0.025)	(0.044)	(0.015)	(0.017)	(0.022)	(0.037)	(0.030)	(0.025)
3 Years After Audit	0.013	-0.013	-0.030	-0.020	-0.010	0.009	0.014	0.066
	(0.023)	(0.045)	(0.015)	(0.016)	(0.022)	(0.042)	(0.033)	(0.030)
4 Years After Audit	0.021	0.025	-0.025	-0.008	-0.005	0.084	0.047	0.061
	(0.022)	(0.045)	(0.014)	(0.016)	(0.020)	(0.048)	(0.033)	(0.031)
5 Years After Audit	0.007	0.037	-0.029	-0.007	-0.008	0.059	0.057	0.067
	(0.020)	(0.047)	(0.014)	(0.016)	(0.017)	(0.051)	(0.042)	(0.032)
6 Years After Audit	0.005	0.089	-0.026	-0.004	-0.005	0.097	0.083	0.082
	(0.025)	(0.037)	(0.017)	(0.016)	(0.017)	(0.049)	(0.039)	(0.021)
7 Years After Audit	0.025	0.102	-0.018	-0.007	-0.008	0.106	0.110	0.061
	(0.041)	(0.043)	(0.026)	(0.018)	(0.015)	(0.043)	(0.042)	(0.026)

Notes: Estimates are based on regression coefficients from regressing an indicator for having a W-2 on event time dummies, an indicator for being an audited individual, interactions between the event time dummies and audited indicator. Data used in the regressions is re-weighted using inverse probability weights. Standard errors are clustered based on tax year and audit assignment group (audited or non-audited) and the year of selection.
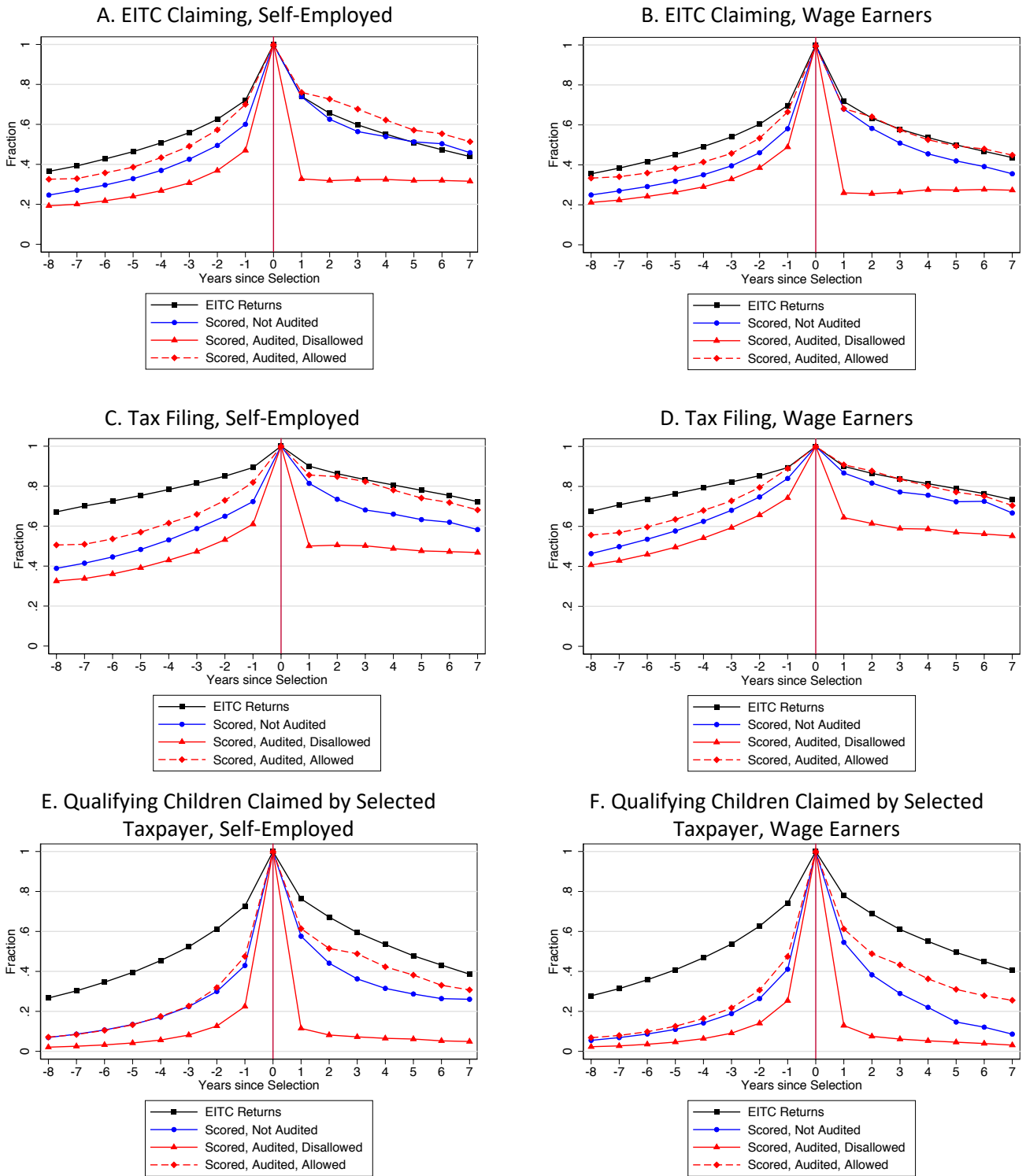
Figure 1.
Background Patterns for Analysis Sample

A. EITC Claiming, Self-Employed

B. EITC Claiming, Wage Earners

C. Tax Filing, Self-Employed

D. Tax Filing, Wage Earners

E. Qualifying Children Claimed by Selected Taxpayer, Self-Employed

F. Qualifying Children Claimed by Selected Taxpayer, Wage Earners

Notes: Each plot is constructed by computing fractions of the specified outcome for each sample by years since selection. The year of selection refers to the year a return is selected for risk scoring and random assignment to audit or non-audit status. The EITC Return sample is a 1% random sample of EITC returns for tax years 2008 through 2015, and the year of selection refers to the year the return is randomly drawn. Data used in creating these plots is unweighted.

Figure 2.
Fraction Audited by Propensity Score Percentile
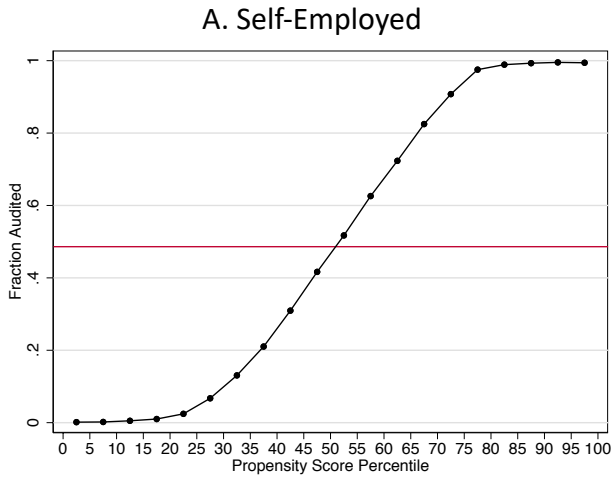
Notes: Each plot is constructed by computing five percentile bins based on the estimated probabilities of audit, and within each bin, each point is the fraction audited.
Horizontal lines show the overall fraction audited for each sample.

Figure 3.
Effects of EITC Correspondence Audits on Tax Outcomes

A. EITC Claiming, Self-Employed

B. EITC Claiming, Wage Earners

C. Tax Filing, Self-Employed

D. Tax Filing, Wage Earners

E. Has Return Flagged for Potential Noncompliance, Self-Employed

F. Has Return Flagged for Potential Noncompliance, Wage Earners

Notes: Each plot illustrates estimated regression coefficients from regressing the outcome variable specified in the plot title on event time dummies, an indicator for being an audited individual, interactions between the event time dummies and the audited indicator. The difference estimates and standard error bands refer to the estimated coefficients and standard errors on the event time dummies interacted with the audited indicator. Means of the specified outcome variables are computed for each event time for the non-audited group, and means for the audited group are computed as the means for the non-audited group plus the estimated difference for the corresponding event time. Data used in the regressions is re-weighted using inverse probability weights. Standard errors are clustered based on tax year and audit assignment group (audited or non-audited) and the year of selection. The sample is selected based on the first year that a taxpayer has a return identified for potential noncompliance, so the means and differences for having a return flagged for potential noncompliance are all mechanically zero prior to the year of selection and assignment to the audited or nonaudited groups.

Figure 4.
Effects of EITC Correspondence Audits on Qualifying Child Outcomes

Notes: Each plot illustrates estimated regression coefficients from regressing the outcome variable specified in the plot title on event time dummies, an indicator for being an audited individual, interactions between the event time dummies and the audited indicator. The difference estimates and standard error bands refer to the estimated coefficients and standard errors on the event time dummies interacted with the audited indicator. Means of the specified outcome variables are computed for each event time for the non-audited group, and means for the audited group are computed as the means for the non-audited group plus the estimated difference for the corresponding event time. Data used in the regressions is re-weighted using inverse probability weights. Standard errors are clustered based on tax year and audit assignment group (audited or non-audited) and the year of selection.
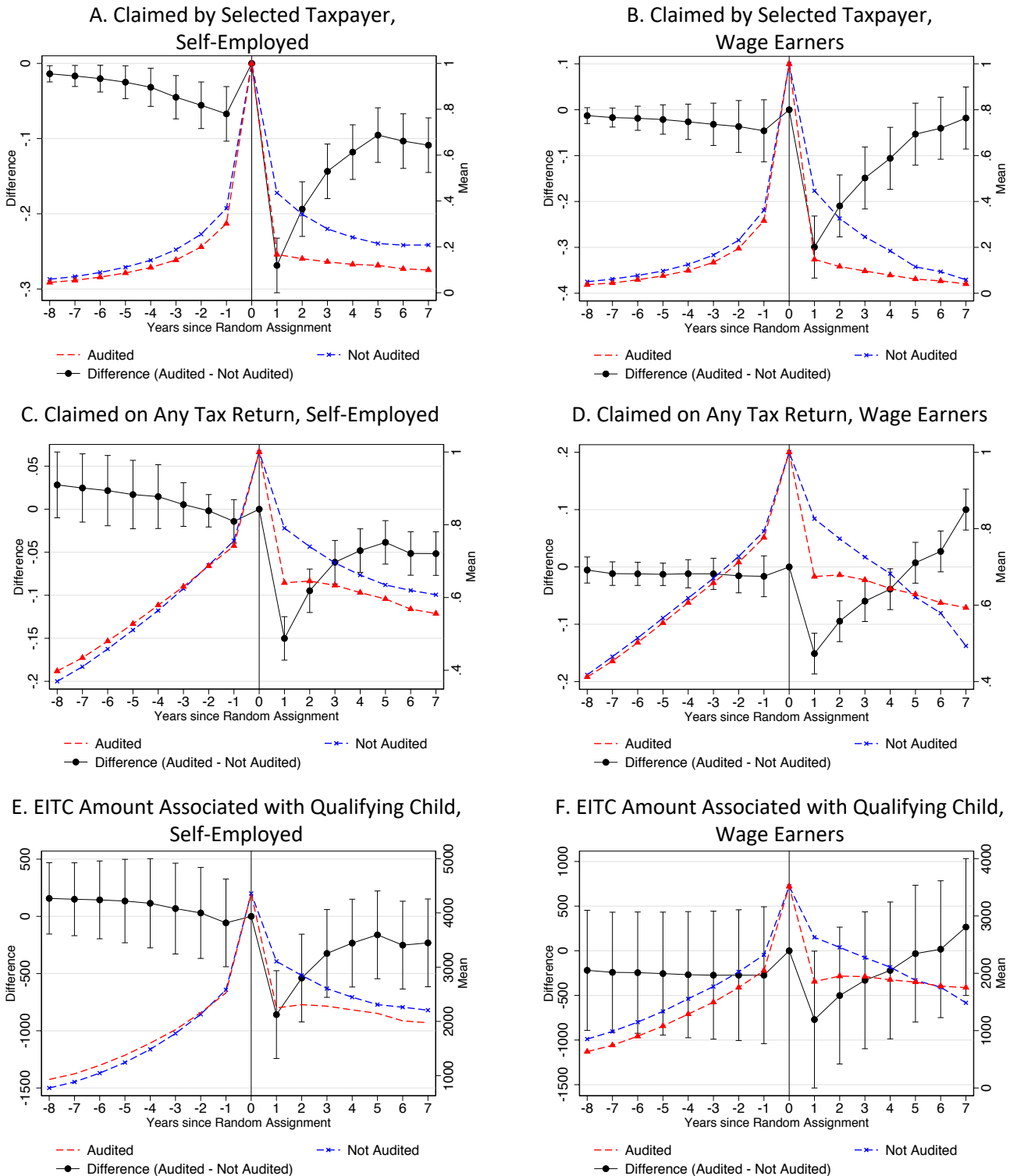
Figure 5.
Effects of EITC Correspondence Audits on Wage Employment

Notes: Each plot illustrates estimated regression coefficients from regressing the outcome variable specified in the plot title on event time dummies, an indicator for being an audited individual, interactions between the event time dummies and the audited indicator. The difference estimates and standard error bands refer to the estimated coefficients and standard errors on the event time dummies interacted with the audited indicator. Means of the specified outcome variables are computed for each event time for the non-audited group, and means for the audited group are computed as the means for the non-audited group plus the estimated difference for the corresponding event time. Data used in the regressions is re-weighted using inverse probability weights. Standard errors are clustered based on tax year and audit assignment group (audited or non-audited) and the year of selection.

Figure 6.
Impacts on Tax and Employment Outcomes,
Heterogeneity based on Propensity Score
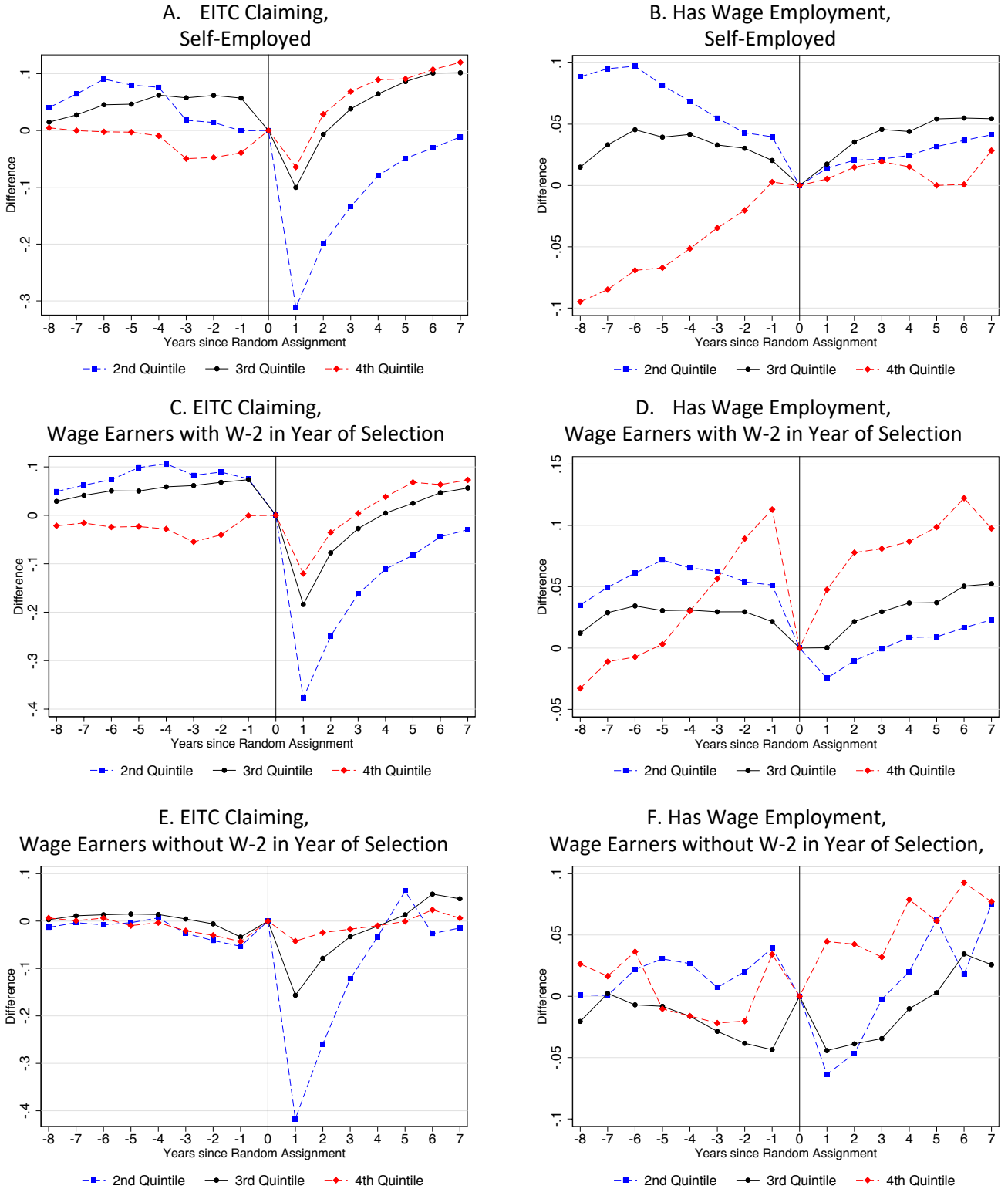
A. EITC Claiming, Self-Employed

Difference

Years since Random Assignment

- ■ - 2nd Quintile   ─●─ 3rd Quintile   - ◆ - 4th Quintile

B. Has Wage Employment, Self-Employed

Difference

Years since Random Assignment

- ■ - 2nd Quintile   ─●─ 3rd Quintile   - ◆ - 4th Quintile

C. EITC Claiming, Wage Earners with W-2 in Year of Selection

Difference

Years since Random Assignment

- ■ - 2nd Quintile   ─●─ 3rd Quintile   - ◆ - 4th Quintile

D. Has Wage Employment, Wage Earners with W-2 in Year of Selection

Difference

Years since Random Assignment

- ■ - 2nd Quintile   ─●─ 3rd Quintile   - ◆ - 4th Quintile

E. EITC Claiming, Wage Earners without W-2 in Year of Selection

Difference

Years since Random Assignment

- ■ - 2nd Quintile   ─●─ 3rd Quintile   - ◆ - 4th Quintile

F. Has Wage Employment, Wage Earners without W-2 in Year of Selection,

Difference

Years since Random Assignment

- ■ - 2nd Quintile   ─●─ 3rd Quintile   - ◆ - 4th Quintile

Notes: Each plot illustrates estimated regression coefficients from regressing the outcome variable specified in the plot title on event time dummies, an indicator for being an audited individual, interactions between the event time dummies and the audited indicator. The difference estimates refer to the estimated coefficients on the event time dummies interacted with the audited indicator. Data used in the regressions is re-weighted using inverse probability weights.

Figure 7.
Impacts on Qualifying Child Outcomes,
Heterogeneity based on Propensity Score

A. Qualifying Child Claimed by Selected Taxpayer, Self-Employed

B. Qualifying Child Claimed by Selected Taxpayer, Wage Earners

C. Qualifying Child Claimed by Any Taxpayer, Self-Employed

D. Qualifying Child Claimed by Any Taxpayer, Wage Earners

E. Qualifying Child on Flagged Return, Self-Employed

F. Qualifying Child on Flagged Return, Wage Earners
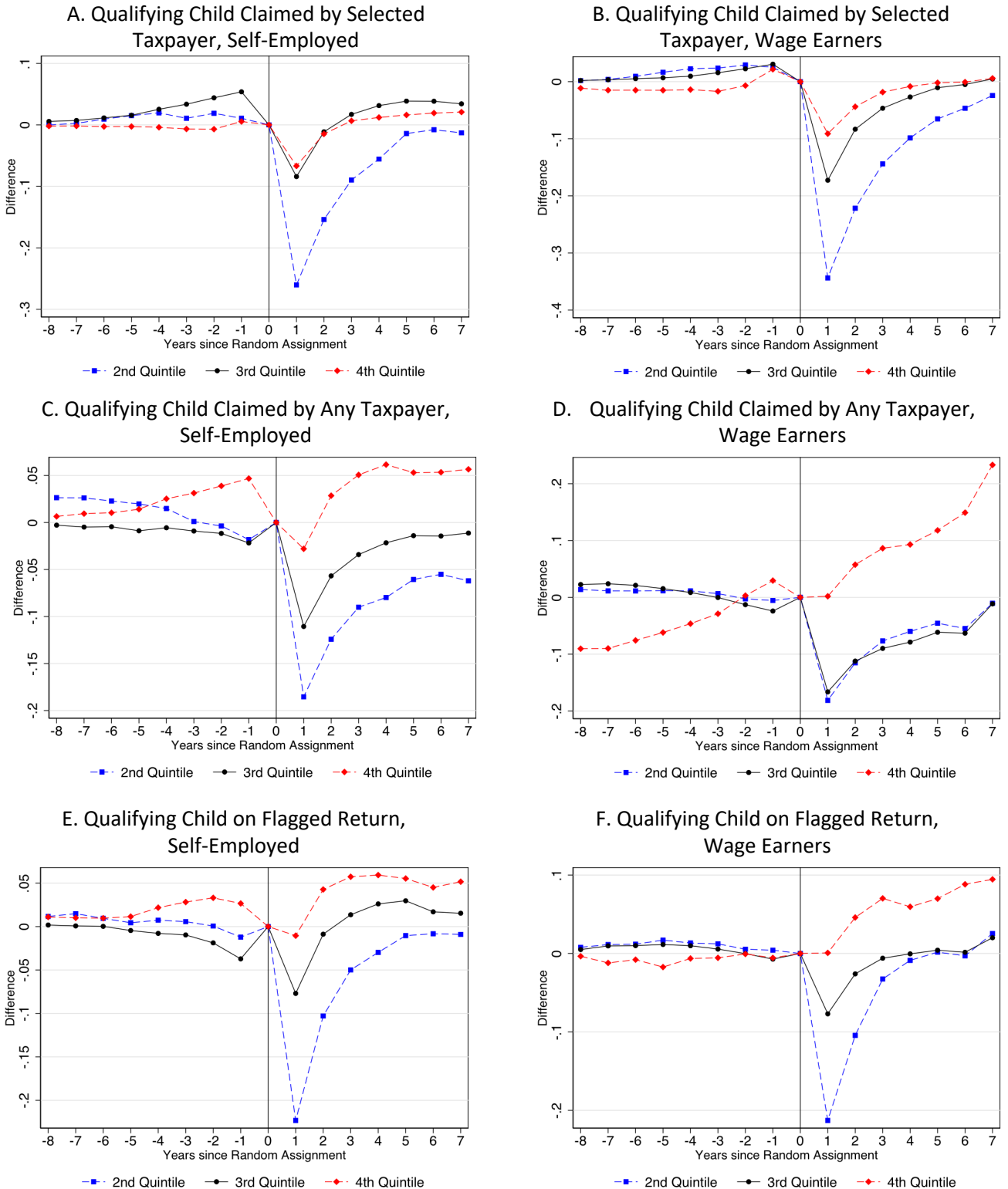
Notes: Each plot illustrates estimated regression coefficients from regressing the outcome variable specified in the plot title on event time dummies, an indicator for being an audited individual, interactions between the event time dummies and the audited indicator. The difference estimates refer to the estimated coefficients on the event time dummies interacted with the audited indicator. Data used in the regressions is re-weighted using inverse probability weights.

Figure 8.
Effects of EITC Correspondence Audits for EITC Maximizers

A. Distributions of Earnings Relative to EITC Kink 1
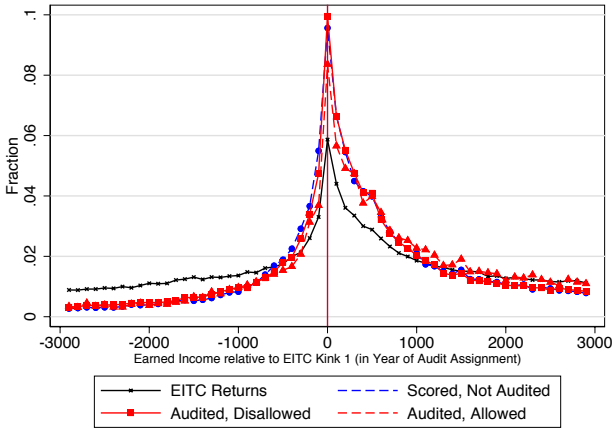
B. Audit Outcomes by Earnings Relative to EITC Kink 1
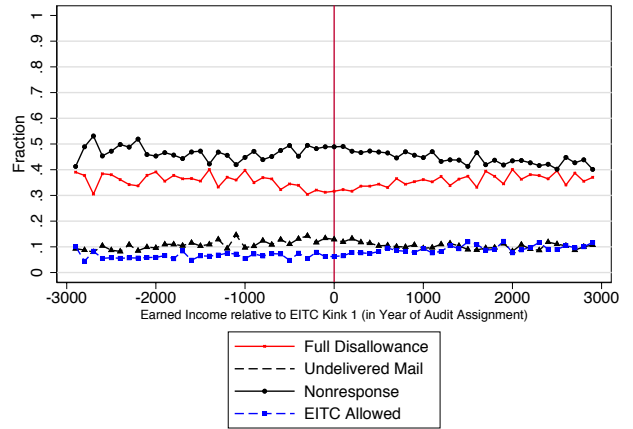
C. EITC Claiming 4 Years Before Selection
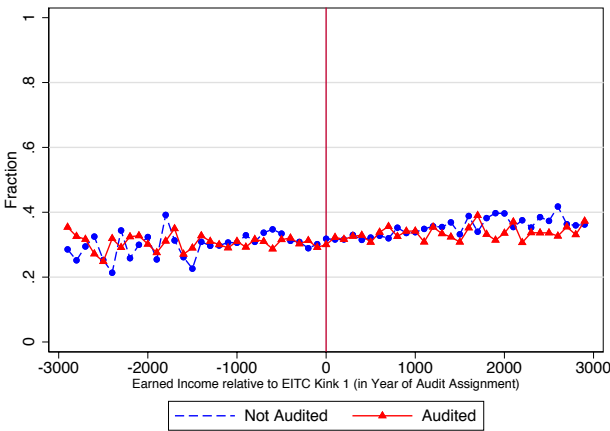
D. EITC Claiming 1 Year Before Selection
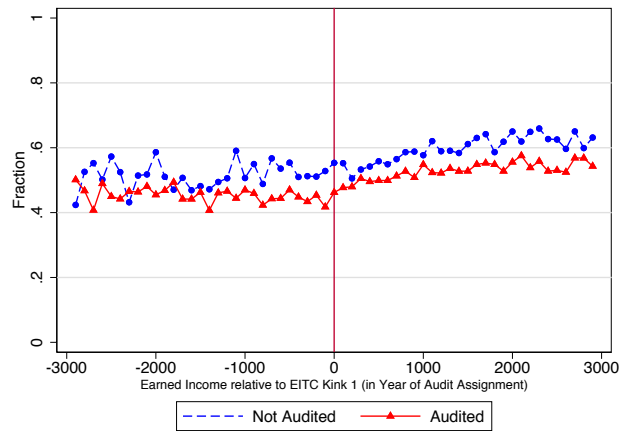
E. EITC Claiming 1 Year After Selection
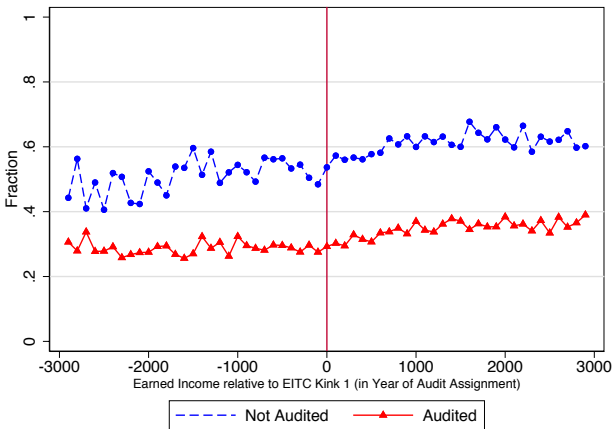
F. EITC Claiming 4 Years After Selection
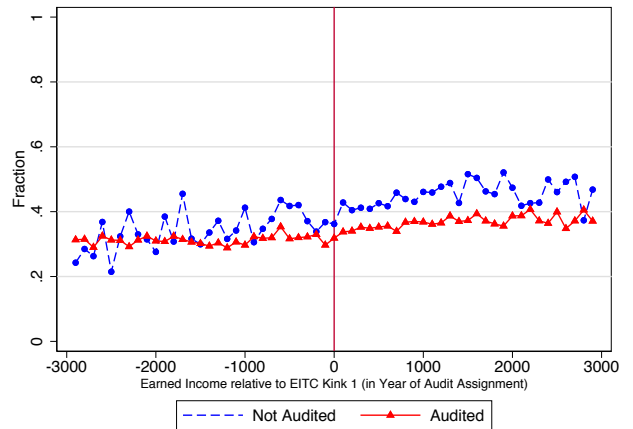
Notes: Plot A is constructed by creating $100 bins of earned income relative to EITC Kink 1 and computing the fraction of each sample within each bin. Values for EITC Kink 1 are determined based on filing status, number of qualifying children and tax year. Plot B is also constructed by creating $100 bins of earned income relative to EITC Kink 1 and then computing the fraction within each bin that has the specified audit outcome. Data used in these plots are unweighted. Plots C through F present the fractions of individuals claiming EITC by earnings relative to EITC Kink 1, which is defined as the lowest earned income level necessary to qualify for maximum EITC benefits. Data used in these plots are re-weighted using inverse probability weights.

Department of Treasury
Internal Revenue Service
5333 Getwell Road Stop 822
Memphis, TN 37501-0111

Notice	CP75
Tax year	2016
Notice date	October 15, 2017
Social Security number	999-99-9999
Your Caller ID	99999
To contact us	Phone 1-866-897-0161
Page 1 of 3	

s01899954671s

ERIC D. JOHNSON
123 N HARRIS ST
HARVARD TX 12345

We're auditing your 2016 Form 1040

Supporting documentation requested

We need you to send us information to support items you claimed on your tax return.

We are holding the Earned Income Credit (EIC), and/or the Additional Child Tax Credit (ACTC) portion(s) of your refund pending the results of the audit. If you claimed the Premium Tax Credit (PTC), we may also hold all or a part of your refund due to a discrepancy with your PTC.

Be sure to respond within 30 days from the date of this notice or we'll disallow the items being audited, and you may owe additional tax.

What you need to do immediately

- Review the list of items we're auditing and provide copies of documentation to verify what you claimed on your tax return. See the enclosed forms for complete instructions for what you need to send.
- Complete the Response form at the end of this notice, and mail or fax it to us along with any documentation within 30 days from the date of this notice.
- If you can't get your documentation ready in time, call us at 1-866-897-0161 to discuss your options.

Items that require supporting documentation

To qualify for:

The list below summarizes the items that require supporting documentation. For complete instructions on what to send, see the enclosed forms.

You should:

Premium Tax Credit

Form 1040

- Review the enclosed Form 14950, Premium Tax Credit Verification
- Submit documentation to verify what you claimed on your return.

Appendix Figure 2. Example of CP-79 Notice

Department of the Treasury
Internal Revenue Service
PO Box 149342
Austin, TX 78714-9342

IRS

Notice	CP79
Tax year	2016
Notice date	January 26, 2017
Social security number	Nnn-nn-nnnn
To contact us	Phone: nnn-nnn-nnnn
Your caller ID	
Page 1 of 1	

ERIC D. JOHNSON
123 N HARRIS ST
HARVARD, TX 12345

We denied one or more of the credits claimed on your tax return

We recently denied the following credits you claimed on your 2016 income tax return:

- Earned Income Tax Credit (EIC)
- American Opportunity Tax Credit (AOTC)
- Child Tax Credit or Additional Child Tax Credit (CTC or ACTC)

As a result, the next time you claim the credits listed above, you must complete and attach Form 8862, Information To Claim Earned Income Credit, Child Tax Credit, Additional Child Tax Credit or American Opportunity Tax Credit After Disallowance, to your tax return.

What you need to do

- You don't need to take any action at this time.
- If you claim these credits in the future, make sure you meet all the qualifying rules to get every credit for which you're eligible.
- Keep a copy of this notice for your records.

Claiming the credits on future returns

In the future, if you claim the credits you must submit Form 8862 with your tax return. You will not receive the credits until we receive your Form 8862.

After we receive your Form 8862, we'll review your tax return. We may send you an audit letter asking for additional information to confirm you're eligible for the credits.

If we audit your return and deny the credits, we could impose a two-year ban on your claiming the credits if we find you recklessly or intentionally disregarded the rules. We could impose a ten-year ban if we find you fraudulently claimed the credits.

Additional information

- Visit www.irs.gov/cp79
- For tax forms or publications, visit www.irs.gov/formspubs or call 1-800-TAX-FORM (1-800-829-3676).
- The following publications may be helpful:
    - Publication 596, Earned Income Credit (EIC),
    - Publication 972, Child Tax Credit
    - Publication 970, Tax Benefits for Education

Appendix Figure 3. Example of Form 8862

Form **8862**	**Information To Claim Earned Income Credit**	OMB No. 1545-0074
(Rev. December 2012)	**After Disallowance**	
Department of the Treasury Internal Revenue Service	▶ Attach to your tax return. ▶ Information about Form 8862 and its instructions is at www.irs.gov/form8862.	Attachment Sequence No. **43A**

Name(s) shown on return	Your social security number

Before you begin:
- ✓ See your tax return instructions or **Pub. 596**, Earned Income Credit (EIC), for the year for which you are filing this form to make sure you can take the earned income credit (EIC) **and** to find out who is a qualifying child.
- ✓ If you have a qualifying child, complete **Schedule EIC** before you fill in this form.
- ✓ **Do not** file this form if you are taking the EIC without a qualifying child **and** the only reason your EIC was reduced or disallowed in the earlier year was because it was determined that a child listed on **Schedule EIC** was not your qualifying child.

Part I   All Filers

1. Enter the year for which you are filing this form (for example, 2012) . . . . ▶ ☐☐☐☐

2. If the **only** reason your EIC was reduced or disallowed in the earlier year was because you incorrectly reported your earned income or investment income, check "Yes." Otherwise, check "No" . . . . . ▶ ☐ Yes   ☐ No

   Caution. If you checked "Yes," stop. Do not fill in the rest of this form. But you must attach it to your tax return to take the EIC. If you checked "No," continue.

3. Could you (or your spouse if filing jointly) be claimed as a qualifying child of another taxpayer for the year shown on line 1? See the instructions before answering . . . . ▶ ☐ Yes   ☐ No

   Caution. If you checked "Yes," **stop.** You cannot take the EIC. If you checked "No," continue.

Part II   Filers With a Qualifying Child or Children

Note. Child 1, Child 2, and Child 3 are the same children you listed as Child 1, Child 2, and Child 3 on **Schedule EIC** for the year shown on line 1 above.

4. Enter the **number of days** each child lived with you in the United States during the year shown on line 1 above:

   a. Child 1 ▶ ☐☐☐   b. Child 2 ▶ ☐☐☐   c. Child 3 ▶ ☐☐☐

   Caution. If you entered less than **183** (184 if the year on line 1 is a leap year) for any child, you cannot take the EIC based on that child, unless the special rule for a child who was born or died during the year shown on line 1 applies. See the instructions.

5. If your child was born or died during the year shown on line 1, enter the month and day the child was born and/or died. Otherwise, skip this line.

   a. Child 1 ▶ (1) Month and day of birth (MM/DD) ▶ ☐☐/☐☐   (2) Month and day of death (MM/DD) ▶ ☐☐/☐☐
   b. Child 2 ▶ (1) Month and day of birth (MM/DD) ▶ ☐☐/☐☐   (2) Month and day of death (MM/DD) ▶ ☐☐/☐☐
   c. Child 3 ▶ (1) Month and day of birth (MM/DD) ▶ ☐☐/☐☐   (2) Month and day of death (MM/DD) ▶ ☐☐/☐☐

6. Enter the address where you and the child lived together during the year shown on line 1. If you lived with the child at more than one address during the year, attach a list of the addresses where you lived:

   a. Child 1 ▶ Number and street _____
      City or town, state, and ZIP code _____

   b. Child 2 ▶ If same as shown for child 1, check this box. ▶ ☐   Otherwise, enter below:
      Number and street _____
      City or town, state, and ZIP code _____

   c. Child 3 ▶ If same as shown for child 1, check this box. ▶ ☐   Or if same as shown for child 2 (and this is different from address shown for child 1), check this box. ▶ ☐   Otherwise, enter below:
      Number and street _____
      City or town, state, and ZIP code _____

7. Did any other person (except your spouse, if filing jointly, and your dependents under age 19) live with child 1, child 2, or child 3 for more than half the year shown on line 1? . . . . ▶ ☐ Yes   ☐ No

   If "Yes," enter that person's name and relationship to the child below. If more than one other person lived with the child for more than half the year, attach a list of each person's name and relationship to the child:

   a. Other person living with child 1:   Name _____
      Relationship to child 1 _____

   b. Other person living with child 2:   If same as shown for child 1, check this box. ▶☐ Otherwise, enter below:
      Name _____
      Relationship to child 2 _____

   c. Other person living with child 3:   If same as shown for child 1, check this box. ▶☐ Or if same as shown for child 2 (and this is different from the person living with child 1), check this box. ▶☐
      Otherwise, enter below:
      Name _____
      Relationship to child 3 _____

   Caution. The IRS may ask you to provide additional information to verify your eligibility to claim the EIC.

For Paperwork Reduction Act Notice, see page 3.   Cat. No. 25145E   Form **8862** (Rev. 12-2012)

Appendix Figure 4.
Example of IRS Letter 2205-B for Research (NRP) Audits

Department of the Treasury
Internal Revenue Service

IRS

Date:

Taxpayer ID number (last 4 digits):

Form:

Tax period ended:

Person to contact:

Contact telephone number:

Contact fax number:

Employee ID number:

Dear [enter Name]:

Your federal income tax return for the year shown above was selected at random for a compliance research examination. We must examine randomly-selected tax returns to better understand tax compliance and improve the fairness of the tax system. We'll give you the opportunity to explain any errors we may find during the examination.

The results of this and other compliance research examinations will improve our efforts to help taxpayers understand and follow the tax law. It will also reduce unnecessary and costly examinations, and reduce burden on taxpayers. Please read the enclosed Notice 1332, *Why Your Return is Being Examined*.

What you need to do
Please call me on or before [insert date]. You may contact me from [insert time] to [insert time] at the telephone number provided above.

What we will discuss
During our telephone conversation, we will discuss:
- Items on your return that I will be examining.
- Types of documents I will ask you to provide.
- The examination process.
- Any concerns or questions you may have.
- The date, time and agenda for our first meeting.

Someone may represent you
You may have someone represent you during any part of this examination. If you decide you want representation, the representative you authorize will need a completed Form(s) 2848, *Power of Attorney and Declaration of Representative*, before we can discuss any of your tax matters.

If you choose to have someone represent you, please provide a completed Form 2848 by our first appointment. You can mail or fax the form to me or have your representative provide it at the first appointment, if you won't be present. You can obtain Form 2848 from our office, from our web site, www.irs.gov or by calling (800) 829-3676.

Letter 2205-B (Rev. 3-2017)
Catalog Number 38759Y

If you filed a joint return, you and your spouse may attend the examination. If you and/or your spouse choose not to attend with your representative, you must provide completed Form(s) 2848. You should provide a separate Form 2848 for each spouse if you filed jointly even if you use the same representative.

Your rights as a taxpayer
We have enclosed Publication 1, *Your Rights as a Taxpayer* and Notice 609, *Privacy Act Notice*. The Declaration of Taxpayer Rights found in Publication 1 discusses general rules and procedures we follow in examinations. It explains what happens before, during, and after an examination, and provides additional sources of information.

A video presentation, "Your Guide to an IRS Audit," is available at http://www.irsvideos.gov/audit. The video explains the examination process and will assist you in preparing for your audit.

Thank you for your cooperation and I look forward to hearing from you by [insert date].

Sincerely,

[Name]
[Title]

Enclosures:
Publication 1
Publication 4134, Low Income Taxpayer Clinic List
Notice 609
Notice 1332

Appendix Figure 5.
Example of IRS Notice 1332 for Research (NRP) Audits

Why Your Return is Being Examined

Your return was selected at random for a compliance research examination. We usually select returns for general examinations because there is some indication that the return is incorrect. We also randomly select returns for compliance research examinations in order to gather data for use throughout the Service to improve our tax system. We recognize that taxpayers who consistently meet all of their tax obligations bear their fair share of the overall tax burden. Our mission, however, includes examining enough tax returns to ensure that the federal tax system is administered fairly and that any errors on the examined returns will be corrected.

The random selection of your return does not mean it contains errors, but allows the IRS to collect information in a statistically valid manner about how taxpayers meet their tax responsibilities. This information will help us determine what changes to IRS forms, publications, and tax laws may improve voluntary compliance. It will also be used to guide improvements to how the tax laws are enforced, and to programs designed to help taxpayers understand and comply with the tax laws. All this improves the fairness of the tax system.

There may not be any errors in your return; however, if there are, we will tell you and give you a chance to explain them. If you overpaid your tax, we will send you a refund plus interest. If any tax is due, we will ask you to pay it plus any penalties and interest due as required by law.

It is to the advantage of all taxpayers that everyone pays their fair share of taxes in accordance with the laws enacted by Congress. We appreciate your cooperation with the examination of your return.

Department of the Treasury
Internal Revenue Service

Notice 1332 (Rev. 1-2007)
Catalog Number 38915Y

www.irs.gov

Appendix Figure 6.
Heterogeneity in Effects on EITC Claiming
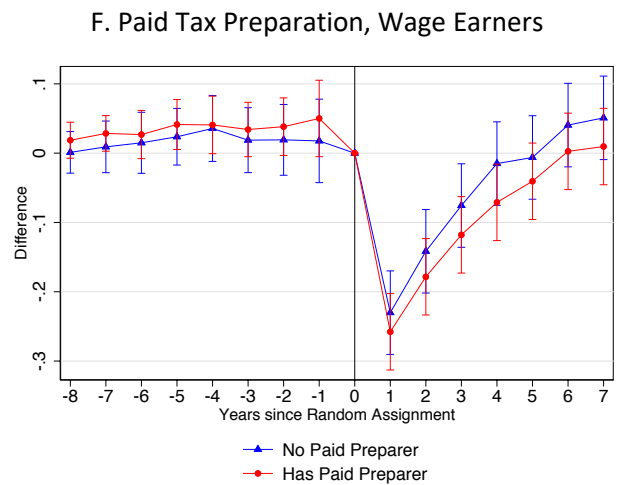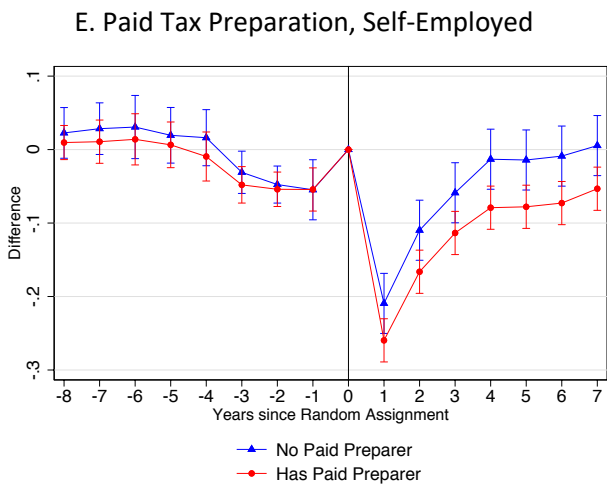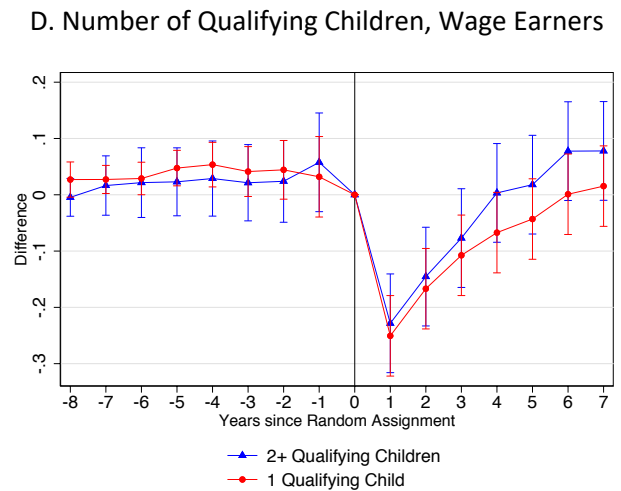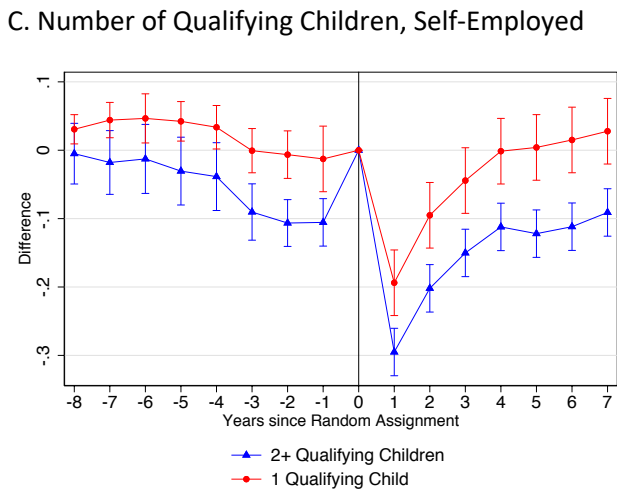
A. Gender, Self-Employed

B. Gender, Wage Earners

C. Number of Qualifying Children, Self-Employed

D. Number of Qualifying Children, Wage Earners

E. Paid Tax Preparation, Self-Employed

F. Paid Tax Preparation, Wage Earners

Notes: Each plot illustrates estimated regression coefficients from regressing the outcome variable specified in the plot title on event time dummies, an indicator for being an audited individual, interactions between the event time dummies and the audited indicator. The difference estimates refer to the estimated coefficients on the event time dummies interacted with the audited indicator. Data used in the regressions is re-weighted using inverse probability weights. Standard errors are clustered based on tax year and audit assignment group (audited or non-audited) and the year of selection.

Appendix Figure 6. (continued)
Heterogeneity in Effects on EITC Claiming
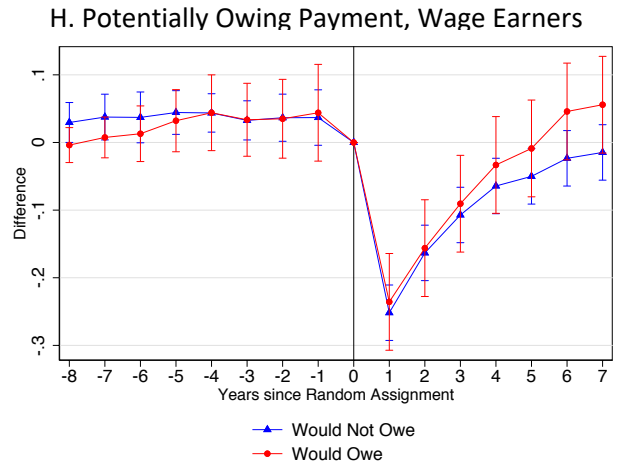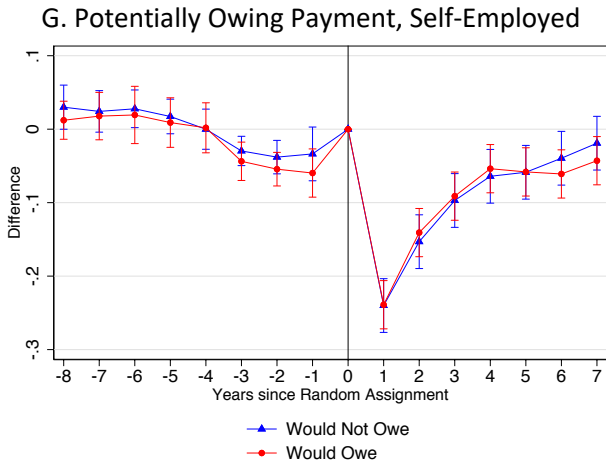
G. Potentially Owing Payment, Self-Employed

H. Potentially Owing Payment, Wage Earners

Notes: Each plot illustrates estimated regression coefficients from regressing the outcome variable specified in the plot title on event time dummies, an indicator for being an audited individual, interactions between the event time dummies and the audited indicator. The difference estimates refer to the estimated coefficients on the event time dummies interacted with the audited indicator. Data used in the regressions is re-weighted using inverse probability weights. Standard errors are clustered based on tax year and audit assignment group (audited or non-audited) and the year of selection. Potentially owing a payment refers to whether W-2 withholding exceeds tax liability (would not owe) or not (would owe).

Appendix Table 1: Impacts of EITC Correspondence Audits,
Difference-in-Difference Estimates as Fractions of Nonaudited Means

	A. Self-Employed			
Dep. Var =	EITC Claiming	Filing Tax Return	Tax Refund	Return Flagged
1 Year After Audit	-0.374	-0.224	-0.495	-0.628
	(0.029)	(0.035)	(0.053)	(0.036)
2 Years After Audit	-0.240	-0.118	-0.353	-0.476
	(0.042)	(0.043)	(0.070)	(0.046)
3 Years After Audit	-0.144	-0.056	-0.310	-0.349
	(0.053)	(0.044)	(0.086)	(0.066)
4 Years After Audit	-0.060	-0.002	-0.174	-0.215
	(0.079)	(0.058)	(0.097)	(0.108)
5 Years After Audit	-0.067	-0.007	-0.202	-0.193
	(0.086)	(0.064)	(0.106)	(0.096)
6 Years After Audit	-0.059	-0.004	-0.178	-0.215
	(0.092)	(0.078)	(0.106)	(0.139)
7 Years After Audit	-0.007	-0.029	-0.099	-0.100
	(0.129)	(0.083)	(0.183)	(0.232)

	B. Wage Earners			
	EITC Claiming	Filing Tax Return	Tax Refund	Return Flagged
1 Year After Audit	-0.508	-0.176	-0.540	-0.668
	(0.038)	(0.046)	(0.052)	(0.031)
2 Years After Audit	-0.423	-0.142	-0.381	-0.552
	(0.047)	(0.048)	(0.091)	(0.052)
3 Years After Audit	-0.335	-0.095	-0.372	-0.424
	(0.058)	(0.063)	(0.071)	(0.068)
4 Years After Audit	-0.228	-0.015	-0.231	-0.302
	(0.074)	(0.068)	(0.084)	(0.106)
5 Years After Audit	-0.183	-0.022	-0.104	-0.195
	(0.077)	(0.072)	(0.157)	(0.156)
6 Years After Audit	-0.035	-0.136	-0.037	-0.028
	(0.133)	(0.111)	(0.126)	(0.134)
7 Years After Audit	-0.003	-0.191	-0.033	-0.074
	(0.114)	(0.102)	(0.140)	(0.153)

Notes: Estimates are based on regression coefficients from regressing the outcome variable specified in the column heading on event time dummies, an indicator for being an audited individual, and interactions between the event time dummies and the audited indicator. Data used in the regressions is re-weighted using inverse probability weights. Standard errors are clustered based on tax year and audit assignment group (audited or non-audited) and the year of selection. The estimated coefficients on the event time dummies are divided by the means of the dependent variable at the corresponding event time for the nonaudited group.

Appendix Table 2: Impacts of EITC Correspondence Audits on Distributions of Wage Earnings
Difference-in-Difference Estimates by Wage Bin (columns) and Event Time (Rows)

A. Self-Employed

	$0	$5,000	$10,000	$15,000	$20,000	$25,000	$30,000	$35,000	$40,000
1 Year After Audit	0.002	0.007	0.002	-0.001	-0.002	0.000	-0.001	-0.002	-0.004
	(0.023)	(0.007)	(0.004)	(0.003)	(0.002)	(0.003)	(0.003)	(0.002)	(0.003)
2 Years After Audit	-0.009	0.010	0.008	0.002	-0.001	-0.002	-0.001	-0.001	-0.006
	(0.022)	(0.006)	(0.004)	(0.003)	(0.003)	(0.003)	(0.002)	(0.002)	(0.004)
3 Years After Audit	-0.013	0.007	0.007	0.004	0.002	0.000	0.000	0.000	-0.007
	(0.022)	(0.006)	(0.004)	(0.003)	(0.004)	(0.003)	(0.003)	(0.002)	(0.005)
4 Years After Audit	-0.023	0.006	0.006	0.004	0.003	0.002	0.003	0.002	-0.004
	(0.018)	(0.007)	(0.004)	(0.003)	(0.003)	(0.002)	(0.002)	(0.001)	(0.005)
5 Years After Audit	-0.013	0.002	0.003	0.001	0.000	0.003	0.002	0.001	0.001
	(0.016)	(0.006)	(0.004)	(0.002)	(0.002)	(0.002)	(0.002)	(0.001)	(0.005)
6 Years After Audit	-0.015	0.005	0.000	0.000	-0.001	0.002	0.004	0.004	0.001
	(0.023)	(0.010)	(0.004)	(0.004)	(0.003)	(0.001)	(0.002)	(0.002)	(0.006)
7 Years After Audit	-0.026	0.008	0.006	0.002	0.001	0.005	0.005	0.002	-0.002
	(0.036)	(0.007)	(0.008)	(0.003)	(0.007)	(0.004)	(0.003)	(0.002)	(0.007)

B. Wage Earners

	0	$5,000	$10,000	$15,000	$20,000	$25,000	$30,000	$35,000	$40,000
1 Year After Audit	0.034	0.000	-0.002	0.002	-0.005	-0.004	-0.007	-0.006	-0.013
	(0.049)	(0.006)	(0.009)	(0.013)	(0.016)	(0.009)	(0.007)	(0.004)	(0.005)
2 Years After Audit	0.026	0.004	0.001	-0.002	-0.002	-0.001	-0.004	-0.008	-0.014
	(0.048)	(0.005)	(0.007)	(0.011)	(0.013)	(0.009)	(0.006)	(0.004)	(0.006)
3 Years After Audit	0.013	0.002	0.000	-0.001	0.004	0.003	-0.002	-0.003	-0.018
	(0.049)	(0.005)	(0.007)	(0.010)	(0.013)	(0.010)	(0.006)	(0.004)	(0.007)
4 Years After Audit	-0.026	-0.001	0.004	0.001	0.014	0.012	0.011	0.000	-0.015
	(0.048)	(0.005)	(0.006)	(0.010)	(0.010)	(0.007)	(0.007)	(0.005)	(0.010)
5 Years After Audit	-0.041	0.000	0.004	0.000	0.013	0.014	0.013	0.003	-0.006
	(0.051)	(0.004)	(0.006)	(0.010)	(0.013)	(0.008)	(0.006)	(0.006)	(0.010)
6 Years After Audit	-0.092	0.001	0.002	0.007	0.024	0.024	0.024	0.009	0.001
	(0.041)	(0.005)	(0.005)	(0.006)	(0.007)	(0.006)	(0.008)	(0.007)	(0.015)
7 Years After Audit	-0.113	-0.002	0.000	0.003	0.028	0.028	0.031	0.015	0.012
	(0.046)	(0.005)	(0.005)	(0.004)	(0.006)	(0.010)	(0.010)	(0.009)	(0.014)

Notes: Each column represents a separate regression. Estimates are based on regression coefficients from regressing an indicator variable for having wages in the wage bin specified in the column heading on event time dummies, an indicator for being an audited individual, interactions between the event time dummies and audited indicator. Wage bins are computed as $5000 earnings bins which are centered around the values given in the headings. Data used in the regressions are re-weighted using inverse probability weighting. Standard errors are clustered based on tax year and audit assignment group (audited or non-audited) and the year of selection.

Appendix Table 3: Impacts of EITC Correspondence Audits on Distributions of Wage Earnings
Difference-in-Difference Estimates by Wage Bin (columns) and Event Time (Rows)

A. Wage Earners with W-2 in Year of Selection

	$0	$5,000	$10,000	$15,000	$20,000	$25,000	$30,000	$35,000	$40,000
1 Year After Audit	0.044	-0.002	-0.003	0.002	-0.006	-0.005	-0.008	-0.007	-0.015
	(0.021)	(0.006)	(0.006)	(0.010)	(0.013)	(0.007)	(0.008)	(0.006)	(0.007)
2 Years After Audit	0.039	0.002	0.000	-0.003	-0.003	-0.003	-0.005	-0.009	-0.018
	(0.023)	(0.005)	(0.005)	(0.008)	(0.010)	(0.007)	(0.006)	(0.005)	(0.008)
3 Years After Audit	0.033	0.002	-0.002	-0.004	0.002	0.001	-0.004	-0.004	-0.024
	(0.022)	(0.005)	(0.004)	(0.007)	(0.010)	(0.008)	(0.005)	(0.005)	(0.008)
4 Years After Audit	0.026	-0.005	0.000	-0.005	0.010	0.006	0.005	-0.006	-0.030
	(0.022)	(0.004)	(0.004)	(0.007)	(0.008)	(0.004)	(0.005)	(0.005)	(0.010)
5 Years After Audit	0.021	-0.002	-0.001	-0.005	0.006	0.007	0.004	-0.004	-0.025
	(0.021)	(0.004)	(0.004)	(0.008)	(0.010)	(0.005)	(0.005)	(0.005)	(0.011)
6 Years After Audit	0.012	-0.003	-0.004	0.001	0.014	0.011	0.011	-0.006	-0.037
	(0.025)	(0.005)	(0.004)	(0.005)	(0.005)	(0.005)	(0.007)	(0.006)	(0.013)
7 Years After Audit	0.015	-0.006	-0.006	-0.005	0.015	0.015	0.014	-0.002	-0.039
	(0.029)	(0.004)	(0.005)	(0.004)	(0.005)	(0.010)	(0.009)	(0.008)	(0.012)

B. Wage Earners with No W-2 in Year of Selection

	0	$5,000	$10,000	$15,000	$20,000	$25,000	$30,000	$35,000	$40,000
1 Year After Audit	0.002	0.008	0.005	-0.001	-0.008	-0.003	-0.001	-0.001	-0.001
	(0.025)	(0.009)	(0.005)	(0.005)	(0.004)	(0.003)	(0.002)	(0.001)	(0.003)
2 Years After Audit	-0.012	0.012	0.007	-0.002	-0.002	0.001	-0.001	-0.003	0.000
	(0.024)	(0.007)	(0.005)	(0.005)	(0.004)	(0.003)	(0.002)	(0.002)	(0.004)
3 Years After Audit	-0.024	0.005	0.007	0.008	0.003	0.003	0.000	-0.002	-0.001
	(0.028)	(0.008)	(0.005)	(0.005)	(0.005)	(0.004)	(0.002)	(0.002)	(0.005)
4 Years After Audit	-0.037	0.016	0.004	0.006	0.001	0.005	0.002	0.002	0.001
	(0.033)	(0.010)	(0.006)	(0.007)	(0.004)	(0.004)	(0.004)	(0.001)	(0.006)
5 Years After Audit	-0.039	0.010	0.010	-0.003	0.008	0.001	0.007	0.002	0.004
	(0.037)	(0.009)	(0.006)	(0.007)	(0.007)	(0.005)	(0.002)	(0.003)	(0.006)
6 Years After Audit	-0.044	0.012	0.002	-0.002	0.004	0.008	0.008	0.004	0.009
	(0.024)	(0.007)	(0.005)	(0.005)	(0.002)	(0.005)	(0.003)	(0.002)	(0.006)
7 Years After Audit	-0.064	0.012	0.002	-0.006	0.012	0.007	0.017	0.003	0.017
	(0.021)	(0.008)	(0.004)	(0.003)	(0.003)	(0.005)	(0.004)	(0.002)	(0.002)

Notes: Each column represents a separate regression. Estimates are based on regression coefficients from regressing an indicator variable for having wages in the wage bin specified in the column heading on event time dummies, an indicator for being an audited individual, interactions between the event time dummies and audited indicator. Wage bins are computed as $5000 earnings bins which are centered around the values given in the headings. Data used in the regressions are re-weighted using inverse probability weighting. Standard errors are clustered based on tax year and audit assignment group (audited or non-audited) and the year of selection.

Appendix Table 4: Impacts of EITC Correspondence Audits on Tax and Employment Outcomes, Heterogeneity by Quintile of Probability of Audit

A. Dependent Variable = EITC Claiming

	Self-Employed			Wage Earners with W-2 in Year of Selection			Wage Earners with No W-2 in Year of Selection		
	Lower Quintile	Middle Quintile	Higher Quintile	Lower Quintile	Middle Quintile	Higher Quintile	Lower Quintile	Middle Quintile	Higher Quintile
1 Year After Audit	-0.348	-0.161	-0.029	-0.470	-0.247	-0.079	-0.397	-0.161	-0.024
	(0.050)	(0.050)	(0.026)	(0.031)	(0.02)	(0.014)	(0.037)	(0.038)	(0.044)
2 Years After Audit	-0.235	-0.067	0.064	-0.342	-0.140	0.006	-0.239	-0.083	-0.006
	(0.051)	(0.048)	(0.019)	(0.031)	(0.022)	(0.014)	(0.057)	(0.039)	(0.034)
3 Years After Audit	-0.170	-0.022	0.104	-0.255	-0.090	0.045	-0.102	-0.037	0.001
	(0.068)	(0.048)	(0.019)	(0.031)	(0.024)	(0.017)	(0.07)	(0.043)	(0.042)
4 Years After Audit	-0.115	0.004	0.125	-0.204	-0.058	0.079	-0.013	-0.015	0.008
	(0.045)	(0.033)	(0.015)	(0.037)	(0.019)	(0.019)	(0.12)	(0.023)	(0.036)
5 Years After Audit	-0.085	0.026	0.126	-0.175	-0.038	0.109	0.083	0.009	0.017
	(0.048)	(0.028)	(0.025)	(0.025)	(0.02)	(0.025)	(0.046)	(0.024)	(0.031)
6 Years After Audit	-0.067	0.041	0.143	-0.137	-0.016	0.105	-0.006	0.053	0.042
	(0.043)	(0.026)	(0.03)	(0.023)	(0.02)	(0.03)	(0.048)	(0.017)	(0.019)
7 Years After Audit	-0.047	0.041	0.155	-0.122	-0.006	0.114	0.006	0.043	0.024
	(0.028)	(0.040)	(0.045)	(0.021)	(0.013)	(0.017)	(0.024)	(0.017)	(0.017)

B. Dependent Variable = Tax Refunds

	Self-Employed			Wage Earners with W-2 in Year of Selection			Wage Earners with No W-2 in Year of Selection		
	Lower Quintile	Middle Quintile	Higher Quintile	Lower Quintile	Middle Quintile	Higher Quintile	Lower Quintile	Middle Quintile	Higher Quintile
1 Year After Audit	-2083.016	-800.679	-303.918	-2774.301	-1354.931	-502.497	-2655.803	-965.638	-239.115
	(326.384)	(318.210)	(176.770)	(206.034)	(114.93)	(90.073)	(287.217)	(223.89)	(416.85)
2 Years After Audit	-1479.307	-326.774	141.624	-2013.506	200.239	-59.496	-1688.762	-603.406	-400.708
	(331.638)	(277.570)	(180.556)	(178.184)	(1063.136)	(96.385)	(317.653)	(249.436)	(539.028)
3 Years After Audit	-2125.520	-33.714	333.407	-1506.984	-561.875	98.028	-964.624	-335.461	60.555
	(626.621)	(283.347)	(183.558)	(156.09)	(115.339)	(110.67)	(306.924)	(168.771)	(241.344)
4 Years After Audit	-848.384	113.729	479.813	-1181.991	-379.071	294.999	-327.914	-232.369	216.652
	(285.352)	(244.557)	(135.841)	(176.78)	(105.824)	(75.758)	(608.417)	(100.108)	(191.31)
5 Years After Audit	-821.973	200.998	487.809	-66.934	-302.247	368.800	138.789	-63.519	253.851
	(237.560)	(181.700)	(164.536)	(1115.104)	(106.333)	(82.846)	(211.494)	(120.475)	(166.915)
6 Years After Audit	-592.575	294.234	597.086	-883.454	-151.051	359.351	-322.793	199.309	220.787
	(356.548)	(183.753)	(169.006)	(139.468)	(81.945)	(173.26)	(280.317)	(97.549)	(150.742)
7 Years After Audit	-404.951	299.739	666.908	-867.319	-80.514	308.112	-59.485	173.003	259.903
	(135.966)	(236.857)	(198.559)	(125.859)	(76.171)	(61.72)	(152.656)	(66.095)	(128.771)

C. Dependent Variable = Has Wage Employment

	Self-Employed			Wage Earners with W-2 in Year of Selection			Wage Earners with No W-2 in Year of Selection		
	Lower Quintile	Middle Quintile	Higher Quintile	Lower Quintile	Middle Quintile	Higher Quintile	Lower Quintile	Middle Quintile	Higher Quintile
1 Year After Audit	-0.041	-0.018	0.041	-0.085	-0.030	-0.011	-0.082	-0.017	0.064
	(0.030)	(0.029)	(0.025)	(0.02)	(0.024)	(0.019)	(0.038)	(0.032)	(0.057)
2 Years After Audit	-0.035	0.000	0.050	-0.071	-0.008	0.019	-0.065	-0.011	0.062
	(0.029)	(0.029)	(0.024)	(0.021)	(0.025)	(0.02)	(0.039)	(0.035)	(0.06)
3 Years After Audit	-0.034	0.011	0.055	-0.061	0.000	0.022	-0.020	-0.007	0.051
	(0.025)	(0.028)	(0.024)	(0.022)	(0.025)	(0.018)	(0.047)	(0.034)	(0.061)
4 Years After Audit	-0.031	0.009	0.051	-0.052	0.007	0.028	0.002	0.018	0.098
	(0.030)	(0.030)	(0.024)	(0.022)	(0.025)	(0.02)	(0.066)	(0.032)	(0.054)
5 Years After Audit	-0.024	0.019	0.036	-0.051	0.007	0.040	0.044	0.031	0.081
	(0.026)	(0.022)	(0.018)	(0.021)	(0.025)	(0.021)	(0.029)	(0.031)	(0.055)
6 Years After Audit	-0.019	0.020	0.036	-0.044	0.021	0.064	0.000	0.062	0.112
	(0.029)	(0.028)	(0.021)	(0.022)	(0.028)	(0.022)	(0.031)	(0.042)	(0.053)
7 Years After Audit	-0.014	0.019	0.064	-0.038	0.022	0.039	0.057	0.053	0.096
	(0.021)	(0.019)	(0.018)	(0.02)	(0.023)	(0.022)	(0.027)	(0.027)	(0.051)

Notes: Estimates are based on regression coefficients from regressing the outcome variable specified in the column heading on event time dummies, an indicator for being an audited individual, interactions between the event time dummies and audited indicator. Data used in the regressions is re-weighted using inverse probability weights. Standard errors are clustered based on tax year and audit assignment group (audited or non-audited) and the year of selection. Quintiles are constructed based on estimated probabilities of being audited (propensity scores).

Appendix Table 5: Impacts of EITC Correspondence Audits on Qualifying Child Outcomes,
Heterogeneity by Quintile of Probability of Audit

A. Dependent Variable = Qualifying Child Claimed by Selected Taxpayer

	Self-Employed			Wage Earners		
	Lower Quintile	Middle Quintile	Higher Quintile	Lower Quintile	Middle Quintile	Higher Quintile
1 Year After Audit	-0.277	-0.118	-0.061	-0.369	-0.189	-0.079
	(0.040)	(0.048)	(0.03)	(0.029)	(0.017)	(0.022)
2 Years After Audit	-0.170	-0.046	-0.009	-0.247	-0.099	-0.031
	(0.040)	(0.042)	(0.024)	(0.027)	(0.015)	(0.017)
3 Years After Audit	-0.106	-0.017	0.012	-0.169	-0.062	-0.006
	(0.044)	(0.039)	(0.022)	(0.033)	(0.015)	(0.015)
4 Years After Audit	-0.072	-0.003	0.018	-0.124	-0.043	0.004
	(0.053)	(0.038)	(0.022)	(0.029)	(0.013)	(0.014)
5 Years After Audit	-0.030	0.004	0.022	-0.090	-0.026	0.011
	(0.042)	(0.036)	(0.022)	(0.021)	(0.011)	(0.014)
6 Years After Audit	-0.024	0.004	0.025	-0.072	-0.021	0.012
	(0.040)	(0.022)	(0.027)	(0.022)	(0.011)	(0.014)
7 Years After Audit	-0.029	0.000	0.027	-0.049	-0.011	0.018
	(0.049)	(0.023)	(0.03)	(0.015)	(0.009)	(0.009)

B. Dependent Variable = Qualifying Child Claimed by Any Taxpayer

	Self-Employed			Wage Earners		
	Lower Quintile	Middle Quintile	Higher Quintile	Lower Quintile	Middle Quintile	Higher Quintile
1 Year After Audit	-0.189	-0.102	-0.060	-0.186	-0.165	0.026
	(0.024)	(0.047)	(0.045)	(0.019)	(0.025)	(0.044)
2 Years After Audit	-0.128	-0.048	-0.003	-0.120	-0.111	0.081
	(0.025)	(0.050)	(0.044)	(0.02)	(0.026)	(0.047)
3 Years After Audit	-0.094	-0.025	0.019	-0.082	-0.088	0.110
	(0.030)	(0.051)	(0.043)	(0.018)	(0.031)	(0.052)
4 Years After Audit	-0.084	-0.013	0.030	-0.065	-0.077	0.117
	(0.039)	(0.051)	(0.043)	(0.024)	(0.039)	(0.054)
5 Years After Audit	-0.065	-0.005	0.021	-0.051	-0.060	0.142
	(0.019)	(0.028)	(0.049)	(0.028)	(0.032)	(0.064)
6 Years After Audit	-0.059	-0.006	0.022	-0.060	-0.061	0.173
	(0.020)	(0.025)	(0.062)	(0.036)	(0.038)	(0.066)
7 Years After Audit	-0.066	-0.003	0.025	-0.016	-0.010	0.257
	(0.023)	(0.022)	(0.057)	(0.011)	(0.012)	(0.046)

C. Dependent Variable = Qualifying Child on Flagged Return

	Self-Employed			Wage Earners		
	Lower Quintile	Middle Quintile	Higher Quintile	Lower Quintile	Middle Quintile	Higher Quintile
1 Year After Audit	-0.228	-0.065	-0.038	-0.223	-0.082	0.005
	(0.033)	(0.041)	(0.029)	(0.028)	(0.03)	(0.023)
2 Years After Audit	-0.107	0.003	0.015	-0.115	-0.031	0.050
	(0.033)	(0.030)	(0.023)	(0.028)	(0.023)	(0.02)
3 Years After Audit	-0.054	0.026	0.030	-0.043	-0.011	0.074
	(0.031)	(0.032)	(0.027)	(0.021)	(0.026)	(0.024)
4 Years After Audit	-0.034	0.038	0.032	-0.019	-0.006	0.064
	(0.036)	(0.029)	(0.024)	(0.032)	(0.033)	(0.025)
5 Years After Audit	-0.015	0.042	0.028	-0.009	-0.001	0.074
	(0.026)	(0.016)	(0.030)	(0.016)	(0.019)	(0.025)
6 Years After Audit	-0.013	0.029	0.017	-0.013	-0.004	0.092
	(0.024)	(0.017)	(0.031)	(0.028)	(0.032)	(0.02)
7 Years After Audit	-0.014	0.027	0.024	0.015	0.015	0.099
	(0.018)	(0.017)	(0.038)	(0.008)	(0.018)	(0.019)

Notes: Estimates are based on regression coefficients from regressing the outcome variable specified in the column heading on event time dummies, an indicator for being an audited individual, interactions between the event time dummies and audited indicator. Data used in the regressions is re-weighted using inverse probability weights. Standard errors are clustered based on tax year and audit assignment group (audited or non-audited) and the year of selection. Quintiles are constructed based on estimated probabilities of being audited (propensity scores).