

Do In-Work Tax Credits Serve as a Safety Net?

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Motivation

- In the past 2 decades, the safety net for low income families with children has been transformed:
 - Welfare reform has led to historic lows in cash welfare caseloads (TANF)
 - The EITC has expanded such that about 20 percent of tax filers now receive the credit
- Thus *in-work aid* has largely replaced *out-of-work* aid for this population
- Given this important change, we evaluate how the EITC performs as a “safety net”
 - How does the EITC adjust in times of greater economic need? Does it provide income smoothing?
- The Great Recession provides the first major test of the safety net in this new era

Overview and Findings

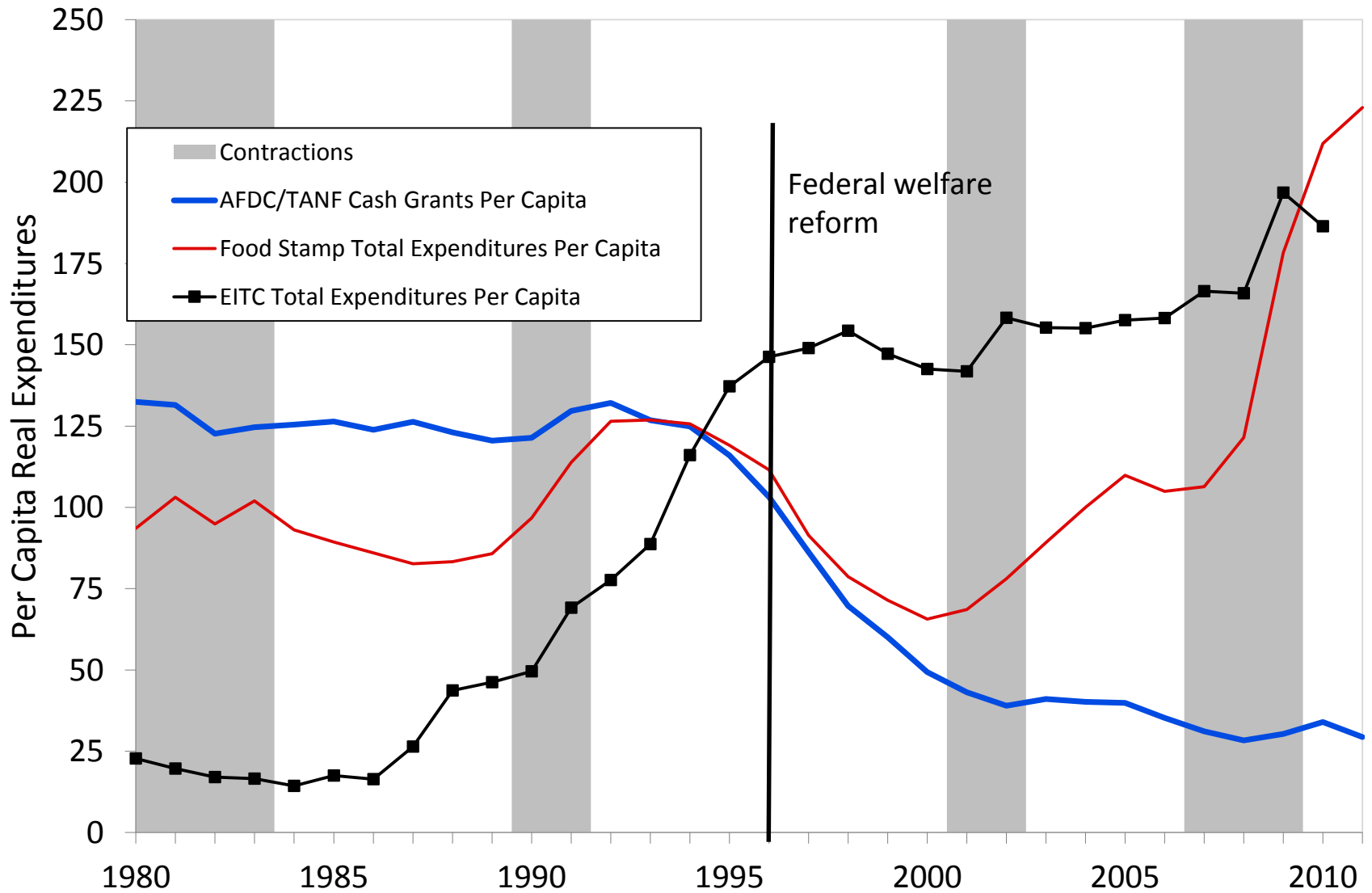
- Empirical strategy:
 - Exploit differences in timing and severity of cycles across states
 - Use high quality administrative micro-level data on tax returns
- Preview of results:
 - EITC is countercyclical for married couples with children and weakly pro-cyclical (but insignificant) for single filers with children
 - Compared to food stamps, TANF and UI, the EITC is the least responsive to cycles

Outline of talk

1. Policy Setting
2. Features of a Safety Net
3. New Evidence on Cyclicity of the EITC
4. Policy Implications

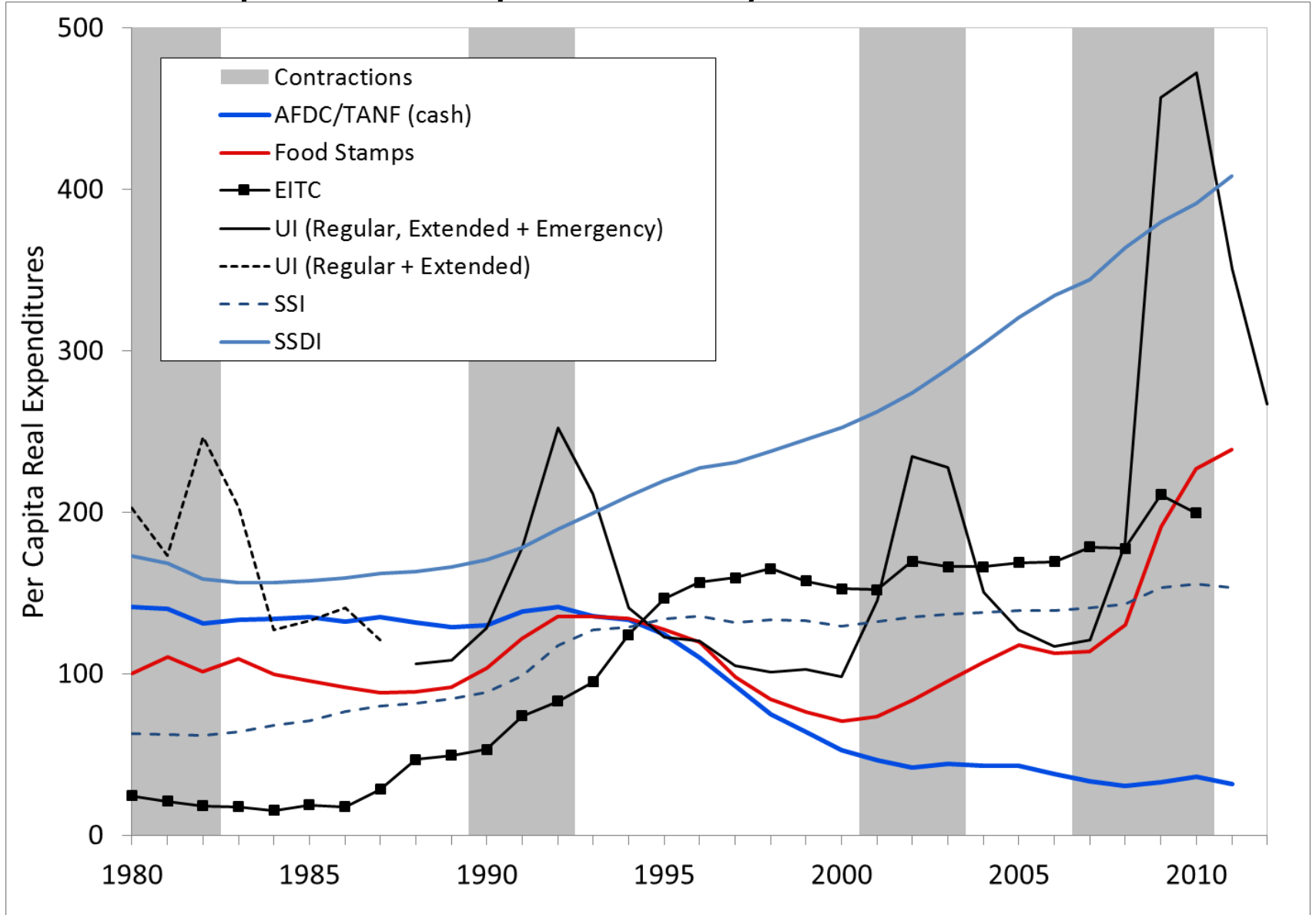
(1) The Policy Setting

Per capita real expenditures (2011 \$)



Source: Bitler and Hoynes (2010).

Per capita real expenditures, cash and near-cash

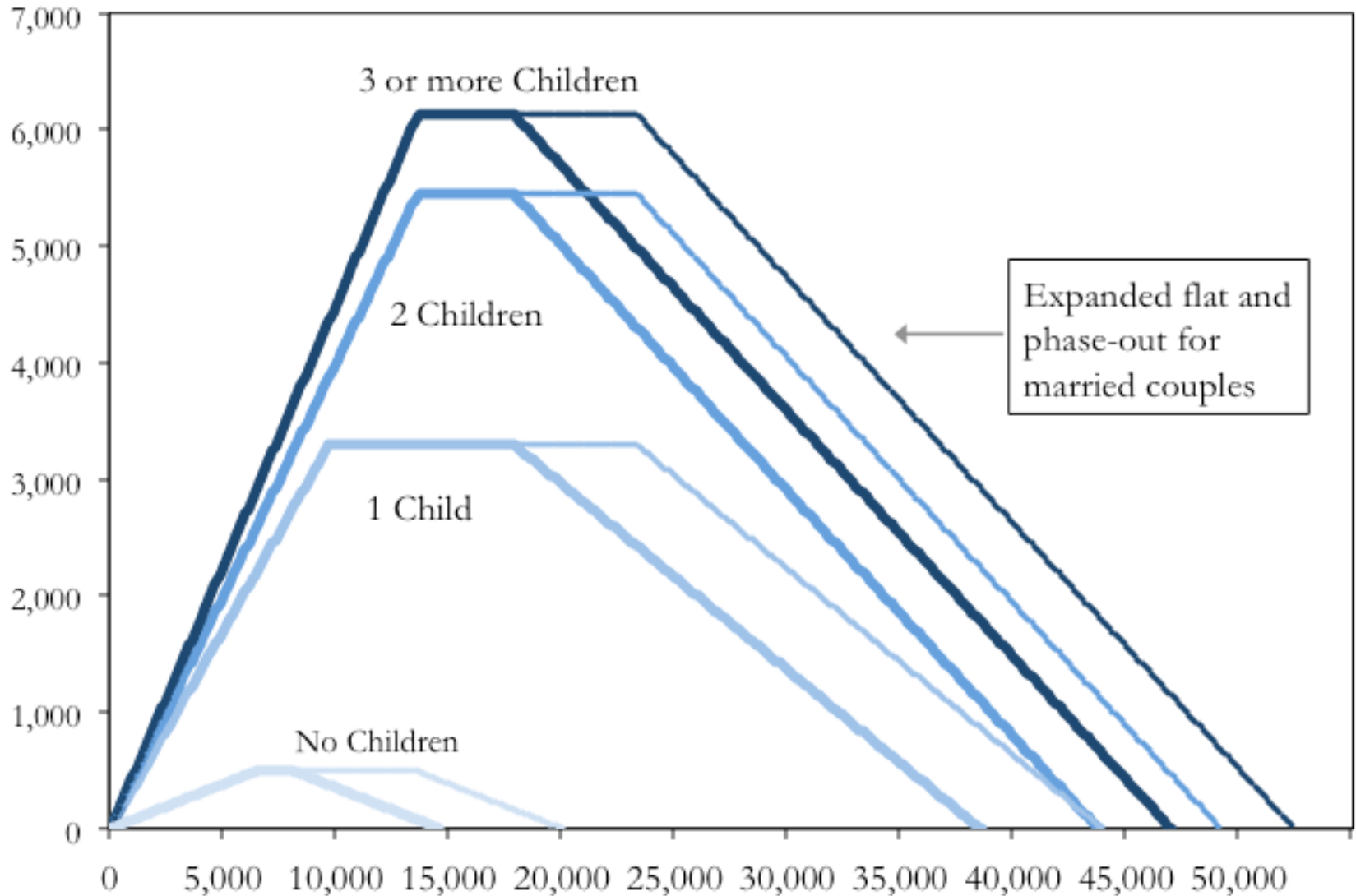


Source: Bitler and Hoynes (2013).

Background on the EITC

- Refundable tax credit for low income families
- Must have earned income to be eligible
- Credit varies by number of children (small credit for childless), earnings (and AGI)
- Expansions due to tax acts in 1986, 1990, and 1993 (and smaller expansions in 2001, 2009)
- About 60% of EITC filers are single with children, 20% married with children, and 20% childless [but only 2% of \$ go to childless]

EITC Schedule, 2014 Tax year



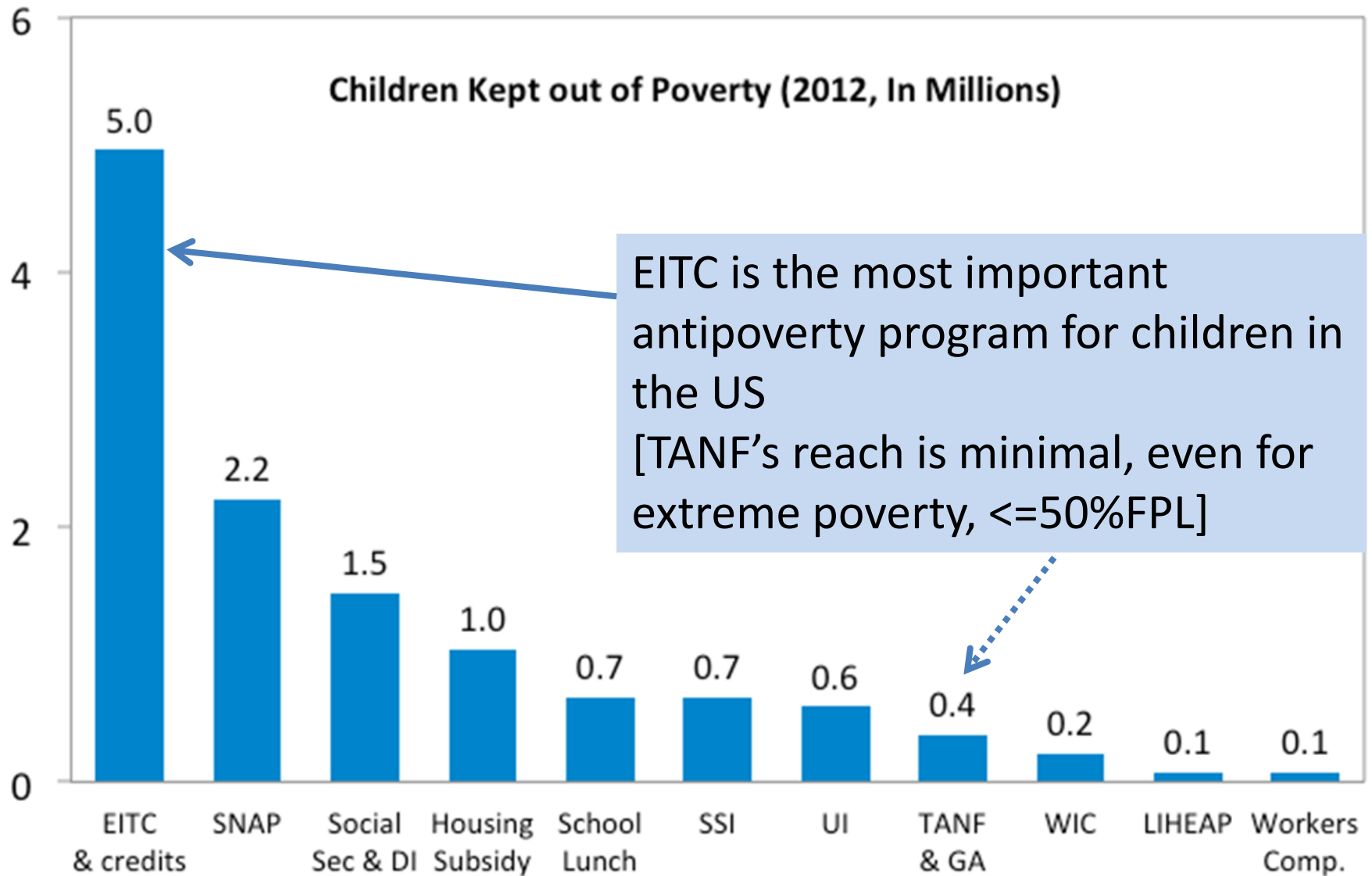
Source: Tax Policy Center, Historical EITC parameters

(2) Features of a safety net

- Increase income at the bottom of the distribution, reduce poverty
- Provide protection in times of economic need: insurance, smooth income (and hence consumption)
 - For example a negative shock to family earnings is mitigated by social insurance (e.g. UI), public assistance (e.g. food stamps) and for higher income families the progressive tax system.
 - Kniesner and Ziliak (2002) refer to this as “explicit” (transfers) and “implicit” (taxes) income smoothing

EITC: Features of a safety net?

☑ *Increase income, reduce poverty*



- Overall, the EITC (and CTC) kept 9 million persons out of poverty; only Social Security removes more persons from poverty in the U.S.

EITC: Features of a safety net?

? *Provide protection in times of economic need*

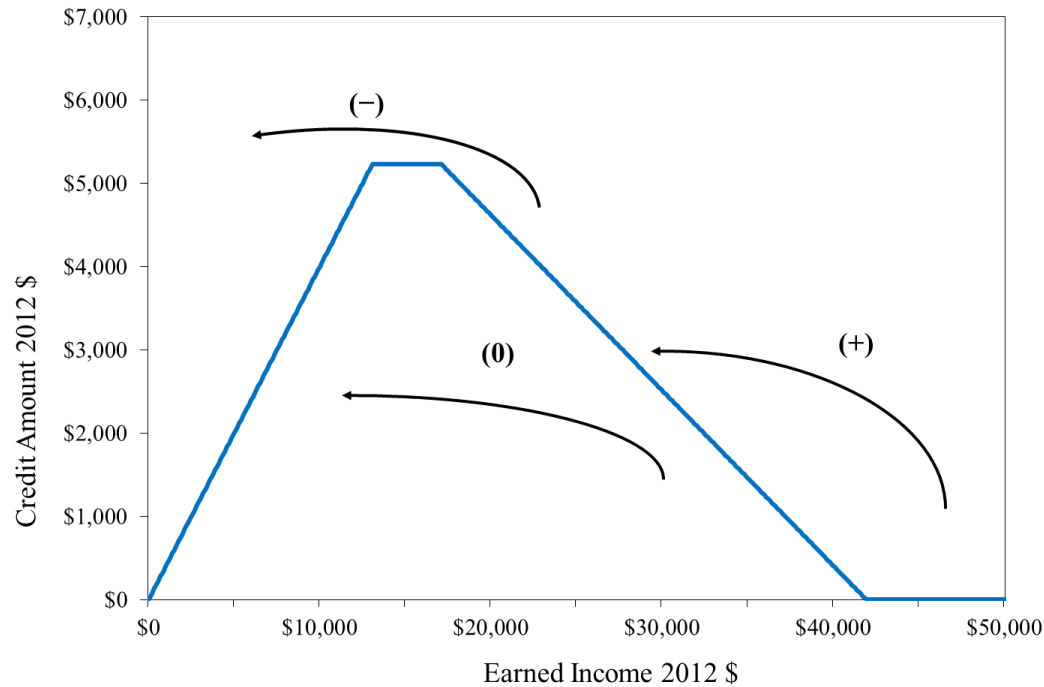
- We know very little about this aspect of the EITC. It is the focus of our paper.
- It seems clear that income insurance is not an explicit goal of the EITC
 - Instead goal is to increase income at the lower end of the income distribution while encouraging work
 - Prior work (Eissa and Liebman 1996, Meyer and Rosenbaum 2001 and others) shows that the program clearly meets this goal
- But in this new era of income redistribution (less welfare, more in-work tax credits) it is important to examine this issue

(3) New Evidence on Cyclicalities of the EITC

Main Data: Statistics of Income (SOI) Microdata

- Representative sample of all U.S. tax filers (more than 100K obs per year)
- Data contains: filing status, number of exemptions, earned income, EITC credit amount, number of children for EITC, state of residence
- Sample restrictions/construction:
 - Exclude: high income earners (no state ids), late filers, married filing separately, filers from territories or living abroad
 - Collapse to cells based on year, state, marital (filing) status and number of children
- In each cell, capture: weighted number of filers, number of filers claiming EITC, total EITC dollars claimed

Expected Effects



Labor market downturn
leads to:

Reduction in employment
Reduction in earned
income

Possible reduction in filing

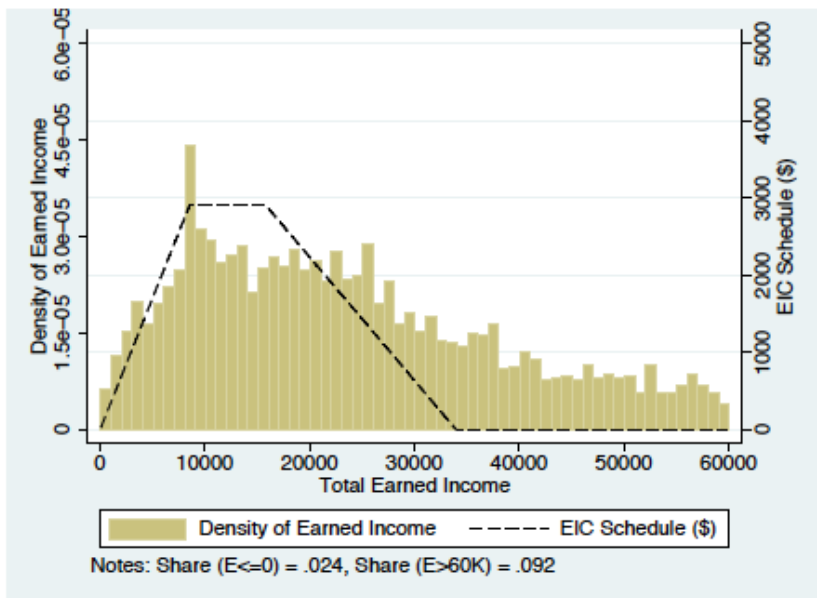
This could lead to:

↑ EITC eligibility if
earnings are > EITC range

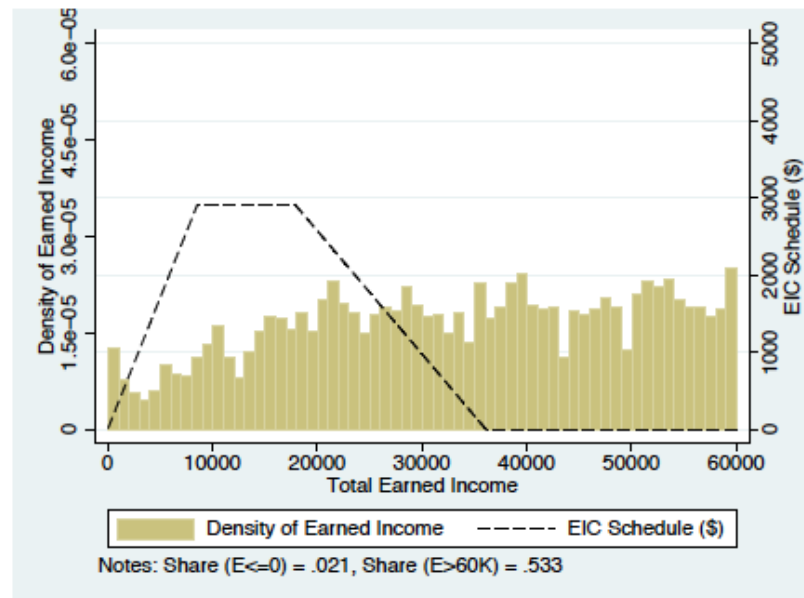
↓ EITC eligibility if
earnings are in EITC range

Tabulations of Tax Filers [1,\$60,000] in 2006

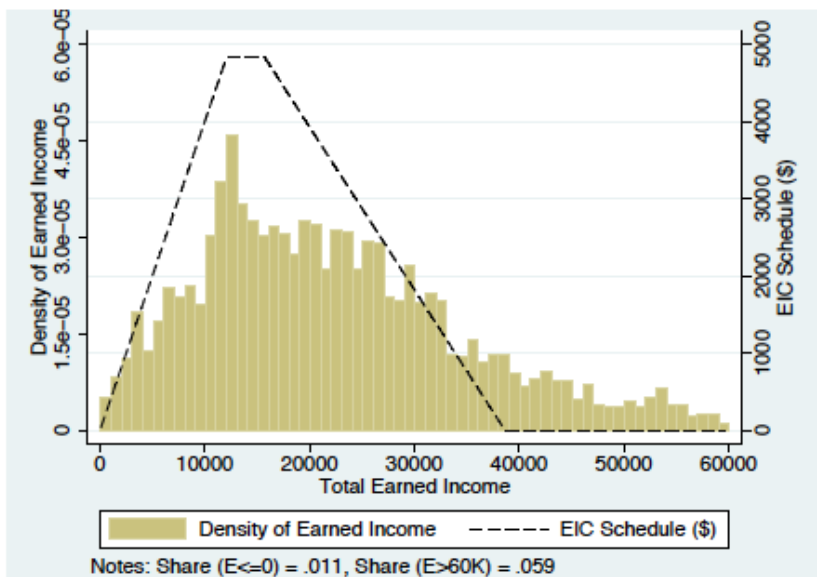
(c) Single, One Child



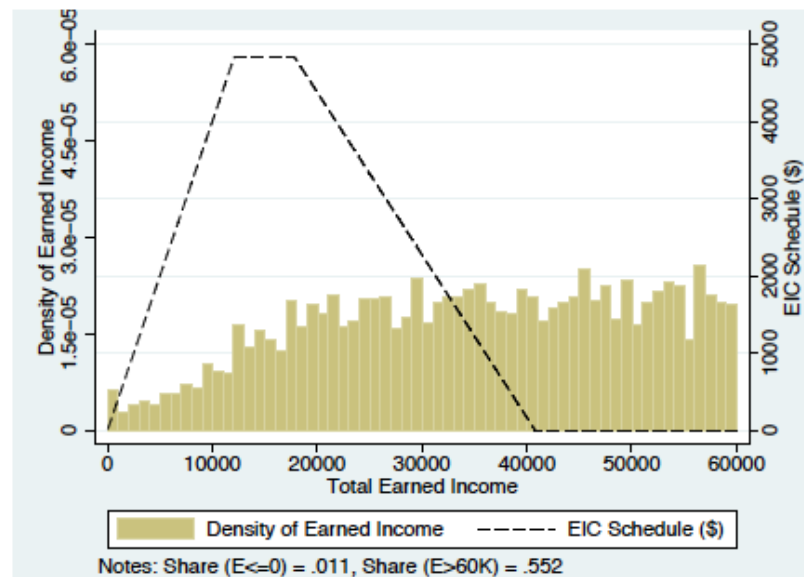
(d) Married, One Child



(e) Single Two+ Children



(f) Married, Two+ Children



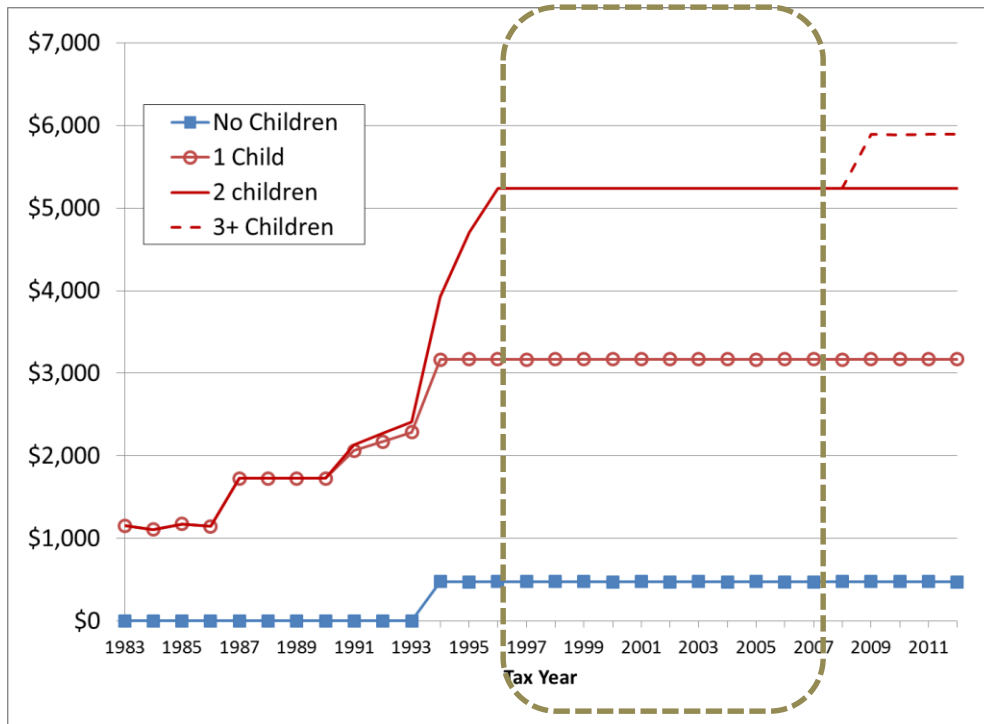
Overall Predictions:

- Single parents: higher risk of losing EITC eligibility because of low average earnings and single earner status (risk of earnings falling to zero) [only 29% of filers have income > phaseout]
- Married couples with children: likely increase in EITC eligibility because of high average earnings and two earners (less risk of earnings falling to zero) [75% of filers have income > phaseout]
- → Married couple caseloads expected to be more countercyclical than those of single parents

Empirical Model and Outcomes

$$y_{gst} = \beta \cdot UR_{st} + \theta_g + \alpha_s + \delta_t + Z_{st}\pi + year_t \cdot \gamma_s + \varepsilon_{gst}$$

- State panel fixed effects model
- Cycle measured by state-year unemployment rate
- Outcomes: EITC recipients, EITC dollars, total filers all divided by “at risk” population (taxable units)
- Three groups: single with children, married with children, no children
- At risk population measured using CPS (count of tax filing units by group, state, year)
- Standard errors clustered on state, weighted using denominator



Sample period: 1996-2008

Chosen as period with stable EITC schedule

With more aggregated data we can extend through 2010 (results very similar)

Main results

Table 2: Effects of Unemployment Rate on EITC Reciprocity Rates and Expenditures per Potential Tax Filer

	(1)	(2)	(3)	(4)
	All	Children, Married	Children, Single	No Children
<i>A: EITC Recipients per Potential Tax Filer</i>				
Unemployment Rate	0.385* (0.220)	0.881*** (0.270)	-0.820 (1.306)	0.252* (0.133)
Mean Y	0.220	0.144	0.855	0.079
Percent Impact (%)	1.8	6.1	-1.0	3.2
Observations	663	1326	1326	1326

One percentage point increase in UR →

- 6.1 percent increase in recipients/tax unit for married w/ children
- insignificant 1 percent decrease for single w/ children

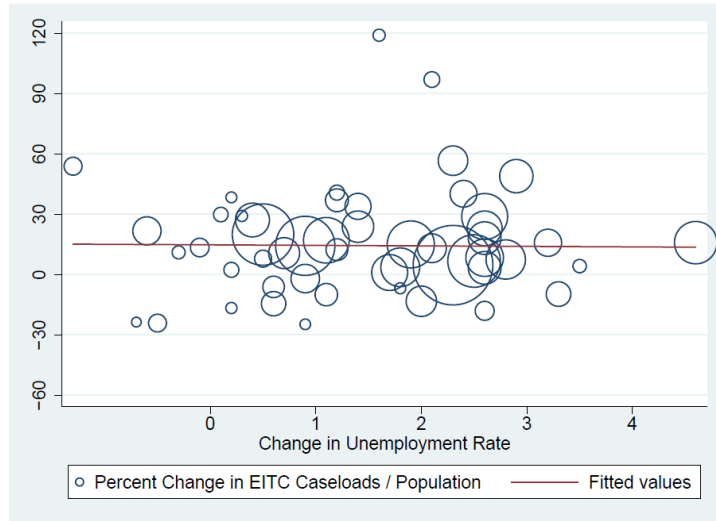
[Dollars show similar pattern]

Graphical version of main results (Fig 5)

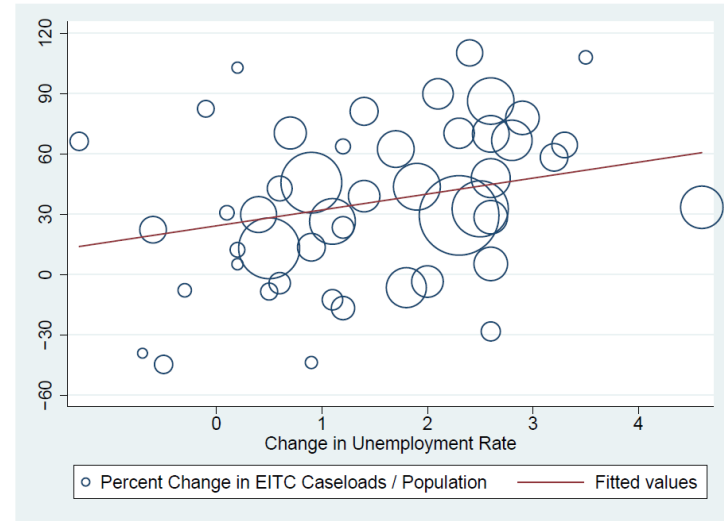
2000-2008 Δ UR against $\% \Delta$ EITC caseload/pop

Figure 5: EITC Recipients and Unemployment Rates (2000–2008 Changes), By State

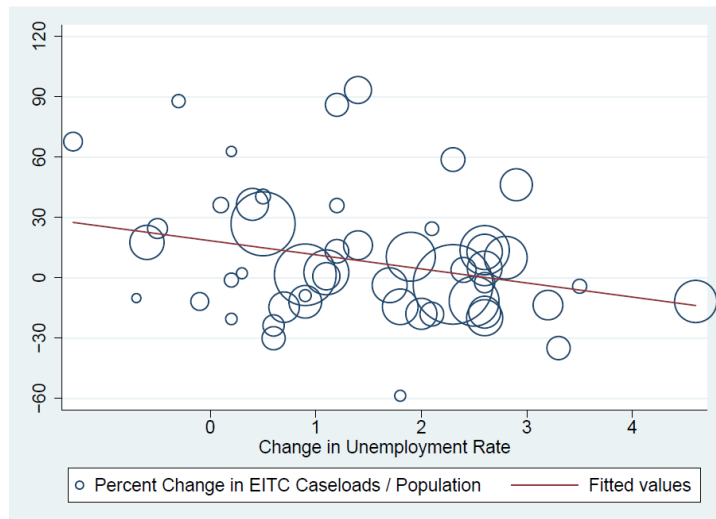
(a) All



(b) Childless



(c) Single with Children



(d) Married with Children

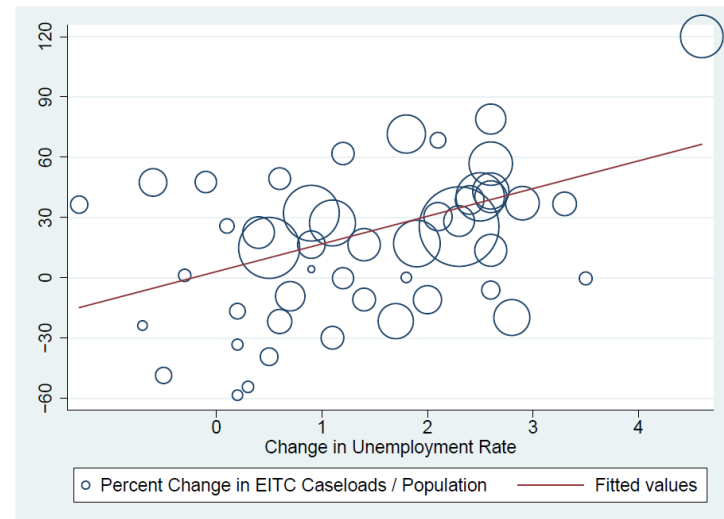
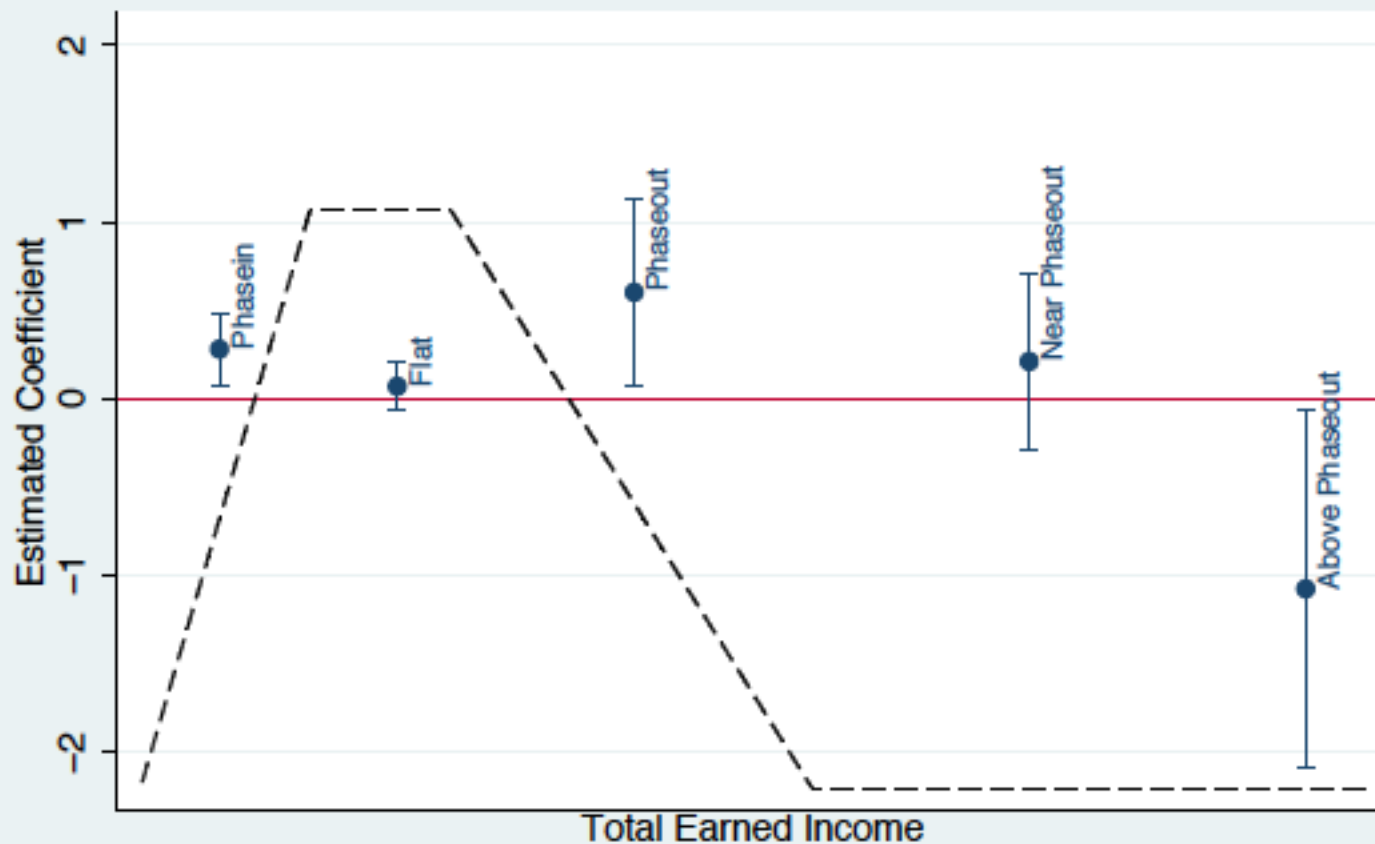


Table 1: Summary Statistics, EITC Recipients and Expenditures, 2008

Total EITC Recipients (Millions)	24.4
Total EITC Expenditures (Billions 2008\$)	\$50.5
<i>Percent Distribution of Recipients, by demographic group</i>	
<u>Childless</u>	21.9%
Single with Children	58.7%
Married with Children	19.4%
<i>Percent Distribution of Expenditures, by demographic group</i>	
<u>Childless</u>	2.7%
Single with Children	74.1%
Married with Children	23.2%

(a) Married with Children

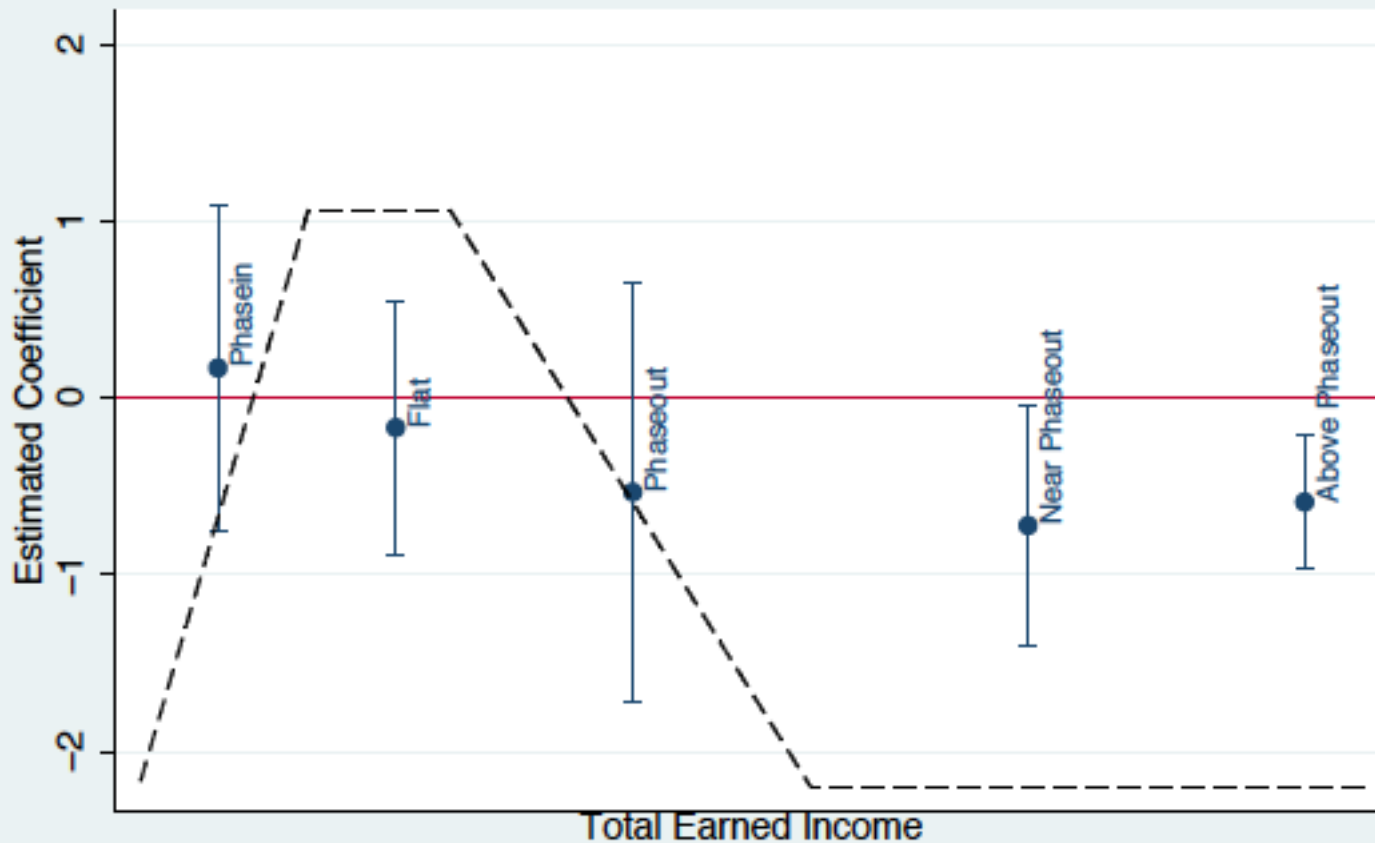


● Near Phaseout region: earnings up to \$25,000 above phaseout

Notes: Effect of UR on Total Filers = 0.198 (0.577)

[Full Table](#)

(b) Single with Children



● Near Phaseout region: earnings up to \$25,000 above phaseout

Notes: Effect of UR on Total Filers = -1.775 (1.053)

[Full Table](#)

Effect of UR on Tax Filing Status (Table 3)

	(1) Kids, Married	(2) Kids, Single	(3) No Kids
<i>A: Total Filers</i>			
Unemployment Rate	0.198 (0.577)	-1.775* (1.053)	-1.466*** (0.519)
Share of Filers	1.00	1.00	1.00
Mean Y	0.818	1.135	1.021
Percent Impact (%)	0.2	-1.6	-1.4
Observations	1326	1323	1326

Consistent story, ↑UR leads to:

- No change in filing status for married w/ children
- Reduction in filing status for single w/children

How does the cyclical response of EITC compare to other programs?

	(1) EITC All	(2) EITC Children	(3) Food Stamps	(4) UI
Unemployment Rate	0.163** (0.068)	0.108* (0.063)	0.285*** (0.061)	0.135*** (0.012)
Mean Y	0.072	0.058	0.034	0.009
Percent Impact	2.2	1.8	8.4	14.5
Observations	663	663	663	663

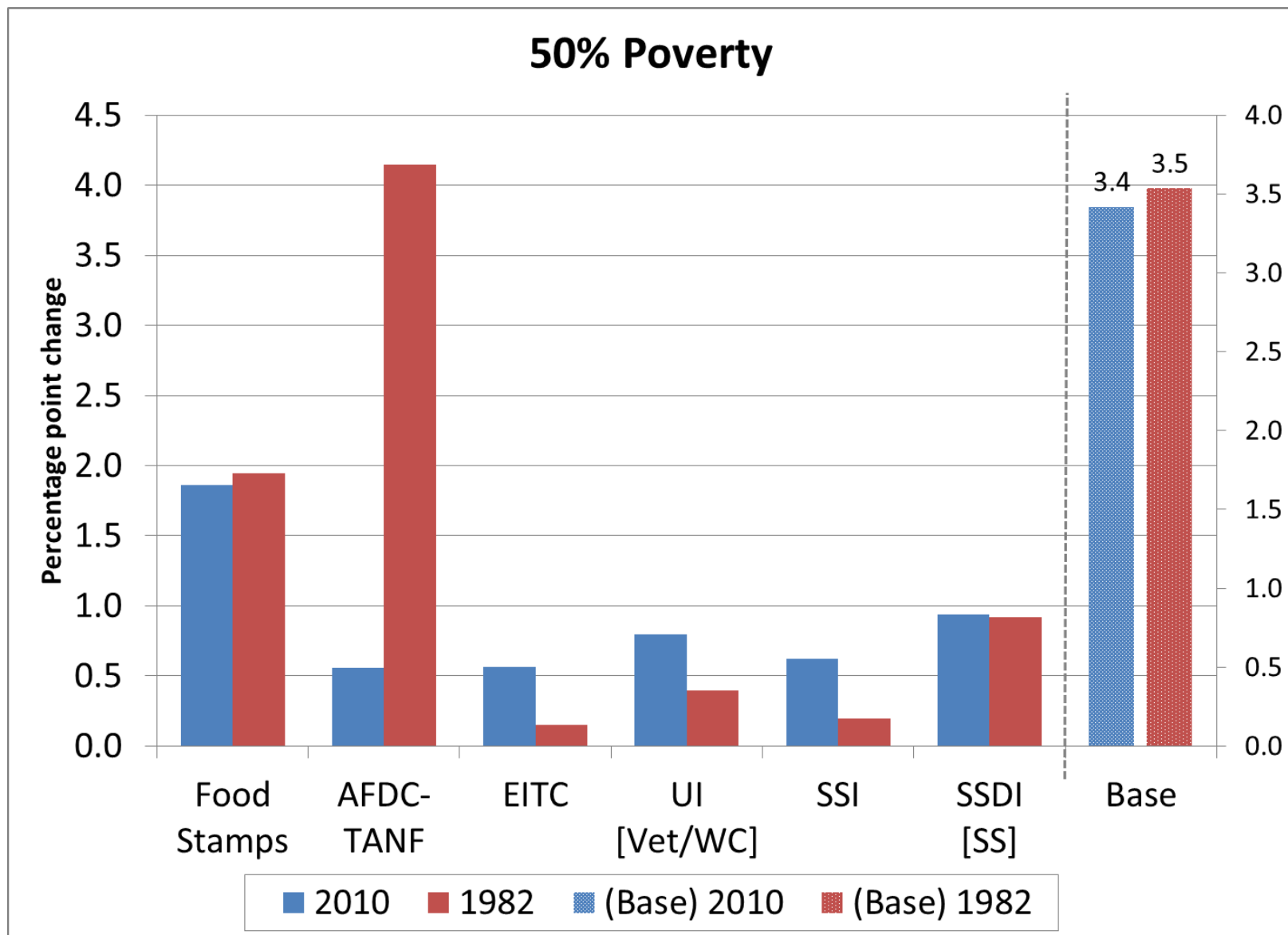
Much smaller response for the EITC compared to Food Stamps and UI.
 → *More explicit income smoothing through transfer system than implicit income smoothing through tax system.*

All models use state-year data, 1996-2008, population denominators, weighted using population.

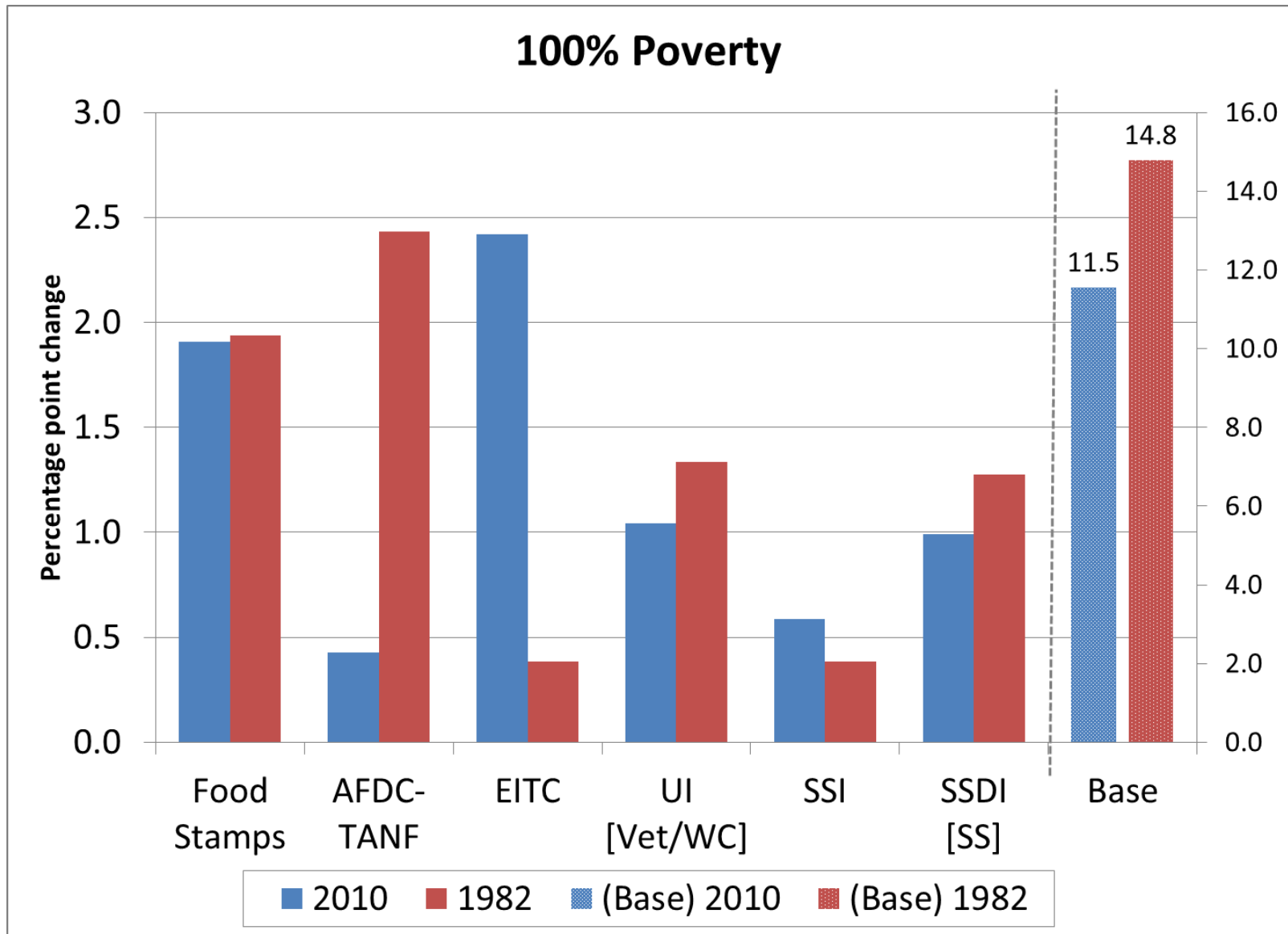
(4) Policy implications

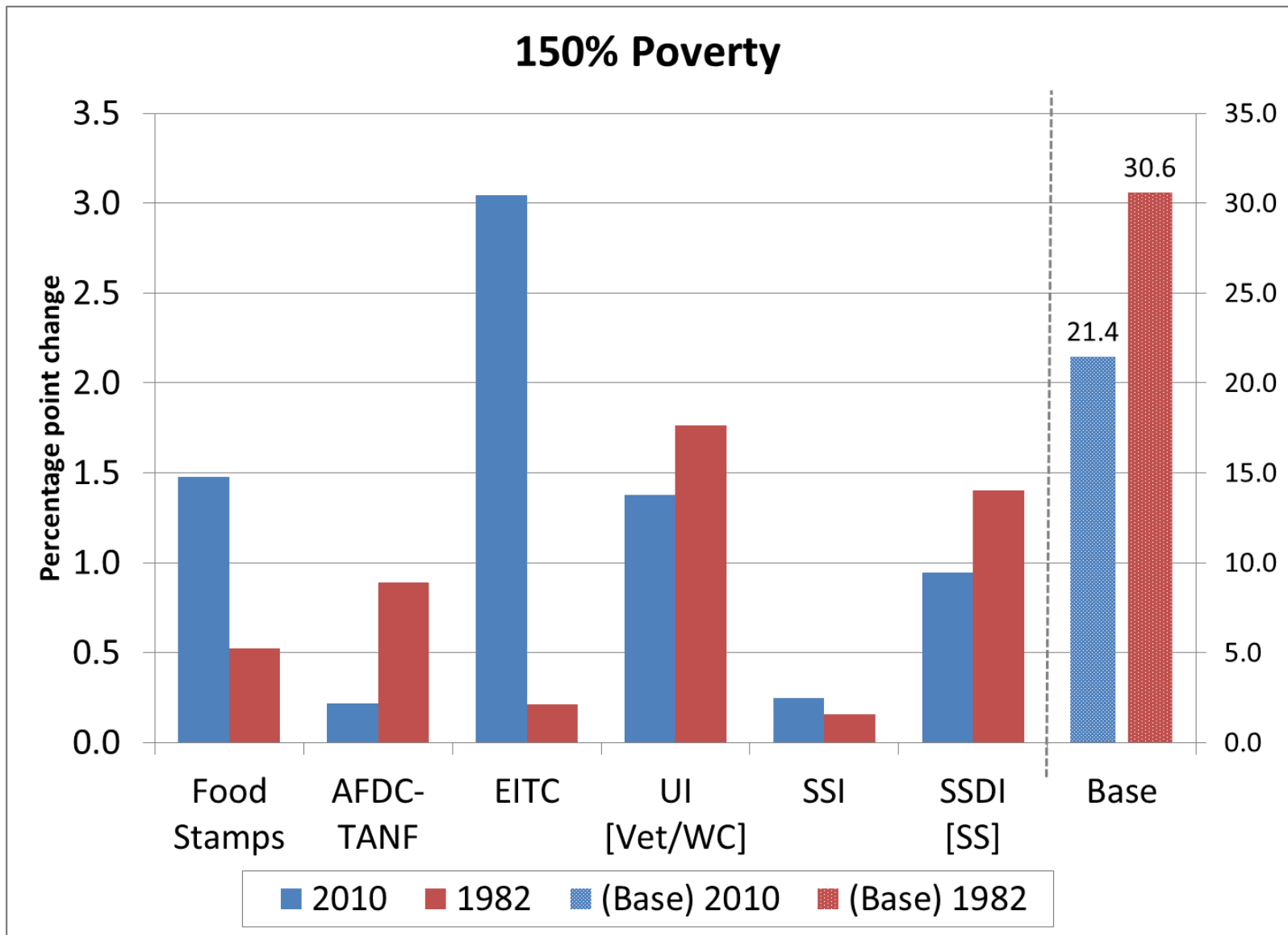
- There is bipartisan significant support for the EITC. The program redistributes income while encouraging work.
- Justified through efficiency and equity grounds
- Our work highlights what the EITC is not well suited to do: *provide income insurance, protection in the face of job loss and recessions*
- To complete the safety net, we need to insure that other elements of the safety net (SNAP, cash welfare?) remain in place.

As a consequence of welfare reform, insurance against extreme poverty declined significantly in the Great Recession

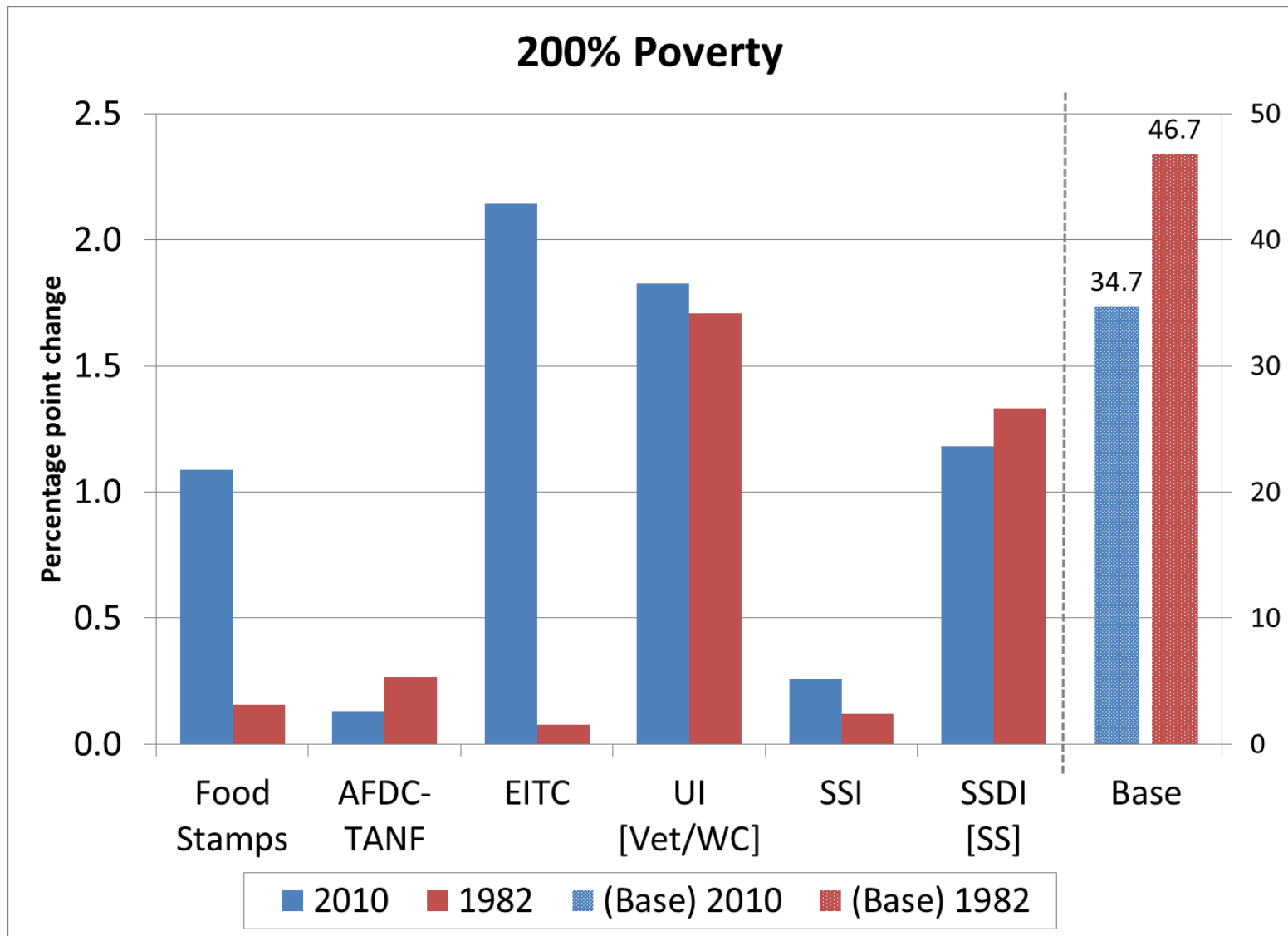


Huge reduction in anti-poverty effects from welfare
 Huge increase for EITC. Little change in UI and food stamps





Increase in anti-poverty effects for SNAP
 Huge increase for EITC



Again, more anti-poverty effects for EITC and SNAP
 Overall little evidence of MORE UI.

Robustness Checks

- Results robust to other measures of cycle (employment, state GDP)
- Treatment of late filers (Table 7) [Table](#)
- Definition of CPS denominators (counts of tax filers by state-year-group) (Table A3) [Table](#)
- Adding (more aggregated) data through 2010 [Table](#)
- Adding state-year controls and state linear time trends [Table](#)

Conclusion

- Welfare reform and the expansion of the EITC has transformed the cash safety net for low income families with children
- One goal of safety net programs is to reduce poverty; the EITC is clearly successful in meeting that goal
- Another goal is to provide protection in times of economic need. We find that the EITC provides such protection for married families with children but not the larger group of recipients, single parents with children.

Connections to literature

- Cyclicalities of safety net programs including food stamps (Ziliak et al 2003, Bitler and Hoynes 2010) and TANF (Blank 2001)
- Empirical literature evaluating the extent to which a progressive income system is an automatic stabilizer of income (Auerbach and Feenberg 2000, Kniesner and Ziliak 2002)
- The implications of a nonlinear EITC schedule within the generally progressive federal income tax structure has not been explored in the literature.