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State-Level Microsimulation Modeling of Tax and Benefit Policies with the ACS

Where We Are, Where We Want to Go

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Context for today's discussion

- Much of today's policy "action" is at the state level
  - Poverty commissions
  - Minimum wage changes
  - TANF, child care subsidies, state income taxes, etc.

- State-level policy-makers have limited tools for understanding possible impacts of changes

One analytic solution: ACS plus microsimulation

- What has already been done
  - Individual research projects for state organizations, commissions

- How the capability could be expanded
  - Broadly available via the internet
  - User-friendly
  - Geared to state analyst needs

Some specific policy questions

- How would a change in the minimum age affect the number of people in poverty?
- If we increase TANF benefits, what will that do to SNAP benefits and LIHEAP eligibility?
- What would be the net impact of a set of changes in child care subsidies and the state-level child care tax credit?

What is needed to answer those questions

- Detailed data on households in the state:
  - the ACS

- A tool that can calculate what happens to each household under the new policy vs. the actual baseline:
  - a microsimulation model

What is microsimulation?

- Policies modeled on each household, one at a time
- The computer code mimics the actual rules of the program being simulated
- The computer code can “add on” variables that are not present in the survey data, such as
  - If you are eligible for SNAP
  - How much income tax you owe
- The model can simulate actual rules (the “baseline”) or alternative policies
- Great flexibility in analyzing results

Federal government agencies have access to microsimulation models; state agencies generally do not

The Urban Institute's Microsimulation Modeling of State Policies

- An adapted version of the TRIM3 simulation model
- Projects for state poverty commissions and non-profits

The Original TRIM model

- CPS-based
- Funded and copyrighted by HHS/ASPE
- Comprehensive simulation model of
  - Cash benefits: SSI, TANF
  - Nutrition benefits: SNAP, WIC
  - In-kind: child care and housing subsidies, LIHEAP
  - Taxes: payroll tax, federal and state income tax
- Captures detailed state rules & cross-program interactions
- Analysis of costs, caseloads, official & SPM poverty

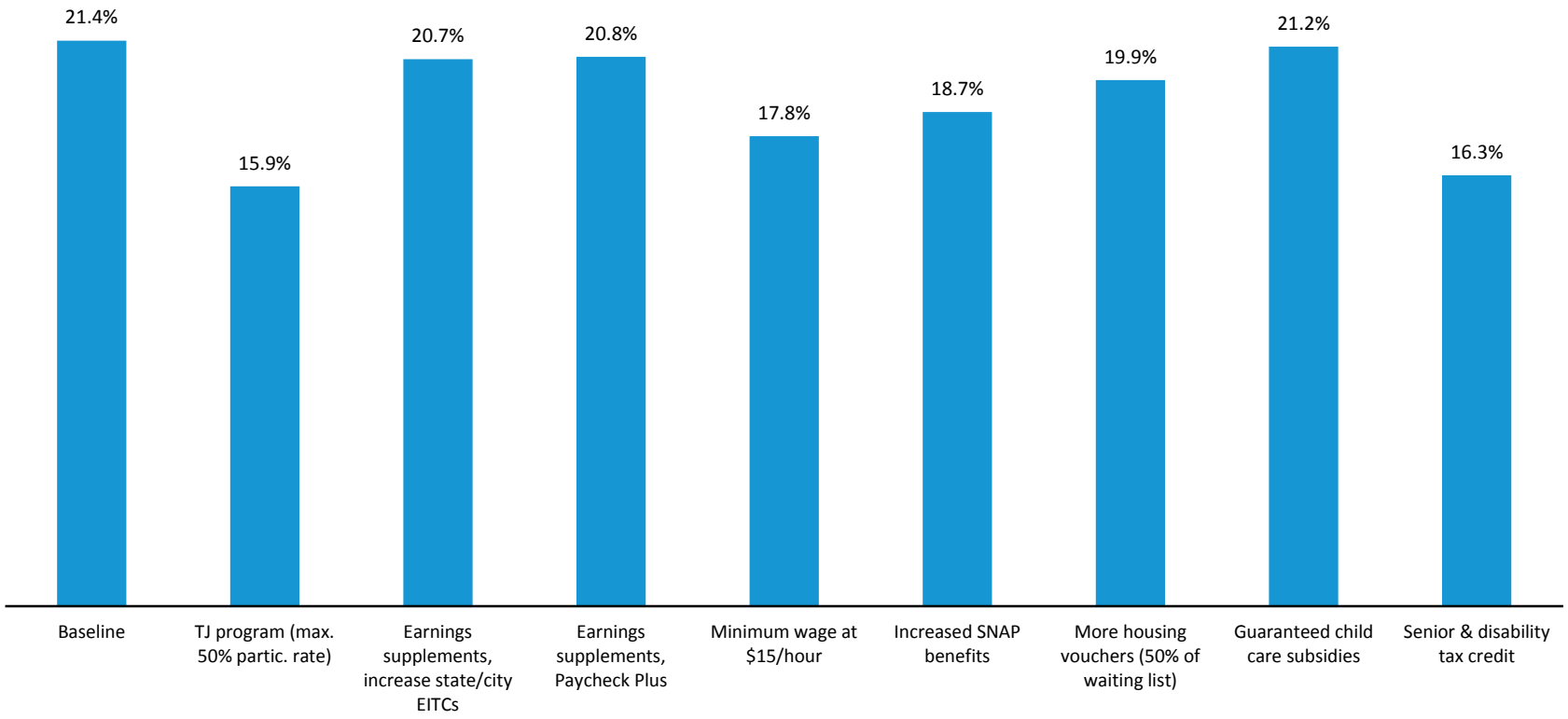
ACS-TRIM

- Motivation for development:
  - Earlier state-focused TRIM work used combined years of CPS data
  - Insufficient sample for detailed analysis
- Funding from foundations, 2009-2010
- ACS vs. CPS for microsimulation
  - Some weaknesses (less detail on household inter-relationships, income)
  - Some strengths (more housing-related information)

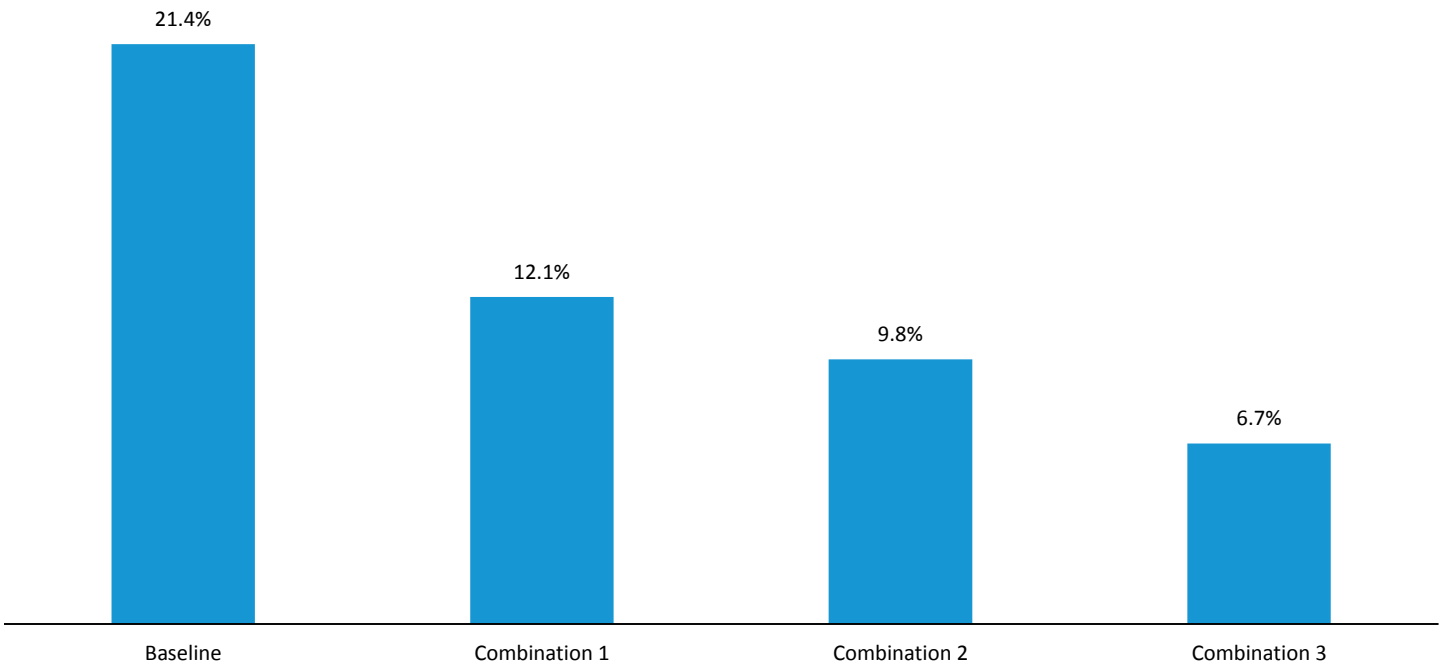
Uses of ACS-TRIM for state and local organizations (completed projects)

Organization	Data	Policies Examined
Heartland Alliance, Illinois	ACS 2008	TANF, housing subsidies, community college scholarships, transitional jobs
Community Advocates Public Policy Institute (CA-PPI), Wisconsin	ACS 2008	Minimum wage, tax credits, senior & disability credit, transitional jobs
3 NYC nonprofits	ACS 2012	Transitional jobs, minimum wage, state and local taxes, safety-net programs
Washington DC government	ACS 2011	Minimum wage

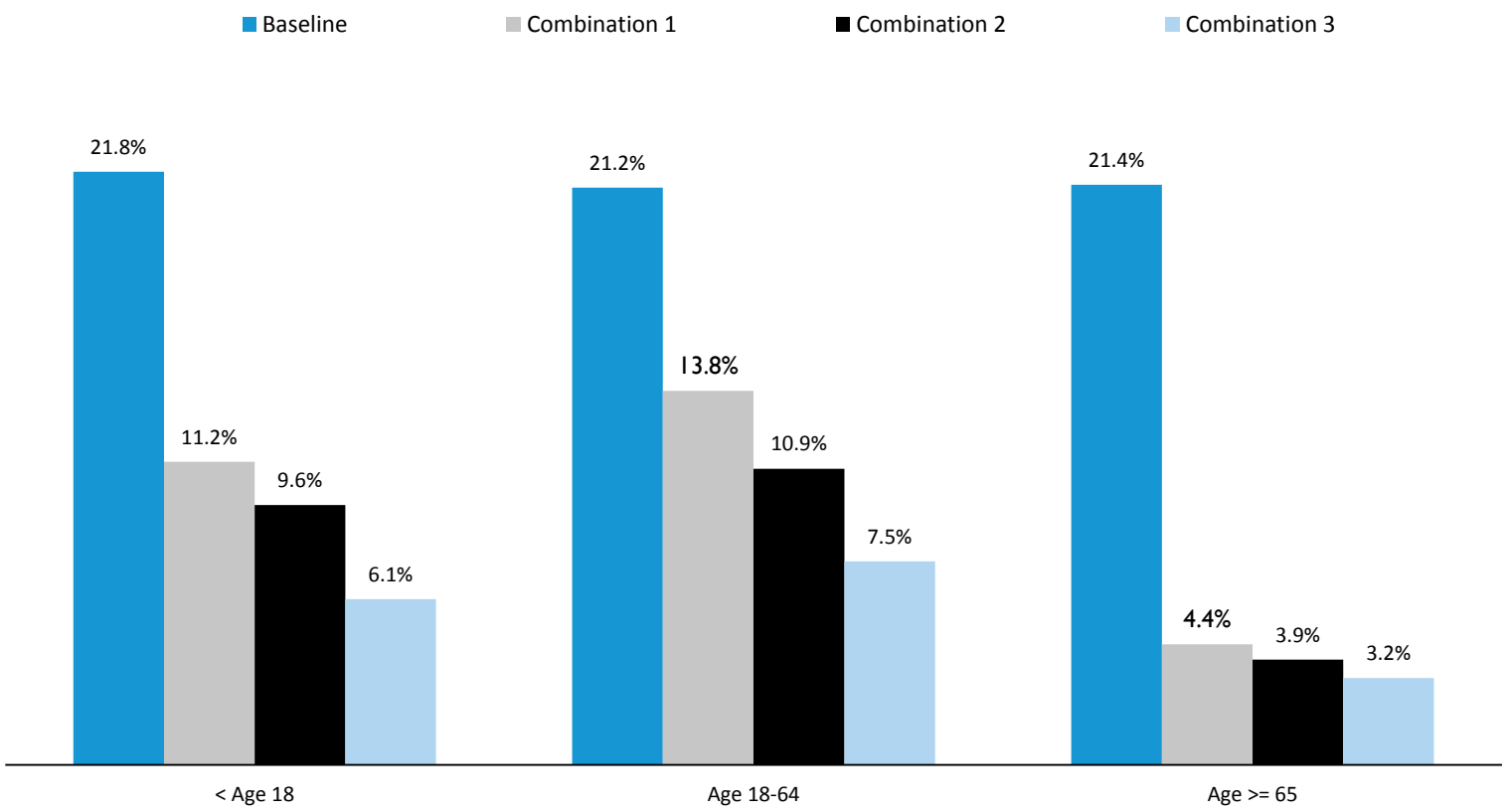
Results from the NYC Project: Anti-poverty impacts of individual policies



Results from the NYC Project: Anti-poverty impacts of combined policies



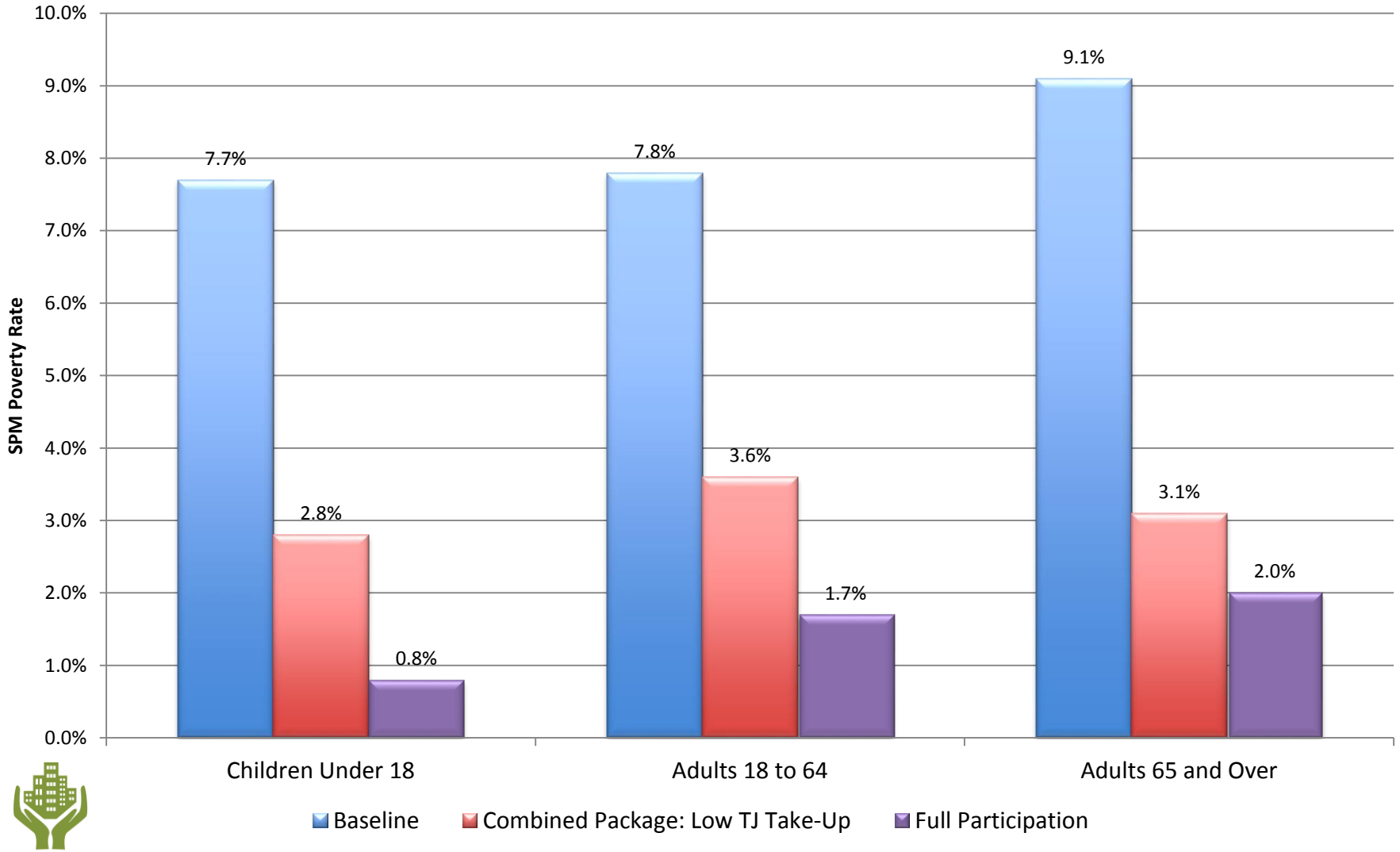
Results from the NYC Project: Impacts by age group



Results from the NYC Project: Example Cost Results

(costs in billions)	Baseline	Comb. #1	Comb #2	Comb. #3
Aggregate costs of benefits (fed, state, city)	$12.7	$14.1	$14.2	$14.0
Aggregate wage costs of TJ program	$0	$2.8	$4.2	$9.1
Aggregate tax liability	$70.2	$67.0	$69.4	$71.5
Total change in government spending	--	+ $7.3	+ $6.5	+ $9.1

Impact of CA-PPI Policy Package on Poverty in Wisconsin



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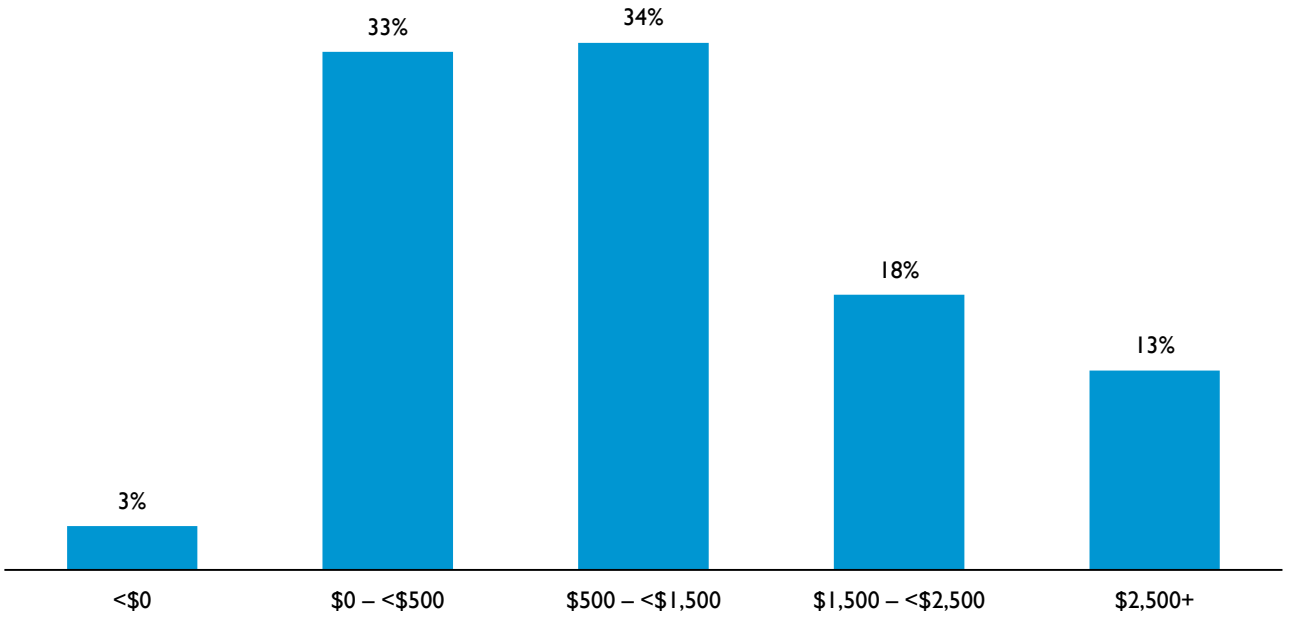
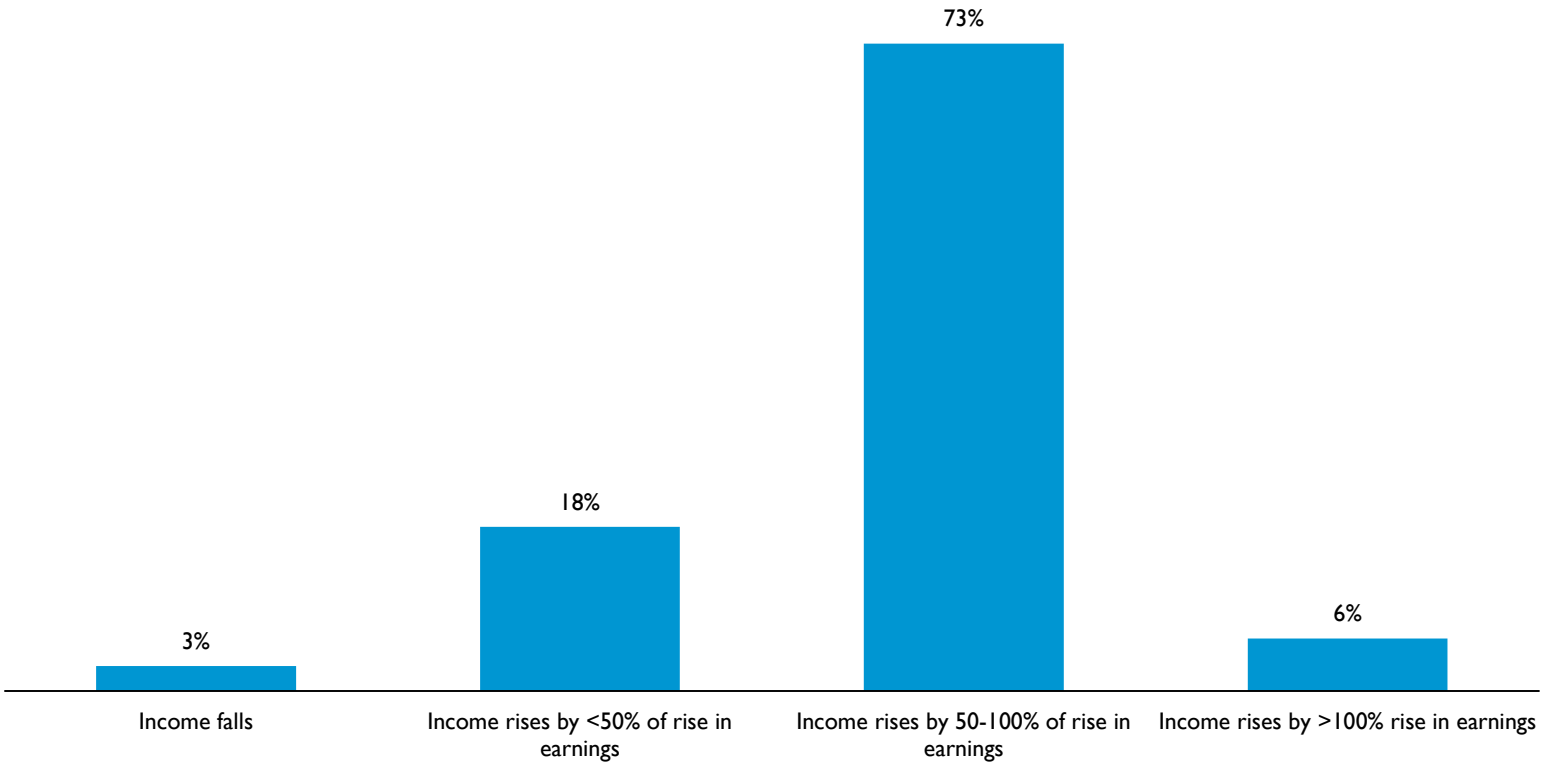
Results from the DC Minimum Wage Study: Change in Annual Income, for People in Families Affected by the Wage Increase



Results from the DC Minimum Wage Study: Change in Income vs. Earnings, for People in Families Affected by the Wage Increase



Back to the problem…

- States/localities need answers to think about policy changes
  - How much would it cost?
  - What is the bang for the buck of different options?
  - What subgroups would be helped or hurt?

- Microsimulation is an ideal tool for those questions, AND
- The ACS data provide rich information as input to models,

BUT

- Most states/localities cannot afford to buy microsimulation analysis

Our vision of the ideal model for states

- Accessible via the Internet
- State-level input data (ACS)
- Very user-friendly interface
- Able to simulate full range of programs and policy options and their interactions (like TRIM)
- Multiple kinds of output
  - Program costs & caseloads, tax impacts, total spending
  - Poverty impacts
  - Easy-to-understand graphics
  - Detailed tables

Is that possible?

- Technical challenges
  - Potentially many users simultaneously
  - Speed – how fast would users expect?
  - Data storage

- Design challenges
  - Initial development of extremely user-friendly system
    - Balancing needs for capabilities vs. simplicity

  - Ongoing maintenance challenge

Our Next Steps

- Under NSF funding, we are exploring various ways to meet technical challenges

- Soliciting input on:
  - Relative importance:
    - Do states need this?
  - What it would need to look like:
    - How easy?
    - What capabilities?
  - Anything else!

Contact me

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