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TEACHING THE TAX CODE:
EARNINGS RESPONSES TO AN EXPERIMENT WITH EITC RECIPIENTS

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ABSTRACT

This paper tests whether providing information about the Earned Income Tax Credit (EITC) affects EITC recipients' labor supply and earnings decisions. We conducted a randomized experiment with 43,000 EITC recipients at H&R Block in which tax preparers gave simple, personalized information about the EITC schedule to half of their clients. We find no significant effects of information provision on earnings in the subsequent year in the full sample. Further exploration uncovers evidence of heterogeneous treatment effects on both self-employment income and wage earnings across the 1,461 tax professionals who assisted the clients involved in the experiment.We conclude that providing information about tax incentives through tax preparers does not systematically affect earnings on average. However, tax preparers may be able to influence their client's earnings decisions by providing advice about how to respond to tax incentives.

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1 Introduction

A growing body of evidence suggests that individuals are not fully informed about the tax and transfer policies relevant for economic choices (e.g., de Bartolome 1995, Duflo et al. 2006, Chetty, Looney, and Kroft 2009, Bettinger et al. 2009, Jones 2010, Liebman and Luttmer, 2011). One natural hypothesis in light of this evidence is that policies that provide information about incentives would enable individuals to make better choices. In this paper, we test whether teaching individuals about the tax code affects labor supply choices using a randomized field experiment with Earned Income Tax Credit (EITC) clients at H&R Block. The EITC is the largest cash transfer program for low income families in the United States and it generates large marginal subsidies or taxes on the earnings of recipients (Figure 1). Survey evidence shows that the marginal incentive structure of the EITC is not well understood by eligible tax filers. Most low-income families have heard about the EITC and know that working is associated with getting a tax refund check when they file their taxes. But very few recipients know whether working more would increase or reduce their EITC amount (Liebman 1998, Romich and Weisner 2002), perhaps because of the program's complexity. The lack of information could potentially explain why the EITC induces small responses along the intensive margin (hours worked and earnings), despite increasing substantially labor force participation (Hotz and Scholz 2003).

We evaluate the impacts of information provision using a randomized experiment that provided information about the EITC to eligible tax filers and tracked the effect of this intervention on their subsequent earnings. The experiment was implemented at 119 H&R Block tax preparation offices in the Chicago metro area in 2007. The experimental population comprised approximately 43,000 tax filers who (a) received EITC payments at one of the 119 H&R Block offices when filing taxes in 2007 and (b) had one or more dependents. Half of these clients were randomly selected to receive a two minute explanation about how the EITC works from their "tax professional," the H&R Block employee assisting them with their tax returns. Tax professionals were trained to use three tools to explain the EITC to their clients: a verbal description, a graph showing the shape of the EITC as a function of earnings, and a table listing the key EITC parameters. Each client was also given tailored advice emphasizing the implications of his marginal incentives conditional on his location in the EITC schedule. For example, clients in the phase-in region were told, "It pays to work more!"

We view our treatment as changing perceptions of marginal incentives around the tax filer's

current location. Survey evidence indicates that most EITC recipients know the size of their current EITC refund, but do not understand the extent to which the EITC varies with their earnings. If the information treatment updates perceptions toward the true EITC schedule and informed tax filers are responsive along the intensive margin, tax filers should change their behavior to increase their EITC refunds. Such behavioral responses should generate a more concentrated earnings distribution around the peak of the EITC schedule.

We analyze the effects of the intervention using data from tax returns filed in 2007 ("year 1") and 2008 ("year 2"). 72% of the clients in the treatment and control groups returned to H&R Block to file their taxes in the post-treatment year, allowing us to conduct a panel study of the effects of the information treatment on earnings. We begin with a simple analysis of treatment effects in the full sample. We find weak evidence ($p = 0.1$) that treated clients have larger increases in EITC amounts from year 1 to year 2 relative to control clients. The effect is more pronounced for those with self-employment income in base year (about 11% of the sample) although this effect is imprecisely estimated and still only marginally significant ($p = 0.1$). The information treatment thus had at best a marginal effect on wage earnings behavior overall. We do not find significant effects when we cut the sample by whether the client was in the phase-in, phase-out, or plateau in the base year. Based on this analysis, we conclude that providing information about the tax code does not have significant impacts on labor supply behavior on average.

Next, we analyze heterogeneity of treatment effects across the 1,461 tax professionals who implemented this experiment. Many tax professionals felt that it was in their clients' best interest to work and earn more irrespective of the EITC's incentive effects and might have framed the phase-out message as an encouragement to work more because the loss in EITC benefits is relatively small.[1] We first document that there is significant ($p < 0.01$) heterogeneity across tax professionals in mean treatment effects on EITC amounts using a non-parametric F test. To characterize the nature of the heterogeneity, we follow the methodology of Duflo et al. (2006). We divide tax professionals into two groups that we label "complying" and "non-complying." To construct these groups, we first define a simple measure of the concentration of the earnings distribution in year 2 – the fraction of returning clients with "middle" incomes

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[1]During focus groups prior to the experiment, several tax professionals argued that clients should always be encouraged to work more because, "you lose $2 of EITC benefits for every $10 you earn, but come out ahead by $8 and possibly become eligible for other credits, so it still pays to work."

(between \$7,000 and \$15,400).[2] For each tax filer i, we define his tax professional as a "complier" if she has a higher fraction of other clients (*excluding* client i) with middle income in the treatment group than the control group. Intuitively, from the perspective of client i, complying tax professionals are those who increase the concentration of the earnings distribution for other clients. Critically, because we exclude client i when defining his tax professional's compliance, there is no correlation between client i's outcome and his tax professional's compliance under the null hypothesis that all tax professionals have zero treatment effects.

For clients of complying tax professionals, the information treatment increases EITC amounts significantly by \$58 on average ($p < 0.01$), or about 3%. The treatment effects are larger for the self-employed, likely due to greater flexibility and reporting effects, as there is no third-party reporting of self-employment income. We also find a significant increase in the concentration of the distribution of wage earnings suggesting that the information intervention induced "real" changes in labor supply behavior for clients treated by complying tax professionals. For clients of non-complying tax professionals, the information treatment does not lead to significant changes in EITC amounts. However, non-complying tax professionals increase their treated client's incomes by \$250 (1.5%) on average ($p < 0.05$). Based on our discussions with tax professionals, we speculate that non-compliers may have used the information to simply encourage clients to aim for a high level of earnings rather than maximize their EITC refunds. The heterogeneity in impacts across tax preparers suggests that labor supply behavior may be influenced not just by information but also by the advice that tax professionals provide when helping to explain the incentives.

We conclude that information provision is not a very effective tool for changing earnings behavior on average, though it might have effects in some subgroups when coupled with advice from tax professionals. The tailored provision of information by expert tax professionals is likely to be a stronger treatment than more easily scalable interventions such as mailings of informational brochures. Hence, our study suggests that policies which disseminate information are not by themselves likely to change earnings behavior significantly.[3] This lesson is consistent

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[2]The upper threshold of \$15,400 is the start of the EITC phase-out range; the lower threshold of \$7000 is chosen to divide the remaining interval into two equal-sized bins. As we describe in the appendix, alternative measures of the concentration of the earnings distribution yield similar results.

[3]An alternative interpretation of our findings is wage earners may be unable to change their earnings in response to information. However, we find that earnings vary substantially across years within households in our sample, partly because EITC claimants tend to hold many temporary jobs for short periods of time. Hence, we believe that adjustment frictions are unlikely to fully explain the lack of response to our information

with recent evidence that information treatments have modest effects in other settings, such as college enrollment (Bettinger et al. 2009) or retirement savings (Beshears et al. 2011). While our results suggest that knowledge about the tax code cannot be easily manipulated with simple information treatments, the spread of knowledge through peer networks or other sources that affect knowledge in more persistent ways could have larger impacts on behavior (Chetty, Friedman, and Saez 2012).

The remainder of the paper is organized as follows. Section 2 provides background on the EITC and the literature on the effects of the program. Section 3 describes the experimental design and data. The main results are presented in Section 4. Section 5 presents results on heterogeneity across tax professionals. Section 6 concludes. Robustness checks and documentation of the materials used in the experiment are provided in the online appendix.

2   Background on the EITC

2.1   Program Structure

The EITC is a refundable tax credit administered through the income tax system. In 2009, the most recent year for which statistics are available, 25.9 million tax filers received a total of $57.7 billion in EITC payments (Internal Revenue Service 2011, Table 2.5). Eligibility for the EITC depends on earnings – defined as wage and salary income and self-employment income – and the number of qualifying children. Qualifying dependents for EITC purposes are relatives who are under age 19 (24 for full time students) or permanently disabled, and reside with the tax filer for at least half the year.[4]

Figure 1A displays the EITC amount as a function of earnings for single and joint tax filers with zero, one, or two or more qualifying dependents in 2007, the year our experiment was conducted. EITC amounts increase substantially with the number of dependents, but the shape of the schedule as a function of earnings is the same in all three cases. EITC amounts first increase linearly with earnings, then plateau over a short income range, and are then reduced linearly and eventually phased out completely. Since the EITC amounts for tax filers with no children dependents are very small (maximum of $428), we excluded them from our experiment,

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intervention, though they could certainly have attenuated its effects.

[4]Only one tax filer can claim an eligible child; for example, in the case of non-married parents, only one parent can claim the child.

focusing only on tax filers with one or more children.

In the phase-in region, the subsidy rate is 34 percent for taxpayers with one child and 40 percent for taxpayers with two or more children. In the plateau (or peak) region, the EITC is constant and equal to a maximum value of $2,853 and $4,716 for tax filers with 1 and 2+ children, respectively. In the phase-out region, the EITC amount decreases at a rate of 15.98% for filers with 1 child, and 21.06% for those with 2+ children. The EITC is entirely phased-out at earnings equal to $33,241 and $37,783 for single filers with 1 and 2+ children, respectively.[5] See IRS Publication 596 (Internal Revenue Service 2007) for complete details on program eligibility and rules as of 2007.

2.2 Claiming the EITC: Administrative Procedures

To claim the EITC, families file an income tax return that includes an EITC schedule between January 1 and April 15 of the following calendar year. The EITC is received in a single payment as part of the tax refund shortly after filing.[6]

According to the 2004 public use microdata on tax returns, 74% of families with children receiving the EITC use paid tax preparers to file their returns. The largest company in the market for paid tax preparation in the United States is H&R Block. H&R Block has about 13,000 offices located throughout the United States and employs over 100,000 tax professionals during the tax filing season. H&R Block currently prepares about 12% of individual tax returns in the U.S. A substantial fraction of these returns are for EITC claimants, as over half of H&R Block's individual clients have an adjusted gross income (AGI) below $35,000.

To file their tax returns, clients come to an H&R Block office with relevant documents such as their W-2 wage income forms. The client sits with a "tax professional" – the term used to refer to H&R Block employees who prepare tax returns – in front of a computer running the H&R Block Tax Preparation Software (TPS). TPS consists of a series of screens corresponding to the various steps in tax return preparation. At each screen, the tax professional asks questions or inputs information from the forms brought in by the client. The tax preparation process takes about 30 to 45 minutes to complete for a typical EITC client.

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[5]For those who are married and file jointly, the plateau and phase-out regions of the EITC are extended by $2,000 in 2007.

[6]There is an option to receive the EITC in advance during the year through the paycheck, but take-up of this option is extremely low (less than 2%). See Government Accountability Office (2007) and Jones (2010).

2.3 Existing Evidence and Perceptions of EITC

There is a large empirical literature estimating the effects of the EITC on labor supply and earnings. Hotz and Scholz (2003) and Eissa and Hoynes (2006) provide comprehensive surveys. A number of studies have found strong evidence that the EITC increases labor force participation – the extensive margin response.[7] However, there is little evidence that the EITC leads to a change in labor supply for those already in the labor market – the intensive margin.   Most studies find no effects of the EITC on hours of work (see e.g., Meyer and Rosenbaum 1999 and Rothstein 2010). Using tax return data, Saez (2010) finds clear evidence of bunching of EITC recipients at the first kink of the EITC schedule – where the phase-in ends and the plateau starts – for recipients reporting self-employment income. However, there is no bunching for recipients who do not report any self-employment income, who account for 89% of the individuals in our dataset.

The contrast between the strong responses along the extensive margin and small or zero responses along the intensive margin could be explained by a lack of information about the structure of the EITC (Liebman 1998, Hotz and Scholz 2003, p. 182). To respond along the extensive margin, families only need to know that working is associated with a large tax refund. In contrast, responding along the intensive margin requires knowledge about the non-linear marginal incentives created by the three ranges of the EITC displayed in Figure 1A. Surveys of low income families and in-depth interviews of EITC claimants show that there is widespread knowledge about the EITC's existence, but little knowledge about the structure of the EITC (Ross Phillips 2001, Olson and Davis 1994, Romich and Weisner 2002, Smeeding, Ross Phillips, and O'Connor 2002, Maag 2005). These interviews indicate that 60-90% of low income families have heard about the EITC and know that it is a tax refund for working. However, less than 5% of these families know about the non-linear pyramid shape of the EITC as a function of earnings and the location of the kink points.[8]

The lack of knowledge about the EITC's structure is striking given that the program param-

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[7]See e.g., Eissa and Liebman (1996), Meyer and Rosenbaum (2001). Eissa and Hoynes (2004) present complementary evidence of extensive-margin responses in the opposite direction: the labor force participation rate of married women in the phase-out region of the schedule fell slightly when the EITC was expanded. We expect that this extensive-margin response has a small impact on our results because 91% of the tax filers in our sample are single.

[8]Among the 42 families interviewed by Romich and Weisner (2002), 90% had heard of the EITC, but only two families knew that they needed to earn a certain amount to maximize their credit. One of those two families aimed at reporting self employment earnings in order to maximize the credit (p. 378).

eters have been quite stable since 1996. However, it is not surprising in view of the information currently available about the program. To our knowledge, prior to our experiment, the graphical depiction of the EITC schedule shown in Figure 1A could only be found in academic papers. Official Internal Revenue Service publications provide tables that show exact EITC amounts as a function of income and other characteristics, but do not summarize the EITC phase-in, peak, and phase-out structure in a transparent way. For legal reasons, the IRS only distributes comprehensive documents that cover all possible contingencies, making it impossible to highlight the features of the tax code most relevant for a given taxpayer.[9] In addition, none of the existing commercial tax preparation software describes the EITC structure or marginal incentives explicitly.

We conclude from the existing literature that most EITC recipients know the value of their current EITC refund amount, but do not think about the slope of the EITC schedule when making marginal earnings decisions. For such EITC recipients, the local slope created by the EITC is therefore irrelevant in their labor supply decision. It is natural to assume that EITC recipients who do take into account the EITC when choosing their labor supply have unbiased beliefs about the relevant slope. In this case, the average EITC recipient's perception of the EITC schedule is flatter than the actual schedule. More precisely, let $EITC^p(z)$ denote the individual's perceived EITC refund at an earnings level of z and $EITC(z)$ the actual EITC refund at that level of earnings. Let $s^p(z)$ denote the perceived local slope of the EITC schedule and $s(z)$ the actual slope. The existing survey evidence suggests that the representative individual with initial earnings z_0 perceives the relationship between earnings z and his EITC refund to be

$$EITC^p(z) = EITC(z_0) + (1 + s^p(z))(z - z_0) \tag{1}$$

where $|s^p(z)| < |s(z)|$. Figure 1B illustrates the perceived budget constraint in (1) for two tax filers, one in the phase-in range and one in the phase-out range. Such misperceptions about marginal incentives motivate our question of whether improving knowledge (updating $s^p(z)$) could amplify the impacts of the EITC on intensive-margin labor supply.[10]

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[9]For example, the official IRS publication on the EITC intended for the public (Internal Revenue Service, 2007, Publication 596) is 57 pages long and never explicitly mentions the slope parameters of the credit. The publication simply states the EITC amounts in the form of a 7 page table that has 4,770 entries.

[10]There is similar evidence that people are not fully informed about many other aspects of income tax schedules. See Fujii and Hawley (1988) for evidence from the United States, Brown (1968) for the United Kingdom, Bises (1990) for Italy, and Brannas and Karlsson (1996) for Sweden.

3 Experimental Design

We implemented the information-provision experiment in 119 H&R Block offices in the Chicago metropolitan area during the 2007 tax filing season (January 1 to April 15). Clients at these offices who received an EITC with at least one eligible child were randomly assigned into the treatment or control group. Assignment was based on the last 2 digits of the Social Security Number of the primary filer. The probability of treatment assignment was 50 percent. The control group followed the standard tax preparation procedure using the TPS software described above. In the standard preparation procedure, a screen notifies the tax filer of his EITC amount if he is eligible for the EITC. This screen does not explain the structure of the EITC.

The new EITC information materials delivered by tax professionals to clients in the treatment group were developed in a series of steps. We began by interviewing 12 single mothers with recent work experience in the welfare office of San Francisco county in early October 2006. All 12 single mothers had filed tax returns in the past and almost all had heard about the EITC, but none knew about or had seen the graphical depiction of how the EITC varies with earnings. The interviewees found the graphical presentation of the EITC reasonably easy to understand and felt that it made the key features of the EITC very salient. Furthermore, most of the individuals recognized the value of this information for their work decisions and found the take-home messages sensible.[11]

We refined the information materials in a focus group with 15 experienced H&R Block tax professionals and local managers in the Chicago area in late October 2006. Finally, H&R Block's internal staff and legal team edited and approved all the materials used in the experiment. The process described below is the final procedure that resulted from the collaborative effort between the researchers and H&R Block. Note that in all official tax forms as well as in H&R Block materials, the EITC is referred to as the EIC (Earned Income Credit). We follow this convention in the information treatment materials described below.

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[11]For example, one of the interviewees suggested that we visit her housing complex to distribute this information more widely, because her neighbors and friends would find it useful in making overtime and part-time work decisions.

3.1 Information Treatment

For the treatment group, two special "EIC information" screens are displayed automatically in TPS at the end of the tax preparation process.[12] The first screen prompts the tax professional to begin the EIC explanation they were trained to provide and introduces the client to the information outreach program. This introductory screen is shown in Appendix Exhibit I(a) for the case of a single filer with two or more dependents, the case on which we focus below for concreteness. The screen displays the EIC amount the tax filer is getting and describes the goal of the outreach effort, namely to help the client understand how the EIC depends on earnings. The second EIC information screen is displayed in Appendix Exhibit I(b) for a tax filer in the increasing range of the EIC. This screen provides the key EIC information relevant to the tax filer's case, which the tax professional uses to explain the program to the client.

The central element of the explanation procedure is an "EIC handout" paper form that the tax professional fills out with the client and uses as a visual aid to explain the program. There are four EIC handouts based on the tax filer's marital status and dependents: single vs. joint filer and one vs. two or more dependents. Exhibit I shows the EIC handout for the case of a single filer with two or more dependents. The tax professional uses the information on the computer screen to fill in the blanks on the form in the following four steps.

First, the tax professional fills in the income that the client earned in 2006 and the corresponding EIC amount the client is receiving. Second, the tax professional draws a dot on the graph illustrating the client's location on the schedule. He then uses the graph to explain the link between earnings and the EIC amount.

In the third step, the tax professional circles the range of the schedule that the client is in – increasing, peak, or decreasing – and provides some advice corresponding to that range. In the increasing range, the take-home message is "Suppose you earn $10 an hour, then you are really making $14 an hour. It pays to work more!" In the peak range, the message is "Your earnings are maxing-out the EIC amount." In the decreasing range, the message is "If you earn $10 more, your EIC is reduced by $2.10. Earning more reduces your EIC, but you may qualify for additional tax credits."

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[12]This screen appears *after* all the client's tax information has been entered and the tax refund and liability have been calculated. We show below that there is no difference in base year earnings across control and treatments groups, implying that treated tax filers did not go back and change their reported earnings in the base year after getting the EIC information.

The decreasing range message deliberately downplays the work disincentive created by the EITC in the phaseout region. The advice took this form because many managers and tax professionals at H&R Block felt strongly that it was in the best interest of tax filers to work and earn more. Indeed, many tax professionals pitched the message verbally as "You lose $2 of your EIC credit when you earn $10 more, but you still come out ahead by $8 and potentially become eligible for other credits, so working more pays off."[13] The fact that some tax professionals advised clients to aim for a high level of earnings – irrespective of the EITC's effect on incentives – appears to have important effects on the results, as we will see below.

In the fourth step, the tax professional circles the relevant range in the table which displays the exact parameters for the EITC. This table provides an alternative method of showing exactly how much the client can change his earnings before crossing the threshold for the next range. Tax professionals were trained to spend the most time on whichever of the three methods the client appeared to understand best – the verbal, graphical, or tabular descriptions.

After this information explanation is provided and the tax return process is completed, TPS automatically prints an "EIC printout" page that reproduces the information filled out in the handout. Appendix Exhibit II displays an example of the EIC printout. This page is printed at the same time as the tax return and inserted at the top of the packet given to the client to take home. The client is reminded by the tax professional that this information may prove useful when making earnings-related decisions later in the year. The purpose of the printout is to present the EITC information in a clean, accurate format. The temporary handout used to explain the program is kept by the tax professional.

Finally, to reinforce the treatment, H&R Block sent a letter summarizing the EITC information to all treatment-eligible clients in August 2007. Appendix Exhibit III displays an example of this letter.

As with most provisions of the tax code, EITC ranges are mechanically indexed for inflation and therefore differ slightly across the base year and subsequent year. Since our goal was to inform tax filers about the EITC parameters relevant for their subsequent labor supply decisions, the table and graph display the EITC parameters for 2007 earnings and the corresponding EITC that would be received when filing in 2008 (the post-treatment year). The classification of tax

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[13]In some cases, other credits such as the non-refundable portion of the child tax credit do indeed increase with earnings in the EITC phaseout range, mitigating the implicit tax on work. We chose not to explain all aspects of the tax system in our information handout in the interest of simplicity.

filers into the 3 groups – increasing, peak, and decreasing – was also based on the 2007 EITC parameters. As a result, a tax filer who was at the very beginning of the peak range would actually be presented with the increasing scenario that would apply were he to have the same nominal income in 2007. Similarly, a tax filer at the very beginning of the decreasing range would be presented with the peak scenario. Since the IRS inflation rate applied from tax year 2006 to 2007 was relatively small (3.9%), only 4% of taxpayers were located at a point where their current range differed from their predicted range for the following year. Note that the phase-in and phase-out *rates* were unchanged across the years.

3.2   Tax Professional Behavior

The effects of the experiment depend critically on the knowledge and behavior of the tax professionals. There were 1,461 tax professionals involved in the experiment, each of whom had 29 clients in our sample on average (including treatment and control). We trained approximately 100 "office leaders" (senior tax professionals) in November 2006 ourselves, who then trained the rest of the tax professionals during December 2006. The training described the general goal of the outreach effort, why the experimental design required giving information to only half the clients, and explained the changes to the TPS system that would be introduced. A series of case studies with hypothetical clients were used to illustrate various scenarios and how standardized explanations should be provided in the four steps.[14] Field observations in January 2007 confirmed that the EIC information screens and printouts were working as planned and that tax professionals were implementing the experiment as trained.

In pilot sessions, we found that a minimum time of two minutes was required for a coherent explanation of the EITC. To give tax professionals an incentive to administer the information treatment carefully to eligible clients, each tax professional was offered $5 for each eligible client with whom they spent at least two minutes on the EIC information screens (with time tracked by the software). If the tax professional attempted to exit the information screens before two minutes elapsed, the TPS system displayed a warning, "Does your client understand the explanation of how the EIC impacts their tax return?" The system then allowed the tax professional to go back and continue his explanation, resuming the two minute clock. Tax professionals who spent less than two minutes on the information screens did not receive any

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[14]The powerpoint slides and case studies used for training are available from the authors upon request.

compensation for that client. Figure 2 displays a histogram of seconds spent by tax professionals on the EITC screens and shows that there is clear spike at 120 seconds, implying that most tax professionals understood and responded to the compensation structure. The average time spent on the information screens conditional on reaching 120 seconds is 3.5 minutes.

Overall, 73% of tax filers whom we intended to treat were treated for at least two minutes. A substantial fraction of the variance in compliance rates is explained by office fixed effects, presumably due to variations in training. Most offices had very high compliance. However, one large office had a two-minute treatment rate of 6%, 11 percentage points below the next lowest office. We believe this exceptionally low treatment rate arose from a failure to hold the planned training sessions. Since the treatment was effectively not implemented at this office, we exclude it from the analysis below.[15]

The decision to offer a 2+ minute EITC explanation to eligible clients may have depended on the client's interest in the information. Since a client's interest is not random, we follow standard practice in the experimental literature and estimate "intent-to-treat" effects – comparing outcomes of those eligible and ineligible to receive the information explanation.

To supplement the statistics on compliance rates, we directly assessed the tax professionals' reactions to the experiment using a survey of the tax professionals at the end of the tax season. See Appendix Exhibit IV for the survey instrument. To obtain candid responses, the surveys identified offices but not individual tax professionals within those offices. 78% of the 119 offices sent back completed surveys, yielding a total of 785 survey responses. 88% of the tax professionals who responded to the survey thought that the EITC information should be offered again in the future. 81% of surveyed tax professionals thought that the EITC experiment pilot helped their own understanding of how the EITC credit works. This shows that our outreach effort did provide new information about the structure of the EITC beyond what is normally provided in the tax preparation procedure at H&R Block. As an important caveat, note that tax professionals who went through our training process may have offered better explanations on the EITC to tax filers in the control group as well. To minimize such contamination effects, we emphasized repeatedly in training that it was critical not to give any extra information to the clients who were not selected for treatment for the purpose of the study. Any remaining contamination effects would attenuate our treatment effect estimates. Nevertheless, it is im-

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[15]Including the office does not change our qualitative results but, unsurprisingly, slightly reduces the magnitude and precision of the estimates.

portant to recognize that the treatment is only the extra advice that trained professionals were willing to provide to treated clients using the guidance from TPS screens.[16]

When asked about client interest, 37% of tax professionals said that "most" ($>75\%$) of their clients were interested in the information explanation. 38% of the tax professionals said that "many" (25 to 75%) clients were interested, while 25% of tax professionals felt that few ($<25\%$) of their clients were interested. We conclude from these surveys that most tax professionals were enthusiastic about the experiment and thought it was a valuable service for their clients, suggesting that the information treatment was implemented satisfactorily.

3.3   Hypothesis

The hypothesis we seek to test is that the provision of information and advice by tax professionals induces clients to change their earnings behavior. More specifically, tax professionals who implement our information treatment as intended should update their clients' perceptions toward the true EITC schedule, shifting s^p toward s in equation (1).[17] This change in perceptions of marginal incentives rotates the perceived budget set as shown in Figure 1B, generating substitution effects but no income effects. Such substitution effects should increase earnings for tax filers who would have been in the phase-in range absent the treatment, leave earnings unchanged for those in the peak, and decrease earnings for tax filers in the phase-out. Hence, in a neoclassical labor supply model, the information provided in the experiment should increase EITC refunds.

It is important to note that we provide information only about the EITC. In practice, other credits such as the Child Tax Credit, or the State and Federal income taxes also affect the budget set. Hence, our treatment provides only partial information about the budget set. If individuals react to our information as if it were describing their exact budget set, their decisions might not increase their welfare.[18] Note that if individuals are unable to understand or act upon the information provided in the treatment, then our basic theoretical framework

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[16]Unfortunately, we do not have access to data outside of the experimental offices to test whether control clients in experimental offices responded to the experiment as well.

[17]A key limitation of the present study is that we can only speculate about how our treatment changed baseline perceptions because we were unable to collect data on prior beliefs. As a result, we are only able to test the broad null hypothesis that information and advice do not affect behavior. Testing sharper hypotheses about the link between changes in priors and changes in behavior would be a valuable direction for future work.

[18]We opted to focus on explaining the EITC because explaining the full tax schedule would have been considerably more complicated, increasing the risk that individuals would not have understood our explanation.

predicts a zero marginal response. More generally, imperfect understanding will attenuate the experimental effects toward zero.

4   Results

Our analysis of the experimental results is based on anonymous statistical compilations prepared by H&R Block in accordance with applicable laws. These compilations were constructed from data extracted from tax returns filed in 2007 and 2008 and from supplemental information collected by H&R Block during the implementation of the experiment in 2007.

4.1   Descriptive Statistics

Table 1 presents descriptive statistics for the treatment and control groups. Columns (1)-(3) focus on the full sample while columns (4)-(6) focus on the sub-sample of clients who returned to H&R Block in year 2 and for whom we have data on outcomes of the intervention.[19] Columns (1)-(3) show that the means of all of the base year variables are similar in the treatment and control groups. None of the differences are significant at the 5 percent level, confirming that randomization was successful. The mean income in the base year (year 1) in the full sample is \$16,600. Income is the sum of wage earnings and self-employment income. Average wage earnings are \$15,900. Average self-employment income is \$700, and 11% of tax filers report positive self-employment income.[20] The mean EITC amount in the base year is \$2,470. About 59% of the claimants have two or more dependents in the base year.

To examine distributional outcomes, throughout the paper we divide the income distribution into three bins: low incomes (below \$7000), middle incomes (\$7000 to \$15,400), and high incomes (above \$15,400). The upper threshold of \$15,400 is the start of the EITC phase-out range for single earners; the lower threshold of \$7000 is chosen to divide the remaining interval into two approximately equal-sized bins. By this classification, 14% of the sample is "low income", 34% is "middle income", and 51% is "high income."

The bottom row of Table 1 shows the fraction of clients who returned to H&R Block in year 2. The average return rate is around 72%. The return rate is 0.85% lower in the treatment

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[19]Unfortunately, we are unable to obtain tax returns data for clients who did not return to H&R Block.

[20]More precisely, positive self-employment income was measured as having positive self-employment taxes. No self-employment taxes are due if self-employment income is below \$400. 11% of tax filers have self-employment income above \$400.

group, a small but marginally significant difference. We explore the pattern of return rates further in Figure 3, which plots mean return rates by $1,000 base-year earnings bins in the treatment and control groups. The average return rates track each other very closely, showing that there are no systematic patterns of differential attrition by base year income. In addition, as shown in columns (4)-(6) of Table 1, there are no significant differences between the treatment and control groups in the base-year variables for the subsample of clients who return. In view of this evidence, we believe that the comparisons between the treatment and control groups which follow are unlikely to be contaminated by selective attrition.

4.2 Full Sample Results

We begin our empirical analysis by comparing changes in EITC amounts (from year 1 to year 2) in the treatment and control groups. A non-parametric Kolmogorov-Smirnov (KS) test for differences in the empirical distributions of changes in EITC amounts shows only a marginally significant difference between the treatment and control group ($p = 0.074$), as shown in Appendix Table A1. Figure 4 plots the density of post-treatment income using a kernel estimator with an Epanechnikov density function and constant bandwidth. The dashed line is for clients in the control group and the solid line is for clients in the treatment group. Panel A considers clients with 1 dependent and Panel B those with 2+ dependents. The vertical lines mark the cutoffs for the phase-in and phase-out regions for each case. Both panels show no discernible effect of the treatment on the earnings density distribution in year 2 confirming the results from the KS test that the treatment does not have a large effect on EITC amounts.

Next, we estimate treatment effects using OLS regressions of the form

$$y_i = \alpha + \beta \text{treat}_i + \gamma X_i + \varepsilon_i, \tag{2}$$

where y_i is an outcome (typically a change from year 1 to year 2), treat_i is defined as an indicator for being eligible for the treatment, and X_i is a vector of year 1 covariates. The coefficient of interest, β, can be interpreted as an intent-to-treat estimate. Estimates of β are presented in Table 2. The columns of Table 2 consider different outcomes or sets of covariates, while the rows consider different subsamples. Hence, each coefficient listed in the table is from a separate regression. We report standard errors clustered by tax professional in parentheses as well as the number of observations below the coefficient.

The dependent variable in columns 1 and 2 is the difference between the client's EITC amount in the post-treatment and pre-treatment years. Columns 3 and 4 consider the change in earnings from year 1 to year 2. In columns 2 and 4, we include the following vector of base year covariates (X): earnings, earnings squared, wage earnings, indicator for married filing jointly, and number of children (1 vs. 2 or more).

Row 1 of Table 2 shows treatment effect estimates for the full sample. Consistent with the non-parametric KS test and graphical evidence presented above, we do not detect robust differences in EITC amounts or earnings distribution across the treatment and control groups. Most of the coefficients are small and statistically insignificant. There is weak evidence of a treatment effect on the change in EITC amounts ($24 higher on average in the treatment group) but the effect is only marginally significant ($p < 0.1$).

4.3   Heterogeneity Across Subgroups of Individuals

Rows (2)-(4) of Table 2 divide the sample into subgroups based on whether the filer's income was in the phase-in, plateau, and phase-out region in the base year. Recall from the experimental design that the take-home message varied based on this EITC range (see Exhibit I). We do not find any significant effects of the information treatments within any of these subgroups.

Next, we explore heterogeneity in treatment effect by self-employment status. The self-employed are able to manipulate their income more easily than wage earners, and thus might exhibit more of a response. As in Table 1, the self-employed are defined as the subsample of tax filers with positive self-employment income in the base year. Note that these tax filers may also have additional wage earnings beyond their self-employment income. Wage earners are defined as tax filers who do not have positive self-employment income in base year.

Figure 5 shows the effect of the treatment on the distribution of year 2 earnings for self-employed clients. Panel A is for clients with 1 dependent and Panel B is for those with 2+ dependents. The control group exhibits clear bunching at the first kink point of the EITC schedule, the lowest earnings level at which one obtains the maximum refund.[21] This is consistent with the finding of Saez (2010), who documents bunching at the first kink point among EITC recipients with self-employment income in IRS public use micro-data files. The degree of bunching is slightly amplified in the treatment group, suggesting that the information

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[21]Because individuals pay payroll and other taxes on income, the first kink point of the EITC schedule maximizes the size of their net refund from the government.

may have induced some self-employed tax filers to target the refund-maximizing peak more actively following the information treatment.[22]

Rows (5) and (6) of Table 2 compare the impacts of the treatment on EITC amounts and earnings for the self-employed and wage earners. In row (5), the treatment effect on the change in EITC amounts is much larger than in the full sample ($72.6 instead of $24), consistent with the view that the self-employed were more responsive to the treatment. However, the effect is imprecisely estimated and remains only marginally significant ($p < 0.1$) due to the much smaller sample size. As shown in row (6), there is no significant effect on the EITC for wage earners.

5 Heterogeneity Across Tax Professionals

We expected that there might be heterogeneity in treatment effects across the 1,461 tax professionals involved in the experiment because of variation in training and willingness to convey the take-home messages we proposed. Such heterogeneity across tax professionals could potentially be masked in the full sample. We begin by implementing an F test for such treatment effect heterogeneity across tax professionals. Let $i = 1, ..., N$ index clients and $p = 1, ..., P$ index tax professionals. Let $\Delta EITC_i$ denote the change in the EITC amount (from year 1 to year 2) for client i. Let $\text{tp}_{i,p}$ denote an indicator variable for whether client i is served by tax professional p and treat_i denote an indicator for whether the client is in the treatment group. We implement the F test using a regression of the following form:

$$\Delta EITC_i = \sum_{p=1}^{P} \theta_p \text{tp}_{i,p} + \sum_{p=1}^{P} \beta_p \text{treat}_i \times \text{tp}_{i,p} + \varepsilon_i.$$

In this specification, β_p is tax professional p's treatment effect.[23] The null hypothesis that $\beta_p = 0$ for all p is rejected with $p = 0.0083$, implying that some tax professionals generate significant differences in EITC amounts between their treatment and control clients. The hypothesis of constant treatment effects ($\beta_p = \beta_{p'}$ for all p, p') is rejected with $p = 0.0088$, showing the importance of heterogeneity across tax professionals.

The remainder of this section characterizes the magnitudes and patterns of heterogeneity in treatment effects. We begin by developing a method of identifying "complying" tax professionals

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[22]For clients with self-employment income in base year, the treatment increases the probability of reporting earnings in the middle income range significantly in year 2 by 3.93 (s.e. 1.57) percentage points.

[23]Note that treat_i is randomized *within* each tax professional's client group because treatment was randomized at the individual client level.

who implemented the treatment as planned and thereby induced changes in behavior as we hypothesized, namely increasing the concentration of earnings and EITC amounts. Note that the term "complier" simply refers to compliance with our ex-ante intentions for the experiment. It should not be interpreted as a normative judgment about a tax professional, nor confused with the terminology used in the local average treatment effect literature in econometrics.

5.1   Definition of Compliers

Because we do not observe how tax professionals explained the information to clients, we use an indirect outcome-based method to identify "complying" tax professionals. For each tax filer i, we define his tax professional as a complier if the tax professional has a higher fraction of other clients (*excluding* client i) with middle income in the treatment group than the control group. Intuitively, from the perspective of a given client i, his tax professional complies with the intention of the experiment if the tax professional increases the concentration of the earnings distribution for her other clients. We define the remaining clients as having "non-complying" tax professionals. We use such an outcome based definition for compliers because we unfortunately do not have any information on tax professionals characteristics (such as experience, ability, or views on the EITC) that could have been used to cut the sample on pre-determined characteristics.[24]

Three important points should be noted about this definition of compliance. First, because client i himself is excluded when defining his tax professional's compliance, there is no correlation between client i's outcome and his tax professional's compliance under the null hypothesis that all tax professionals had zero treatment effects. A proof of this simple result is given in the appendix A.1. To see the intuition, suppose a placebo treatment is randomly assigned to individuals, with no information provided to anyone. Define "complying" and "non-complying" tax professionals for each client as above. In this case, "complying" and "non-complying" are effectively randomly assigned, as the placebo treatment has no impact on year 2 earnings. Therefore, the sample of clients with a "complying" tax professional is simply a random subsample of the initial sample. Within that subsample, individual treatment status remains randomly assigned and hence should have no impact on outcomes. Hence, we would detect

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[24]We also repeated the analysis below defining compliers vs. non-compliers at the office level instead of the tax professional level. We do not find any significant treatment heterogeneity with this office-level definition, suggesting that the heterogeneity in treatments occurs primarily at the tax professional level within offices rather than across offices.

zero treatment effects within the subsample of clients served by complying (or non-complying) tax professionals if all tax professionals have zero treatment effects.[25]

Second, the definition of complying tax professionals is client-specific, as excluding a particular client might shift a given tax professional from the complying to the non-complying category (and vice-versa). This creates a correlation in the error terms for clients served by the same tax professional, as similar clients will tend to either all be excluded or included in the "complying" group. We account for this problem by clustering all standard errors by tax professional. To check this method of computing standard errors, we also calculate p values for each regression we run using the following permutation method. We first generate a placebo treatment randomly (with 50% probability) and recompute complying vs. non-complying tax professional status for each tax filer using this placebo treatment variable. We then estimate the regression specification using the placebo treatment in lieu of the actual treatment to obtain a placebo coefficient. This process is repeated 2000 times to generate an empirical distribution of placebo coefficients. Finally, the permutation-based p value is computed using the location of the actual treatment effect in the empirical cdf of the placebo coefficients. We find that the difference between the permutation-based p values and the p values from regressions with clustered standard errors is less than 0.02 for every regression coefficient reported below.[26] This placebo analysis also confirms that our method of identifying complying tax professionals does not induce any artificial correlations between treatment and outcomes.

Third, the definition of compliance above is one of many possible definitions. In our baseline analysis, we define compliance based on the middle income indicator because it provides a simple, non-parametric way of measuring changes in the concentration of the earnings distribution. In Appendix A.2, we show that similar results are obtained when compliance is defined based on treatment effects on EITC amounts, which is effectively a smoother measure of changes in the concentration of the income distribution (see Appendix Table A4). We also show that controlling for base year characteristics of clients when classifying tax professionals and using continuous measures of the degree of compliance instead of a binary classification yields similar

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[25]As reported in appendix Table A2, the differences between the means of the base year variables in the treatment and control groups are insignificant within the subsamples of clients served by complying and non-complying tax professionals, as in Table 1.

[26]Since there is no natural counterpart to clustering for the Kolmogorov-Smirnov tests in Table 2, we report the permutation-based p values in that table.

results (see Appendix Table A5).[27]

5.2   Treatment Effects

Graphical Evidence. Figure 6 plots the density of post-treatment income for clients with complying tax professionals who have 1 dependent (Panel A) and 2+ dependents (Panel B). In both panels, there is greater mass in the treated group near the first kink point of the EITC schedule than there is in the control group. Conversely, there are fewer treated clients in the phase-out range. The increased concentration in the earnings distribution increases EITC amounts for treated clients. The differences between the treatment and control income distributions in Figure 6 are highly significant. Using a KS test, the null hypothesis that there are no differences in EITC amounts between treated and control clients is rejected with $p < 0.01$ for complying tax professionals, as shown in Column 1 of Appendix Table A1.

Figure 7 plots the density of post-treatment income for clients with non-complying tax professionals. The earnings distribution for clients treated by non-compliers is shifted toward the right, placing more clients in the phase-out range and thereby reducing their EITC refunds.[28]

Figures 6 and 7 help explain why we detect no treatment effects in the full sample: the compliers and non-compliers shift the earnings distribution in opposite directions, generating little change in the full sample. The complying tax professionals induce behavioral responses consistent with the two specific hypotheses described in section 3.3. Non-complying tax professionals did not generate a behavioral response consistent with EITC incentives, instead pushing more of their clients into the phase-out range. One potential explanation for this response is that the non-compliers are tax professionals who framed the EITC incentive effects as being small relative to the benefits of earning a higher income, which we anticipated might occur based on feedback prior to the experiment.

Regression Estimates. To quantify the size of the behavioral responses, we estimate treatment effects within the complier and non-complier subgroups using the OLS specification in (2). The results are reported in Table 3. In all regressions, we control for base year variables as in Table 2 columns (2) and (4). As a reference, Row 1 of Table 3 first presents the estimates pooling

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[27]A more ambitious approach, left for future research, would be to adopt the variable treatment setting of Angrist and Imbens (1995) with the additional difficulty that treatment intensity is not observed.

[28]This shift in earnings distributions, and hence of the EITC amounts in the non-complying treatment group relative to the control group is borne out by the KS tests reported in row 3 of appendix Table A1.

compliers and non-compliers, replicating columns 3 and 4 in the first row of Table 2.

Column (1) of Table 3 reports the change in EITC amount, (2) reports the change in earnings, (3) reports the change in EITC amount among the self-employed in base year, and (4) reports the change in EITC amount among the pure wage earners in base year. Finally, column (5) reports the change in EITC amounts computed exclusively using wage earnings (ignoring self-employment income) again for the sample of pure wage earners in base year. This last outcome detects effects on pure wage earnings. Consistent with our preceding results, none of the estimates in row 1 for the full sample are significantly different from zero.

Row 2 of Table 2 shows estimates for the subsample of clients served by complying tax professionals. Column 1 shows that clients treated by complying tax professionals increase their EITC amounts by $58 (s.e. 20.5) more than control group clients of the same tax professionals. Column 2 shows that the treatment does not induce a significant change in mean earnings from year 1 to year 2. The finding is consistent with an increase in concentration rather than a shift of the earnings distribution.

Row 3 considers the non-complying tax professionals. Clients given the information treatment by these tax professionals experience a statistically insignificant *reduction* of $32 (column 1) in their EITC amounts relative to their peers in the control group. This is because non-complying tax professionals shift clients away from the region of the EITC schedule where refunds are maximized (Figure 7). Column 2 shows that the earnings of treated clients of non-compliers rise by $247 (s.e. 120) more on average than control clients. These results are consistent with the density plots in Figure 7: non-compliers shift the earnings distribution to the right and increase the likelihood of high incomes. The mean of the coefficients in rows 2 and 3 roughly corresponds to the coefficients in row 1, explaining why we do not detect clear treatment effects in the full sample.[29]

Finally, in rows 4 and 5, we compare the treatment effects for complying and non-complying tax professionals to test whether the estimates reported in rows 2 and 3 are statistically distinguishable. We estimate a model analogous to (2) on the full sample, interacting all the variables with an indicator for having a complying tax professional. Row 4 reports the coefficient on the interaction of the treatment and complier indicators, which is simply the difference in the coef-

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[29]Appendix Table A3 refines this analysis by EITC range in the base year. It shows that most of the differential effects we uncover for compliers and non-compliers come from clients who were in the phase-out region in the base-year, consistent with the view that tax professionals explained the phase-out incentives differently.

ficients reported in rows 3 and 4. Under the null hypothesis of zero treatment effects for all tax professionals, this "difference in difference" estimate would be zero. Contrary to the null, all of the coefficients reported in row 4 are statistically significant. Clients treated by complying tax professionals experience a $90 larger increase in their EITC refund on average relative to clients treated by non-complying tax professionals. Furthermore, clients treated by compliers have on average $420 lower growth in earnings than clients treated by non-compliers. These results highlight the substantial amount of treatment effect heterogeneity across tax professionals.

The heterogeneity in treatment effects that we have documented could come from two potential sources. One natural interpretation – which is the one we have suggested thus far – is that tax professionals implemented the information treatment in different ways, leading to different outcomes. An alternative view is that the variation in treatment effects is not caused by differences in tax professionals' behavior but instead by variations in the set of clients that different types of tax professionals served. Our experiment randomized the information treatment within tax professional but did not randomize clients across tax professionals. In row 5 of Table 3, we explore the source of the treatment effect heterogeneity by adding interactions of the vector of base year controls with the treatment dummy to the specifications in row 4. In this specification, the coefficient on the interaction of the treatment and complier indicators can be interpreted as the effect of having a complying tax professional, holding fixed observable base year characteristics. We find that all coefficients in row 5 are very similar to the corresponding coefficients in row 4, suggesting that the heterogeneity in treatment effects is not driven by observable heterogeneity in client characteristics.[30]

Self-Employment Income vs. Wage Earnings Responses. Next, we explore the extent to which the treatment effects documented above are driven by changes in self-employment income vs. wage earnings. This distinction is important to determine whether the information treatment changed labor supply or simply led to changes in reported income in order to maximize EITC refunds.

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[30]The heterogeneity in treatment effects could, however, be driven by *unobservable* heterogeneity in treatment effects across clients. For instance, suppose clients sort across tax professionals in a way that is correlated with their knowledge of the EITC. Then the heterogeneity in treatment effects across tax professionals could be driven by heterogeneity in clients' knowledge. Complying tax professionals could be those who serve clients with "flat" priors as in Figure 1B, while non-complying tax professionals could be those whose clients think that the phase-out rate is higher than it actually is. Note that such client heterogeneity explanations require substantial sorting of clients purely on unobserved characteristics. While we cannot rule out such sorting, we believe that the sharp differences in treatment effects across complying and non-complying tax professionals are more likely to be driven by the tax professionals themselves.

In column (3) of Table 3, we examine the self-employment income response by focusing on the subsample of tax filers with positive self-employment income in base year . Row 1 shows a marginally significant effect on this sub-sample even without cutting the sample by tax professional complying status as we documented row 5 of Table 2. Row 2 shows that complying tax professionals increase their treated clients' EITC amounts by almost $130 relative to the control group. This treatment effect for the self-employed is twice as large as those reported in the full sample (row 2, column 1). In contrast, row 3 shows that non-complying tax professionals induce no significant treatment effects on their self-employed clients' EITC amounts or fraction with middle income. Rows 4 and 5 corroborate the substantial differences in year 2 outcomes between clients treated by compliers and non-compliers, even after controlling for observed client heterogeneity.

We next study the effect of the treatment on wage earnings. Column (4) of Table 3 considers the sample of pure wage earners in year 1 and estimate the effect of EITC changes. Row (2) shows that complying tax professional do increase EITC amounts by $49 (s.e. 21) in that subsample. In contrast, non-complying tax professionals slightly reduce EITC amounts.

The increase in EITC refunds among clients of complying tax professionals could in principle be due to self-employment responses on the extensive margin, i.e., treated wage earners who start reporting self-employment income to increase their EITC refunds. However, we find no significant increase in the likelihood to report self-employment income in this subsample. As an alternative method to quantify the impact on wage earnings itself, we compute EITC amounts based solely on wage earnings.[31] We report such coefficients in column (5) of Table 3, again for the subsample of those with no self-employment income in base year. Row 1 shows that there is no significant difference in wage-based EITC amounts between the treatment and control groups in the full sample pooling compliers and non-compliers. Row 2 shows that clients treated by complying tax professionals have a $55 increase in their wage-based EITC amounts relative to control clients ($p < 0.05$). Non-complying tax professionals, in contrast, reduce their treated clients' wage-based EITC amounts by $57 ($p < 0.05$). Finally, rows 4 and 5 confirm that there are highly significant ($p < 0.01$) differences in year 2 outcomes between clients treated by compliers and non-compliers, even after controlling for observed client heterogeneity.

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[31]More precisely, we compute the EITC amount that the tax filer would have obtained if her self-employment income were zero (and her wage income was left unchanged). For pure wage earners, actual EITC amounts and wage based EITC amounts naturally coincide.

Appendix Figures A1 and A2 show the counterpart of Figures 6 and 7 using wage earnings instead of total earnings. Figure A1 shows that complying tax professionals increase the mass of the wage earnings distribution around the first kink point for treated clients. This increase in mass is slightly smaller than the change in the distribution of total income shown in Figure 6, confirming that part of the treatment effect is driven by the self-employment margin. In contrast, Figure A2 shows that clients given the information treatment by non-complying tax professionals are more likely to have wage earnings that place them in the phase-out range.[32]

The finding that non-compliers increase wage earnings but induce no change in reported self-employment income suggests that they did not explain how to maximize EITC refunds. Conversely, the fact that compliers induce stronger responses in self-employment income – which is easier to manipulate via reporting effects – than wage income (Internal Revenue Service, 1996, Table 2, page 8) suggests that they emphasized the behaviors relevant for maximizing the EITC refund.

6   Conclusion

This paper has reported the results of an experiment testing the effects of providing information about the structure of the EITC on earnings decisions. We find that the information treatment did not induce significant changes in earnings on average. We find some evidence of heterogeneous responses to the information treatment across the H&R Block tax professionals who implemented the experiment. Half of the tax professionals increase their treated clients' EITC amounts and the concentration of their wage earnings distribution around the first kink point of the EITC schedule. The remaining tax professionals do not induce a significant change in EITC amounts, but increase their clients' probabilities of having high wage earnings that place them in the phase-out range. We speculate that this heterogeneity in treatment effects arises from the different ways in which tax professionals used the information to advise their clients.

The heterogeneous treatment effects we document are modest in absolute terms, but are fairly large in comparison with intensive margin responses to other policies. Previous studies suggest that the intensive margin elasticity of earnings with respect to the net-of-tax rate is approximately 0.25 (e.g., Chetty 2012). Using this elasticity, a simple calibration exercise (see

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[32]In column 2 of Appendix Table A1, we report the results of KS tests for a difference between treatment and control groups in the distribution of *wage-based* EITC amounts. These tests confirm that both complying and non-complying tax professionals significantly change their treated clients' distribution of wage earnings.

Appendix A.3) shows that complying tax professionals generate the same labor supply response along the intensive margin as a 33% expansion of the EITC. Non-complying tax professionals increase earnings by an amount equivalent to the response to a 5 percentage point tax rate cut. These findings suggest that tax professionals can influence their clients' earnings choices significantly, and that such advice may have more of an impact on behavior than the pure information provided on the EITC handouts themselves. Unfortunately, we are unable to characterize the mechanisms through which such advice affects behavior. The decentralized implementation of our experiment makes it difficult to define the "treatment" that was provided by each of the tax professionals. In particular, we do not have measures of the informational content, clarity, or salience of the treatment provided by each tax professional.[33]

We conclude that providing information about marginal income tax incentives does not have systematic impacts on earnings in the short run. However, recent work by Chetty, Friedman, and Saez (2012) suggests that local knowledge among peers does affect EITC claimants' affects both self-employment and wage earnings significantly. Chetty, Friedman, and Saez (2012) show that the EITC has very different impacts on earnings behavior across neighborhoods in the United States, and that these differences are likely driven by variation in knowledge about the shape of the EITC schedule. Together, these results suggest that knowledge may have to be manipulated more organically and persistently – e.g. by changing peers' behavior – rather than via one-time provision of information to influence behavior. Investigating the process through which knowledge about government policy diffuses and understanding how it can be shaped by policy would be a very valuable direction for future work.

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[33]Bhargava and Manoli (2011) conduct a randomized experiment on EITC take-up that implements variation along these dimensions, and shows that each of them matters significantly.

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Table 1
Means of Base-Year Variables by Treatment Eligibility

Base year variables:	A. Full Base Year Sample			B. Year 2 Returning Sample		
	Control [N=21,193]	Treatment [N=20,809]	Difference (2) - (1)	Control [N=15,380]	Treatment [N=14,925]	Difference (5) - (4)
	(1)	(2)	(3)	(4)	(5)	(6)
Income ($)	16,587	16,624	37.28	17,291	17,397	106.24
	(74.52)	(79.77)	(82.35)	(79.68)	(84.62)	(96.26)
Wage Earnings ($)	15,872	15,913	40.25	16,626	16,756	129.75
	(92.76)	(95.71)	(93.40)	(100.03)	(98.36)	(107.72)
EITC amount ($)	2,478	2,465	-13.04	2,533	2,508	-24.41
	(10.88)	(12.18)	(12.27)	(11.93)	(13.19)	(14.52)
Percent Self Employed	11.40%	11.18%	-0.21%	10.52%	10.27%	-0.25%
	(0.47)	(0.45)	(0.32)	(0.49)	(0.45)	(0.35)
Percent Low Income	14.30%	14.69%	0.39%	11.13%	11.62%	0.49%
	(0.29)	(0.31)	(0.35)	(0.28)	(0.31)	(0.38)
Percent Middle Income	34.28%	33.96%	-0.32%	33.92%	33.14%	-0.78%
	(0.44)	(0.47)	(0.45)	(0.46)	(0.50)	(0.53)
Percent Upper Income	51.41%	51.34%	-0.07%	54.95%	55.24%	0.29%
	(0.42)	(0.46)	(0.48)	(0.46)	(0.50)	(0.57)
Percent Married	9.53%	9.40%	-0.14%	10.20%	9.78%	-0.42%
	(0.32)	(0.32)	(0.28)	(0.37)	(0.36)	(0.33)
Percent with 2 or more dependents in Year 1	59.29%	59.29%	0.00%	61.65%	61.86%	0.22%
	(0.37)	(0.39)	(0.48)	(0.41)	(0.44)	(0.55)
Percent Return in Year 2 Percent with 2 or more	72.57%	71.72%	-0.85%	100.00%	100.00%	0.00%
	(0.34)	(0.37)	(0.44)			

Notes: All variables are base year (year 1) values except last row. Standard errors clustered by tax professional reported in parentheses. Income is defined as the sum of wage income and self-employment income. Self employed is a binary variable defined as having positive self-employment income (irrespective of other wage earnings). Low income is defined as income below $7,000; middle income is defined as income between $7,000 and $15,400; and upper income is defined as income above $15,400. Treatment group includes all tax filers we intended to treat. Columns (1) to (3) include the full sample in base year while columns (4) to (6) include only those returning in year 2 (this is the sample of analysis).

Table 2
Treatment Effects on EITC Amounts and Earnings

Sample	Dep. Var.: Δ EITC amount	Δ EITC amount with controls	Δ Earnings	Δ Earnings with controls
	(1)	(2)	(3)	(4)
(1) Full Sample	24.02	17.17	17.66	29.35
	(14.77)	(14.06)	(84.27)	(83.46)
	30,303	30,303	30,303	30,303
(2) Year 1 in Phase-in	3.88	9.47	-259.23	-263.60
	(31.68)	(28.15)	(150.15)	(148.46)
	7,442	7,442	7,442	7,442
(3) Year 1 in Plateau	10.39	10.23	151.65	167.11
	(31.96)	(31.33)	(186.40)	(181.29)
	5,687	5,687	5,687	5,687
(4) Year 1 in Phase-out	30.63	22.72	76.91	111.34
	(17.82)	(17.34)	(119.19)	(118.51)
	17,174	17,174	17,174	17,174
(5) Self-employed in year 1	72.60	66.10	97.45	80.63
	(45.05)	(43.21)	(247.61)	(242.65)
	3,150	3,150	3,150	3,150
(6) Wage earner in year 1	18.54	11.02	7.96	24.99
	(15.34)	(14.74)	(89.13)	(87.38)
	27,153	27,153	27,153	27,153

Notes: Standard errors clustered by tax professional reported in parentheses; number of observations is reported below the standard error. Each coefficient is from a separate regression. Columns show treatment effects on various outcomes -- cols. 1-2: change in EITC amount from year 1 to year 2; cols. 3-4: change in earnings from year 1 to year 2. Columns 2 and 4 include the following base year controls: earnings, earnings squared, wage earnings, married filing jointly dummy, and number of qualifying children (1 vs. 2 or more).

Row (1) reports coefficients on the treatment indicator from OLS regressions of the form shown in equation (2) in the text for the full sample of tax filers who returned in year 2. Row (2) limits the sample to those with year 1 earnings in the EITC phase-in. Row (3) limits the sample to those with year 1 earnings in the EITC plateau. Row (4) limits the sample to those with year 1 earnings in the EITC phase-out. Row (5) limits the sample to those with positive self-employment income in year 1. Row (6) limits the sample to wage earners in year 1 (defined as not having self-employment income in year 1).

Table 3
Treatment Effects by Tax Professional Complying Status

Dep. Var.:	Δ EITC amount	Δ Earnings	Δ EITC amount	Δ EITC amount	Δ Wage Based EITC amount
Sample	All	All	Year 1 self-employed	Year 1 pure wage earners	Year 1 pure wage earners
	(1)	(2)	(3)	(4)	(5)
(1) Full Sample	17.17	29.35	66.10	11.02	3.72
	(14.06)	(83.46)	(43.21)	(14.74)	(15.82)
	30,303	30,303	3,150	27,153	27,153
(2) Complying Tax Professionals	58.05	-172.94	128.92	49.38	54.53
	(20.46)	(123.66)	(59.69)	(21.48)	(22.48)
	15,395	15,395	1,630	13,765	13,765
(3) Non-Complying Tax Professionals	-32.28	247.26	-27.47	-32.90	-56.53
	(20.40)	(119.87)	(64.87)	(21.21)	(22.76)
	14,534	14,534	1,495	13,039	13,039
(4) Compliers vs Non-Compliers: (2) - (3)	90.33	-420.20	156.40	82.29	111.06
	(30.20)	(180.20)	(89.25)	(31.34)	(32.97)
	29,929	29,929	3,125	26,804	26,804
(5) Compliers vs Non-Compliers with controls for Heterogeneity	89.78	-421.74	161.44	81.69	111.01
	(30.27)	(180.68)	(89.22)	(31.35)	(33.00)
	29,929	29,929	3,125	26,804	26,804

Notes: Standard errors clustered by tax professional reported in parentheses; t-statistics in square brackets; number of observations is reported below the standard error. Each coefficient is from a separate regression. Columns show treatment effects on various outcomes -- cols. 1, 3, 4: change in EITC amount from year 1 to year 2; col. 2: change in earnings from year 1 to year 2; col. 5: change in wage-based EITC amount (EITC computed based solely on wage earnings) from year 1 to year 2; All regressions include the following base year controls: earnings, earnings squared, wage earnings, married filing jointly dummy, and number of qualifying children (1 vs. 2 or more). Col. 3 limits the sample to those with positive self-employment income in year 1. Cols. 4 and 5 limit the sample to pure wage earners (no self-employment income in year 1).

Row (1) reports coefficients on the treatment indicator from OLS regressions of the form shown in equation (2) in the text for the full sample of tax filers who returned in year 2. Row (2) limits the sample to complying tax professionals, and row (3) limits the sample to non-complying tax professionals. A given tax filer i's tax professional is defined as a "complier" if she has a higher fraction of other clients (excluding client i) with middle income (between $7,000 and $15,400) in the treatment group than the control group. Row (4) reports the difference in treatment effects between complying and non-complying tax professionals, which equals the difference in coefficients between rows (2) and (3). In row (4), we regress each outcome variable on the treatment indicator, an indicator for having a complying tax professional, and the interaction of the two indicators.

The coefficient on the interaction is reported. We also include interactions of the base year control variables with the complying tax professional indicator. Row (5) reports the difference in treatment effects between complying and non-complying tax professionals controlling for heterogeneity in treatment effects by client observables. This specification adds interactions of the base year controls with the treatment indicator to the specifications in row (4). The coefficient on the treatment x complying tax professional interaction is reported.
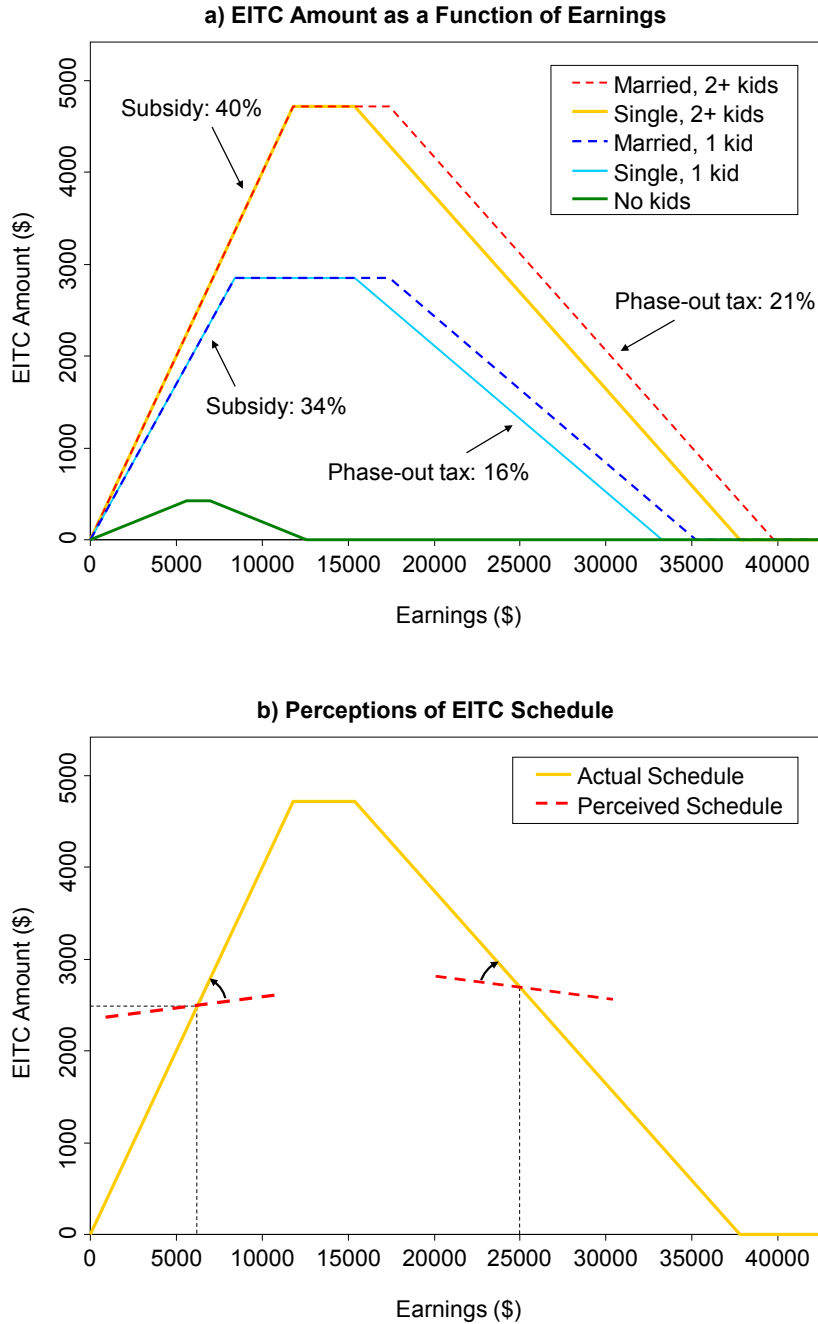
Figure 1: The Earned Income Tax Credit Schedule and Perceptions

NOTE: Panel A depicts the EITC amount as a function of annual earnings in 2007. The EITC amount varies by marital status and number of qualifying children as shown. Panel B contrasts the actual EITC schedule for a single tax filer with 2 or more children with our model of the perceived schedule based on existing survey evidence. The perceived schedules are drawn for individuals with two levels of earnings, one in the phase-in and one in the phase-out range. Each individual accurately perceives the level of his EITC refund, but underestimates the extent to which variations in earnings affect the size of his EITC. If implemented as intended, the information treatment should rotate the perceived EITC schedules (dashed lines) toward the actual EITC schedule (solid yellow line) by clarifying the actual linkage between EITC amounts and earnings.
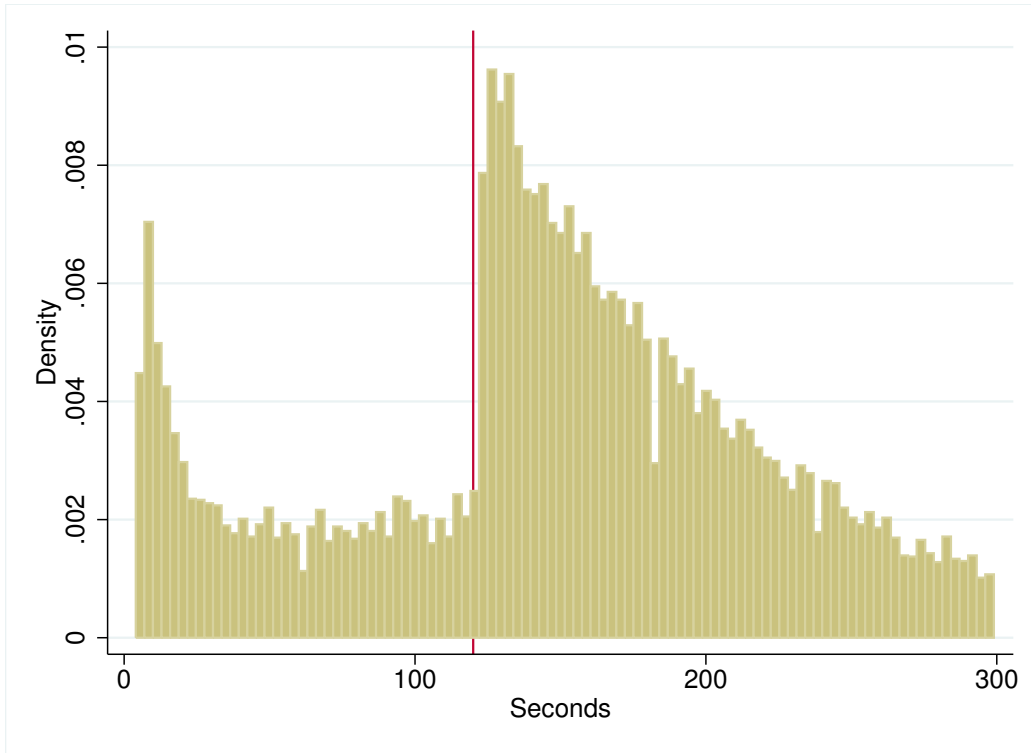
Figure 2: Time Spent Explaining the EITC to Clients Eligible for Treatment

NOTE: This figure is a histogram of the time spent (in seconds) by tax professionals on explaining the EITC to clients eligible for the information treatment. Time spent was recorded by the tax preparation software. The vertical line at 120 seconds depicts the threshold above which tax professionals received $5 of compensation (per client) for explaining the EITC. The histogram is based on 20,809 observations. Each bin represents an interval of 3 seconds.
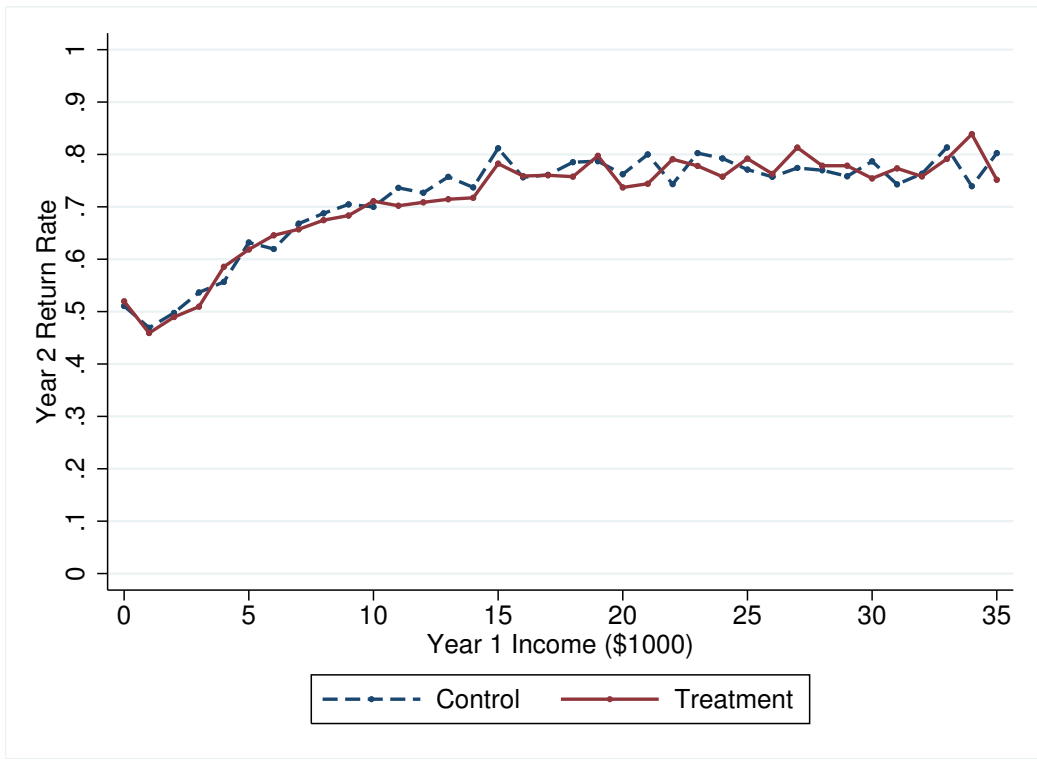
Figure 3: Return Rates by Base-Year Income

NOTE: This figure plots the fraction of base year clients who returned to H&R Block to file their taxes in year 2. Each point represents the average return rate in a $1000 bin. The return rates are plotted separately for the treatment (solid line) and control groups (dashed line).
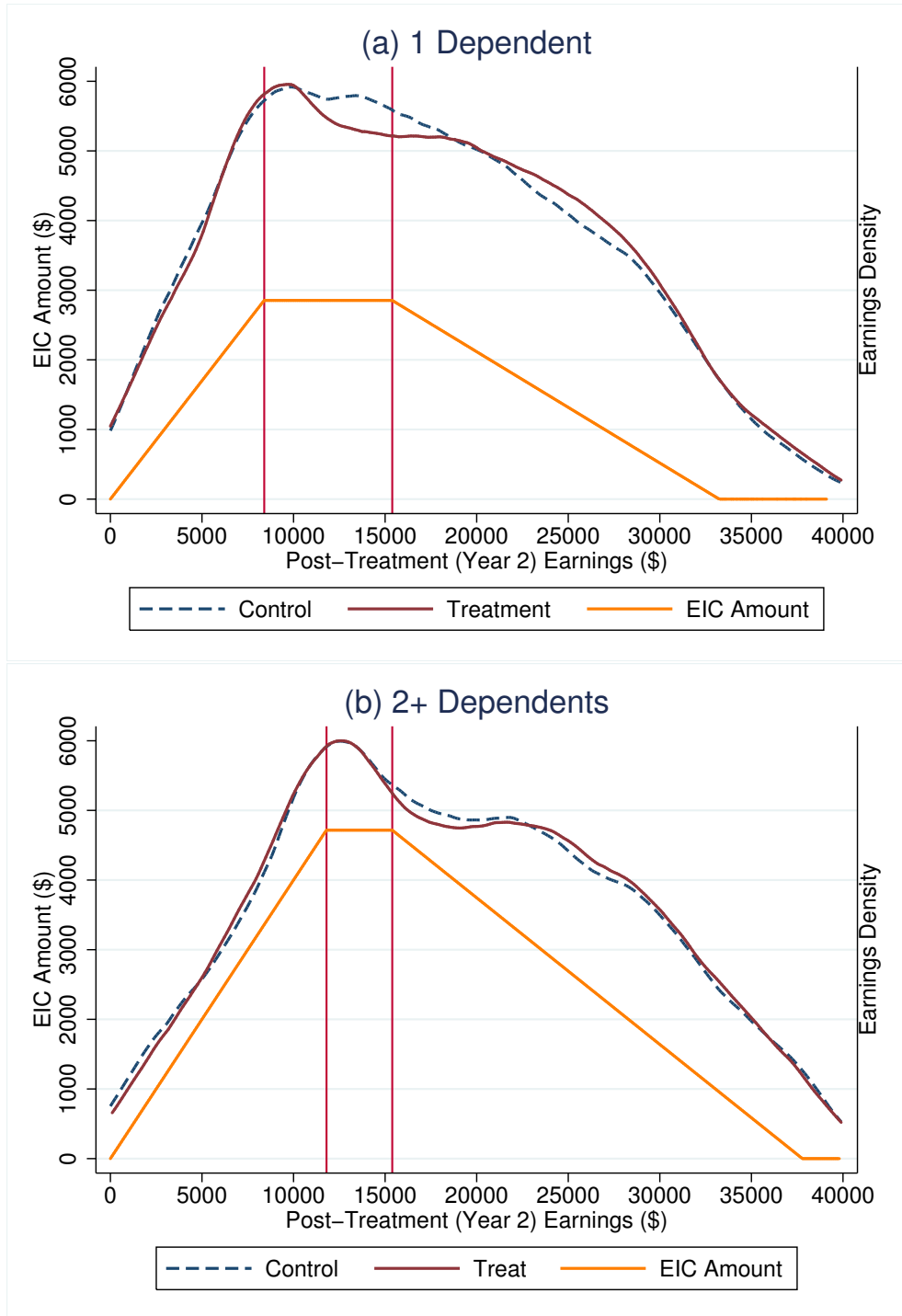
Figure 4: Year 2 Earnings Distributions: Full Sample

NOTE: These figures plot kernel densities of year 2 (post-treatment) income (sum of wage earnings and self-employment income) for the full sample of individuals filing with a tax professional. The solid curve shows the income distribution for the treatment group; the dashed curve shows the income distribution for the control group. Panel A is for tax filers with 1 qualifying dependent for EITC purposes in the base year, while panel B is for tax filers with 2 or more qualifying dependents. Each panel also shows the relevant EITC schedule (on the left y-axis). The vertical lines mark the boundaries between the phase-in, peak, and phase-out ranges of the EITC. Note that the EITC schedule shown in the Figure and all subsequent Figures is for single filers (91% of our sample). The EITC plateau for married filers is extended by $2000 (see Figure 1a).
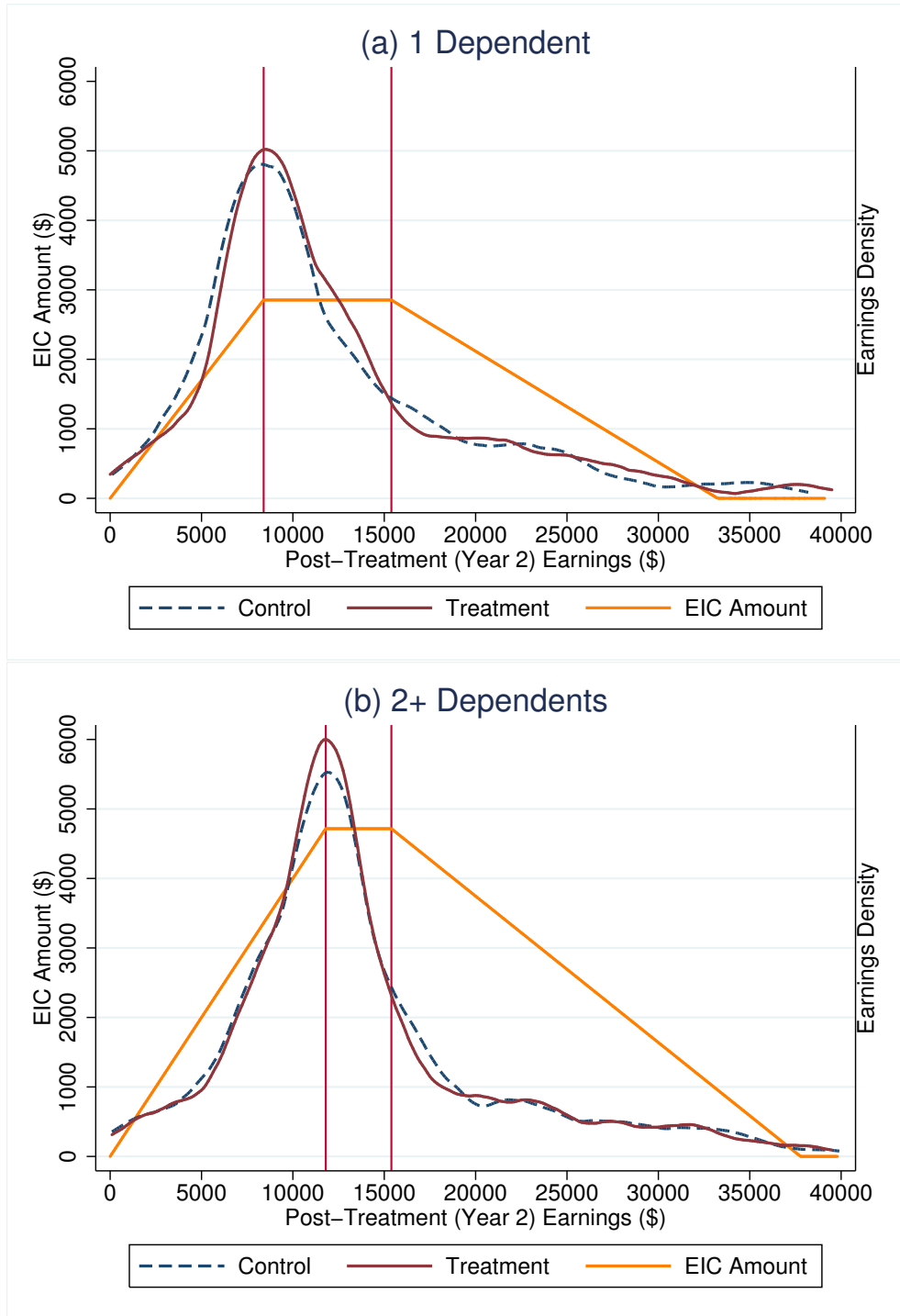
Figure 5: Year 2 Earnings Distributions: Self-Employed in Year 1

NOTE: These figures plot kernel densities of year 2 (post-treatment) income (sum of wage income and self-employment income) for tax filers who had positive self-employment earnings in the base year. The solid curve shows the income distribution for the treatment group; the dashed curve shows the income distribution for the control group. Panel A is for the sample of individuals with one dependent, while panel B is for the sample of individuals with two or more dependents. Each panel also shows the relevant EITC schedule for singles (on the left y-axis). The vertical lines mark the boundaries between the phase-in, peak, and phase-out ranges of the EITC.

Figure 6: Year 2 Earnings Distributions: Complying Tax Professionals

NOTE: These figures plot kernel densities of year 2 (post-treatment) income (sum of wage earnings and self-employment income) for the sample of individuals filing with a "complying" tax professional. A given tax filer is tax professional is defined as a complier if she has a higher fraction of other clients (excluding client i) with middle income (between \$7,000 and \$15,400) in the treatment group than the control group. The solid curve shows the income distribution for the treatment group; the dashed curve shows the income distribution for the control group. Panel A is for tax filers with 1 qualifying dependent for EITC purposes in the base year, while panel B is for tax filers with 2 or more qualifying dependents. Each panel also shows the relevant EITC schedule for singles (on the left y-axis). The vertical lines mark the boundaries between the phase-in, peak, and phase-out ranges of the EITC.
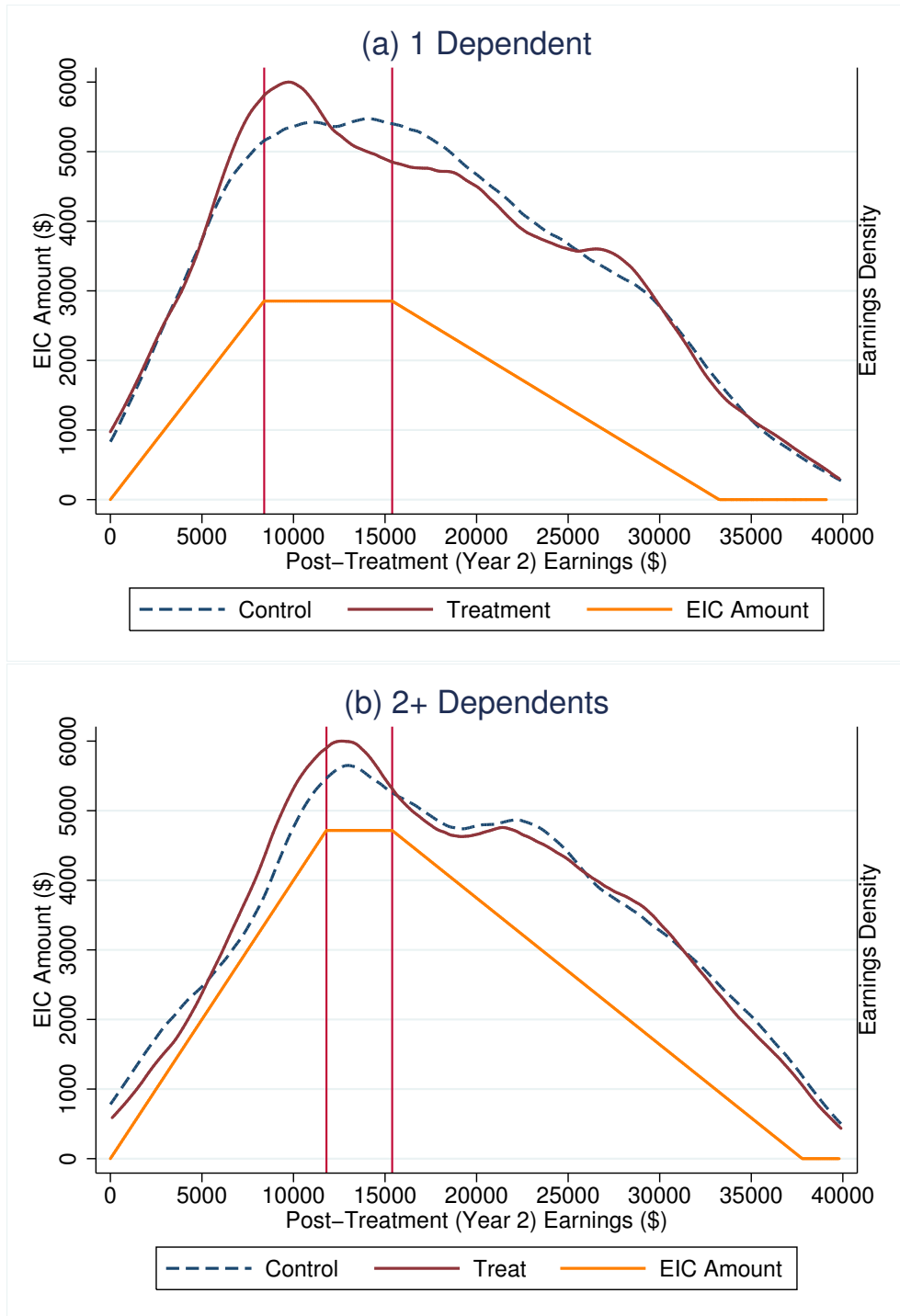
36

Figure 7: Year 2 Earnings Distributions: Non-Complying Tax Professionals

NOTE: These figures plot kernel densities of year 2 (post-treatment) income (sum of wage earnings and self-employment income) for the sample of individuals filing with a non-complying tax professional. A given tax filer is tax professional is defined as a non-complier if she has a lower fraction of other clients (excluding client i) with middle income (between $7,000 and $15,400) in the treatment group than the control group. The solid curve shows the income distribution for the treatment group; the dashed curve shows the income distribution for the control group. Panel A is for tax filers with 1 qualifying dependent for EITC purposes in the base year, while panel B is for tax filers with 2 or more qualifying dependents. Each panel also shows the relevant EITC schedule for singles (on the left y-axis). The vertical lines mark the boundaries between the phase-in, peak, and phase-out ranges of the EITC.
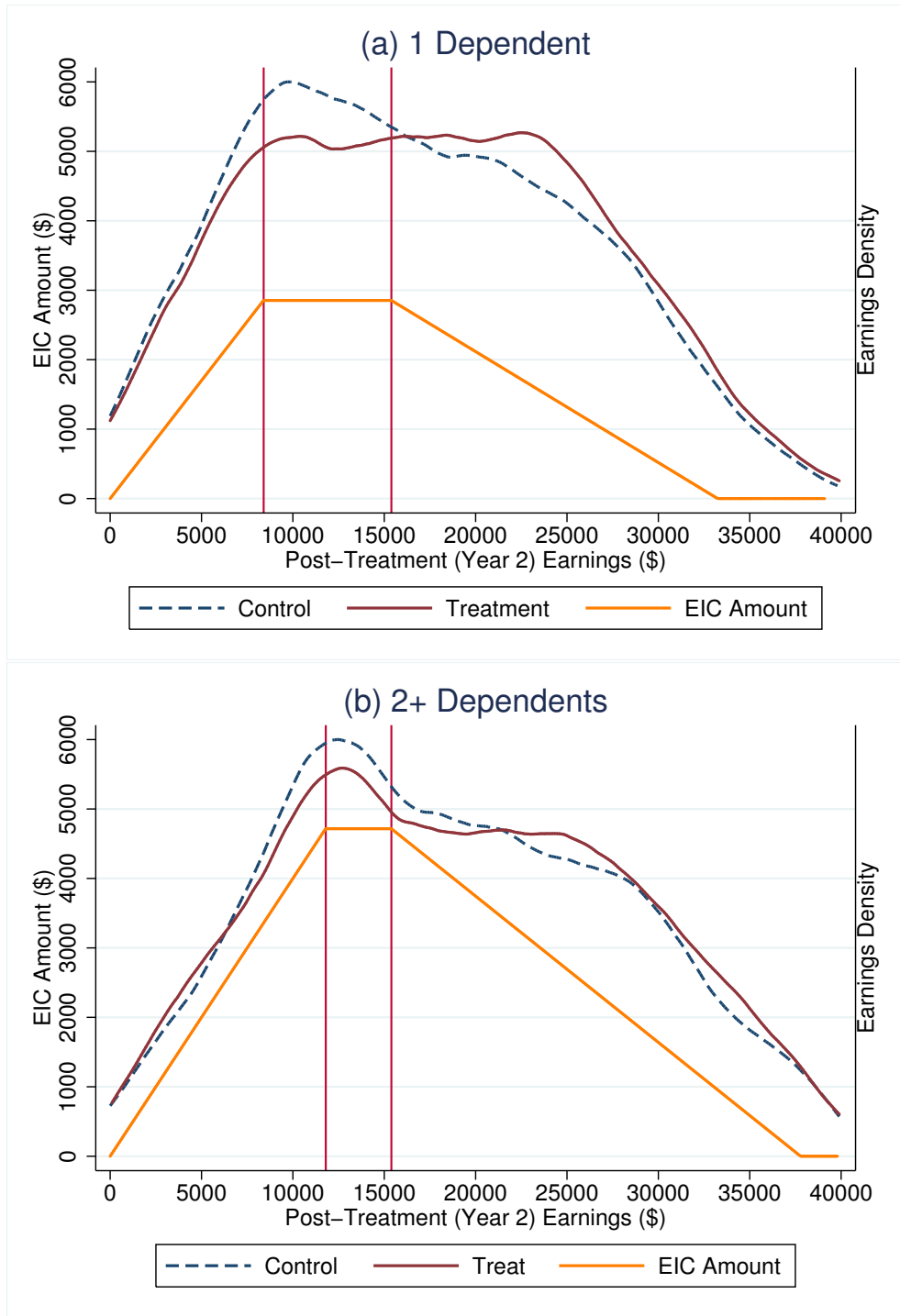
EXHIBIT I
EITC Handout: 4 Step Explanation

Single With Two or More Children

The EIC (Earned Income Credit) is a tax refund that gives families as much as $4,500 per year.

We want to explain how the **EIC** works to help you decide how much to work and earn this year.
In 2006, you made $___**10,000**___ → you are getting an **EIC** of $___**4,000**___ in your refund.

- Your earnings this year (in 2007) will determine the size of your **EIC** refund next year
- The **EIC** has 3 ranges: 1) Increasing, 2) Peak, 3) Decreasing

You are in the___**increasing**___ range of the **EIC**. *Think about it like this:*

- (increasing) Suppose you earn $10 an hour, then you are really making $14.00 an hour.
- (peak) Your earnings are maxing-out the **EIC** amount
- (decreasing) If you earn $10 more, your **EIC** is reduced by $2.10

EIC Range	If you earn between	EIC refund will be	If you earn $10 more, the EIC...
Increasing	$0-$11,790	$0 up to $4,716	Increases by $4
Peak	$11,790-$15,390	$4,716	Stays the same
Decreasing	$15,390-$37,780	$4,716 down to $0	Decreases by $2.10

1. Fill in earnings, EIC amount

2. Explain and dot graph

3. Take-home Message

4. Table

A   Online Appendix

A.1   Derivation of Compliers vs. Non-Compliers Estimator

This appendix proves that we would detect zero treatment effects within the group of clients served by "complying" (or "non-complying") tax professionals if all tax professionals have zero treatment effects. To begin, index tax professionals by $p = 1, .., P$ and clients by $i = 1, .., I$. Each tax professional p serves a set I_p of clients. For a client i served by tax professional p, denote by $I_{p,-i}$ the set of other clients (excluding i) served by tax professional p. Let $T_i = 0, 1$ denote the intent-to-treat status of client i. The set $I_{p,-i}$ is partitioned into two sets of clients: those who were treated ($T_j = 1$) and those not treated ($T_j = 0$). Denote these two sets by $I^1_{p,-i}$ and by $I^0_{p,-i}$. Formally, for $t = 0, 1$, $I^t_{p,-i} = \{j \in I_{p,-i} | T_j = t\}$. Denote by $y_{i,p}$ an outcome such as earnings reported in year 2. Let $m_{i,p}$ denote an indicator for whether client i of tax professional p has "middle income" (earnings between \$7,000 and \$15,400) in year 2.

For a given outcome y, there are two potential outcomes: $y^0_{i,p}$ if the client is in the control group $T_i = 0$ and $y^1_{i,p}$ if the client is in the treatment group $T_i = 1$. We only observe $y^{T_i}_{i,p}$. For a given client i served by tax professional p, we define complying status $C_{i,p}$ as follows: $C_{i,p} = 1$ if $\sum_{j \in I^1_{p,-i}} m_{j,p}/|I^1_{p,-i}| > \sum_{j \in I^0_{p,-i}} m_{j,p}/|I^0_{p,-i}|$ and $C_{i,p} = 0$ otherwise.

Definition 1 *There are no treatment effects along outcome y iff $y^1_{i,p} = y^0_{i,p}$ for all (i, p).*

Theorem 1 *Suppose there are no treatment effects on outcomes y and m. Then*

(1) C and y are independent variables.

(2) $E[y_{ip}|C = 1, T = 1] = E[y_{ip}|C = 1, T = 0]$ and $E[y_{ip}|C = 0, T = 1] = E[y_{ip}|C = 0, T = 0]$, i.e., the average outcome y is the same in expectation across treatment and control clients within the sample of compliers and within the sample of non-compliers.

(3) $E[y_{ip}|C = 1, T = 1] = E[y_{ip}|C = 0, T = 1]$ and $E[y_{ip}|C = 1, T = 0] = E[y_{ip}|C = 0, T = 0]$, i.e., the average outcome y is the same in expectation across complying and non-complying cases within the sample of treated clients and within the sample of non-treated clients.

Proof:

(1): Suppose there are no treatment effects on outcome m. Then $m^1_{i,p} = m^0_{i,p}$ for all (i, p). By definition, $C_{i,p} = 1$ if $\sum_{j \in I^1_{p,-i}} m^1_{j,p}/|I^1_{p,-i}| > \sum_{j \in I^0_{p,-i}} m^0_{j,p}/|I^0_{p,-i}|$. Therefore, $C_{i,p} = 1$ if $\sum_{j \in I^1_{p,-i}} m^0_{j,p}/|I^1_{p,-i}| - \sum_{j \in I^0_{p,-i}} m^0_{j,p}/|I^0_{p,-i}| > 0$.

The partition $I^1_{p,-i}, I^0_{p,-i}$ depends solely on T_j for $j \in I^0_{p,-i} \cup I^1_{p,-i}$. Because treatment T is randomly assigned, any outcome of individual i such as $m_{i,p}$ or $y_{i,p}$ must be independent of T_j for $j \neq i$. Hence, outcomes $m_{i,p}$ or $y_{i,p}$ are also independent of $I^1_{p,-i}$ and $I^0_{p,-i}$. Therefore outcomes $m_{i,p}$ or $y_{i,p}$ are independent of $C_{i,p}$.

(2) Recognizing that y^1_{ip} is independent of $C_{i,p}$, we have

$$E[y_{ip}|C = 1, T = 1] = E[y^1_{ip}|C = 1, T = 1] = E[y^1_{ip}|T = 1]$$

We then have $E[y_{ip}^1|T=1] = E[y_{ip}^1|T=0]$ because T is randomly assigned and $E[y_{ip}^1|T=0] = E[y_{ip}^0|T=0]$ because there are no treatment effects. Finally, because C is independent of y_{ip}^0,

$$E[y_{ip}^0|T=0] = E[y_{ip}^0|C=1,T=0] = E[y_{ip}|C=1,T=0].$$

The proof for the case of $C=0$ is identical.

(3) This follows from the following set of equalities:

$$
\begin{aligned}
E[y_{ip}|C=1,T=1] &= E[y_{ip}^1|C=1,T=1] = E[y_{ip}^1|T=1] \\
&= E[y_{ip}^1|C=0,T=1] = E[y_{ip}|C=0,T=1]
\end{aligned}
$$

where we use the fact that C and y_{ip} are independent in the second and fourth equality. QED

A.2 Sensitivity Analysis: Definition of Compliance

In this section, we assess the robustness of the results in Section 5 to the definition of "compliance." We focus on two key dependent variables: changes in EITC amounts and changes in wage-based EITC amounts.

In Appendix Table A4, we use EITC amounts instead of the middle income indicator to define tax professional compliance. For each tax filer i, we define his tax professional as a complier if the average year 2 EITC amount of her other treated clients (excluding client i) is higher than the average year 2 EITC amount of her other control clients. From the perspective of client i, his tax professional is a complier under this definition if she uses the information treatment to increase EITC amounts among her other clients. Columns 1 and 2 of Table A4 report mean treatment effects for the change in the EITC amount (from year 1 to year 2). Columns 3 and 4 report mean treatment effects for the change in the wage-based EITC amount. Columns 1 and 3 do not include any controls, while columns 2 and 4 include the standard vector of base year controls used above.

Row (1) of Table A4 replicates the results for the full sample. Row (2) considers individuals served by tax professionals who are "compliers" based on the EITC amount definition. Clients given the information treatment by these tax professionals increase their total EITC amounts by about \$64 more than control group clients of the same tax professionals. Approximately \$55 of this increase in the EITC amount comes from changes in wage earnings. These estimates are statistically significant with $p < 0.05$.

Row (3) shows that clients given the information treatment by non-complying tax professionals experience *reductions* in their EITC amounts relative to their peers in the control group. The treatment is estimated to reduce the wage-based EITC by \$58 in the specification with controls (column 4). These reductions in EITC amounts – driven largely by the wage-based component – are consistent with our earlier findings that non-compliers induce their treated clients to increase their wage earnings. Finally, rows (4) and (5) confirm that there are significant differences in year 2 outcomes between clients treated by compliers and non-compliers,

even after controlling for observed client heterogeneity. Overall, the results in Table A4 show that the "middle income" and EITC-based definitions of compliance – two different ways of quantifying changes in the concentration of the income distribution – generate treatment effects with similar magnitudes.[34]

Thus far, we have divided tax professionals into two distinct categories – compliers and non-compliers. We now explore the robustness of the results to the use of continuous measures of tax professional compliance. For client i, define the continuous compliance measure tpcompliance$_i$ as the tax professional's treatment effect on a year 2 outcome excluding client i himself. For instance, with the middle income outcome, tpcompliance$_i$ is the fraction of treated clients who have middle income minus the fraction of control clients who have middle income, excluding client i. Since each tax professional has only 15 treated and 15 control clients on average, there are outliers in the tpcompliance$_i$ variable. For example, some tax professionals who have a small number of clients happen to have 100% of their treated clients with middle income and 0% of their control clients with middle income, generating an extreme compliance measure of 100%. To reduce the influence of these outliers, we drop observations that have tpcompliance$_i$ below the 1st or above the 99th percentile of the tpcompliance$_i$ distribution.

Using the continuous tpcompliance$_i$ measure, we estimate variants of the interaction specifications in row 4 of Table 3:

$$y_i = \alpha + \beta_1 \text{treat}_i + \beta_2 \text{tpcompliance}_i + \beta_3 \text{treat}_i \times \text{tpcompliance}_i + \varepsilon_i. \tag{A3}$$

The coefficient of interest is β_3, which measures how treatment effects vary with the degree of the tax professional's compliance. Table A5 reports estimates of β_3 for changes in EITC amounts (row 1) and changes in wage-based EITC amounts (row 2). In column 1, tpcompliance$_i$ is defined using the year 2 middle income indicator. In column 2, tpcompliance$_i$ is defined using the year 2 EITC amount, providing a continuous analogue to the binary compliance measure used in Table A4. The estimates in columns 1 and 2 show that more compliant tax professionals generate larger increases in their treated clients' total and wage-based EITC amounts. In interpreting the magnitudes of these coefficients, it is useful to note that the standard deviation of the continuous middle income compliance variable is 18% (after trimming outliers). The corresponding standard deviation for the EITC amount compliance variable is $600. Hence, a one standard deviation increase in the degree of compliance is estimated to increase the treatment effect on the EITC amount by $31 for the middle income measure and by $26 for the EITC amount measure of compliance. The considerable loss of precision in the continuous specification relative to the binary specifications appears to be driven by outliers. Further trimming – e.g. removing or winsorizing the observations with values of tpcompliance$_i$ below the 5th or above the 95th percentile – increases the precision of the estimates.

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[34]We chose to use the middle income indicator in our baseline analysis because the estimates with the EITC amount definitions of compliance are less precise, for two reasons. First, the substantial variance in EITC amounts across clients creates noise in the compliance variable. Second, the "middle income" indicator more directly identifies increased bunching around the first kink.

In columns 3 and 4 of Table A5, we control for base year characteristics of clients when defining the tpcompliance$_i$ measure. In these specifications, tpcompliance$_i$ is effectively defined based on the tax professional's effects on *changes* in behavior rather than levels of year 2 outcomes. We define tpcompliance$_i$ by estimating a regression analogous to (2) using all clients of client i's tax professional except client i himself. The regression includes the standard set of base year controls: income, income squared, wage earnings, marital status, and dependents. The tpcompliance$_i$ measure is the estimated treatment effect from this regression.

Column 3 reports estimates using the continuous version of the middle income outcome with base year controls, and column 4 reports the same for the EITC outcome. These specifications include the base year controls and their interactions with the tpcompliance$_i$ variable. As above, we trim outliers by dropping observations with the 1% largest and smallest values of tpcompliance$_i$. The estimates imply that a one standard deviation increase in tpcompliance$_i$ increases the treatment effect on the EITC amount by \$21 for the middle income measure and by \$60 for the EITC amount measure of compliance. Although there is some variation in the magnitude of the estimates with the continuous measures of compliance, the qualitative pattern is robust: more compliant tax professionals induce larger treatment effects on total and wage-based EITC amounts.

A.3 Calibration of Magnitudes

In this section, we benchmark the magnitudes of the information treatment effects relative to the effects of conventional policy instruments such as an expansion of the EITC program or changes in tax rates. We calibrate the changes in the behavior that would be caused by changes in marginal incentives using estimates of the intensive margin labor supply elasticity from the existing literature. As discussed in section 2, most studies find insignificant effects of EITC expansions on hours of work for those already in the work force. Our reading of the literature suggests that an elasticity of $e = 0.25$ is an upper bound for the short-run intensive margin elasticity of earnings (Chetty 2012). Since complying and non-complying tax professionals generate qualitatively different behavioral responses, we present separate calibrations for each case.

Complying tax professionals. Clients treated by complying tax professionals respond in a manner consistent with what would be expected to occur when the EITC program is expanded. We therefore calculate the percentage expansion in the EITC that would be required to produce the same change in earnings behavior as the information treatment.

Let t^i denote the EITC phase-in rate ($t^i = .4$ for filers with two or more dependents and $t^i = .34$ for those with one dependent). Let t^d denote the phase-out rate ($t^d = 0.21$ for two or more dependents, $t^d = 0.16$ for one dependent). Expanding the EITC program by Δ percent would increase the net-of-tax rate from $1 + t^i$ to $1 + t^i(1 + \Delta)$ in the phase-in range and decrease the net-of-tax rate from $1 - t^d$ to $1 - t^d(1 + \Delta)$ in the phase-out range. To calibrate how these changes would affect earnings behavior, we use a specification of utility as a function of

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consumption (c) and labor (l) that produces a constant net-of-tax elasticity:

$$u(c, l) = c - \frac{l^{1+1/e}}{1 + 1/e},$$

where $e = \frac{d \log l}{d \log 1-t}$ denotes the elasticity of labor supply with respect to the net-of-tax rate. Note that there are no income effects with this quasi-linear utility specification, so labor supply is a function purely of the marginal tax rate.

In the phase-in range, if the earnings level under the existing EITC program is z_0, earnings after the Δ percent EITC expansion would be

$$z_\Delta^i = z_0 \cdot [(1 + t^i(1 + \Delta))/(1 + t^i)]^e \simeq z_0 \cdot \left(1 + e \cdot \Delta \cdot \frac{t^i}{1 + t^i}\right)$$

Symmetrically, in the phase-out range, if earnings under the existing EITC are equal to z_0, earnings after the Δ percent EITC expansion would be

$$z_\Delta^d = z_0 \cdot [(1 - t^d(1 + \Delta))/(1 - t^d)]^e \simeq z_0 \cdot \left(1 - e \cdot \Delta \cdot \frac{t^d}{1 - t^d}\right)$$

To find the Δ that generates responses comparable to those estimated in the data, we focus on our estimate of the change in the EITC amount induced by the information treatment. For complying tax professionals, we estimate that the information treatment increased the average EITC amount by $\Delta EITC = \$58$ (Table 3, column 1, row 2). To derive a comparable measure for the effect of a Δ percent EITC expansion, we calculate the increase in the EITC amount under the *initial* (pre-expansion) schedule, which is the relevant measure for comparisons of behavioral responses. The change in earnings behavior in the phase-in range $(z_\Delta^i - z_0)$ increases the pre-expansion EITC amount by

$$\Delta EITC^i = t^i \cdot (z_\Delta^i - z_0) \simeq z_0 \cdot e \cdot \Delta \cdot \frac{(t^i)^2}{1 + t^i}$$

Likewise, in the phase-out range, the change in earnings $(z_\Delta^d - z_0)$ increases the pre-expansion EITC amount by:

$$\Delta EITC^d = -t^d \cdot (z_\Delta^d - z_0) \simeq z_0 \cdot e \cdot \Delta \cdot \frac{(t^d)^2}{1 - t^d}$$

Let λ^i and λ^d denote the fraction of the EITC claimants in the phase-in and phase-out regions respectively. Let $\bar{z}^i$ and $\bar{z}^d$ denote the average earnings in the phase-in and phase-out regions. The mean effect of the EITC expansion on EITC amounts under the initial schedule is:

$$\Delta EITC \simeq \Delta \cdot e \cdot \left[\lambda^i \cdot \bar{z}_i \cdot \frac{(t^i)^2}{1 + t^i} + \lambda^d \cdot \bar{z}_d \cdot \frac{(t^d)^2}{1 - t^d})\right] \tag{A4}$$

In our sample, $\lambda^i = .28$, $\lambda^d = .53$, $\bar{z}^i = \$6,600$, $\bar{z}^d = \$23,300$, $t^i = 0.37$ (the average of

40% and 34%), and $t^d = 18.5\%$ (the average of 21% and 16%). With $\Delta EITC = \$58$ and $e = .25$, solving equation (A4) yields $\Delta = 33\%$. That is, a 33% expansion in the federal EITC would be required to generate the same labor supply responses along the intensive margin as the information treatment implemented by complying tax professionals.

Non-complying tax professionals. The information treatment as implemented by non-complying tax professionals led to a pure increase in earnings, which is consistent with a reduction in perceived tax rates rather than changes in perceptions of the EITC schedule. We therefore calculate the percentage reduction in tax rates that would produce an increase in earnings equal to the treatment effect estimate of \$247 (Table 3, column 2, row 3).

The EITC claimants in our sample face an average marginal tax rate of approximately $t = 10\%$ and have average earnings of $z = \$16,500$. A reduction in t by Δt would generate a change in earnings Δz of

$$\frac{\Delta z}{z} = e \cdot \frac{\Delta t}{1 - t}. \tag{A5}$$

With $\Delta z = \$247$ and $e = .25$, solving equation (A5) yields $\Delta t = 5.4\%$. That is, a 5.4 percentage point reduction in marginal tax rates would be required to generate the same labor supply responses along the intensive margin as the information treatment implemented by non-complying tax professionals.

Table A1

Kolmogorov-Smirnov Tests of Treatment Effects on Distributions

Distribution:	Δ EITC Amount	Δ Wage-Based EITC Amount
	(1)	(2)
(1) Full Sample [N = 30,303]	0.074	0.273
(2) Complying Tax Professionals [N = 15,395]	0.005	0.005
(3) Non-Complying Tax Professionals [N=14,534]	0.045	0.010

Notes: This table reports p values from Two-sample Kolmogorov-Smirnov (KS) tests for equality of various distributions across treated and control group clients. In column 1, the variable considered is the change in EITC amount from year 1 to year 2; column 2: the change in EITC amount computed based solely on wage earnings. The first row is for the full sample. The second row considers clients served by "complying" tax professionals, while the third row considers those served by "non-complying" tax professionals. A given tax filer i's tax professional is defined as a "complier" if she has a higher fraction of other clients (excluding client i) with middle income (between $7,000 and $15,400) in the treatment group than the control group.

The p values are computed using a permutation algorithm as follows. We generate a placebo treatment randomly (50% probability) and recompute the KS test statistic based on this placebo treatment. This exercise is repeated 2000 times to generate a distribution of KS statistics. The p-values reported in the table are the percentile where the original KS statistics (for the true treatment) fall within the empirical distribution of the 2000 placebo KS statistics.

Table A2

Means of Base-Year Variables by Treatment Eligibility and Complying Tax Professional Status

Base year variables:	A. Complying Tax Pros			B. Non-Complying Tax Pros		
	Control [N=21,193]	Treatment [N=20,809]	Difference (2) - (1)	Control [N=15,380]	Treatment [N=14,925]	Difference (5) - (4)
	(1)	(2)	(3)	(4)	(5)	(6)
Income ($)	16,599	16,509	-89.86	16,541	16,731	189.80
	(107.30)	(114.12)	(124.15)	(111.62)	(118.45)	(129.83)
Wage Earnings ($)	15,868	15,808	-59.61	15,837	16,002	164.77
	(136.53)	(143.15)	(141.82)	(136.04)	(135.41)	(150.59)
EITC amount ($)	2,490	2,486	-3.23	2,470	2,446	-24.23
	(16.12)	(18.23)	(18.45)	(15.18)	(16.59)	(17.85)
Percent Self Employed	11.65%	11.34%	-0.31%	11.26%	11.07%	-0.20%
	(0.71)	(0.72)	(0.46)	(0.63)	(0.52)	(0.50)
Percent Low Income	14.07%	14.56%	0.49%	14.66%	14.88%	0.22%
	(0.41)	(0.44)	(0.47)	(0.42)	(0.43)	(0.53)
Percent Middle Income	34.68%	34.80%	0.13%	33.99%	33.14%	-0.85%
	(0.66)	(0.73)	(0.70)	(0.62)	(0.61)	(0.69)
Percent Upper Income	51.26%	50.64%	-0.62%	51.35%	51.98%	0.63%
	(0.63)	(0.69)	(0.75)	(0.63)	(0.67)	(0.76)
Percent Married	9.94%	8.97%	-0.97%	9.08%	9.87%	0.80%
	(0.46)	(0.44)	(0.40)	(0.44)	(0.45)	(0.40)
Percent with 2 or more dependents in Year 1	59.24%	59.42%	0.18%	59.37%	59.39%	0.02%
	(0.54)	(0.52)	(0.67)	(0.51)	(0.59)	(0.69)
Percent Return in Year 2 Percent with 2 or more	72.33%	72.04%	-0.29%	72.87%	71.55%	-1.32%
	(0.52)	(0.54)	(0.62)	(0.52)	(0.58)	(0.68)

Notes: All variables are base year (year 1) values except last row. Standard errors clustered by tax professional reported in parentheses. Income is defined as the sum of wage income and self-employment income. Self employed is a binary variable defined as having positive self-employment income (irrespective of other wage earnings). Low income is defined as income below $7,000; middle income is defined as income between $7,000 and $15,400; and upper income is defined as income above $15,400. Treatment group includes all tax filers we intended to treat. Columns (1) to (3) include the sample of clients served by complying tax professional while columns (4) to (6) include the sample of clients served by a non-complying tax professional. A given tax filer i's tax professional is defined as a "complier" if she has a higher fraction of other clients (excluding client i) with middle income (between $7,000 and $15,400) in the treatment group than the control group.

Table A3

Treatment Effects by Tax Professional Complying Status and EITC Range

Dep. Var.:	Δ EITC amount	Δ EITC amount	Δ EITC amount	Δ Earnings	Δ Earnings	Δ Earnings
Sample	Phase-in in year 1	Plateau in year 1	Phase-out in year 1	Phase-in in year 1	Plateau in year 1	Phase-out in year 1
	(1)	(2)	(3)	(4)	(5)	(6)
(1) Full Sample	9.47	10.23	22.72	-263.60	167.11	111.34
	(28.15)	(31.33)	(17.34)	(148.46)	(181.29)	(118.51)
	7,442	5,687	17,174	7,442	5,687	17,174
(2) Complying Tax	42.45	48.31	66.53	-204.21	3.70	-221.10
Professionals	(40.78)	(43.90)	(24.30)	(215.60)	(257.54)	(170.87)
	3,773	2,962	8,660	3,773	2,962	8,660
(3) Non-Complying	-30.13	-35.91	-31.39	-325.65	336.32	474.11
Tax Professionals	(42.63)	(46.47)	(25.14)	(205.25)	(267.55)	(170.26)
	3,596	2,656	8,282	3,596	2,656	8,282
(4) Compliers vs Non-	72.58	84.22	97.92	121.44	-332.62	-695.21
Compliers: (2) - (3)	(61.58)	(65.12)	(35.56)	(298.90)	(377.74)	(248.92)
	7,369	5,618	16,942	7,369	5,618	16,942
(5) Compliers vs Non-	68.86	86.71	97.22	121.76	-322.61	-690.70
Compliers w/ Cntrls	(61.47)	(65.22)	(35.56)	(299.62)	(378.00)	(248.65)
for Heterogeneity	7,369	5,618	16,942	7,369	5,618	16,942

Notes: Standard errors clustered by tax professional reported in parentheses; number of observations is reported below the standard error. Each coefficient is from a separate regression. Columns show treatment effects on various outcomes -- cols. 1, 2, 3: change in EITC amount from year 1 to year 2; cols. 4, 5, 6: change in earnings from year 1 to year 2. All regressions include the following base year controls: earnings, earnings squared, wage earnings, married filing jointly dummy, and number of qualifying children (1 vs. 2 or more). Cols. 1 and 4 limit the sample to those with earnings in the EITC phase-in in year 1. Cols. 2 and 5 limit the sample to those with earnings in the EITC plateau in year 1. Cols. 3 and 6 limit the sample to those with earnings in the EITC phase-out in year 1.

Row (1) reports coefficients on the treatment indicator from OLS regressions of the form shown in equation (2) in the text for the full sample of tax filers who returned in year 2. Row (2) limits the sample to complying tax professionals, and row (3) limits the sample to non-complying tax professionals. See notes to Table A1 for definition of complying tax professionals. Row (4) reports the difference in treatment effects between complying and non-complying tax professionals, which equals the difference in coefficients between rows (2) and (3). In row (4), we regress each outcome variable on the treatment indicator, an indicator for having a complying tax professional, and the interaction of the two indicators.

The coefficient on the interaction is reported. We also include interactions of the base year control variables with the complying tax professional indicator. Row (5) reports the difference in treatment effects between complying and non-complying tax professionals controlling for heterogeneity in treatment effects by client observables. This specification adds interactions of the base year controls with the treatment indicator to the specifications in row (4). The coefficient on the treatment x complying tax professional interaction is reported.

Table A4

Compliance Defined By Treatment Effects on EITC Amount

Dependent Variable:	Δ EITC Amt.	Δ EITC Amt. with controls	Δ Wage Based EITC Amount	Δ Wage Based EITC Amount with controls
	($)	($)	($)	($)
	(1)	(2)	(3)	(4)
(1) Full Sample	24.02	17.17	8.393	1.75
[N=30,303]	(14.77)	(14.06)	(15.57)	(14.96)
	[1.63]	[1.22]	[0.54]	[0.12]
(2) Complying Tax Professionals	64.98	63.24	54.77	54.91
[N=14,973]	(24.91)	(25.42)	(24.86)	(24.95)
	[2.61]	[2.49]	[2.20]	[2.20]
(3) Non-Complying Tax Professionals	-22.97	-34.80	-44.81	-58.00
[N=14,956]	(24.89)	(24.67)	(25.27)	(25.46)
	[-0.92]	[-1.41]	[-1.77]	[-2.28]
(4) Compliers vs. Non-Compliers: (2) - (3)	87.94	97.53	99.58	113.07
[N=29,929]	(40.93)	(42.60)	(40.32)	(41.89)
	[2.15]	[2.29]	[2.47]	[2.70]
(5) Compliers vs. Non-Compliers Controlling for Heterogeneity in Treatment Effects by Client Observables	96.50	96.70	111.01	111.98
	(42.64)	(42.67)	(41.89)	(41.90)
	[2.26]	[2.27]	[2.65]	[2.67]
[N=29,929]				

Notes: Standard errors clustered by tax professional reported in parentheses; t-statistics in square brackets. Each coefficient is from a separate regression. A given tax filer i's tax professional is defined as a "complier" if her other treated clients have higher average EITC amounts in year 2 than her other control clients (excluding client i). The dependent variable in columns 1 and 2 is the change in EITC amount from year 1 to year 2; in columns 3 and 4, it is the change in the wage-based EITC amount (EITC computed based solely on wage earnings). Columns 2 and 4 include the following base year controls: earnings, earnings squared, wage earnings, marital status, and number of children.

Row (1) reports the treatment effects in the full sample, row (2) restricts the sample to clients of complying tax professionals, and row (3) to non-complying tax professionals. Row (4) reports the difference in treatment effects between complying and non-complying tax professionals. Row (5) reports the difference in treatment effects between complying and non-complying tax professionals, controlling for heterogeneity in treatment effects by base year characteristics of clients. See notes to Table 3 for details of regression specifications.

Table A5

Continuous Measures of Compliance

Year 2 variable for compliance def.	Middle Income	EITC Amount	Middle Income	EITC Amount
Base year controls in compliance def.	No	No	Yes	Yes
	(1)	(2)	(3)	(4)
(1) Δ EITC Amount ($)	173.92	0.044	127.94	0.101
	(87.68)	(0.029)	(92.61)	(0.038)
	[1.98]	[1.52]	[1.38]	[2.64]
	[N=29,351]	[N=29,362]	[N=29,346]	[N=29,353]
(2) Δ Wage-Based EITC Amount ($)	227.58	0.050	182.88	0.091
	(88.04)	(0.029)	(91.47)	(0.038)
	[2.58]	[1.72]	[2.00]	[2.42]
	[N=29,351]	[N=29,362]	[N=29,346]	[N= 29,353]

Notes: Standard errors clustered by tax professional reported in parentheses; t-statistics in square brackets. This table uses continuous measures of compliance instead of binary definitions. Each coefficient listed is from a separate regression of the form shown in equation (3) in the text, which includes the treatment indicator, a continuous measure of tax professional compliance, and the interaction of these two variables. Each column of the table reports the coefficient on the interaction between different tax professional compliance variables and the treatment indicator. The dependent variable is the change in EITC amount from year 1 to year 2 in row (1), and the change in the wage-based EITC amount in row (2). In all columns, the complying tax professional variable is defined for each client by excluding that client himself. In column 1, the complying tax professional variable is defined as a continuous variable equal to the fraction of other clients treated in year 1 who have middle income in year 2 (between $7,000 and $15,400) minus the fraction of other control clients in year 1 who have middle income in year 2.

In column 2, the complying tax professional variable is defined as a continuous variable equal to the average EITC amount in year 2 of other clients treated in year 1 minus the average EITC amount in year 2 of other clients in the control group in year 1. Columns 3 and 4 replicate the definitions in 1 and 2, but define the continuous measure of treatment effects on other clients using a regression that controls for the following base year observables: earnings, earnings squared, wage earnings, marital status, and number of children. We also control for the same base year variables and their interaction with the compliance variable when estimating the regressions in columns 3 and 4.
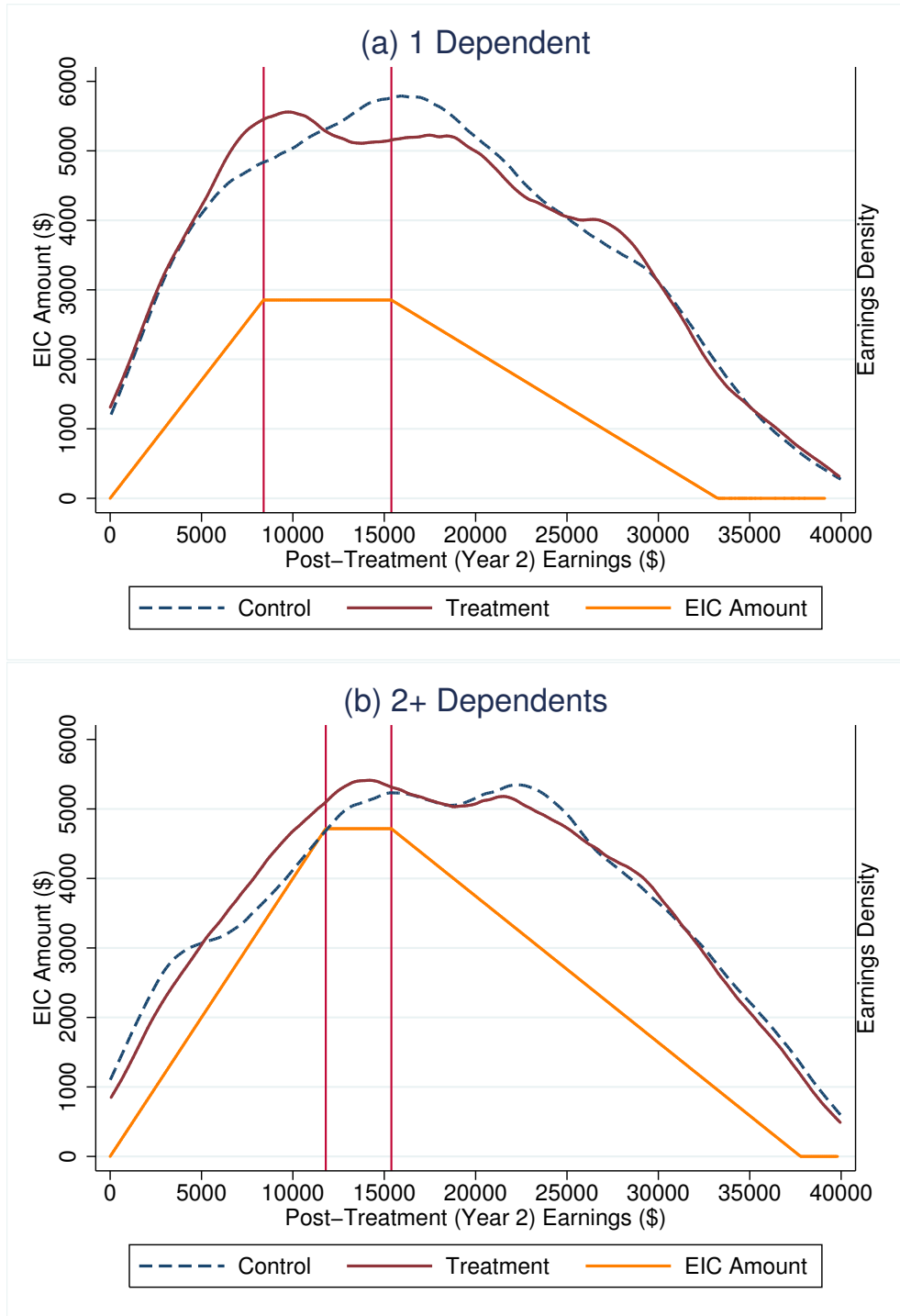
Figure A1: Year 2 Wage Earnings Distributions: Complying Tax Professionals

NOTE: These figures plot kernel densities of year 2 (post-treatment) of wage earnings for tax filers who filed with a complying tax professional. See notes to Figure 5 for the definition of complying tax professionals. The solid curve shows the income distribution for the treatment group; the dashed curve shows the income distribution for the control group. Panel A is for the sample of individuals with one dependent, while panel B is for the sample of individuals with two or more dependents. Each panel also shows the relevant EITC schedule for singles (on the left y-axis). The vertical lines mark the boundaries between the phase-in, peak, and phase-out ranges of the EITC.
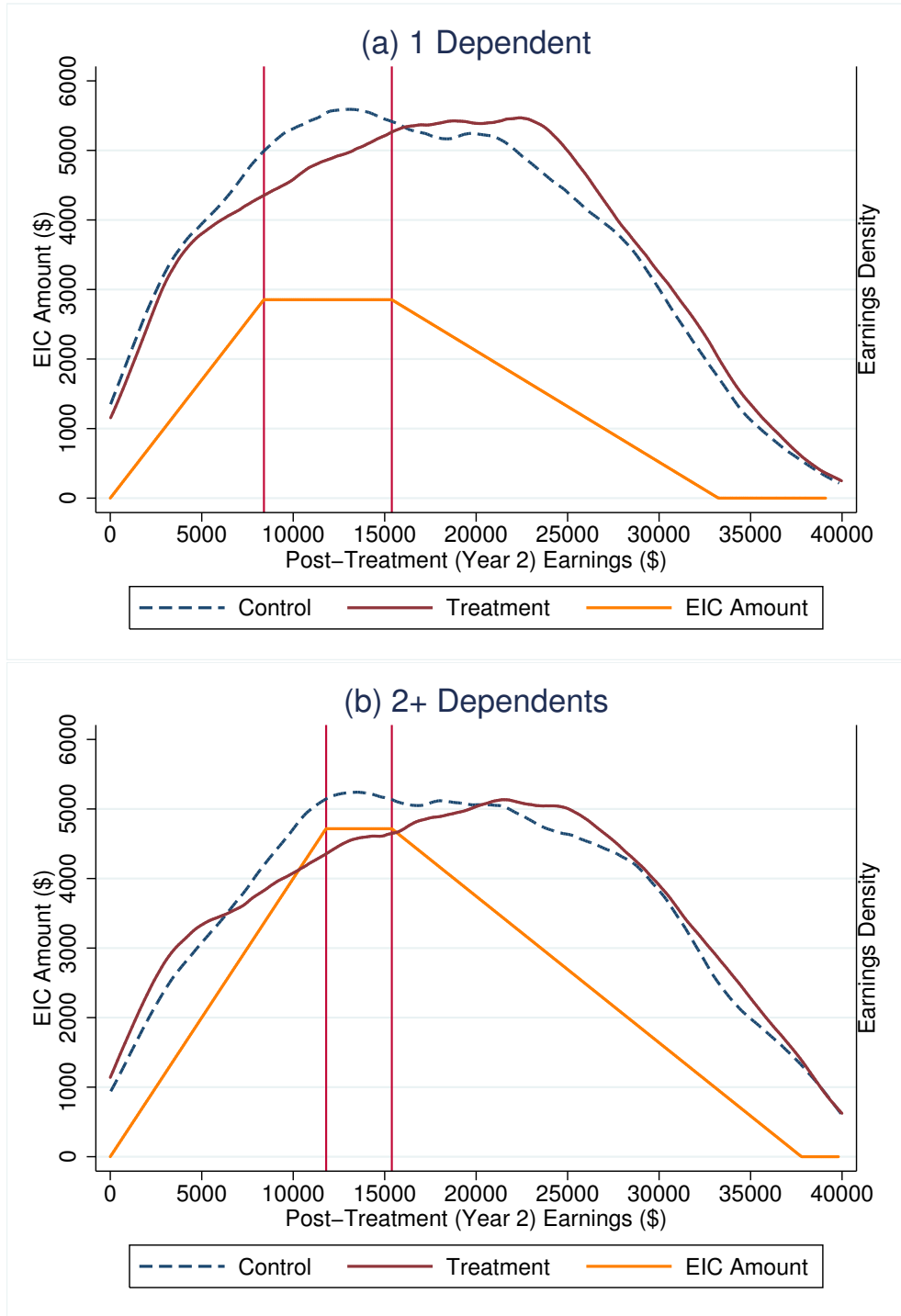
Figure A2: Year 2 Wage Earnings Distributions: Non-Complying Tax Professionals

NOTE: These figures plot kernel densities of year 2 (post-treatment) wage earnings for tax filers who filed with a non-complying tax professional. See notes to Figure 6 for the definition of non-complying tax professionals. The solid curve shows the income distribution for the treatment group; the dashed curve shows the income distribution for the control group. Panel A is for the sample of individuals with one dependent, while panel B is for the sample of individuals with two or more dependents. Each panel also shows the relevant EITC schedule for singles (on the left y-axis). The vertical lines mark the boundaries between the phase-in, peak, and phase-out ranges of the EITC.

APPENDIX EXHIBIT I(a)
Information Treatment Screen #1 in H&R Block Software

H&R Block Client Assistant - EIC

The EIC is the largest component of the tax refund of American working families. This year, you are getting an EIC of $4000 as part of your tax refund. As part of a special effort to promote the EIC, H&R Block will offer you some useful and simple information about the EIC to help you take the best advantage of this credit. We want to explain how the EIC works to help you decide how much to work and earn this year.

Let me tell you some more details about the study. We are trying to better understand and increase awareness of EIC among our EIC-eligible clients.

Use Handout SINGLE WITH 2+ CHILDREN

F10 to continue   Avg. # of Questions: 3

APPENDIX EXHIBIT I(b)
Information Treatment Screen #2 in H&R Block Software

H&R Block Client Assistant - EIC

In 2006, you made ** $10000 ** and you are getting an EIC of ** $4000 ** in your tax refund. Your earnings this year (in 2007) determine the size of your EIC refund next year. The EIC has 3 ranges: 1) Increasing, 2) Peak, 3) Decreasing.

You are in the ** increasing ** range of the EIC. Think about it like this: Suppose you earn $10 an hour. Because of the EIC you are really making $14 an hour. It pays to work more!
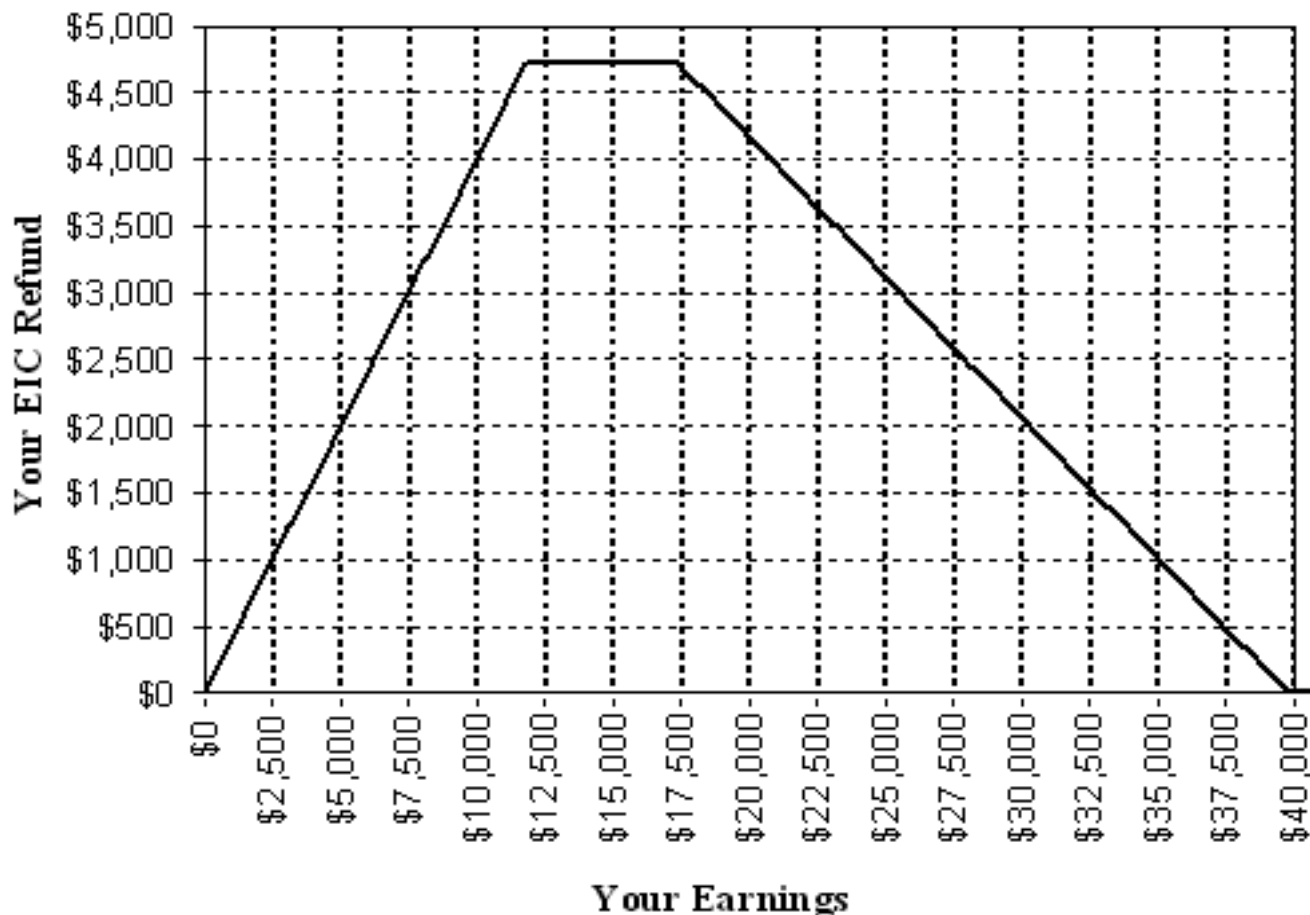
EIC Range	If you earn between	Your EIC refund is	Earn $10 more, the EIC...
1) Inc	$0-$11,790	$0 up to $4,716	Increases by $4.00
2) Peak	$11,790-$15,390	$4,716	Stays the same
3) Decr	$15,390-$37,780	$4,716 down to $0	Decreases by $2.10

F10 to continue   Avg. # of Questions:

APPENDIX EXHIBIT II
Printout Given to Tax Filer

Dear   WARD CLEAVER,

The **EIC** (Earned Income Credit) gives tax refunds to working families. We want to explain how the EIC works to help you decide how much to work and earn this year. In 2006, you made $10000 and you are getting an **EIC** of $ 1984   in your tax refund.

Your earnings this year (in 2007) determine the size of your **EIC** refund next year. The EIC has 3 ranges: 1) Increasing, 2) Peak, 3) Decreasing.

EIC Range	In 2007 if you earn between:	Your EIC refund in 2008 will be:	If you earn $10 more, the EIC:
Increasing	$0-$11,790	$0 up to $4,716	Increases by $4
Stays the Same	$11,790-$17,390	$4,716	Stays the same
Decreasing	$17,390-$39,780	$4,716 down to $0	Decreases by $2.10

You are in the ** increasing ** range of the EIC. Think about it like this: Suppose you earn $10 an hour. Because of the EIC you are really making $14 an hour. It pays to work more!

Note: The EIC does not affect any other credits or refunds you can get. This table applies to married joint filers with two or more qualifying children. If your family situation changes in 2007, your EIC may also change (see IRS Publication 596). Changes in earnings may also affect other credits you are entitled to or taxes you may owe. Though the printed earnings and EIC amounts are based directly on your current tax return, the indication of your position on the graph is for illustrative purposes only.

H&R BLOCK®

[Date]

[1st Name] and [1st Name] [Last Name]
[Address Line 1]
[Address Line 2]
[City] [State] [Zip]

Dear [1st Name],

Thank you for preparing your taxes with H&R Block this year. Even though it's early, we want to provide important information that you may want to consider as you plan financially for next year. The EIC (Earned Income Credit) gives tax credits to working families. This year, you qualified for the EIC. This letter is a follow up to the EIC information your H&R Block tax professional shared with you when you had your taxes prepared. We want to remind you how the EIC works as you consider how much to work and earn this year.

As pictured on the graph below, the EIC has 3 ranges: 1) Increasing, 2) Peak, 3) Decreasing.
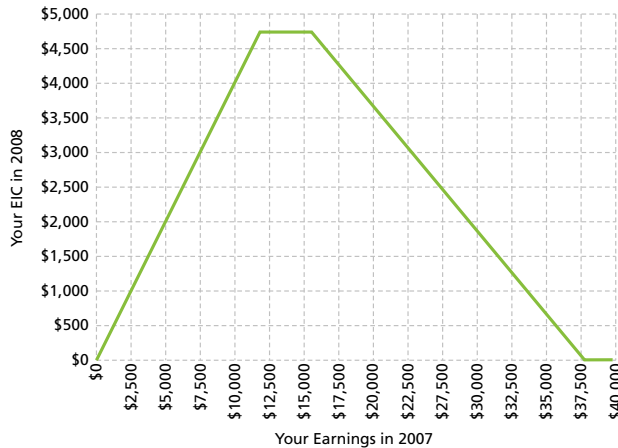
Last year, you were in the **increasing** range of the EIC. Look at the table below. Will you be in the increasing range again this year? If yes, think about it like this: Suppose you earn $10 an hour. Because of the EIC, for each $10 you earn you could be eligible to receive an additional $4 in EIC – so it's like you're making $14 an hour. **It pays to work more!**

EIC Range	In 2007, if you earn between	Your EIC refund in 2008 could be	If you earn $10 more, the EIC could
Increasing	$0 - $11,790	$0 up to $4,716	Increase by $4.00
Peak	$11,790 - $15,390	$4,716	Stay the same
Decreasing	$15,390 - $37,780	$4,716 down to $0	Decrease by $2.10

This table applies to single filers with two or more qualifying children. If your family situation changes in 2007, your EIC may also change (see IRS Publication 596). Many things can affect EIC, including changes in your family situation, other financial changes, or changes in tax laws. These changes may also affect your eligibility for other credits or deductions or taxes you may owe.

We hope you find the EIC information helpful. We look forward to continuing to provide tax and financial planning assistance to you in the future.

Sincerely,

Bernard M. Wilson
Vice President
Outreach & Business Development

APPENDIX EXHIBIT IV

Tax Professional Survey about the EIC Outreach Initiative
March 2007

Office

Dear Tax Professional,

As you know and thanks to your help, H&R Block has implemented an EIC outreach effort in Chicago where you have explained the Earned Income Tax Credit to our clients. In order to evaluate this initiative, we would like to ask you a few short questions about your experience. Please circle your response to each question below.

1) What proportion of your clients was interested in the EIC information?

      a. Few (less than 25% of your clients)

      b. Many (25% to 75% of your clients)

      c. Most (over 75% of your clients)

2) Do you think Block should provide this EIC information to clients again in the future?

      a. Yes

      b. No

3) Is there anything else you would want to tell us about this EIC outreach or about how to make it work better?

      a. No

      b. Yes: Please explain below and/or on the back of this survey.

4) Did the explanation of EIC help your understanding of how the credit worked?

      a. Yes

      b. No

Please return this survey to your office leader who will forward it to Block headquarters in the envelope provided to each office. Thank you for your participation in the EIC Outreach and in this survey.
If you have questions, please contact Eileen McCarthy, at 816.854.4866.