2016 IRS-TPC Research Conference

Abstracts of Papers

Session 1. Interventions: Influencing taxpayer compliance

Taxpayer Responses to Third-Party Income Reporting: Evidence from a Natural Experiment in the Taxicab Industry

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This paper uses tax return data from small businesses to estimate their behavioral responses to Form 1099-K, a novel third-party income reporting law that requires payment companies (e.g., banks, Visa, MasterCard, and PayPal) to report the gross amount of all payment transactions the businesses receive through their payment system to the IRS. Since all businesses receiving electronic payment need to file Form 1099-K, there is no obvious control group. We exploit the fact that many US cities (e.g., New York City in 2008 and New Orleans in 2012) have independently, and for reasons not related to Form 1099-K, passed laws that mandate taxicabs to install credit card readers to construct the control group. Introducing credit card readers in taxicabs discontinuously increases the share of revenue from credit cards, which are reported in the Form 1099-K. Thus, taxicabs operating in cities with such laws will be affected by Form 1099-K more than taxicabs operating in cities without such laws, providing a natural control group.

Do Audits Deter Future Noncompliance? Evidence on Self-Employed Taxpayers

Sebastian Beer, Matthias Kasper, and ***Erich Kirchler*** *(University of Vienna, Austria) and Brian Erard (B. Erard and Associates)*

The IRS audits approximately 1.5 percent of all self-employed individual income taxpayers annually. In Fiscal Year 2014, the direct effect of these audits was over $3 billion in recommended additional tax assessments. Less is known, however, about the indirect effect of audits on subsequent taxpayer reporting behavior. Behavioral changes may either undermine immediate gains in tax collections or further increase the revenue of audits. Depending on risk attitudes, norms, moral perceptions, and perhaps most importantly, the subjective appraisal of the audit, enforcement can either increase or decrease a taxpayer's willingness to comply with the law and cooperate with the IRS in the future.

In this paper, we evaluate the impact of IRS enforcement activity on the subsequent reporting behavior of nonfarm self-employed taxpayers. Through a statistical comparison of administrative data for a random sample of 2,204 Schedule C filers with under $200,000 in total gross receipts who were audited after filing their tax year 2007 returns with data from a control sample of 4,705 who were not audited, we are able to estimate the short-run and long-run impact of audits on tax collections.

Impact of Fresh Start Initiative on Lien Filings and Taxpayer Compliance

Saurabh Datta (IRS, RAAS), Rizwan Javaid, and ***Alex Turk*** *(IRS, Small Business/Self-Employed Division)*

When taxpayers fail to pay federal tax assessments, a lien is established to give the government certain rights to collect the delinquent amounts. Typically, only the IRS and the taxpayer are aware of the lien. A notice of federal tax lien (NFTL) can be filed to make the lien public information. The lien helps secure the government's interest in the value embodied in the taxpayer's assets and provides creditors important information on the taxpayer's debt. Numerous studies have examined the effects of NFTL on payment compliance behavior (both direct and indirect effects), resource costs involved in filing and resolving the lien, and alternative treatments to NFTL. Many of these studies have struggled with the endogenous nature of NFTL filing. There have been few studies using randomized field experiments, but these have lacked breadth in terms of the taxpayer population studied.

In 2011, the IRS introduced several "Fresh Start" initiatives to help delinquent taxpayers pay back taxes and avoid tax liens. As part of this initiative, the threshold for NFTL determinations was increased from $5,000 to $10,000, and the threshold for NFTL filing was increased for cases systemically transferred from the IRS's Automated Collection Sites (ACS) to the field collection queue. Our paper uses the Fresh Start policy change for systemic queue transfers as a "natural experiment" to examine taxpayer response on the filing of the NFTL. We compare cohorts of cases with unpaid balances within the policy change parameters that were transferred from ACS six months before and six months after the policy change. We model both the likelihood that the taxpayer will fully or partially resolve their unpaid balances and the expected change in the unpaid balance. We follow case outcomes for two years after the transfer to the queue with the NFTL or the forgone NFTL. We use our models to estimate the marginal impact the NFTL in resolving unpaid taxes and the impact of the Fresh Start NFTL policy change.

Session 2. Nonfiling: IRS-Census data comparisons

What Drives Filing Compliance?

Brian Erard *(B. Erard and Associates) with Patrick Langetieg, Mark Payne, and Alan Plumley, (IRS, RAAS)*

The IRS estimates that nonfilers were responsible for $25 billion in unpaid federal individual income tax liabilities in tax year 2006, or about 8.5 percent of the overall individual income tax gap. In this paper, we investigate the factors that drive this form of noncompliance. The decision to file a tax return is essentially a participation decision, and there is a long history in empirical research of applying qualitative choice models, such as logit and probit specifications, to model participation outcomes. However, standard qualitative choice models assume that one has access to a representative data sample of participants and nonparticipants, including an indicator for the participation status of each subject in the sample. While the IRS has detailed tax return information for filers (participants), it lacks comparable information on nonfilers (nonparticipants). To fill this void, we supplement IRS tax return information for filers with Census survey information from the general population of filers and nonfilers. This latter data source does not identify which respondents are filers and which are nonfilers. We then apply a novel econometric methodology (**calibrated qualitative choice analysis**) to estimate the drivers of noncompliance. Intuitively, whereas a standard logit or probit analysis relies on differences between the characteristics of participants and nonparticipants to infer what drives behavior, our methodology relies on differences between the characteristics of participants and the general population.

Our IRS data source on filers is the Individual Returns Transaction File (IRTF). Many households have no legal filing obligation because their income is below the filing threshold and they do not meet certain other filing criteria, such as a need to report taxes on tip income. Some of these households do file, however, to claim refunds of withheld earnings or to claim a refundable tax credit, such as the earned income tax credit. Since our focus is on filing compliance, we restrict our IRTF sample to households with a legal filing obligation. We do this by applying an algorithm to check whether a given return satisfies any of the conditions (e.g., gross income above the relevant filing threshold or net self-employment earnings in excess of $400) that trigger a filing requirement. Our supplementary sample of filers and nonfilers is drawn from the Current Population Survey Annual Social and Economic Supplement (CPS-ASEC). In past research, we found that certain income sources are understated in this survey. To more accurately identify households with a legal filing obligation, we follow Erard *et al.* (2014) in imputing additional income across the sample.[1] To assign household members to tax returns, we also impute tax filing status. The CPS-ASEC is a stratified random sample, but the stratification criteria are not publicly available. A desirable feature of our econometric methodology is that we can effectively control for the sample's stratified nature by applying the sample weights.

[1] Erard, Brian, Pat Langetieg, Mark Payne, and Alan Plumley. 2014. "Missing Returns vs. Missing Income: Estimating the Extent of Individual Income Tax Filing Noncompliance from IRS and Census Data." Paper presented at the 107th National Tax Association Annual Conference on Taxation, Santa Fe, NM, November 13–15.

We estimate our model using a time series of cross sections from Tax Year 2000 to Tax Year 2012. Our results indicate that filing compliance is linked to several factors, including taxpayer burden, age, and self-employment. The results also indicate a positive role for various tax benefits, such as the Economic Stimulus Act of 2008 and the earned income tax credit.

Searching for Ghosts Redux: Improved Methodologies for Estimating the Nonfiling Tax Gap

*Pat Langetieg, **Mark Payne**, and Alan Plumley (IRS, RAAS)*

The Internal Revenue Code requires taxpayers to file income tax returns with (and report all tax liability to) the IRS by the established due date; the code also requires them to pay that tax liability on time. However, not all taxpayers file required tax returns on time (or at all), and some of their tax liability is not paid on time. The nonfiling gap is the amount of true tax liability not paid on time by those who do not file on time. Since some nonfilers pay some or all of their true tax liability on time (e.g., through withholding), not all nonfilers contribute to the tax gap. Nonetheless, the nonfiling gap is composed of two major components: the portion associated with those who file late (**late filers**), and the portion associated with those who never file (**not-filers**). From a tax gap perspective, nonfilers include both late filers and not-filers. As time passes, some not-filers file late returns, so the distinction between these two groups is merely a pragmatic one for estimating the gap. It is easier to estimate the contribution that late filers make to the nonfiling gap because we have their tax returns; it is much harder to estimate the gap associated with those who have not filed any return by the time the estimate is made.

We estimate that the average annual individual income tax nonfiling gap from Tax Year 2008 to Tax Year 2010 was $26 billion, and the corresponding self-employment tax nonfiling gap was $4 billion. Each of these estimates is based on two different methodologies: one based primarily on IRS data, and the other based primarily on Census data matched with limited IRS data. This paper provides details about these estimates and the methodologies used to produce them.

Handling Respondent Rounding of Wages Using the IRS and CPS Matched Dataset

*Mike Brick and **Minsun Riddles** (Westat Inc.) with Patrick Langetieg, Mark Payne, and Alan Plumley, (IRS, RAAS)*

Survey respondents often round their answers to questions about quantities such as annual income or amount of time or money spent on tax preparation. This rounding can create heaping at particular values of the response; the reasons or mechanisms for rounding may depend on several factors, including the value of the actual quantity. For example, when reporting annual wages, respondents who earn more may round to the nearest $10,000, while those who earn less may round to the nearest $1,000. The rounding can result in biased estimates of population means, totals, and variances unless some adjustments are made for rounding. In most circumstances, the true quantities for the respondents are not available, so any adjustment for rounding errors must rely on assumed models for both the rounding mechanism used by respondents and the underlying distribution of true quantities. Previous research has determined that the estimates can be very sensitive to these assumptions.

In our work, we use wage data from IRS tax information that has unrounded wage data and the Current Population Survey (CPS) March supplement that has rounded wage data as reported by survey respondents. The data for respondents from the CPS are matched to the universe IRS population file producing a matched dataset that has both the rounded CPS wage information and the unrounded IRS file. This unique matched file enables us to examine the types of assumptions that would be made in the absence of the IRS file. In this case, we can evaluate both the rounding mechanism and the underlying distribution.

In this paper, we provide a method for analyzing the CPS wage data that deals with the heaping from respondents rounding their wages. Two models are developed to adjust for rounding error in the matched

CPS data: a model for the wages in the IRS file and a model for the CPS self-reported wages, which expands the model for the IRS wages by including parameters for the rounding mechanism. We compare the model's fit with the two data sources.

Session 3. Panel discussion

Factors Affecting Revenue Estimates of Tax Compliance Proposals

Janet Holtzblatt *(Congressional Budget Office) and* ***Jamie McGuire*** *(Joint Committee on Taxation)*

From 2008 to 2010, the annual tax gap—after accounting for enforcement actions and late payments—was $406 billion, according to estimates by the IRS. Many commentators believe that closing the tax gap would help close the budget deficit, projected by the Congressional Budget Office to rise to $534 billion in 2016. For various reasons, however, savings from compliance initiatives may not reduce the deficit as much as some commentators would hope.

Responsibility for estimating the revenue effects of compliance initiatives generally falls to the staff of the Joint Committee on Taxation (when proposals involve changes to the tax code) or to the Congressional Budget Office (when changes to the IRS appropriations are being considered). The two agencies often coordinate because of the links between changes to IRS authority and its resources. This paper examines the factors that affect the two organizations' estimates of the budgetary savings from compliance proposals.

Session 4. Behavioral research: Why do people do what they do?

Examining Motivations to Volunteer with the VITA Program: How Motivations Influence Future Volunteer Behavior

Patti J. Davis-Smith*, Robert P. Thomas, and David C. Cico (IRS, Wage & Investment Research and Analysis)*

Every year, nearly 92,000 people volunteer with the IRS Volunteer Income Tax Assistance (VITA) program by serving in roles such as site greeter, tax preparer, or quality reviewer. VITA volunteers prepare nearly 3.2 million returns annually, free of charge to taxpayers who qualify. VITA sites are generally located at community and neighborhood centers, libraries, schools, shopping malls, and other convenient locations. Volunteers are the backbone of the VITA program; they allow the IRS to serve taxpayers who might otherwise pay for tax preparation or make errors during self-preparation.

Because the VITA program relies on volunteers, the IRS's ability to learn more about these individuals and leverage their potential volunteer pool is vital to the program's strength and sustainability. The defining features of volunteerism as voluntary, sustained helpfulness suggests that it may be productive to examine the motivations that lead individuals to seek out VITA volunteer opportunities and to sustain their VITA volunteerism from year to year. After all, the fundamental concerns of motivational inquiry are the concerns engaged by the questions, Why do people volunteer with VITA? and What sustains VITA volunteerism?

The present study surveyed current and prospective VITA volunteers to understand the motivational underpinnings of volunteering with the VITA program (Study 1) and determine if motivationally-relevant messages can be used to influence future volunteerism (Study 2).

Findings revealed that functional and psychological need-fulfillment motivates individuals who volunteer—either with the VITA program or with other non-VITA programs—and lead to greater satisfaction with their volunteer experiences (Study 1). In addition, certain combinations of message delivery mode, messenger, and message content were rated more persuasive by participants and more likely to motivate them to take the next step toward becoming a VITA volunteer (study 2). Discussion focuses on caveats of the research, implications for practice volunteerism with the IRS, and the more global nature of volunteering.

The Effect of Social Norms on Taxpayer Payment Compliance

Caroline von Bose *(Fors Marsh Group), Jubo Yan (Nanyang Technological University), James Alm (Tulane University), and William Schulze (Cornell University)*

We use laboratory experiments to examine the impact of appeals to social norms on individuals' compliance decisions. We test the effects of two types of social norms: **descriptive norms** (i.e., the type of behavior that is typical or most frequently enacted) and **injunctive norms** (i.e., the type of behavior that "constitutes morally approved and disapproved conduct"). For injunctive norms, we introduce approval-framed and disapproval-framed injunctive norm messages. Our results indicate that appeals have a modest but statistically significant impact on tax compliance. The magnitude of both approval- and disapproval-framed injunctive norm messages is an increase of around 2 percent in taxes paid. If a similar response occurred for the US tax system with roughly a trillion dollars in taxes collected, the result would be a tax revenue increase of around $20 billion.

Understanding the Nonfiler and Late Filer

José Colon de le Matta, John Guyton, Ron Hodge, Ahmad Qadri, Brenda Schafer, ***Melissa Vigil*** *(IRS, RAAS)*

This paper presents preliminary analysis of the IRS Calendar Year 2014 nonfiler/late filer survey results. The study was inspired by a desire to understand why certain individuals who are contacted by the IRS about an unfiled return wait to file that return until the proposed tax deficiency is assessed and collection efforts are under way. The survey population consists of taxpayers who were notified about an unfiled 2011 or 2012 return and resolved the issue in Calendar Year 2014 by either paying the assessment or filing the requested return. The paper discusses preliminary recommendations for potential outreach, education, and enforcement processes.