TAX ENFORCEMENT AND TAX POLICY:

Evidence on Taxpayers' Responses to EITC Correspondence Audits

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Introduction

- Earned Income Tax Credit (EITC): largest cash-transfer, anti-poverty program in US
  - Similar programs in many other countries
  - Extensive literature demonstrating impacts of EITC expansions on increases in labor force participation and W-2 wage earnings

- Prior research has also highlighted EITC noncompliance
- EITC correspondence audits are a key tool for addressing noncompliance
- Little is known about short-term and long-term impacts of EITC correspondence audits and any subsequent loss of benefits on taxpayer behaviors

- This project:
  - Exploit random variation in audit procedures to estimate impacts of EITC correspondence audits on taxpayer behaviors (claiming EITC, filing) and impacts of losses of EITC benefits on labor supply

Introduction

- Contributions from current study
  - Using random variation inherent in audit procedures to estimate causal impacts of audits on taxpayer behavior, highlight potential areas for improvements in EITC correspondent audit communications
  - Research design permits estimation of short-term and long-term impacts from EITC correspondence audits
  - Research design permits estimation of impacts of losses of EITC benefits on distributions of wage earnings
    - Can examine changes in distributions of wage earnings for both taxpayers with self-employment income at time of audit as well as taxpayers with wage earnings at time of audit

EITC Correspondence Audit Background

Summary of Audit Process

- All EITC returns checked to see if any flags are triggered
- If any flags are triggered, return is scored
- Returns with highest risk scores are always be audited
- Random selection of returns with lower and intermediate risk scores

EITC Correspondence Audit Background

Once a return is assigned to a service center for audit, CP-75 notice is automatically generated and sent to taxpayer:

- Headline: We're auditing your 2016 Form 1040.
- We need you to **send us information to support items you claimed** on your tax return.
- We are **holding** the Earned Income Credit (EIC), and/or the Additional Child Tax Credit (ACTC) **portion(s) of your refund** pending the results of the audit.
- Be sure to **respond within 30 days** from the date of this notice or we'll disallow the items being audited and you may owe additional tax.

- Examples of supporting documentation:
  - Birth certificates, school records to verify children meet conditions for EITC qualifying children
  - Income, expenses to verify existence of self-employment business
- More complicated cases handled with field audits

EITC Correspondence Audit Background

If EITC is disallowed, CP-79 notice automatically generated and sent to taxpayer

- Headline: We denied one for more of the credits claimed on your tax return.
- We recently denied the following credits you claimed on your 2016 income tax return . . . Earned Income Tax Credit (EIC) . . .

- As a result, the next time you claim the credits listed above, you **must complete and attach Form 8862**, Information to Claim Earned Income Credit . . . After Disallowance, to your return.

- CP-79A: **2-year ban** + Form 8862 required for next EITC claim
- CP-79B: **10-year ban** + Form 8862 required for next EITC claim

Research Design

- Ideal thought experiment:
  - Consider 2 returns that are both scored in a given tax year
  - Returns have same risk scores and other characteristics
  - One return randomly assigned for audit and other return not audited
  - Compare differences in outcomes before and after audit (year audit opens)

Research Design

- Implementation
  - Sample: returns selected for risk scoring in Tax Years 2010-2012

  - Restrict sample to risk score bins that have audited & non-audited returns
    - Dropping returns with highest risk scores that always get audited
    - Dropping returns with lowest risk scores that never get audited

    - → Analysis will focus on returns with intermediate risk scores with both audited and non-audited returns

Research Design

- Implementation (continued)
  - Weight observations based on risk assessments so risk scores are similar across audited and non-audited returns

  - Example:
    - Audited group has 80% of returns with medium risk and 20% of returns with low risk
    - Non-audited group has 60% of returns with medium risk and 40% of returns with low risk
    - Weight observations so that both groups have 70% with medium risk and 30% with low risk

Research Design

- Implementation (continued)
  - Compare outcomes for audited and scored-but-not-audited returns before and after audit (year scored / audit opened)
    - Key outcomes: claiming EITC on 1040, filing, balance due (refund), W2 earnings

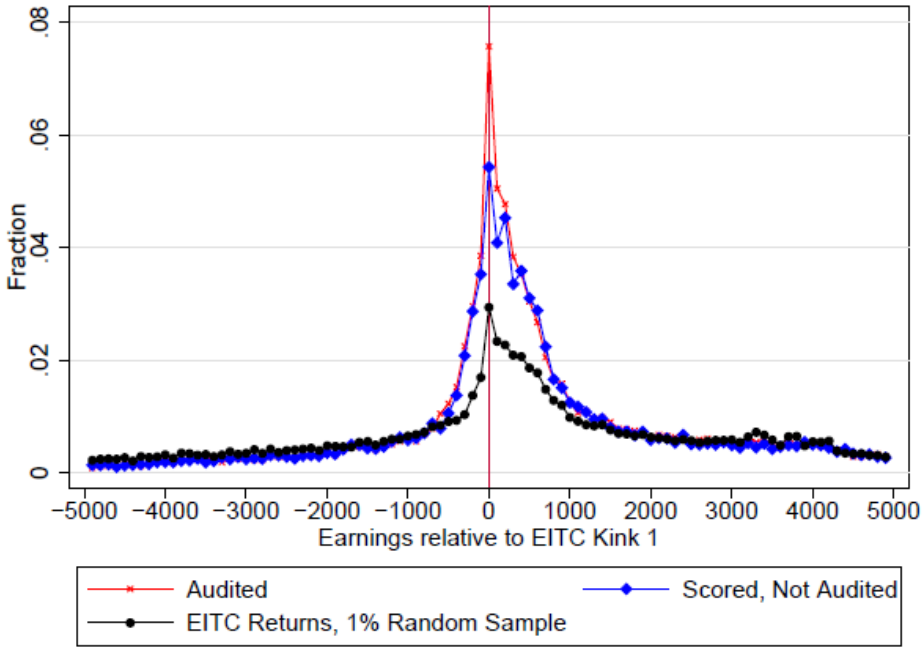
Research Design

- Implementation (continued)
  - Split sample based on returns with self-employment income (“Self-Employed”) vs returns without self-employment income (“Wage Earners”)
    - Audits are conducted by different business units (SB vs W&I)
    - Audits have different issues
      - Self-employed: focus on verification of Schedule C income
      - Wage earners: focus on verification of qualifying children
  - For Self-Employed, will examine differences based on Earnings relative to EITC Kink 1 because prior research has highlighted EITC Maximizers (bunching) at EITC Kink 1
  - For Wage Earners, will examine differences based on earnings

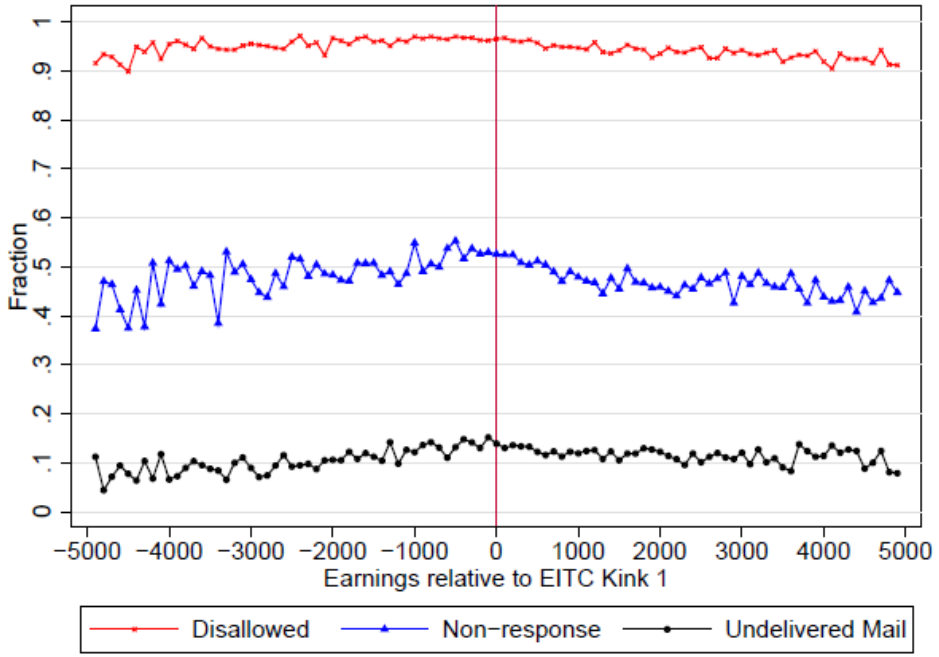
Audit Background

Self-Employed

A. Densities



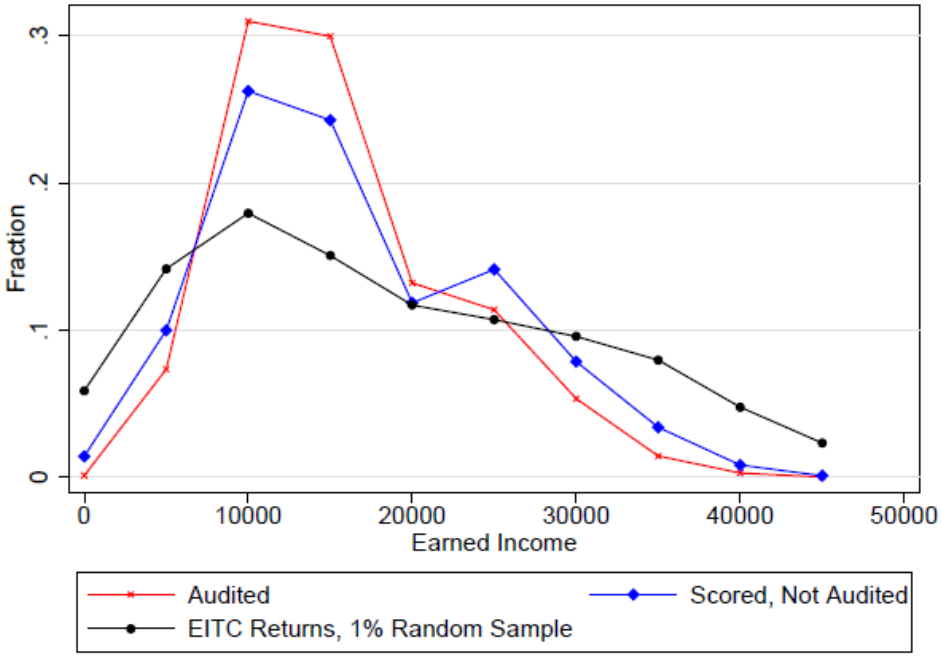
B. Disallowance, Non-Response, & Undeliverable Rates



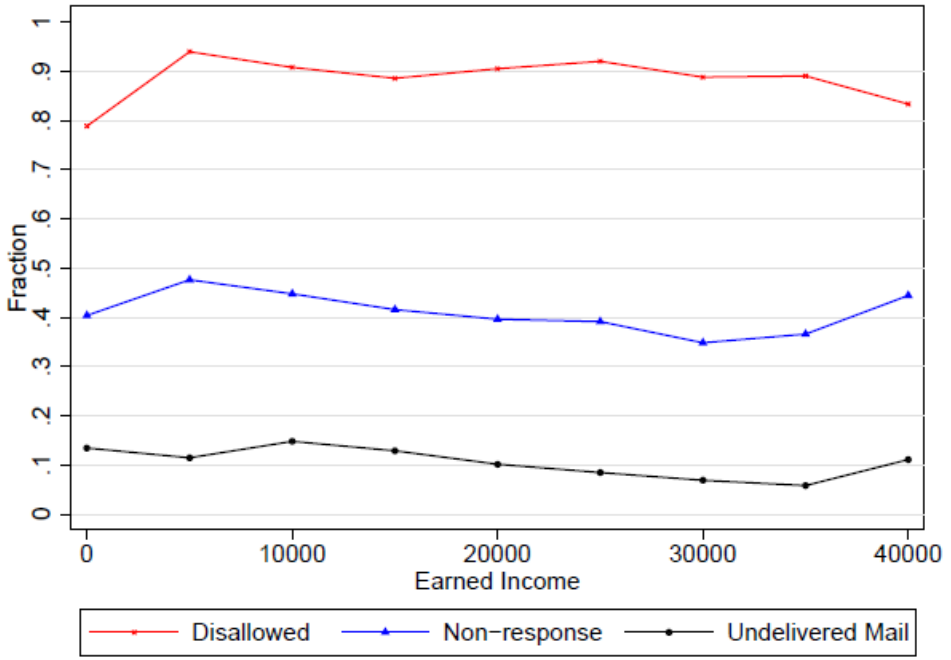
Audit Background

Wage Earners

A. Densities



B. Disallowance, Non-Response, & Undeliverable Rates



Research Design

- Implementation (continued)
  - Given sample restrictions, analysis will focus on returns with intermediate risk scores with both audited and non-audited returns
  - → Conclusions will apply most directly to this subsample of scored returns, not full population of scored returns or EITC returns more generally
  - → Summary statistics will compare analysis sample to random sample of EITC returns
    - Compared to random sample of EITC returns, analysis sample is: slightly younger, higher fraction male, slightly lower income

Table: Summary Statistics, Self-Employed

	Audited N = 114,109		Scored but Not Audited N = 110,601		1% Random Sample of EITC Returns N =164,644	
	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.
Age	35.511	13.023	34.899	12.947	41.125	11.695
Fraction with Filing Status = HOH	0.769	0.421	0.772	0.420	0.358	0.479
Fraction with Filing Status = MFJ	0.006	0.075	0.010	0.098	0.368	0.482
Fraction with Filing Status = SIN	0.225	0.418	0.218	0.413	0.273	0.446
Fraction with Filing Status = OTH	0.000	0.009	0.000	0.013	0.001	0.030
Fraction Filing with Paid Preparer	0.598	0.490	0.619	0.486	0.716	0.451
Fraction Filing with Software	0.991	0.095	0.950	0.218	0.931	0.253
Fraction Filing with VITA or IRS Centers	0.003	0.055	0.002	0.049	0.013	0.112
Fraction Self Prepared	0.008	0.090	0.033	0.178	0.033	0.178
Fraction with 1 Qualifying Child	0.719	0.449	0.808	0.394	0.303	0.460
Fraction with 2 Qualifying Children	0.228	0.419	0.158	0.365	0.269	0.444
Fraction with 3+ Qualifying Children	0.052	0.221	0.024	0.152	0.137	0.344
Fraction with Wage Income	0.479	0.500	0.436	0.496	0.513	0.500
Only Wages on Form 1040	-	-	-	-	-	-
Only Wages on Form 1040 & Consistent W2 Wages	-	-	-	-	-	-
Wages on F1040	4,956.72	9,434.17	4,651.66	9,668.02	8,527.58	14,976.52
Schedule C Income	7,875.25	7,796.90	8,311.13	8,249.63	7,822.58	14,943.53
Earned Income	12,280.61	4,151.98	12,262.30	4,761.12	15,794.54	11,565.92
Fraction on Phase-In	0.288	0.453	0.275	0.447	0.365	0.481
Fraction on Maximum Credit	0.600	0.490	0.560	0.496	0.313	0.464
Fraction on Phase-Out	0.111	0.315	0.165	0.371	0.322	0.467
AGI	12,679.68	7,534.18	12,775.77	10,988.99	15,361.67	34,285.98
Total Income	13,354.73	7,527.83	13,478.07	11,103.77	16,422.75	33,626.87
EITC	3,724.39	1,012.27	3,445.27	810.90	2,633.63	2,024.75
Balance Due (refund if negative)	-4,443.15	1,960.92	-4,233.05	1,896.90	-3,381.89	4,098.52

Notes: Dollar values are 98% winsorized to account for outliers and CPI adjusted to 2016 dollars. Statistics for audited returns are based on returns selected for EITC correspondence audits in tax years 2010 through 2012. Statistics for EITC returns are based on a 1% random sample of primary taxpayers on returns that claim the EITC in tax years 2010 through 2012, and the returns were not selected for risk scoring or audits.

Table: Summary Statistics, Wage Earners

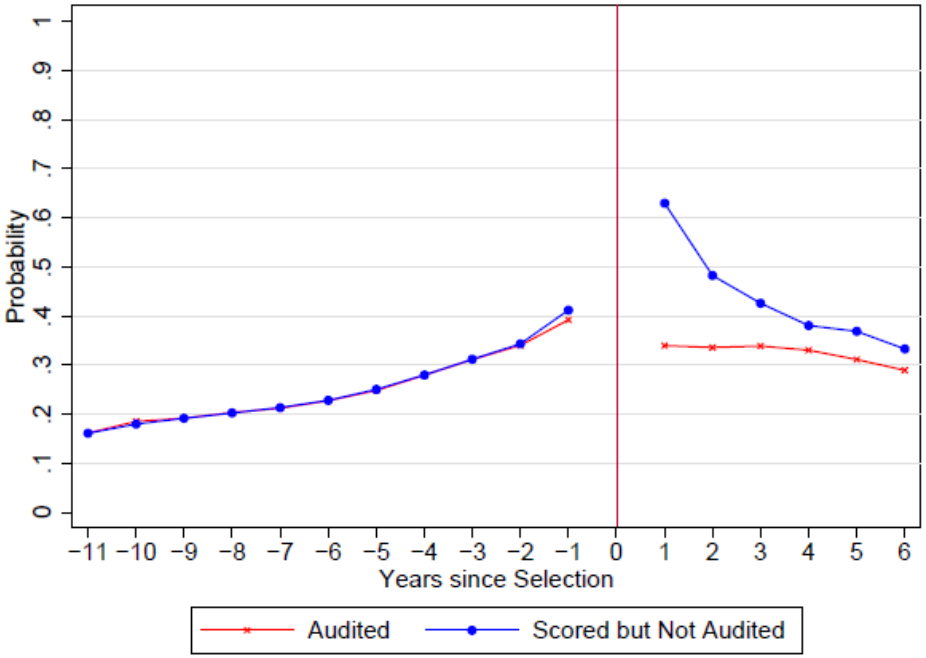
	Audited N = 57,020		Scored but Not Audited N = 92,682		1% Random Sample of EITC Returns N =565,366	
	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.
Age	36.821	13.749	36.367	13.601	37.572	11.855
Fraction with Filing Status = HOH	0.790	0.407	0.799	0.401	0.489	0.500
Fraction with Filing Status = MFJ	0.007	0.085	0.010	0.100	0.223	0.416
Fraction with Filing Status = SIN	0.202	0.402	0.190	0.393	0.286	0.452
Fraction with Filing Status = OTH	0.000	0.017	0.000	0.019	0.001	0.033
Fraction Filing with Paid Preparer	0.512	0.500	0.552	0.497	0.587	0.492
Fraction Filing with Software	0.974	0.159	0.959	0.198	0.959	0.199
Fraction Filing with VITA or IRS Centers	0.012	0.107	0.013	0.115	0.033	0.180
Fraction Self Prepared	0.023	0.151	0.026	0.159	0.030	0.170
Fraction with 1 Qualifying Child	0.851	0.356	0.834	0.372	0.368	0.482
Fraction with 2 Qualifying Children	0.115	0.319	0.115	0.319	0.261	0.439
Fraction with 3+ Qualifying Children	0.033	0.178	0.028	0.166	0.119	0.324
Fraction with Wage Income	-	-	-	-	-	-
Only Wages on Form 1040	0.839	0.368	0.820	0.384	0.652	0.476
Only Wages on Form 1040 & Consistent W2 Wages	0.539	0.498	0.604	0.489	0.540	0.498
Wages on F1040	15,728.86	6,789.82	16,942.11	8,517.58	18,808.29	11,996.58
Schedule C Income	-	-	-	-	-	-
Earned Income	15,712.37	6,795.91	16,633.85	8,269.42	18,634.67	11,931.54
Fraction on Phase-In	0.163	0.369	0.170	0.376	0.338	0.473
Fraction on Maximum Credit	0.510	0.500	0.408	0.491	0.175	0.380
Fraction on Phase-Out	0.328	0.469	0.422	0.494	0.487	0.500
AGI	16,302.49	6,925.87	17,662.26	8,603.34	19,624.93	18,165.72
Total Income	16,354.03	6,929.78	17,724.46	8,634.46	19,746.75	18,163.05
EITC	3,099.17	772.48	2,810.11	803.08	2,223.70	1,774.75
Balance Due (refund if negative)	-5,251.55	1,699.84	-5,227.87	1,720.71	-4,654.47	3,061.91

Notes: Dollar values are 98% winsorized to account for outliers and CPI adjusted to 2016 dollars. Statistics for audited returns are based on returns selected for EITC correspondence audits in tax years 2010 through 2012. Statistics for EITC returns are based on a 1% random sample of primary taxpayers on returns that claim the EITC in tax years 2010 through 2012, and the returns were not selected for risk scoring or audits.

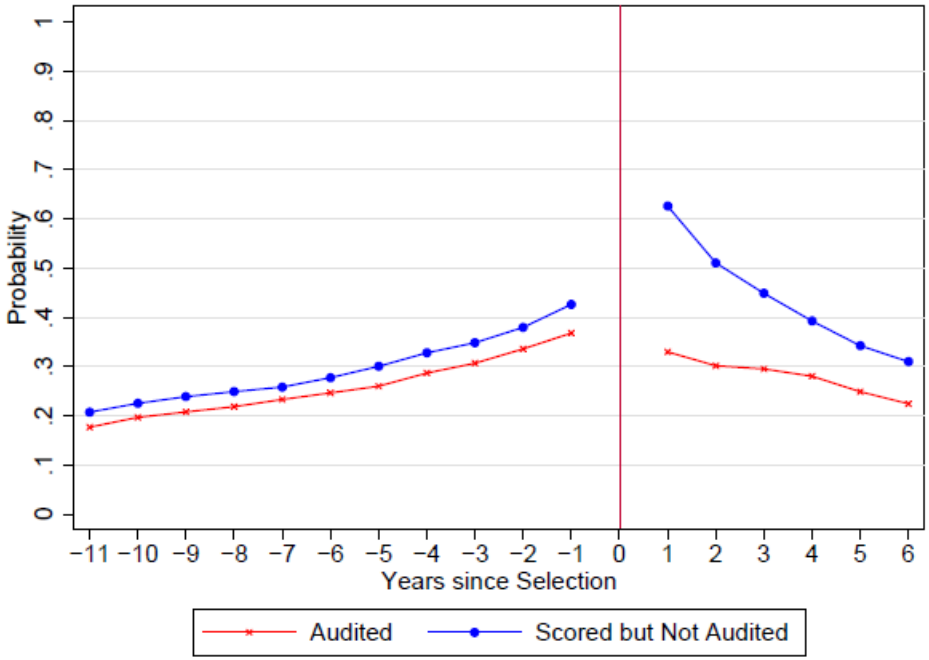
Impacts of EITC Correspondence Audits

Claiming EITC on 1040

A. Self-Employed



B. Wage Earners

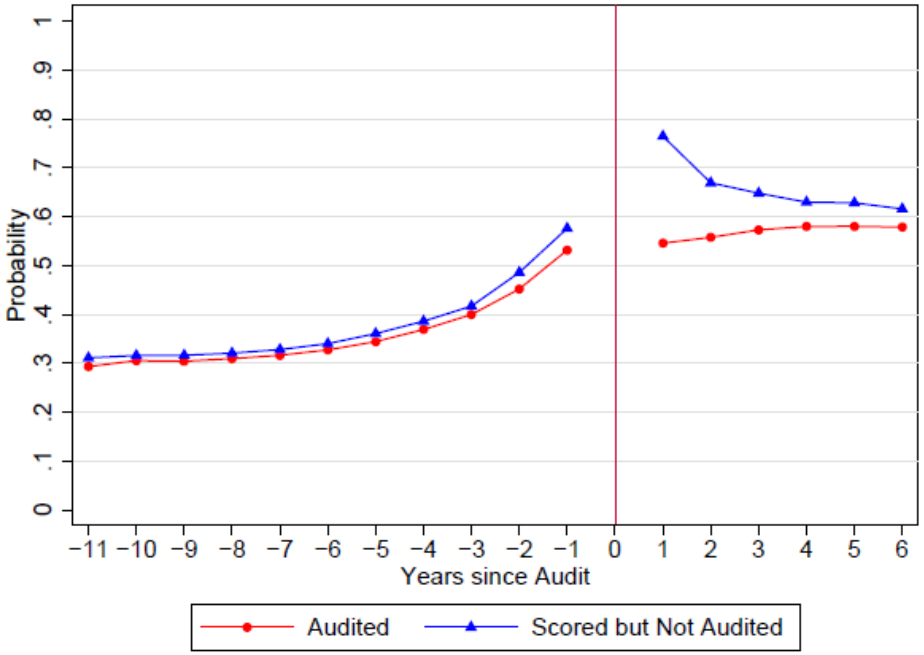


→ Decrease in claiming EITC on 1040 following audit. Sharpest decline immediately after audit, persists multiple years after audit

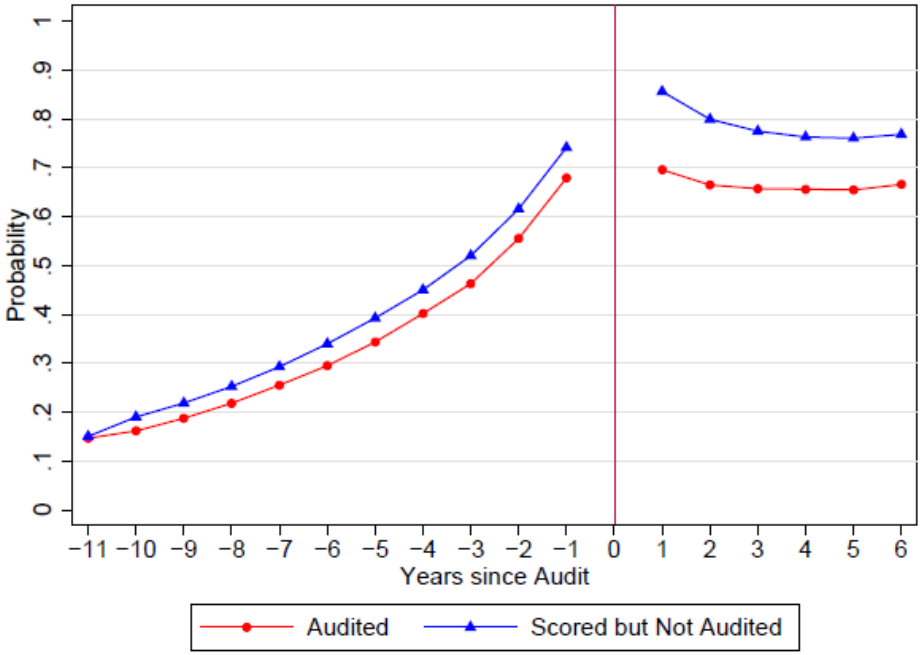
Impacts of EITC Correspondence Audits

Filing

A. Self-Employed



B. Wage Earners

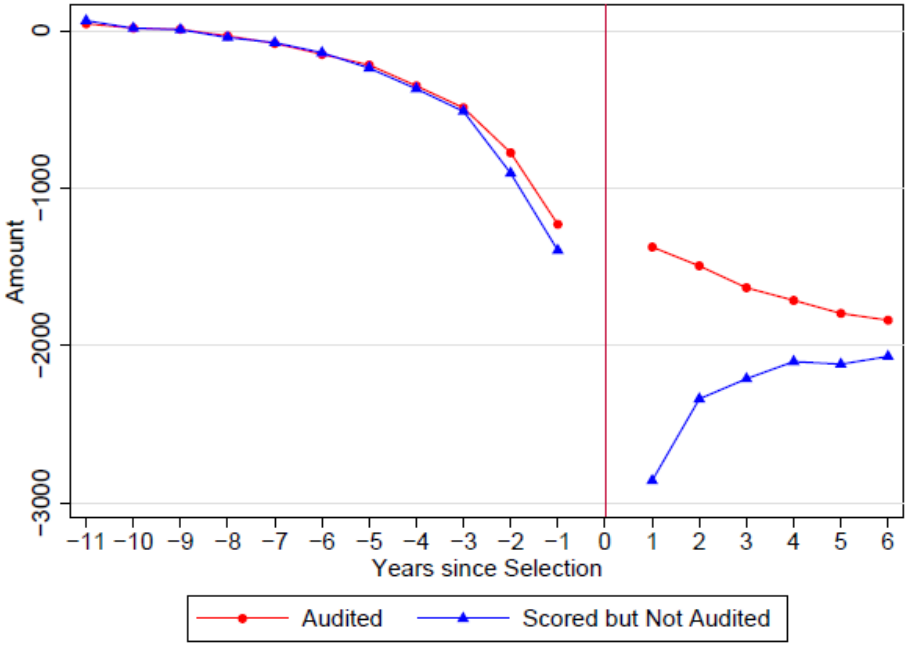


→ Decrease in filing accounts for much of decrease in claiming EITC

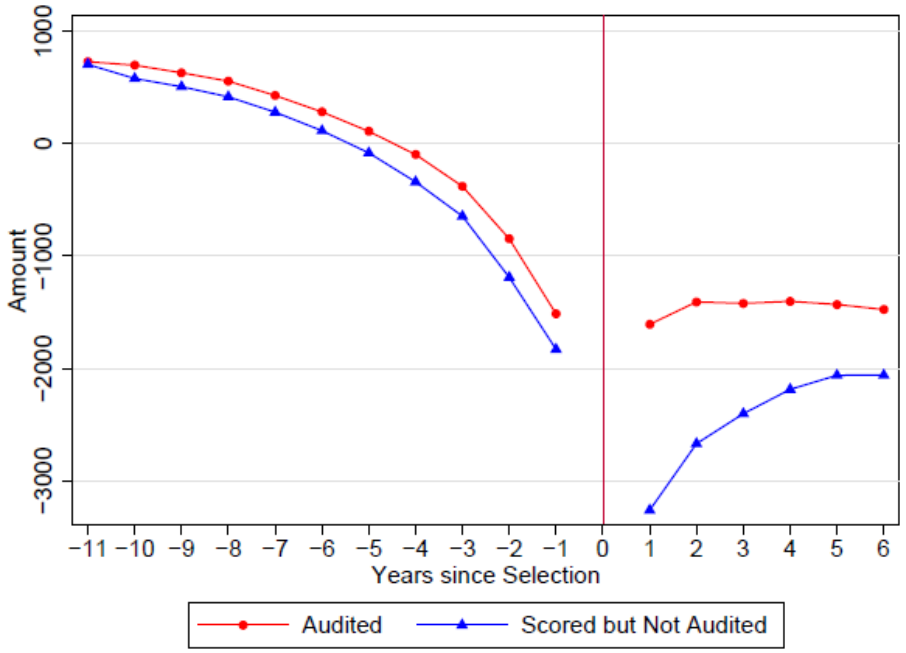
Impacts of EITC Correspondence Audits

Balance Due (Refund)

A. Self-Employed



B. Wage Earners



→ Because of decreases in claiming EITC and filing, audited taxpayers are less likely to receive a refund compared to scored but not audited taxpayers. Relative to non-audited taxpayers, audited group loses roughly $1,500 on average in year after audit, but also losses of roughly $500-$1,000 on average in further years after audit

Earnings Responses

Methodology

- Need to account for mean reversion & earnings dynamics when examining changes in earnings before and after audit
- Differences-in-differences estimation strategy:
  - Compare differences in wage earnings distributions between audited individuals and re-weighted non-audited individuals, before and after audit (4 years prior to audit and 4 years after audit)
  - Can examine dynamics of earnings responses based on multiple years after audit, robustness to considering different pre-audit years as baseline

Earnings Responses

Methodology

- Estimating fractions of individuals in wage earnings bins for each group and each event time while controlling for covariates

$$y_{it}^{d,j} = \sum_{k=-7}^{4} \beta_k^{d,j} 1\{e_{it} = k\} + \delta^{d,j} \Gamma_{it} + \varepsilon_{it}^{d,j}.$$

- *j = {Audited, Non-audited}*
- *y* = indicator equal to 1 if individual *i*'s wage earnings in year *t* are in earnings bin *d* = *{0, 5000, 10000, …, 50000}*

$$\delta_d^{Audited} = \beta_4^{d,Audited} - \beta_{-4}^{d,Audited}$$

$$\delta_d^{Non-audited} = \beta_4^{d,Non-audited} - \beta_{-4}^{d,Non-audited}$$

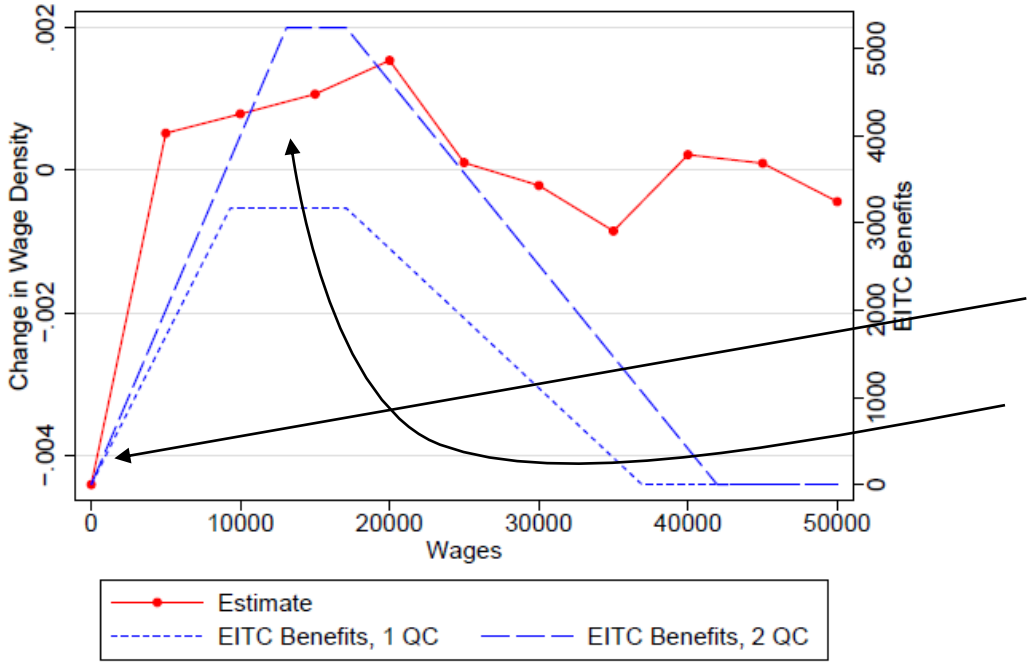
$$\Delta_d = \delta_d^{Audited} - \delta_d^{Non-audited}.$$

- Standard errors are based on 1000 bootstrapped replications, accounting for uncertainty when estimating weights based on risk scores

Impacts of EITC Correspondence Audits

Earnings Responses for Self-Employed in year of Audit

- Based on changes in W-2 wages 4 years after audit



1. Decrease in fraction of individuals with 0 wages
2. Increase in fraction of individuals with wages between $5,000, $20,000

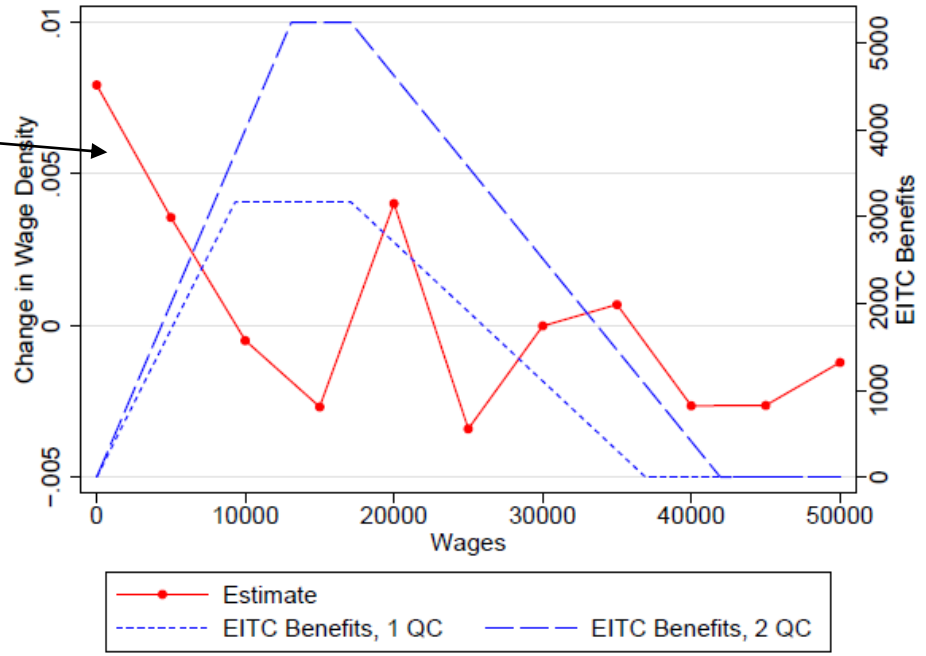
→ Intuition: Self-employed increase W-2 wage employment in years after audit

Impacts of EITC Correspondence Audits

Earnings Responses for Wage Earners in year of audit

- Based on changes in W-2 wages 4 years after audit

Increase in fraction of individuals with $0-$5,000 in wages

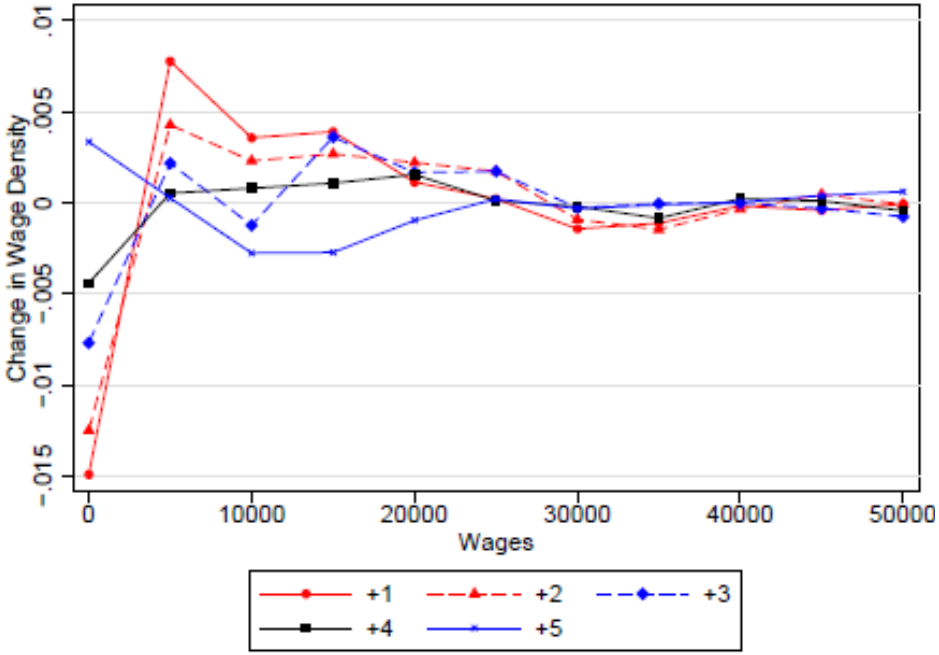


→ Intuition: Wage earners decrease W-2 wage employment following loss of EITC benefits (consistent with EITC increasing labor force participation when individuals can claim)

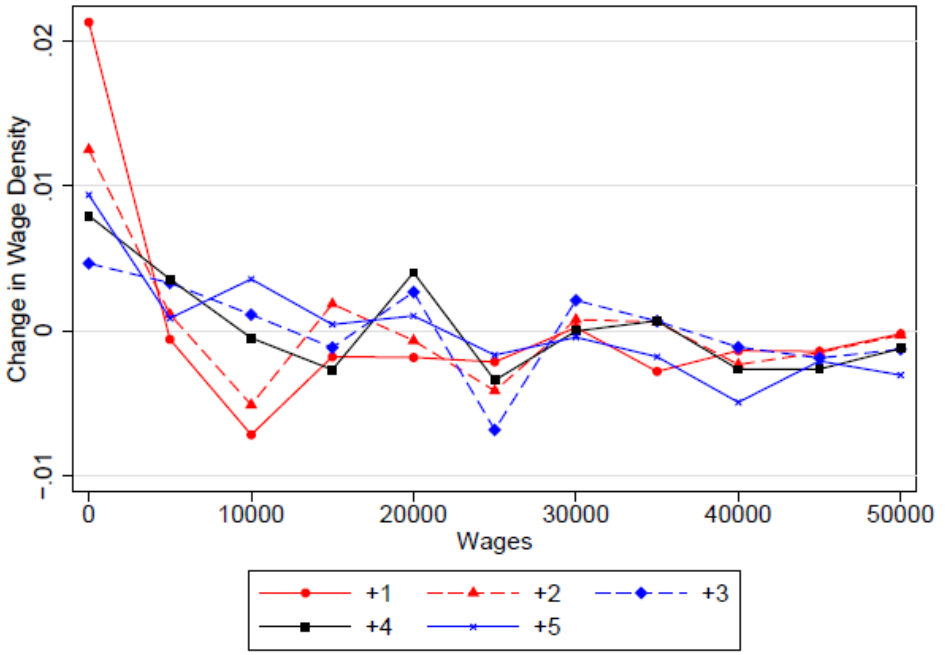
Impacts of EITC Correspondence Audits

Earnings Responses, Dynamics

A. Self-Employed



B. Wage Earners

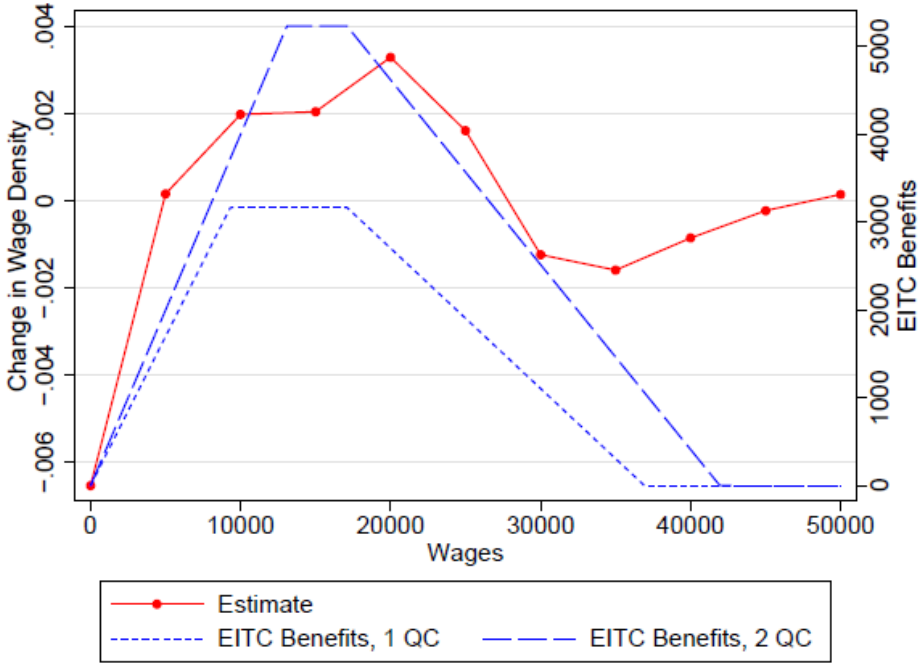


→ For both Self-Employed and Wage Earners, earnings responses are largest immediately after audit, but effects still persist multiple years after audit.

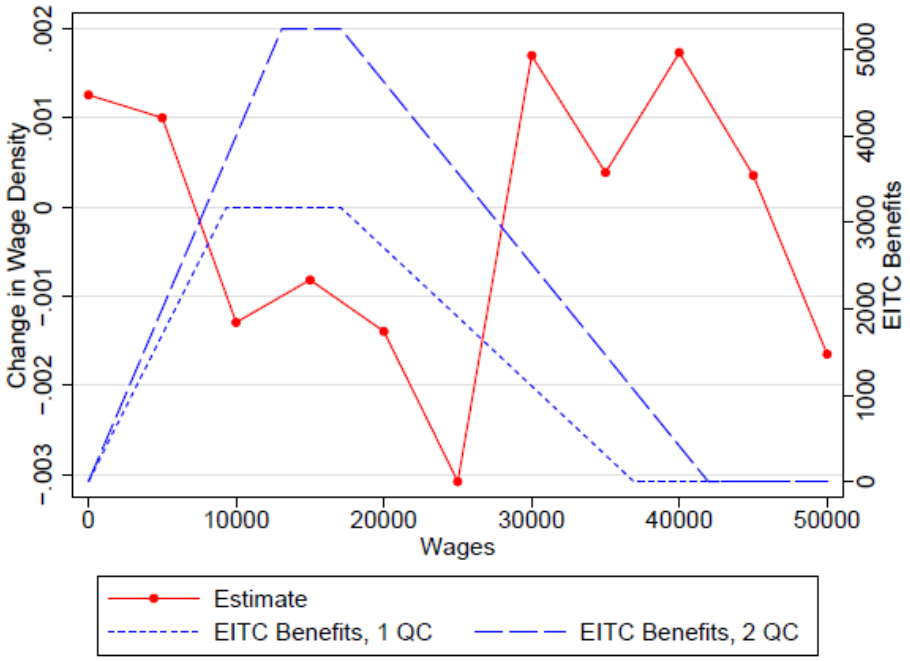
Impacts of EITC Correspondence Audits

Earnings Responses by Gender for *Self-Employed* in Year of Audit

A. Men



B. Women

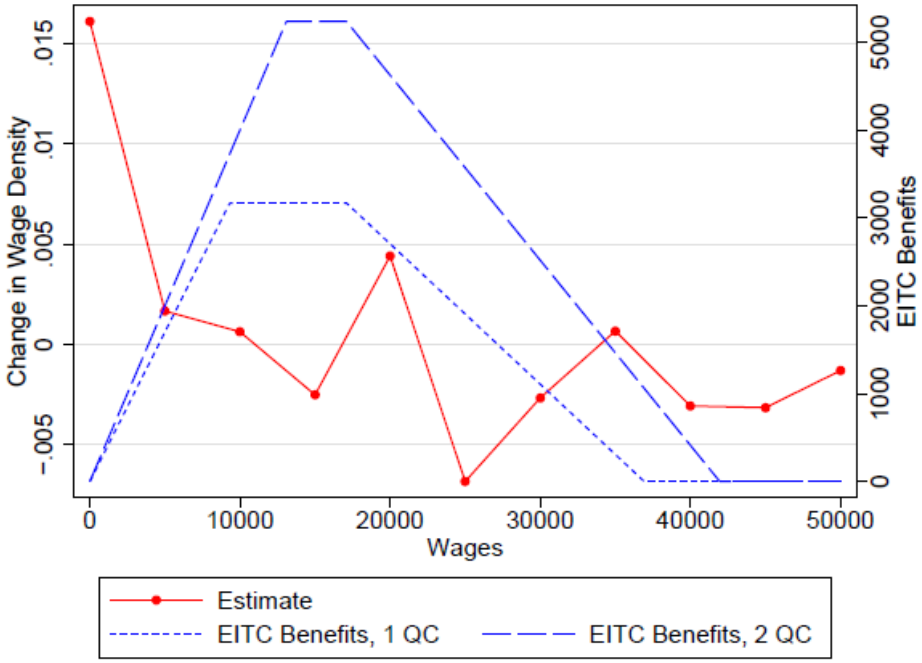


→ For Self-Employed, increases in W-2 wage employment driven mostly by men, evidence also suggests increases in W-2 amounts for women

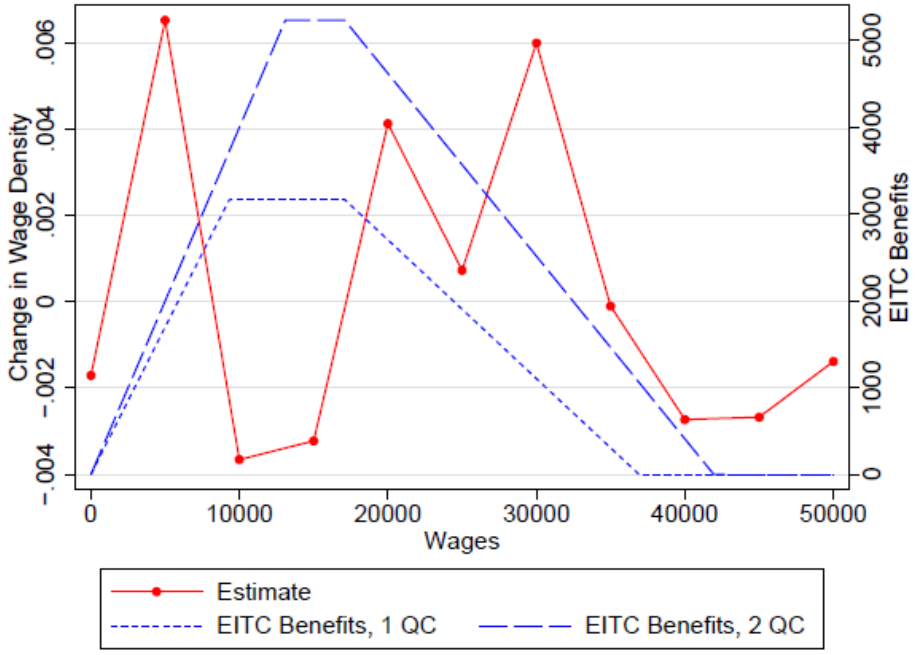
Impacts of EITC Correspondence Audits

Earnings Responses by Gender for *Wage Earners* in Year of Audit

A. Men



B. Women



→ For Wage Earners, decreases in W-2 wage employment driven mostly by men, evidence suggests increases in W-2 amounts for women

Magnitudes

Putting reductions in EITC claiming in context

- Estimates imply roughly 30% reduction in EITC claiming in year immediately after audit

- Audit sample: about 180,000 audited returns with moderate risk scores
  - 30% reduction in EITC claims translates into roughly 54,000 less EITC returns

- Extrapolating to full audit sample (including returns with higher risk scores)
  - About 400,000 audits per year
  - 30% reduction in EITC claiming in year after audit translates into about 120,000 fewer EITC claims after audit
  - Important caveat: estimates apply most directly to moderate risk scores; extrapolation assumes effects for returns with moderate risk scores apply to returns with higher risk scores

Conclusions

Following EITC Correspondence Audits

- Decrease in likelihood of claiming EITC, persistent and even conditional on filing
  - Decrease in likelihood of filing, persistent; accounts for much of changes in EITC receipt
- Wage earnings responses for self-employed and wage earners
  - Self-employed increase likelihood of having wage employment following disallowance of EITC benefits
  - Wage earners decrease likelihood of having wage employment following disallowance
  - Results consistent with labor supply model, could also be (continued) noncompliance
  - Potentially-EITC eligible individuals not filing after audit.

Conclusions

Following EITC Correspondence Audits

- Given that analysis sample focuses on scored returns with intermediate risk scores, results apply most directly to this subpopulation
  - Analysis sample differs from general EITC population and from returns with highest risk scores, need to keep in mind these differences when extrapolating to other populations

- In developing coordinated enforcement strategies for refundable credits, may be useful to consider post-audit follow-up communications to assist in learning, continued improvement in compliance.

Thank you!!!