

What we know—and are learning—about the EITC

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March 31, 2015



Richmond • Baltimore • Charlotte

Disclaimer

- The view expressed today are mine alone.
- They do not necessarily reflect those of the Federal Reserve Bank of Richmond or the Federal Reserve System

Roadmap for the Talk

- Overview and facts
- What have economists learned?

The EITC: Overview and Facts

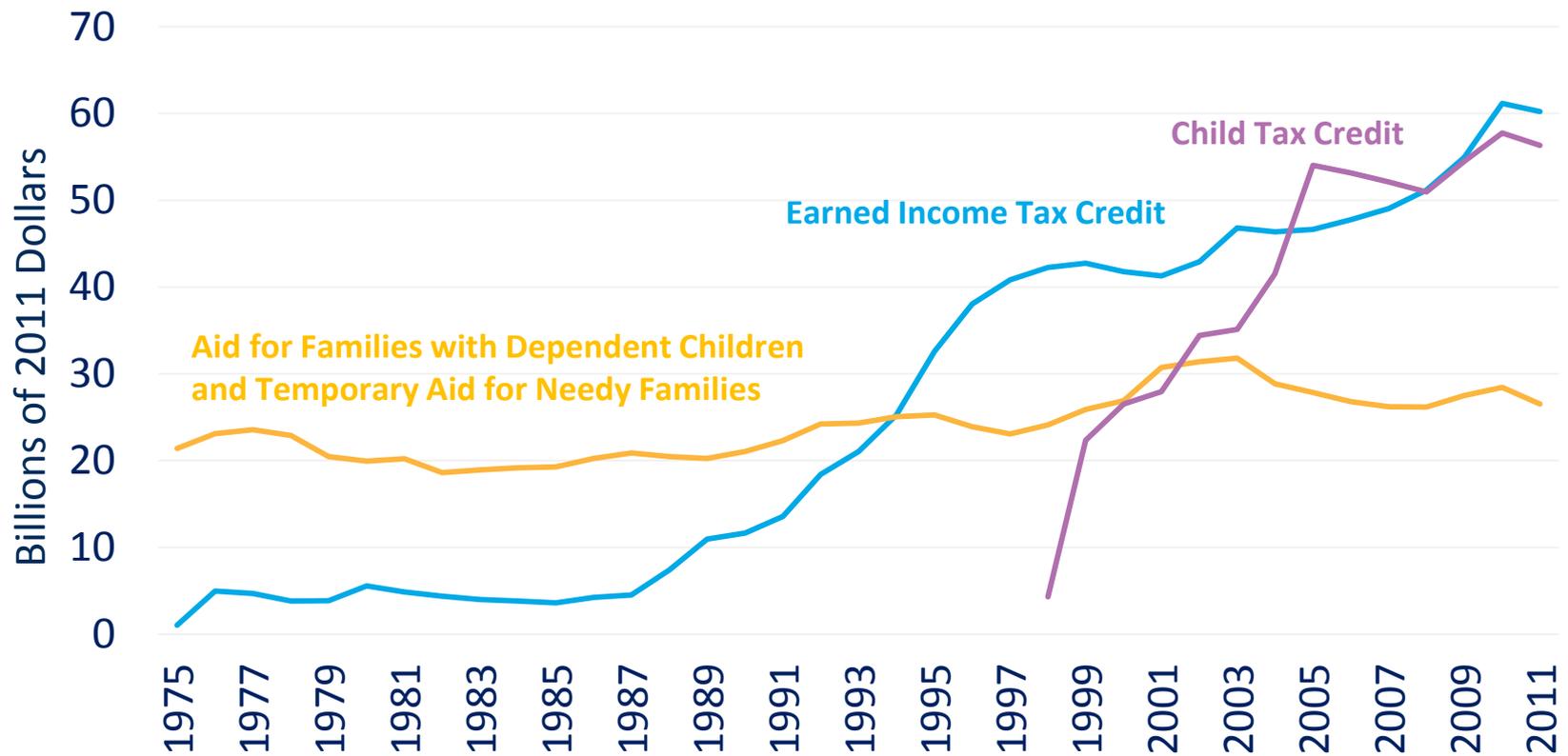
Overview of EITC

- Refundable tax credit for working, low-income tax filers
- Value varies with earned income and number of children, with larger credit amounts for families with children.
 - The average credit in 2014 was \$2,407.
- Nearly 28 million families received EITC in 2013, amounting to over \$66 billion.

Source: <http://www.eitc.irs.gov/EITC-Central/eitcstats>

Spending on EITC

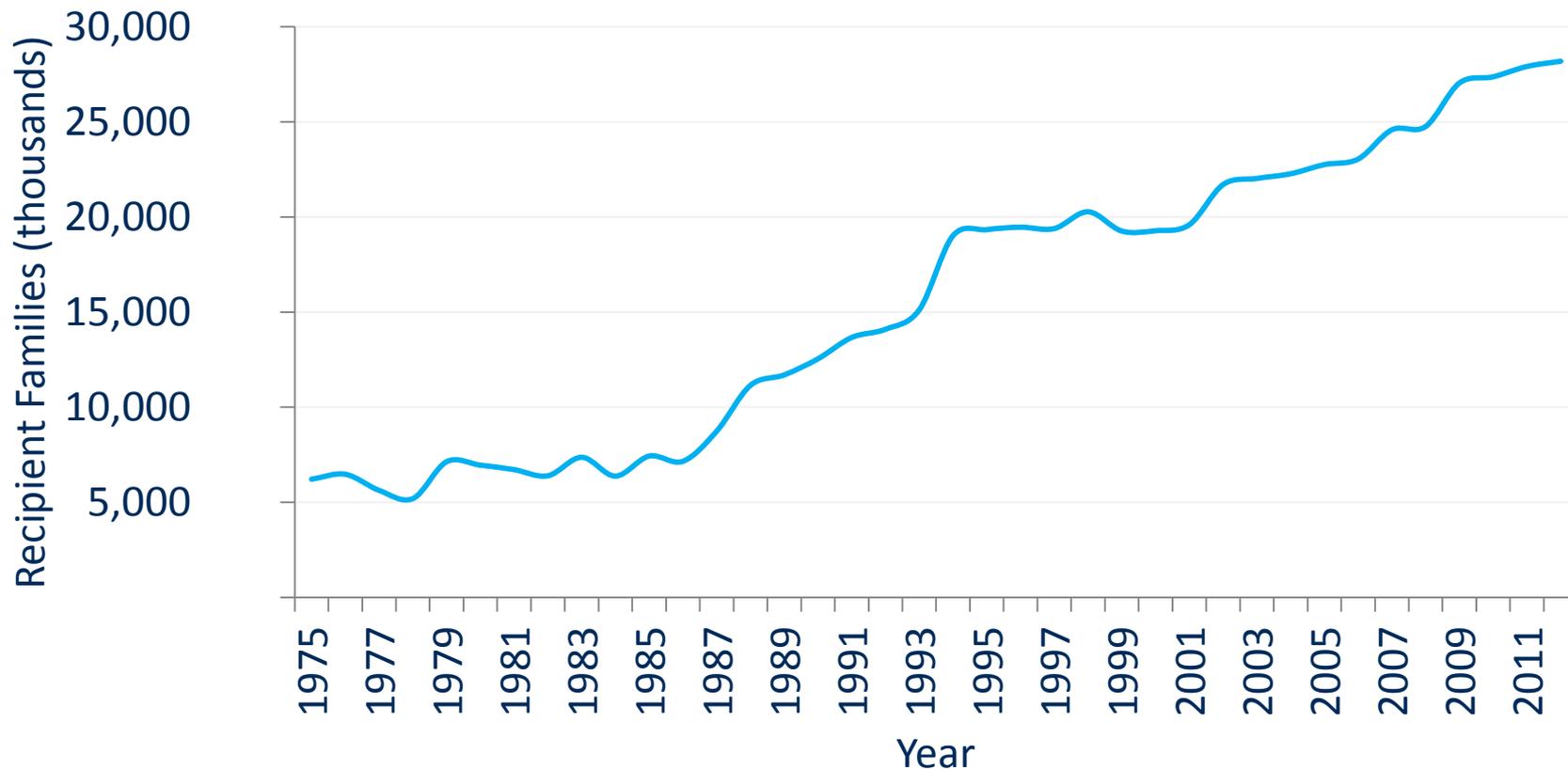
Real Federal Spending on EITC, CTC, and Welfare, 1975-2011



Source: www.taxpolicycenter.org/briefing-book/key-elements/family/eitc.cfm

EITC Recipients

Number of Families Receiving Federal EITC, 1975-2012



Source: www.taxpolicycenter.org

EITC in the Fifth District (2012)

State	Number of Claims as a Percentage of Returns Filed	Sum of EITC received	Average Amount
District of Columbia	18%	\$116,796,180	\$2,255
Maryland	16%	\$893,185,232	\$2,237
North Carolina	23%	\$2,186,617,908	\$2,416
South Carolina	26%	\$1,190,109,715	\$2,457
Virginia	17%	\$1,332,567,351	\$2,241
West Virginia	21%	\$334,280,994	\$2,158

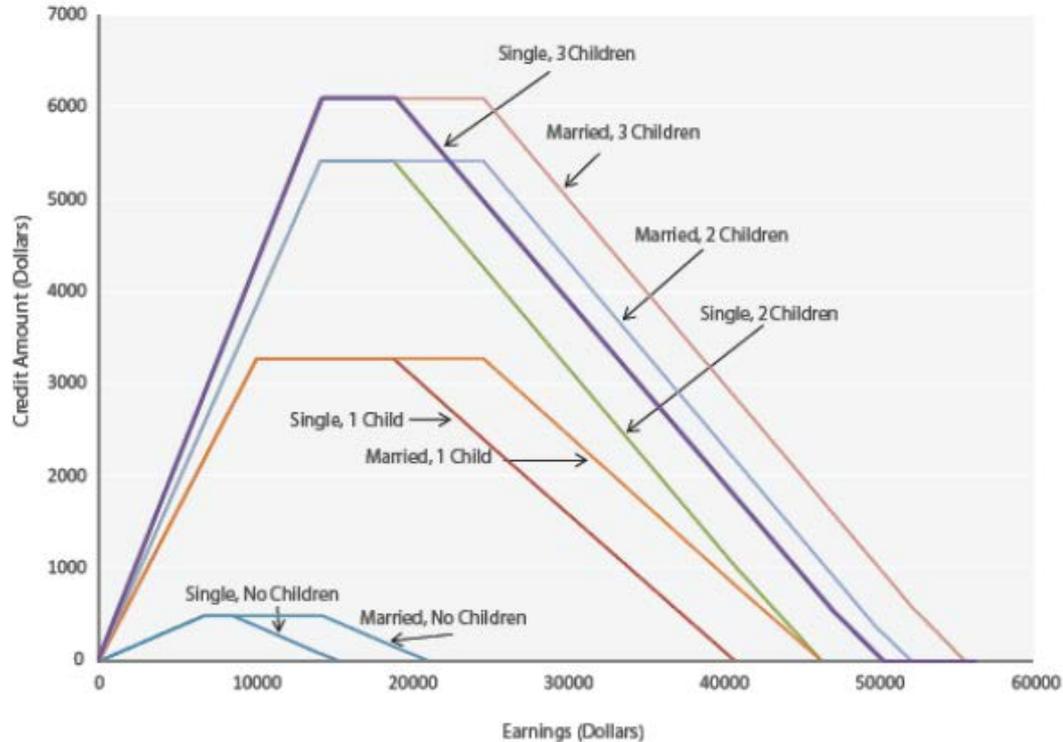
Source: Author's calculations using data from <http://www.brookings.edu/research/interactives/eitc>

EITC Sensitivity: It's about Kids!

- Until 2001, EITC parameters were identical for single and married filers.
 - EGTRRA extended flat/phase-out regions for married couples; now \$3100 higher than for singles.
- Q: What's the biggest source of sensitivity?
- A: Kids

Current EITC Structure

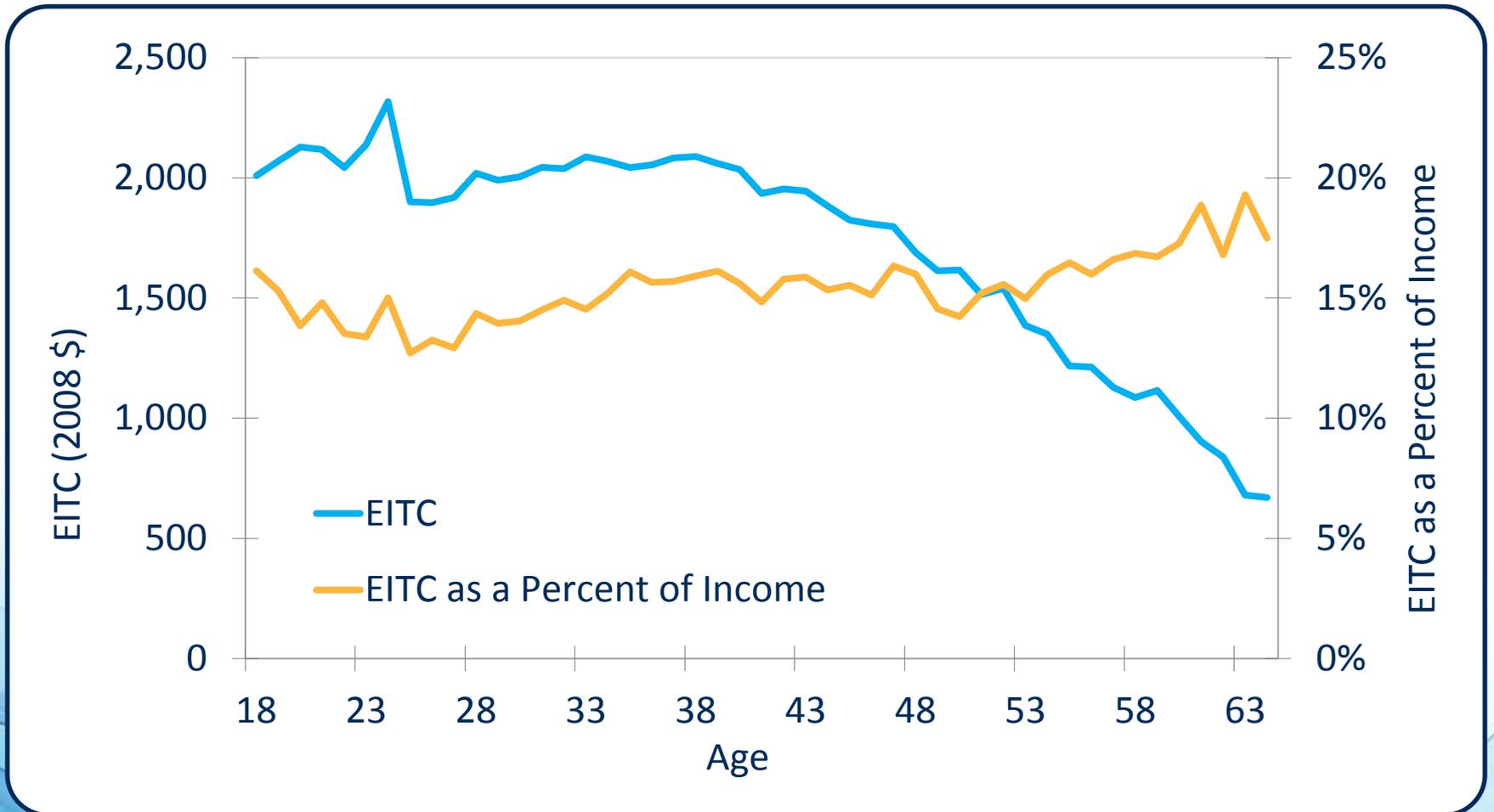
Earned Income Tax Credit by Number of Children and Filing Status, 2014



Eligibility extends well into moderate earning ranges. Median household income for 2013 was about \$52,000 (US Census Bureau, 2014).

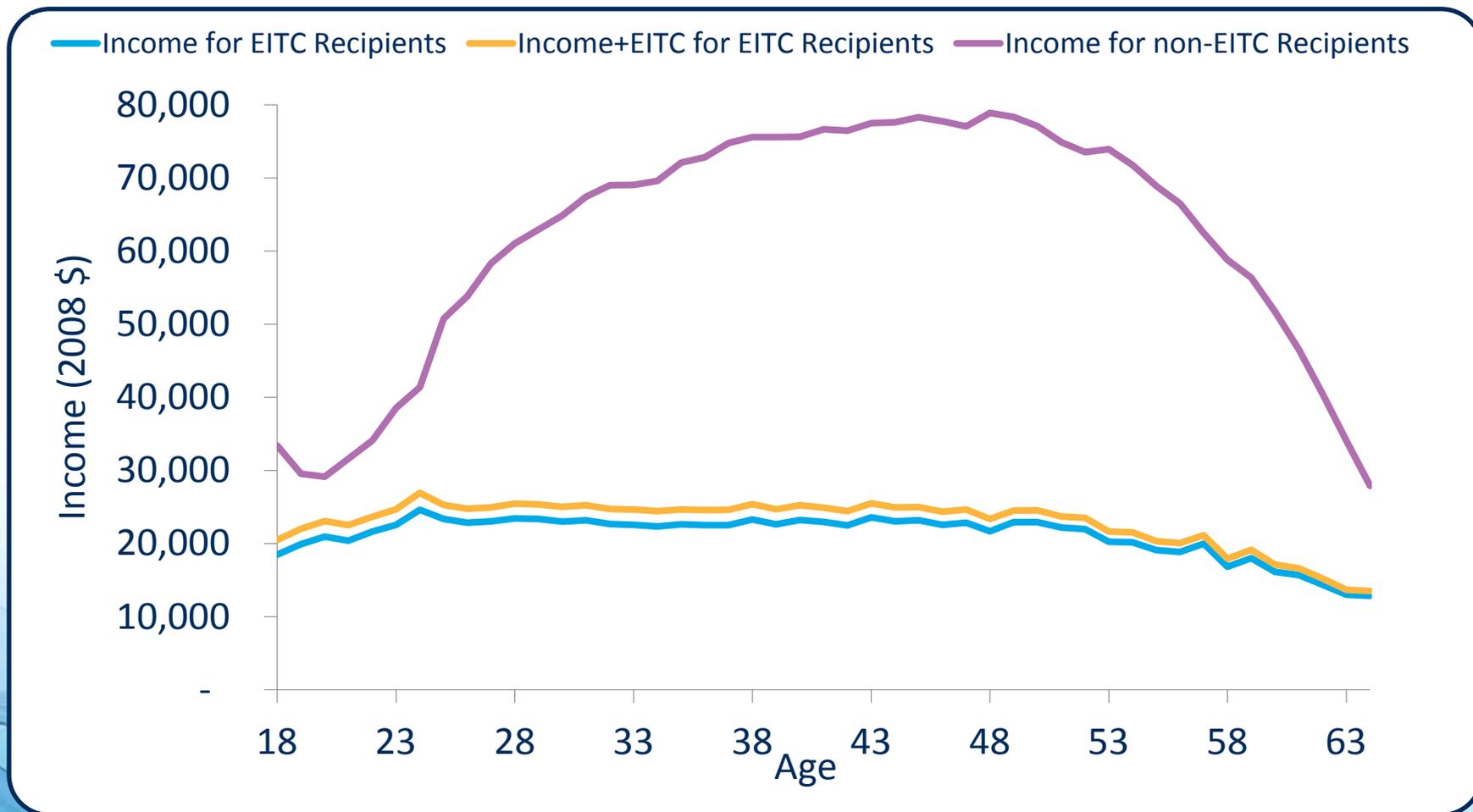
Source: <http://www.taxpolicycenter.org/briefing-book/key-elements/family/eitc.cfm>

EITC by Age for Recipient Households



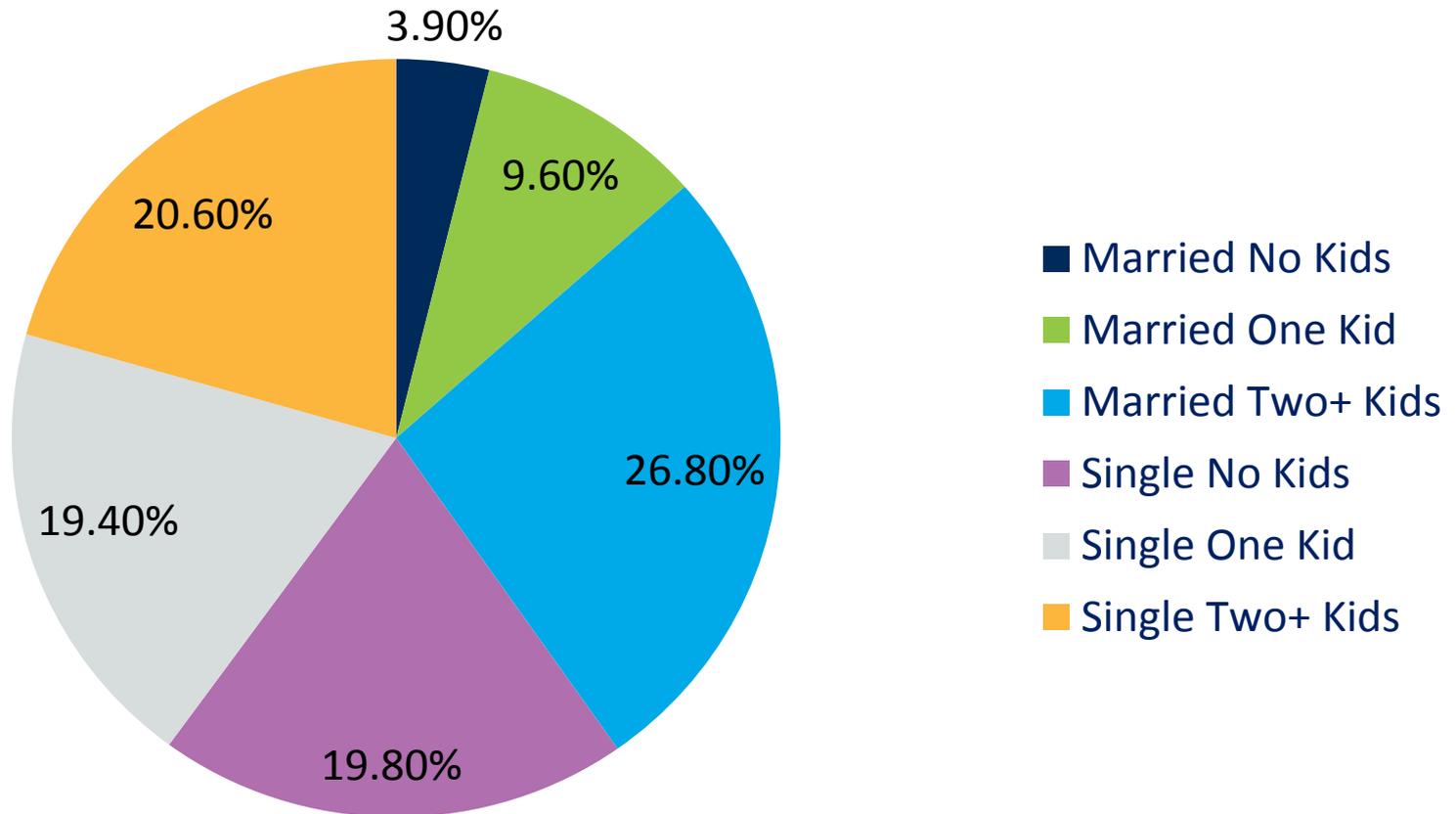
Source: Athreya, Reilly and Simpson (2010)

EITC by Age for Recipient Households, contd.



Source: Athreya, Reilly and Simpson (2010)

Demographic Composition of EITC Recipients



Source: Athreya, Reilly and Simpson (2010)

Labor Market Characteristics of EITC Recipient vs. non-Recipient Households

	All	Married, no kids	Married, 1 kid	Married, 2+kids	Single, no kids	Single, 1 kid	Single, 2+kids
EITC Recipients:							
Mean Household Income	\$15,194	\$8,325	\$18,700	\$21,212	\$7,024	\$15,761	\$17,421
Average EITC	\$1,782	\$495	\$1,812	\$2,623	\$423	\$1,808	\$2,728
EITC as % of Income	11.7%	5.9%	9.7%	12.4%	6.0%	11.5%	15.7%
Non-EITC Recipients:							
Mean Household Income	\$47,235	\$68,549	\$83,372	\$94,271	\$23,696	\$32,125	\$31,723

Source: Athreya, Reilly and Simpson (2010)

Credit Conditions for Recipients

	Mean	Std. Dev
EITC Recipients:		
Bad credit	2.3%	0.3%
Credit card balance (2007 \$)	\$2,131	\$140
Late payment for 60+ days	11.2%	0.6%
Has no checking account	27.9%	0.9%
Non-EITC Recipients:		
Bad credit	0.5%	0.1%
Credit card balance (2007 \$)	\$4,174	\$91
Late payment for 60+ days	5.4%	0.2%
Has no checking account	7.0%	0.3%

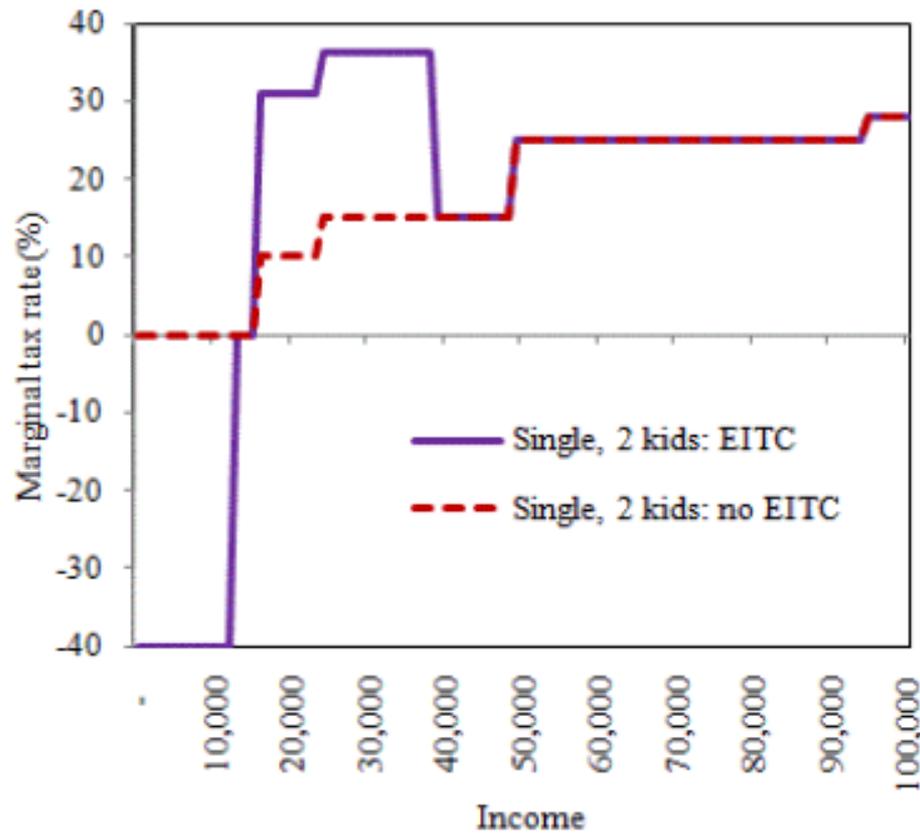
Source: Athreya, Reilly and Simpson (2010)

Assets, Debt and Net Worth of EITC Recipient vs. non-Recipient Households

	All	Married, no kids	Married, 1 kid	Married, 2+kids	Single, no kids	Single, 1 kid	Single, 2+kids
EITC Recipients:							
Mean Net Worth	\$103,753	\$284,403	\$204,918	\$118,468	\$67,574	\$56,102	\$49,837
Mean Assets	\$149,507	\$359,963	\$255,239	\$179,050	\$86,545	\$89,365	\$96,465
Mean Debt	\$45,755	\$75,560	\$50,321	\$60,582	\$18,971	\$33,263	\$46,628
Non-EITC Recipients:							
Mean Net Worth	\$580,245	\$803,447	\$621,345	\$737,654	\$275,437	\$351,416	\$223,309
Mean Assets	\$708,564	\$929,270	\$790,176	\$933,762	\$334,930	\$448,206	\$296,280
Mean Debt	\$128,319	\$125,823	\$168,830	\$196,108	\$59,493	\$96,790	\$72,971

Source: Athreya, Reilly and Simpson (2010)

Marginal Tax Rates with and without EITC



Source: Athreya, Reilly and Simpson (2010)

Questions so far?

What Have Economists Learned
about the effects of EITC?

What can we say about how EITC should work?

- In a one-earner household, the effect of the EITC on labor force participation is unambiguously positive, but:
 - The EITC may increase **or decrease** total household work hours!
 - Especially applies to “second” earner
 - “Income” and “substitution” effects...what do we mean?



Pros of EITC

- Directly increases the reward to working
- Keeps people connected to work—experience
- Potentially insures workers more generally



Cons of EITC

- Phase-out acts like a tax on work.
- Historically, about half of claimants have been in the phase-out region.
- Recent expansions have made this less problematic.
- Wage subsidies can discourage “human capital.” (What’s this?)



Hurdles to Learning about the Effects of EITC

- Problem:
 - Never see the “counterfactual”!
- Have to be clever:
 - Natural experiments
 - Simulate artificial economies

The EITC's Effect on Work

- Does affect work hours
- Convinces people to enter workforce: single moms!
- Does not change men's work hours.
- Seems to lead married women to leave work.
- This is because the EITC acts the same way as welfare from the perspective of the second earner (Eissa and Hoynes, 2004):
 - Labor force participation of married women decreases by a full percentage point, and is not offset by the increase in participation by married men by 0.2 percentage points.
 - Married women facing highest tax rates are 2.1 percentage points less likely to work.



The EITC's Effect on Poverty and Health

- Earlier CEA studies: in late 1990s, the EITC removed 4.3 million individuals from poverty (Hotz and Scholz, 2003).
- More than 60% of EITC payments go to families below poverty line based on pre-EITC income (Hotz and Scholz, 2003).
- \$1000 in EITC income is associated with 6.7% to 10.8% reduction in the rate of low birth weights, with larger impacts for births to African American mothers (Hoynes, Miller and Simon, 2012).

EITC and Employment of Single Mothers (Hotz et al., 2011)

- Hotz, Mullin and Scholz:
 - Observe that expansion of the EITC in the 1990s coincided with increase in employment rates of single women with children
 - Use administrative and longitudinal data to assess whether EITC played a role in the increase.
 - Take advantage of the fact that expansion was more generous for families with 2+ children than for those with 1 child
- Findings:
 - Greater increases in employment for families with 2+ children than for families with 1 child
 - 77% of the difference in the increase can be explained by the differential rate of EITC expansion across the two groups.



Using Simulations (Chan, 2013)

- Sets up and simulates model (what do I mean?)
- Findings
 - “Policy simulations reveal that the economy accounts for half of the increase in the labor supply of female heads of family between 1992 and 1999.”
 - “Between 1992 and 1999, time limits and EITC explain 5.8 and 4.5 percent of the increase in employment and 16.0 and 3.4 percent of the decline in welfare participation, respectively.”

Using Simulations (Kosar, 2014)

- Sets up and simulates rich model (skill accumulation, savings choices, etc.)
- Finds that EITC boosts wage growth for single women over the life-cycle
- Works primarily by boosting their experience
- EITC acts like a form of debt relief for indebted single women.

What do economists know about what *people* know about the EITC?

- Everything that economists say about the potential effects of EITC is premised on workers knowing:
 - About the EITC
 - How to get it and use it
- Practitioners have long recognized that it takes work to get the word out.

EITC Knowledge (Chetty et al., 2013)

- Chetty, Friedman and Saez (2013) measure the degree of “bunching”—that is, people reporting income at exactly the level that maximizes EITC payouts—within zip codes.
- Zip codes vary greatly in their degree of bunching, which appears to proxy very well for knowledge of EITC.
 - Neighborhoods with high bunching have larger share of EITC recipients and professional tax preparers.
 - When people move from low bunching to high bunching neighborhoods, they change their reporting of income to increase EITC refunds.
 - When people move from high to low bunching neighborhoods, they do not change their reporting behavior, suggesting that they take knowledge with them.
- Bunching getting larger and more widespread over time! Outreach may be working...

The EITC as an “Insurance” program (Athreya et al., 2014)

- The structure of the EITC is set up to provide insurance against productivity loss (Athreya, Reilly and Simpson, 2014).
- Why?
 - Keeps wage fluctuations from being passed through
 - Benefits workers no matter what the source of the wage fluctuation is.
 - Sensitivity to kids “insures” against dependent composition changes

Big Picture Questions/Issues

- How does EITC fit into overall tax/transfers schemes?
- What should we be trying to get low-market-productivity individuals to do?

Big Picture Questions/Issues, contd.

- **The tradeoff** : low level of no-questions-asked assistance vs. high level of targeted assistance
 - US shifting towards the latter
- **Job matching**: ideally, paying single people facing low wages to work may have costs
 - Depends on substitute opportunities—attaching strings sounds good, but it might be inefficient relative to other ways to help this group.

EITC: A recap of what (I know about) what we know

- Does affect work hours, though it need not, but not by much
- Convinces people to enter workforce: single moms
- Does not change men's work hours
- Leads married women to leave work
- Reduces poverty, can improve health
- May boost later-life wages by increasing work experience

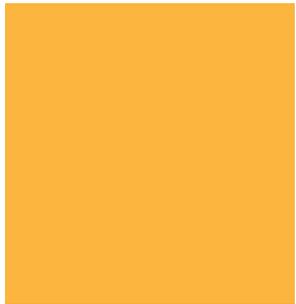


References

- Athreya, K., Reilly D., and Simpson, N. 2014. "Single Mothers and Earned Income tax Credit: Insurance Without Disincentives?" IZA Discussion Papers, 8114, Institute for the Study of Labor (IZA).
- Athreya, K., Reilly D., and Simpson, N. 2010. "Earned Income Tax Credit Recipients: Income, Marginal Tax rates, Wealth and Credit Constraints," *Federal Reserve Bank of Richmond Economic Quarterly*, 96(3), 229-258.
- Chan, M. 2013. "A Dynamic Model of Welfare Reform." *Econometrica*, 81(3), 941-1001.
- Chetty, R., Friedman, J. and Saez, E. 2013. "Using Differences in Knowledge Across neighborhoods to uncover the Impacts of the EITC on Earnings." *The American Economic Review* 103(7), 2683-2721.
- Eissa, N. and Hoynes, H. 2004. "Taxes And The Labor Market Participation Of Married Couples: The Earned Income Tax Credit." *Journal of Public Economics*, 88(9), 1931-1958.
- Honey, H., Miller D. and Simon, D. 2012. "Income, The Earned Income tax Credit and Infant Health," NBER working paper 18206. <http://www.nber.org/papers/w18206>
- Hotz, V., Mullin C., and Scholz, J. 2010. "Examining the Effect of the Earned Income Tax Credit on the Labor Market Participation of Families on Welfare" http://public.econ.duke.edu/~vjh3/working_papers/EITC2.pdf.
- Hotz, V. and Scholz, J. 2003. "The Earned Income Tax Credit." In *Means-Tested Transfer Programs in the United States*, ed. Robert Moffitt. Chicago: University of Chicago Press and NBER. <http://www.nber.org/chapters/c10256.pdf>
- Kosar, G. 2014. "Does the Earned Income Tax Credit Help Single Women Climb the Wage Ladder?" <http://www.econ2.jhu.edu/jobmarket/2014/KosarG/JobPaper/JobPaperKosarG.pdf>



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