

The Persistent Reduction in Poverty from Filing a Tax Return

Online Appendix

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A Appendix, For Online Publication

A.1 Placebo Tests

To alleviate concerns that the discontinuous jump in filing might occur in other parts of the income distribution or in other tax years, we conduct several different placebo tests at different points in the income distribution and in other tax years. The first test is to impose artificial eligibility thresholds at \$2,000 and \$4,000 and re-estimate our baseline specification. Similar to our main results, these regressions use 2007 W-2 wages as the running variable. We do not estimate the probability of filing a 2007 return to be statistically different from zero when eligibility is defined either by having wages above \$2,000 or by having wages above \$4,000. In addition, we do our RD estimates estimating the effect of eligibility on the outcome variables are generally not statistically different from zero when eligibility is defined using the \$2,000 and \$4,000 cutoffs. Figures A1 and A2 further demonstrate that there generally insignificant breaks in outcomes variables at the placebo cutoffs.

As a second placebo test, we use 2006 Form W-2 wage earnings as the running variable instead of 2007 Form W-2 wage earnings and redo our analysis. The RD estimates results are generally statistically significant when we replace the running variable with 2006 wage earnings. When the estimates are statistically significant, they are signed in the opposite direction compared to those from the main analysis as demonstrated in Figure A3.

As a third placebo test, we use estimate the RD without observations at the cutoff of \$3,000 as an additional robustness check which is the methodology used in Almond et al. (2011). In addition, we estimate the RD when we drop observations within a narrow band of the \$3,000 cutoff. We find that the estimated effect of stimulus eligibility on filing a 2007 tax return ranges between 1.8 and 2.1 percentage points, which contains our point estimate of 2.2 from our main analysis (see Table A18). As a result, we do not find that bunching at \$3,000 is driving our results.

For a fourth placebo test, we construct a sample of long term non-filers for a different time period and check for a significant jump in the probability of filing around the \$3,000 cutoff. Specifically, we estimate an RD using the probability of filing a 2005 return as the outcome variable among the population of individuals who were non-filers in 2003 and 2004.¹ We find that having wage earnings above \$3,000 has a small, marginally significant

¹ Similar to our baseline data construction, we restricted the sample to individuals aged 25-60 in 2003, with social security numbers, and were not claimed as dependents. In addition, we dropped filers with positive tax liability reported on their 2005 tax returns.

0.5 percentage point effect on the probability of filing in 2005. The reduced form estimates for the the outcome variables are generally statistically insignificant, or when significant, very small in magnitude. Figure A4 depicts the reduced form pictures that are analogous to the set of figures shown in the main analysis. These Figures show that the outcomes variables generally have little to no break at the \$3,000 cutoff.

Overall, we find no evidence of large significant increases in the probability of filing around \$3,000 in other tax years or at different points of the income distribution in 2007. These placebo test results support our conclusion that the discontinuous jump in filing a 2007 return around the \$3,000 cutoff is a result of the ESA08.

A.2 Relaxing Sample Restrictions

To demonstrate that our sample restrictions are not driving our main results, we redo our analysis with the sample of workers with wages below \$6,000 and are aged 25-60 in 2005. We eliminate the sample restrictions that better target individuals who would be the most affected by the stimulus rebate, including our restrictions to limit to non-filers in 2005 and 2006, individuals with income below the 2005-2007 filing thresholds, and those without social security income. Our results in Table A17 show that the results with the broader sample are similar to those presented in the main analysis.

References

Almond, Douglas, Jr. Joseph J. Doyle, Amanda E. Kowalski, and Heidi Williams,
“The Role of Hospital Heterogeneity in Measuring Marginal Returns to Medical Care:
A Reply to Barreca, Guldi, Lindo, and Waddell,” *The Quarterly Journal of Economics*,
2011, *126* (4), 2125–2131.

Table A1: Balance Tests

	Age in 2004	File in 2004	Claim EITC in 2004
Stimulus Eligible	0.143* (0.083)	0.001 (0.003)	-0.008*** (0.003)
Observations	1,246,808	1,246,808	1,246,808
Bandwidth	757.2	1154	613.8
	Work in 2004	Work in 2005	Work in 2006
Stimulus Eligible	-0.013** (0.005)	-0.009** (0.004)	-0.005 (0.004)
Observations	1,246,808	1,246,808	1,246,808
Bandwidth	470.1	748.0	736.0
	Wages 2004	Wages 2005	Wages 2006
Stimulus Eligible	-66.174** (32.464)	-27.120** (13.749)	-25.040 (15.498)
Observations	1,246,808	1,246,808	1,246,808
Bandwidth	527.1	719.7	628.1

Notes.—

Standard errors in parentheses. Eligibility for the Stimulus is defined strictly by Form W-2 wages. The running variable is W-2 wages. Reduced form are estimated using the optimal bandwidth selection approach by Calonico et al. (2016).

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Table A2: Validating Balance Tests

	Independent Variable	Main Analysis Full Sample	Placebo
Panel A: Prob of Filing			
Reduced Form	Stimulus Eligible	0.017*** (0.004)	-0.0003 (0.001)
Bandwidth		713.3	866.7
IV	Filed in 2007	0.831*** (0.187)	-0.012 (0.033)
Bandwidth		626.2	858.0
Observations		8,727,656	1,246,808
Panel B: Wage Earnings			
Reduced Form	Stimulus Eligible	128** (50)	-3 (6)
Bandwidth		880.4	1122.2
IV	Filed in 2007	5,663** (2,301)	-237 (350)
Bandwidth		905.7	836.5
Observations		8,727,656	1,246,808
Panel C: Prob of Claiming EITC			
Reduced Form	Stimulus Eligible	0.006** (0.003)	-0.0005 (0.0005)
Bandwidth		826.6	1173.5
IV	Filed in 2007	0.265*** (0.092)	-0.031 (0.027)
Bandwidth		993.6	868.6
Observations		9,974,464	1,246,808

Notes.–

Standard errors in parentheses. Eligibility for the Stimulus is defined strictly by Form W-2 wages. The running variable is W-2 wages. For the placebo test, we regress the mean value of each outcome variable from 2008-2014 on all of the pre-treatment variables used in the balance tests listed in Table A1. We then use the predicted variable from that regression as the outcome variable in the reduced form Equation 1 and for the IV Equation 2, given respectively in Sections III.B and IV in the paper.

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Table A3: Regression Discontinuity, Probability of Filing a 2007 Tax Return

	Female	Male	25 to 34	35 to 44	45 and above	Unrestricted Sample
Stimulus Eligible	0.013* (0.007)	0.028*** (0.005)	0.018*** (0.006)	0.019** (0.008)	0.028*** (0.008)	0.018*** (0.003)
Observations	485,254	761,168	503,533	405,067	338,208	2,303,391
Bandwidth	802.2	1010	1089	783.5	825.2	837.4

Notes.—

The regression discontinuity (RD) estimates show the impact of stimulus eligibility on the probability of filing a 2007 tax return by gender and age. Standard errors are in parentheses. The RD is estimated using the optimal bandwidth selection approach by Calonico et al. (2016). Eligibility for the stimulus is defined strictly by Form W-2 wages. The running variable is W-2 wages.

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Table A4: Impact of Filing on Future Filing and EITC Claiming, by Year

Independent Variable		2007 (1)	2008 (2)	2009 (3)	2010 (4)	2011 (5)	2012 (6)	2013 (7)	2014 (8)
Prob of Filing									
Reduced Form	Stimulus Eligible	0.022*** (0.004)	0.018*** (0.004)	0.025*** (0.005)	0.011*** (0.004)	0.011*** (0.004)	0.014*** (0.004)	0.017*** (0.004)	0.017*** (0.004)
Bandwidth		834.3	786.2	471.1	964.4	812.1	945.5	909.1	781.3
IV	Filed a 2007 Tax Return		0.700*** (0.147)	0.936*** (0.241)	0.653*** (0.207)	0.639*** (0.215)	0.961*** (0.270)	0.751*** (0.182)	0.800*** (0.214)
Bandwidth			1139	584.2	681.5	643.0	534.5	1016	740.5
Prob of Claiming EITC									
Reduced Form	Stimulus Eligible	0.012*** (0.004)	0.007* (0.004)	0.007** (0.003)	0.002 (0.004)	0.006 (0.004)	0.006* (0.004)	0.005 (0.003)	0.007** (0.003)
Bandwidth		1069	942.6	921.4	789.7	632.7	763.6	997.0	850.9
IV	Filed a 2007 Tax Return	0.488*** (0.119)	0.330** (0.132)	0.268** (0.134)	0.070 (0.148)	0.302 (0.191)	0.275* (0.145)	0.231* (0.137)	0.350** (0.136)
Bandwidth		921.2	1260	1186	972.0	560.7	939.8	1062	1076
Observations		1,246,808	1,246,808	1,246,808	1,246,808	1,246,808	1,246,808	1,246,808	1,246,808

Notes.—

The reduced form estimates show the impact of stimulus eligibility on the outcome variable. The IV estimates, where stimulus eligibility is used to instrument for filing a 2007 tax return, are reported only for the second stage. The first stage regression results (not shown) estimates the impact of stimulus eligibility on filing a 2007 tax return. Standard errors are in parentheses. Reduced form and IV are estimated using the optimal bandwidth selection approach by Calonico et al. (2016). Eligibility for the stimulus is defined strictly by Form W-2 wages. The running variable is W-2 wages.

*** p<0.01, ** p<0.05, * p<0.1

Table A5: Impact of Filing on Wage Earnings, by Year

Independent Variable		2008 (1)	2009 (2)	2010 (3)	2011 (4)	2012 (5)	2013 (6)	2014 (7)
Wage Earnings								
Reduced Form	Stimulus Eligible	89.209* (48.098)	113.933** (54.832)	104.976* (54.718)	146.542** (65.963)	124.054** (62.068)	144.206** (67.997)	148.221** (69.687)
Bandwidth		977.7	888.5	995.2	761.6	963.2	887.4	927.2
IV	Filed a 2007 Tax Return	4,033.118* (2,126.576)	3,993.459* (2,248.164)	4,241.123* (2,263.224)	7,094.500** (3,250.482)	8,449.021** (3,548.565)	5,348.704** (2,709.521)	6,213.350** (2,968.874)
Bandwidth		996.8	1089	1263	692.0	685.4	1232	1111
Observations		1,246,808	1,246,808	1,246,808	1,246,808	1,246,808	1,246,808	1,246,808

Notes.—

The reduced form estimates show the impact of stimulus eligibility on the outcome variable. The IV estimates, where stimulus eligibility is used to instrument for filing a 2007 tax return, are reported only for the second stage. The first stage regression results (not shown) estimates the impact of stimulus eligibility on filing a 2007 tax return. Standard errors are in parentheses. Reduced form and IV are estimated using the optimal bandwidth selection approach by Calonico et al. (2016). Eligibility for the stimulus is defined strictly by Form W-2 wages. The running variable is W-2 wages. The outcome wages is top coded to the 95th percentile in each year.

*** p<0.01, ** p<0.05, * p<0.1

Table A6: Impact of Filing on Poverty, by Year

	Independent Variable	2008 (1)	2009 (2)	2010 (3)	2011 (4)	2012 (5)	2013 (6)	2014 (7)
Prob Above Poverty (Without Taxes)								
Reduced Form	Stimulus Eligible	0.006** (0.003)	0.006** (0.003)	0.005* (0.003)	0.007** (0.004)	0.004 (0.003)	0.006* (0.003)	0.007** (0.003)
Bandwidth		1067	952.6	896.1	753.1	1088	1034	1059
IV	Filed a 2007 Tax Return	0.288* (0.149)	0.278** (0.135)	0.224 (0.137)	0.254* (0.138)	0.167 (0.129)	0.255* (0.134)	0.297** (0.134)
Bandwidth		908.2	1117	1080	1107	1329	1242	1284
Prob Above Poverty (With Taxes)								
Reduced Form	Stimulus Eligible	0.002 (0.003)	0.014*** (0.004)	0.008** (0.004)	0.007* (0.004)	0.010*** (0.003)	0.013*** (0.004)	0.012*** (0.004)
Bandwidth		930.0	619.1	888.9	721.2	965.1	813.6	799.3
IV	Filed a 2007 Tax Return	0.107 (0.136)	0.427*** (0.146)	0.335** (0.145)	0.273* (0.161)	0.468*** (0.177)	0.542*** (0.157)	0.531*** (0.187)
Bandwidth		1228	1179	1256	955.1	873.1	1228	809.9
Observations		1,246,808	1,246,808	1,246,808	1,246,808	1,246,808	1,246,808	1,246,808

Notes.—

The reduced form estimates show the impact of stimulus eligibility on the outcome variable. The IV estimates, where stimulus eligibility is used to instrument for filing a 2007 tax return, are reported only for the second stage. The first stage regression results (not shown) estimates the impact of stimulus eligibility on filing a 2007 tax return. Standard errors are in parentheses. Reduced form and IV are estimated using the optimal bandwidth selection approach by Calonico et al. (2016). Eligibility for the stimulus is defined strictly by Form W-2 wages. The running variable is W-2 wages. The tax exclusive income used to determine poverty status is constructed from information return forms that are issued to both filers and non-filers including wage income from the Form W-2, and dividends, capital gains, unemployment benefits, interest income, non-employee compensation, and social security income from Forms 1099s. The tax inclusive income measure to determine poverty for non-filers is measured as the income from information returns minus payroll taxes and withholdings, and for filers, is measured as the tax return income minus payroll taxes and the tax return's balance. For the tax exclusive measure of poverty, we assume that each individual is unmarried and that he/she lives in a household with his/her biological children. An individual's biological child is defined as any person under age 19 who lists the individual as a parent. We identify biological children using administrative data from the Social Security Administration. For the tax-inclusive measure of poverty, each non-filer's size is defined in the same way as in the tax-exclusive income measure where we assume that each individual is unmarried and claims their biological children. For filers, household size is defined by the number of exemptions claimed on the tax return.

*** p<0.01, ** p<0.05, * p<0.1

Table A7: Probability of Filing a 2007 Tax Return; Higher-Order Polynomials

	1st order	2nd Order	3rd Order
Stimulus Eligible	0.021*** (0.004)	0.024*** (0.005)	0.022*** (0.006)
Observations	1,246,808	1,246,808	1,246,808
Bandwidth	834.3	1499	1486

Notes.—

The regression discontinuity (RD) estimates show the impact of stimulus eligibility on the outcome variable. Standard errors are in parentheses. The RD is estimated using the optimal bandwidth selection approach by Calonico et al. (2016). Eligibility for the stimulus is defined strictly by Form W-2 wages. The running variable is W-2 wages.

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Table A8: Wage Earnings Results Using Higher Order Polynomial

Independent Variable		2008 (1)	2009 (2)	2010 (3)	2011 (4)	2012 (5)	2013 (6)	2014 (7)
2nd Order								
Reduced Form	Stimulus Eligible	103.802 (65.057)	170.063** (71.890)	138.860** (63.248)	177.863** (76.635)	271.287*** (94.359)	247.735** (96.367)	282.565*** (104.586)
Bandwidth		1135	1099	1585	1203	891.0	941.6	878.6
IV	Filed a 2007 Tax Return	4,753.562 (2,943.439)	6,456.148** (3,031.510)	6,178.569** (3,095.539)	7,768.768** (3,535.981)	8,768.642** (3,723.777)	7,118.380** (3,258.326)	8,419.458** (3,922.855)
Bandwidth		1054	1248	1304	1215	1260	1501	1300
3rd Order								
Reduced Form	Stimulus Eligible	84.363 (70.107)	211.728** (91.887)	191.272** (92.269)	231.468** (101.519)	329.235*** (110.364)	318.781*** (114.658)	339.240*** (122.153)
Bandwidth		1679	1154	1276	1173	1114	1138	1100
IV	Filed a 2007 Tax Return	4,921.735 (3,499.343)	9,423.818** (4,258.443)	7,212.365* (3,815.258)	8,655.354** (3,859.163)	12,585.193** (5,262.494)	12,807.840** (5,652.719)	13,405.152** (5,900.891)
Bandwidth		1364	1299	1643	1762	1463	1267	1284
Observations		1,246,808	1,246,808	1,246,808	1,246,808	1,246,808	1,246,808	1,246,808

Notes.—

The reduced form estimates show the impact of stimulus eligibility on the outcome variable. The IV estimates, where stimulus eligibility is used to instrument for filing a 2007 tax return, are reported only for the second stage. The first stage regression results (not shown) estimates the impact of stimulus eligibility on filing a 2007 tax return. Standard errors are in parentheses. Reduced form and IV are estimated using the optimal bandwidth selection approach by Calonico et al. (2016). Eligibility for the stimulus is defined strictly by Form W-2 wages. The running variable is W-2 wages.

*** p<0.01, ** p<0.05, * p<0.1

Table A9: Poverty Results Using 2nd Order Polynomial

Independent Variable		2008 (1)	2009 (2)	2010 (3)	2011 (4)	2012 (5)	2013 (6)	2014 (7)
Prob Above Poverty (Without Taxes)								
Reduced Form	Stimulus Eligible	0.006 (0.004)	0.008** (0.004)	0.007* (0.004)	0.008** (0.004)	0.008* (0.004)	0.010** (0.005)	0.013*** (0.005)
Bandwidth		1032	1481	1348	1307	1077	974.6	887.8
IV	Filed a 2007 Tax Return	0.259 (0.194)	0.367* (0.189)	0.307* (0.172)	0.378* (0.196)	0.258 (0.172)	0.344** (0.171)	0.430** (0.189)
Bandwidth		1058	1177	1335	1160	1336	1393	1301
Prob Above Poverty (With Taxes)								
Reduced Form	Stimulus Eligible	0.002 (0.005)	0.016*** (0.005)	0.010** (0.004)	0.008* (0.005)	0.012*** (0.004)	0.015*** (0.004)	0.023*** (0.006)
Bandwidth		1088	1021	1307	1212	1391	1580	750.6
IV	Filed a 2007 Tax Return	0.113 (0.208)	0.613*** (0.210)	0.422** (0.202)	0.374* (0.212)	0.577** (0.238)	0.650*** (0.229)	0.604*** (0.213)
Bandwidth		1009	1269	1272	1169	1062	1216	1300
Observations		1,246,808	1,246,808	1,246,808	1,246,808	1,246,808	1,246,808	1,246,808

Notes.—

The reduced form estimates show the impact of stimulus eligibility on the outcome variable. The IV estimates, where stimulus eligibility is used to instrument for filing a 2007 tax return, are reported only for the second stage. The first stage regression results (not shown) estimates the impact of stimulus eligibility on filing a 2007 tax return. Standard errors are in parentheses. Reduced form and IV are estimated using the optimal bandwidth selection approach by Calonico et al. (2016). Eligibility for the stimulus is defined strictly by Form W-2 wages. The running variable is W-2 wages. The tax exclusive income used to determine poverty status is constructed from information return forms that are issued to both filers and non-filers including wage income from the Form W-2, and dividends, capital gains, unemployment benefits, interest income, non-employee compensation, and social security income from Forms 1099s. The tax inclusive income measure to determine poverty for non-filers is measured as the income from information returns minus payroll taxes and withholdings, and for filers, is measured as the tax return income minus payroll taxes and the tax return's balance. For the tax exclusive measure of poverty, we assume that each individual is unmarried and that he/she lives in a household with his/her biological children. An individual's biological child is defined as any person under age 19 who lists the individual as a parent. We identify biological children using administrative data from the Social Security Administration. For the tax-inclusive measure of poverty, each non-filer's size is defined in the same way as in the tax-exclusive income measure where we assume that each individual is unmarried and claims their biological children. For filers, household size is defined by the number of exemptions claimed on the tax return.

*** p<0.01, ** p<0.05, * p<0.1

Table A10: Poverty Results Using 3rd Order Polynomial

Independent Variable		2008 (1)	2009 (2)	2010 (3)	2011 (4)	2012 (5)	2013 (6)	2014 (7)
Prob Above Poverty (Without Taxes)								
Reduced Form	Stimulus Eligible	0.006 (0.005)	0.011* (0.005)	0.010* (0.005)	0.011** (0.006)	0.014** (0.006)	0.013** (0.006)	0.016*** (0.006)
Bandwidth		1334	1154	1170	1179	1029	1176	1088
IV	Filed a 2007 Tax Return	0.246 (0.228)	0.464* (0.247)	0.404* (0.237)	0.431* (0.237)	0.501* (0.260)	0.532** (0.265)	0.631** (0.280)
Bandwidth		1401	1343	1468	1534	1272	1304	1331
Prob Above Poverty (With Taxes)								
Reduced Form	Stimulus Eligible	0.003 (0.006)	0.017*** (0.006)	0.015** (0.006)	0.010* (0.006)	0.017*** (0.006)	0.017*** (0.006)	0.028*** (0.007)
Bandwidth		1238	1106	1100	1201	1104	1243	946.1
IV	Filed a 2007 Tax Return	0.034 (0.212)	0.638*** (0.229)	0.587** (0.283)	0.433 (0.267)	0.570** (0.257)	0.735** (0.306)	1.058*** (0.376)
Bandwidth		1694	1800	1352	1411	1623	1353	1165
Observations		1,246,808	1,246,808	1,246,808	1,246,808	1,246,808	1,246,808	1,246,808

Notes.—

The reduced form estimates show the impact of stimulus eligibility on the outcome variable. The IV estimates, where stimulus eligibility is used to instrument for filing a 2007 tax return, are reported only for the second stage. The first stage regression results (not shown) estimates the impact of stimulus eligibility on filing a 2007 tax return. Standard errors are in parentheses. Reduced form and IV are estimated using the optimal bandwidth selection approach by Calonico et al. (2016). Eligibility for the stimulus is defined strictly by Form W-2 wages. The running variable is W-2 wages. The tax exclusive income used to determine poverty status is constructed from information return forms that are issued to both filers and non-filers including wage income from the Form W-2, and dividends, capital gains, unemployment benefits, interest income, non-employee compensation, and social security income from Forms 1099s. The tax inclusive income measure to determine poverty for non-filers is measured as the income from information returns minus payroll taxes and withholdings, and for filers, is measured as the tax return income minus payroll taxes and the tax return's balance. For the tax exclusive measure of poverty, we assume that each individual is unmarried and that he/she lives in a household with his/her biological children. An individual's biological child is defined as any person under age 19 who lists the individual as a parent. We identify biological children using administrative data from the Social Security Administration. For the tax-inclusive measure of poverty, each non-filer's size is defined in the same way as in the tax-exclusive income measure where we assume that each individual is unmarried and claims their biological children. For filers, household size is defined by the number of exemptions claimed on the tax return.

*** p<0.01, ** p<0.05, * p<0.1

Table A11: Probability of Filing a 2007 Tax Return; Varying Bandwidth Choice

Bandwidth	500	1000	1500
Stimulus Eligible	0.022*** (0.005)	0.022*** (0.004)	0.020*** (0.003)
Observations	1,246,808	1,246,808	1,246,808

Notes.—

Standard errors are in parentheses. The RD is estimated using the optimal bandwidth selection approach by Calonico et al. (2016). Eligibility for the Stimulus is defined strictly by Form W-2 wages. The running variable is W-2 wages.

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Table A12: Wage Earnings and Poverty Results Using 500 Bandwidth

	Independent Variable	2008 (1)	2009 (2)	2010 (3)	2011 (4)	2012 (5)	2013 (6)	2014 (7)
Wage Earnings								
Reduced Form	Stimulus Eligible	90.312 (67.234)	161.374** (73.198)	154.763** (77.329)	178.599** (81.573)	247.058*** (86.455)	245.003*** (90.793)	254.074*** (95.169)
IV	Filed a 2007 Tax Return	4,043.942 (2,936.536)	7,225.917** (3,396.660)	6,929.904* (3,573.855)	7,997.215** (3,851.199)	11,062.653** (4,376.040)	10,970.631** (4,542.064)	11,376.804** (4,741.081)
Prob Above Poverty (Without Taxes)								
Reduced Form	Stimulus Eligible	0.005 (0.004)	0.009** (0.004)	0.008* (0.004)	0.009* (0.004)	0.009** (0.004)	0.010** (0.004)	0.012*** (0.004)
IV	Filed a 2007 Tax Return	0.229 (0.194)	0.406** (0.204)	0.370* (0.204)	0.387* (0.208)	0.392* (0.209)	0.468** (0.218)	0.535** (0.225)
Prob Above Poverty (With Taxes)								
Reduced Form	Stimulus Eligible	0.002 (0.005)	0.015*** (0.005)	0.012** (0.005)	0.008* (0.005)	0.013*** (0.005)	0.015*** (0.005)	0.018*** (0.005)
IV	Filed a 2007 Tax Return	0.095 (0.205)	0.668*** (0.241)	0.526** (0.233)	0.376* (0.224)	0.604** (0.243)	0.681*** (0.252)	0.799*** (0.268)
Observations		1,246,808	1,246,808	1,246,808	1,246,808	1,246,808	1,246,808	1,246,808

Notes.–

The reduced form estimates show the impact of stimulus eligibility on the outcome variable. The IV estimates, where stimulus eligibility is used to instrument for filing a 2007 tax return, are reported only for the second stage. The first stage regression results (not shown) estimates the impact of stimulus eligibility on filing a 2007 tax return. Standard errors are in parentheses. Reduced form and IV are estimated using a \$500 bandwidth. Eligibility for the stimulus is defined strictly by Form W-2 wages. The running variable is W-2 wages. The outcome wages is top coded to the 95th percentile in each year.

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Table A13: Wage Earnings and Poverty Results Using 1000 Bandwidth

	Independent Variable	2008 (1)	2009 (2)	2010 (3)	2011 (4)	2012 (5)	2013 (6)	2014 (7)
Wage Earnings								
Reduced Form	Stimulus Eligible	88.208* (47.561)	94.758* (51.659)	104.596* (54.586)	102.709* (57.471)	116.958* (60.905)	128.436** (63.993)	138.298** (67.068)
IV	Filed a 2007 Tax Return	4,030.122* (2,123.809)	4,329.404* (2,336.600)	4,778.847* (2,490.689)	4,692.646* (2,624.120)	5,343.681* (2,804.224)	5,868.083** (2,963.923)	6,318.694** (3,107.434)
Observations		1,246,808	1,246,808	1,246,808	1,246,808	1,246,808	1,246,808	1,246,808
Prob Above Poverty (Without Taxes)								
Reduced Form	Stimulus Eligible	0.006** (0.003)	0.006** (0.003)	0.005 (0.003)	0.006* (0.003)	0.004 (0.003)	0.006* (0.003)	0.007** (0.003)
IV	Filed a 2007 Tax Return	0.285** (0.142)	0.282** (0.141)	0.229 (0.142)	0.268* (0.144)	0.184 (0.143)	0.278* (0.146)	0.327** (0.149)
Observations		1,246,808	1,246,808	1,246,808	1,246,808	1,246,808	1,246,808	1,246,808
Prob Above Poverty (With Taxes)								
Reduced Form	Stimulus Eligible	0.002 (0.003)	0.010*** (0.003)	0.008** (0.003)	0.006 (0.003)	0.010*** (0.003)	0.012*** (0.003)	0.010*** (0.003)
IV	Filed a 2007 Tax Return	0.087 (0.148)	0.472*** (0.159)	0.349** (0.159)	0.259 (0.158)	0.436*** (0.164)	0.564*** (0.172)	0.444*** (0.163)
Observations		1,246,808	1,246,808	1,246,808	1,246,808	1,246,808	1,246,808	1,246,808

Notes.—

The reduced form estimates show the impact of stimulus eligibility on the outcome variable. The IV estimates, where stimulus eligibility is used to instrument for filing a 2007 tax return, are reported only for the second stage. The first stage regression results (not shown) estimates the impact of stimulus eligibility on filing a 2007 tax return. Standard errors are in parentheses. Reduced form and IV are estimated using a \$1000 bandwidth. Eligibility for the stimulus is defined strictly by Form W-2 wages. The running variable is W-2 wages. The outcome wages is top coded to the 95th percentile in each year.

*** p<0.01, ** p<0.05, * p<0.1

Table A14: Wage Earnings and Poverty Results Using 1500 Bandwidth

	Independent Variable	2008 (1)	2009 (2)	2010 (3)	2011 (4)	2012 (5)	2013 (6)	2014 (7)
Wage Earnings								
Reduced Form	Stimulus Eligible	81.340** (38.775)	66.844 (42.072)	73.383* (44.440)	44.723 (46.745)	61.882 (49.542)	95.655* (52.067)	110.028** (54.564)
IV	Filed a 2007 Tax Return	4,168.825** (1,945.229)	3,425.897 (2,121.094)	3,761.032* (2,253.458)	2,292.134 (2,365.140)	3,171.556 (2,515.562)	4,902.539* (2,676.374)	5,639.148** (2,813.635)
Observations		1,246,808	1,246,808	1,246,808	1,246,808	1,246,808	1,246,808	1,246,808
Prob Above Poverty (Without Taxes)								
Reduced Form	Stimulus Eligible	0.007*** (0.003)	0.005** (0.003)	0.003 (0.003)	0.004 (0.003)	0.003 (0.003)	0.005* (0.003)	0.006** (0.003)
IV	Filed a 2007 Tax Return	0.336** (0.131)	0.277** (0.129)	0.171 (0.128)	0.185 (0.130)	0.158 (0.130)	0.234* (0.132)	0.282** (0.134)
Observations		1,246,808	1,246,808	1,246,808	1,246,808	1,246,808	1,246,808	1,246,808
Prob Above Poverty (With Taxes)								
Reduced Form	Stimulus Eligible	0.002 (0.003)	0.008*** (0.003)	0.006** (0.003)	0.003 (0.003)	0.008*** (0.003)	0.010*** (0.003)	0.007*** (0.003)
IV	Filed a 2007 Tax Return	0.115 (0.135)	0.406*** (0.142)	0.329** (0.145)	0.167 (0.143)	0.388*** (0.147)	0.520*** (0.154)	0.382*** (0.146)
Observations		1,246,808	1,246,808	1,246,808	1,246,808	1,246,808	1,246,808	1,246,808

Notes.—

The reduced form estimates show the impact of stimulus eligibility on the outcome variable. The IV estimates, where stimulus eligibility is used to instrument for filing a 2007 tax return, are reported only for the second stage. The first stage regression results (not shown) estimates the impact of stimulus eligibility on filing a 2007 tax return. Standard errors are in parentheses. Reduced form and IV are estimated using a \$1500 bandwidth. Eligibility for the stimulus is defined strictly by Form W-2 wages. The running variable is W-2 wages. The outcome wages is top coded to the 95th percentile in each year.

*** p<0.01, ** p<0.05, * p<0.1

Table A15: Effect of Filing a 2007 Tax Return on the Probability of Filing 2008-2014 Tax Returns, No Paid Tax Preparer Used in 2007

	2008	2009	2010	2011	2012	2013	2014
Filed a 2007 Tax Return	0.388 (0.248)	0.184 (0.239)	0.215 (0.341)	0.190 (0.324)	0.431 (0.270)	0.533* (0.310)	0.431* (0.256)
Observations	1,021,902	1,021,902	1,021,902	1,021,902	1,021,902	1,021,902	1,021,902
Bandwidth	994.5	1127	766.3	819.6	995.9	875.3	1050

Notes.—

The IV estimates, where stimulus eligibility is used to instrument for filing a 2007 tax return, are reported only for the second stage. The first stage regression results (not shown) estimates the impact of stimulus eligibility on filing a 2007 tax return. Standard errors are in parentheses. IV estimated using the optimal bandwidth selection approach by Calonico et al. (2016). Eligibility for the stimulus is defined strictly by Form W-2 wages. The running variable is W-2 wages. Regressions are restricted to individuals who did not use a paid tax preparer in 2007. This includes 2007 non-filers.

*** p<0.01, ** p<0.05, * p<0.1

Table A16: Impact of Filing on EITC Credit Amount

Independent Variable		2007 (1)	2008 (2)	2009 (3)	2010 (4)	2011 (5)	2012 (6)	2013 (7)	2014 (8)
Reduced Form	Stimulus Eligible	5.046 (4.840)	-1.398 (8.488)	2.203 (8.189)	0.721 (8.599)	5.289 (9.021)	9.306 (9.940)	10.071 (9.528)	12.256 (9.092)
Bandwidth		1256	861.2	1137	1072	962.8	783.5	868.5	906.6
IV	Filed a 2007 Tax Return	-8.807 (281.591)	-56.803 (382.721)	95.925 (386.521)	33.524 (394.194)	250.307 (408.256)	395.882 (417.536)	480.509 (396.345)	572.291 (394.109)
Observations		1,246,808	1,246,808	1,246,808	1,246,808	1,246,808	1,246,808	1,246,808	1,246,808
Bandwidth		763.6	898.6	1061	1074	942.0	899.1	1022	985.1

Notes.—

The reduced form estimates show the impact of stimulus eligibility on the outcome variable. The IV estimates, where stimulus eligibility is used to instrument for filing a 2007 tax return, are reported only for the second stage. The first stage regression results (not shown) estimates the impact of stimulus eligibility on filing a 2007 tax return. Standard errors are in parentheses. Reduced form and IV are estimated using the optimal bandwidth selection approach by Calonico et al. (2016). Eligibility for the stimulus is defined strictly by Form W-2 wages. The running variable is W-2 wages.

*** p<0.01, ** p<0.05, * p<0.1

Table A17: Impact of Filing in 2007 on Outcomes Using Unrestricted Sample

	2007 (1)	2008 (2)	2009 (3)	2010 (4)	2011 (5)	2012 (6)	2013 (7)	2014 (8)
Prob of Claiming EITC Filed a 2007 Tax Return	0.508*** (0.128)	0.238* (0.141)	0.257* (0.145)	0.077 (0.174)	0.270 (0.180)	0.283* (0.154)	0.121 (0.139)	0.366*** (0.140)
Observations	2,303,391	2,303,391	2,303,391	2,303,391	2,303,391	2,303,391	2,303,391	2,303,391
Bandwidth	697.9	795.4	750.3	599.2	555.6	683.0	768.1	773.5
Prob of Filing Filed a 2007 Tax Return		0.749*** (0.193)	0.973*** (0.247)	0.949*** (0.287)	0.719*** (0.231)	1.231*** (0.350)	0.881*** (0.252)	1.074*** (0.298)
Observations		2,303,391	2,303,391	2,303,391	2,303,391	2,303,391	2,303,391	2,303,391
Bandwidth		605.7	542.3	450.5	563.8	429.7	554.8	497.2
Prob of Working (Wages > 1K) Filed a 2007 Tax Return		0.311* (0.164)	0.296* (0.175)	0.409** (0.182)	0.194 (0.192)	0.644*** (0.247)	0.375** (0.184)	0.425** (0.195)
Observations		2,303,391	2,303,391	2,303,391	2,303,391	2,303,391	2,303,391	2,303,391
Bandwidth		876.0	828.8	809.6	703.1	594.9	776.3	723.7
Wage Earnings Filed a 2007 Tax Return		4,285.457* (2,290.976)	5,139.007* (2,665.579)	5,947.207** (2,803.652)	5,945.051* (3,183.828)	11,523.112*** (4,216.651)	10,089.877*** (3,795.465)	11,585.134*** (4,039.781)
Observations		2,303,391	2,303,391	2,303,391	2,303,391	2,303,391	2,303,391	2,303,391
Bandwidth		732.7	692.5	712.9	650.2	567.4	664.5	670.4

Notes.—

The IV estimates, where stimulus eligibility is used to instrument for filing a 2007 tax return, are reported only for the second stage. The first stage regression results (not shown) estimates the impact of stimulus eligibility on filing a 2007 tax return. Standard errors are in parentheses. Reduced form and IV are estimated using the optimal bandwidth selection approach by Calonico et al. (2016). Eligibility for the stimulus is defined strictly by Form W-2 wages. The running variable is W-2 wages. The outcome wages is top coded to the 95th percentile in each year. The sample is restricted to the sample of workers with wages below \$6,000 and aged 25-60 in 2005.

*** p<0.01, ** p<0.05, * p<0.1

Table A18: Placebo Test Dropping Mass Point At and Near \$3,000

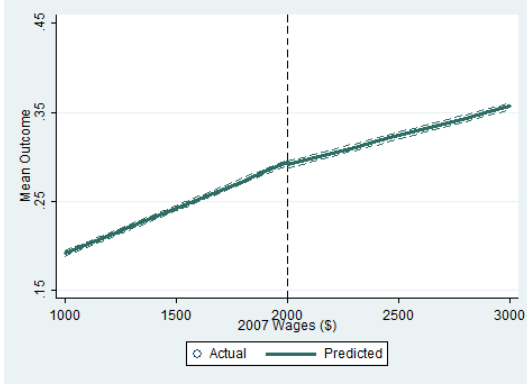
	All	Drop Wages=\$3,000	Drop Wages=\$2900-\$3100	Drop Wages=\$2800-\$3200
Stimulus Eligibility	0.021*** (0.004)	0.018*** (0.004)	0.021*** (0.004)	0.020*** (0.005)
Observations	323,910	322,265	291,701	259,905
Bandwidth	1000	1000	1000	1000

Notes.—

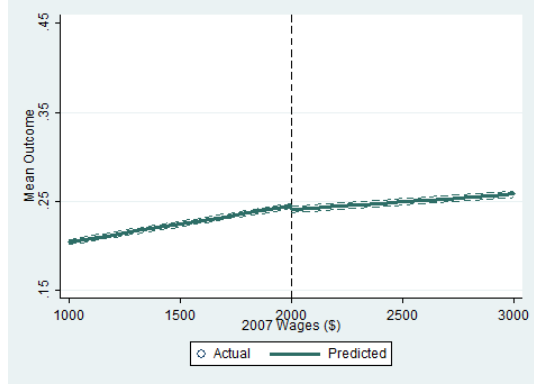
The reduced form estimates show the impact of stimulus eligibility on the outcome variable. Estimates are derived using weighted least squares with triangle weights. Eligibility for the stimulus is defined strictly by Form W-2 wages. The running variable is 2006 W-2 wages.

*** p<0.01, ** p<0.05, * p<0.1

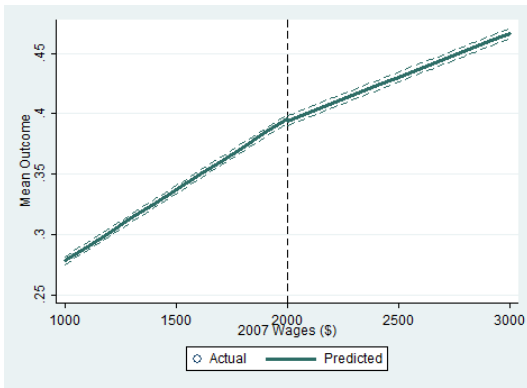
Figure A1: Mean Outcomes Using \$2,000 Threshold



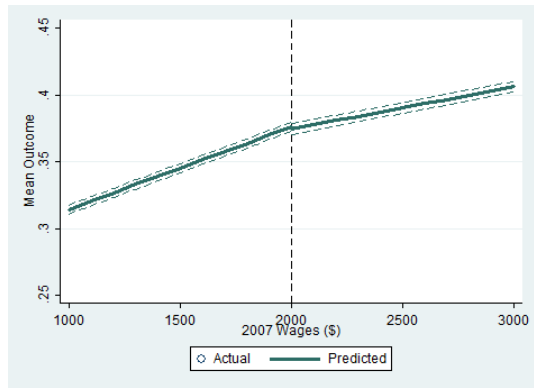
(a) Claim EITC, 2007



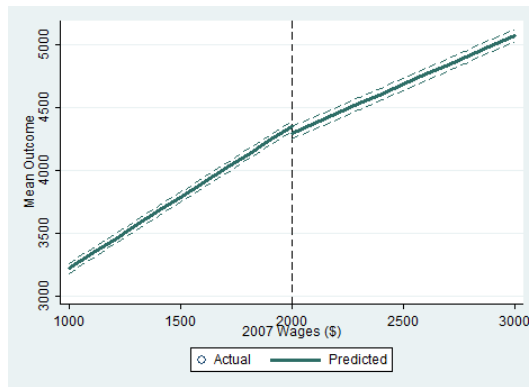
(b) Claim EITC, 2008



(c) File, 2007



(d) File, 2008

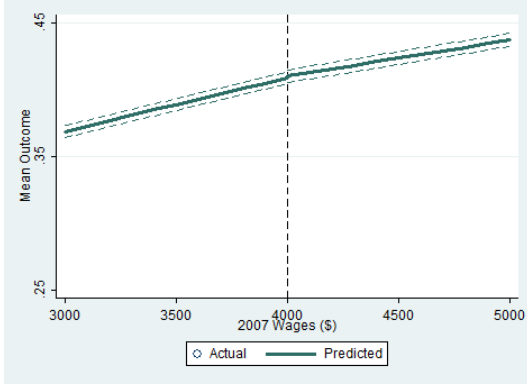


(e) Wage Earnings, 2008

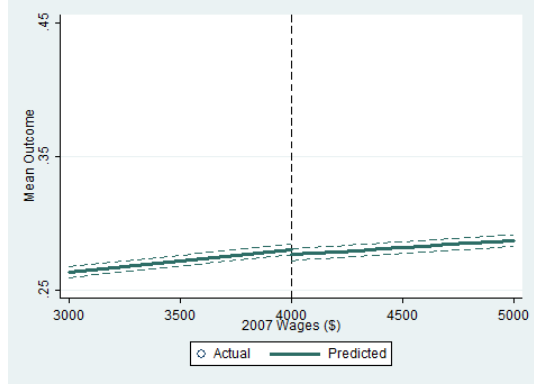
Notes.—

Estimates are derived using weighted least squares with triangle weights. The predicted estimates are the solid lines and the standard errors are the dashed lines. The circles represent the mean outcome in \$100 bins of 2007 W-2 wages. Wage earnings to the 95th percentile.

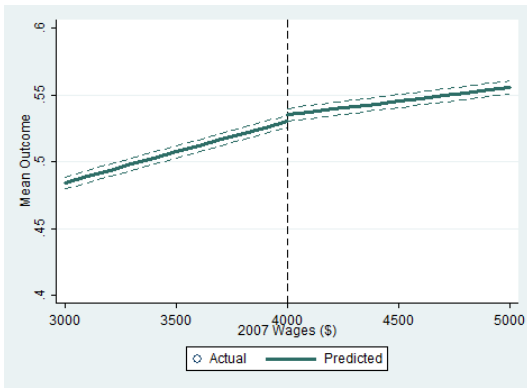
Figure A2: Mean Outcomes Using \$4,000 Threshold



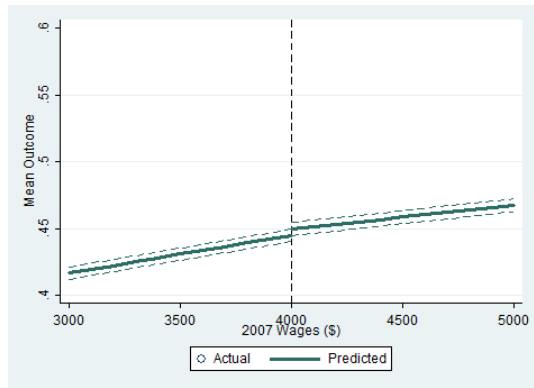
(a) Claim EITC, 2007



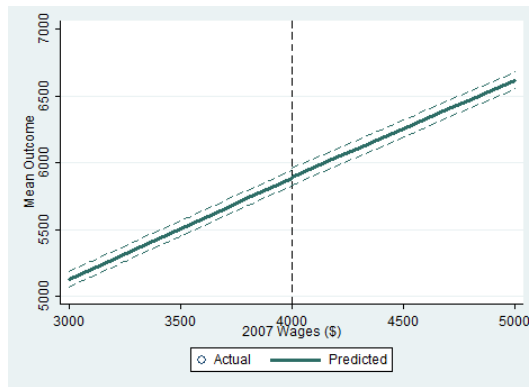
(b) Claim EITC, 2008



(c) File, 2007



(d) File, 2008

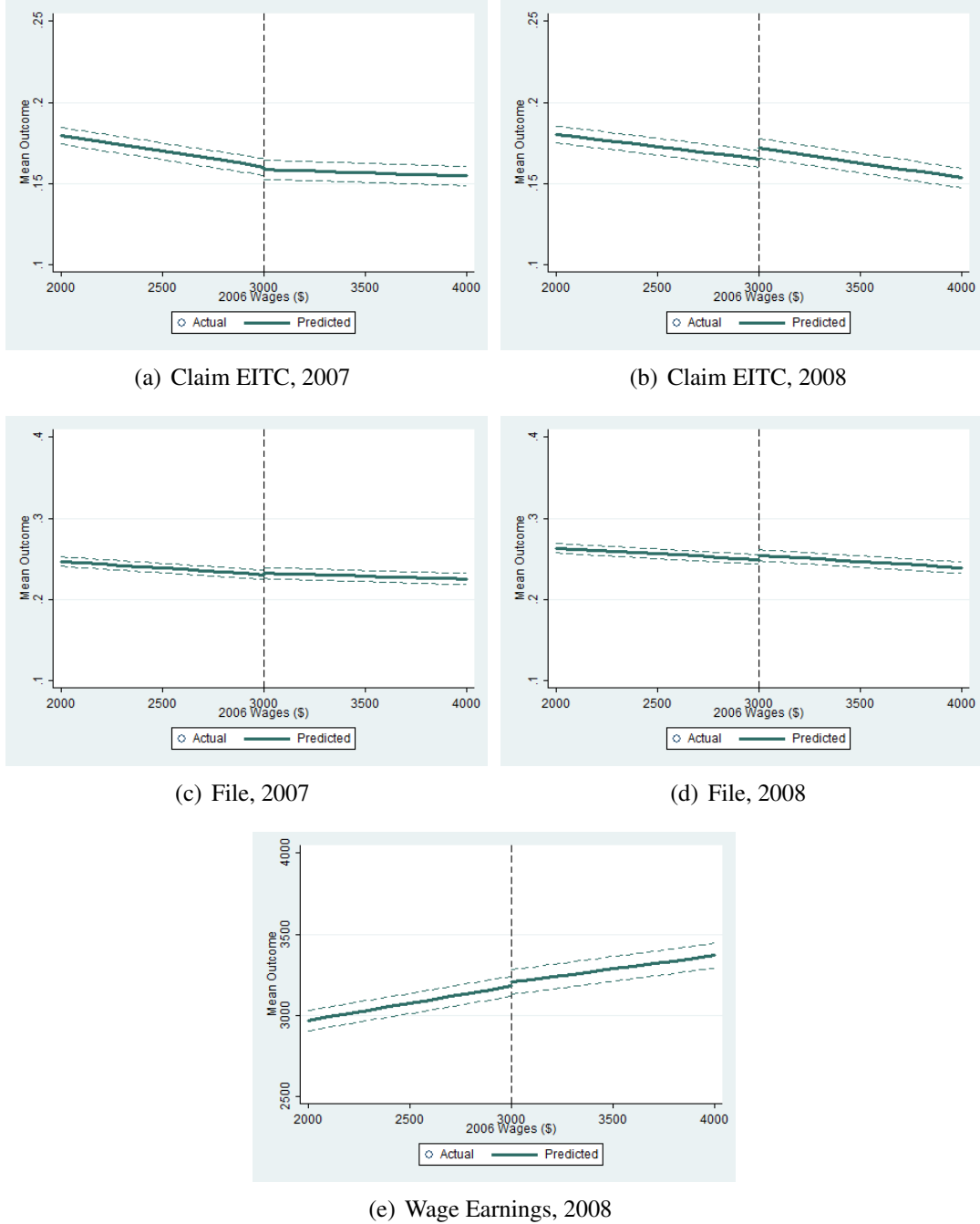


(e) Wage Earnings, 2008

Notes.—

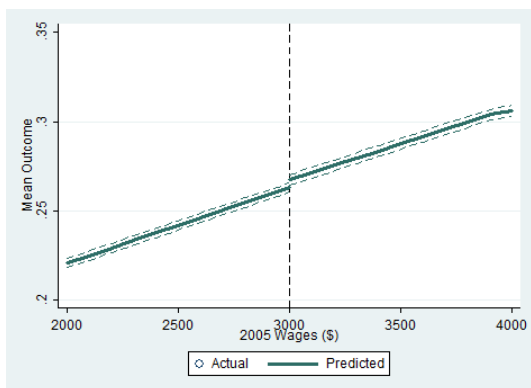
Estimates are derived using weighted least squares with triangle weights. The predicted estimates are the solid lines and the standard errors are the dashed lines. The circles represent the mean outcome in \$100 bins of 2007 W-2 wages. Wage earnings to the 95th percentile.

Figure A3: Mean Outcomes Using 2006 Wage Earnings as the Running Variable

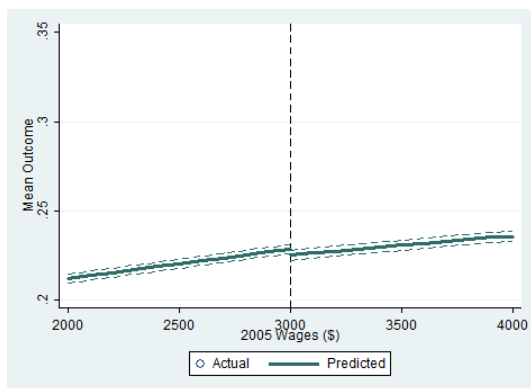


Notes.— Estimates are derived using weighted least squares with triangle weights. The predicted estimates are the solid lines and the standard errors are the dashed lines. The circles represent the mean outcome in \$100 bins of 2006 W-2 wages. Wage earnings to the 95th percentile.

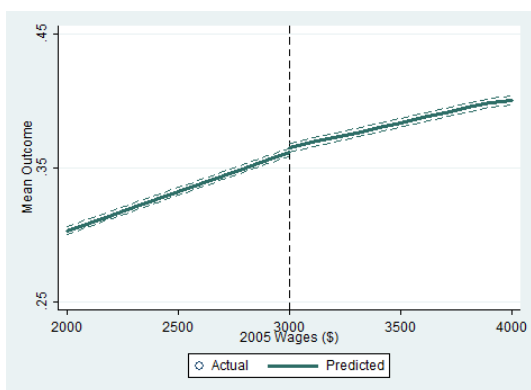
Figure A4: Placebo Test Using 2003 and 2004 Non-Filers, Mean Outcomes



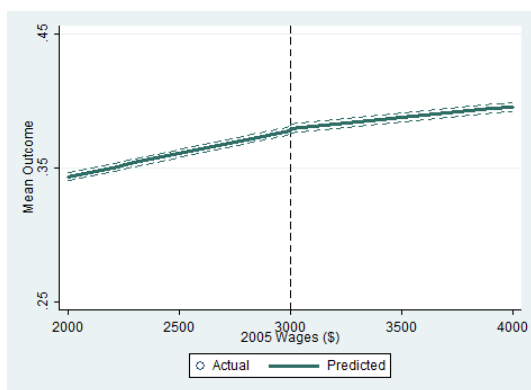
(a) Claim EITC, 2005



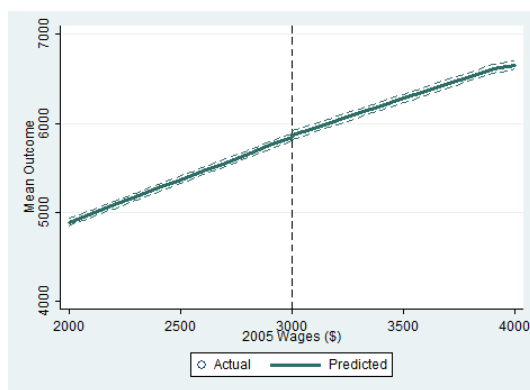
(b) Claim EITC, 2006



(c) File, 2005



(d) File, 2006



(e) Wage Earnings, 2006

Notes.—

Estimates are derived using weighted least squares with triangle weights. The predicted estimates are the solid lines and the standard errors are the dashed lines. The circles represent the mean outcome in \$100 bins of 2005 W-2 wages. Wage earnings to the 95th percentile. Sample consists of 2003 and 2004 non-filers aged 25-60 in 2003 with social security numbers who were not claimed as dependents.