

# Designing a Better Child Tax Credit: Accounting for Effects on Poverty, Parental Employment and Government Budgets

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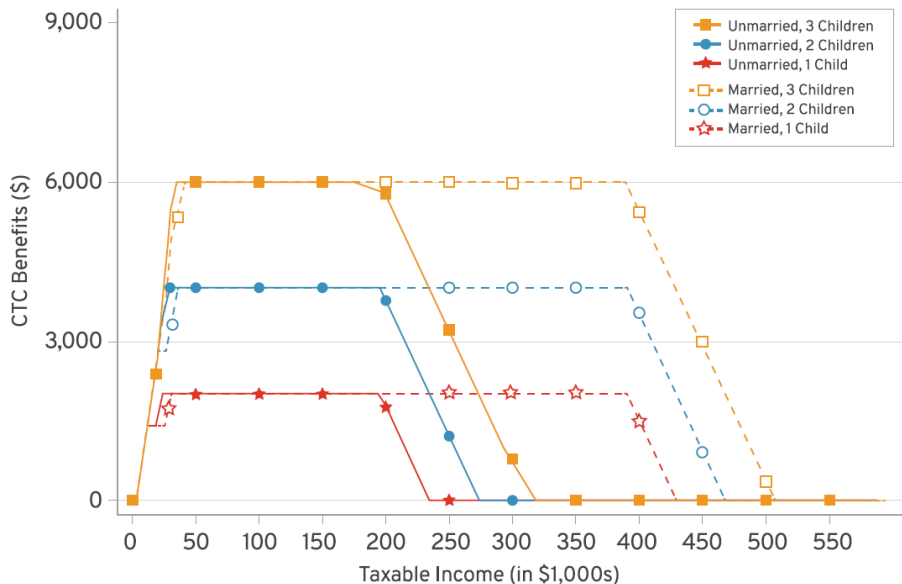
May 11, 2022

- The 2021 Child Tax Credit (CTC) was one of the largest changes to the U.S. safety net since the 1960s
- There is strong disagreement over how a permanent version of the policy would impact poverty and employment
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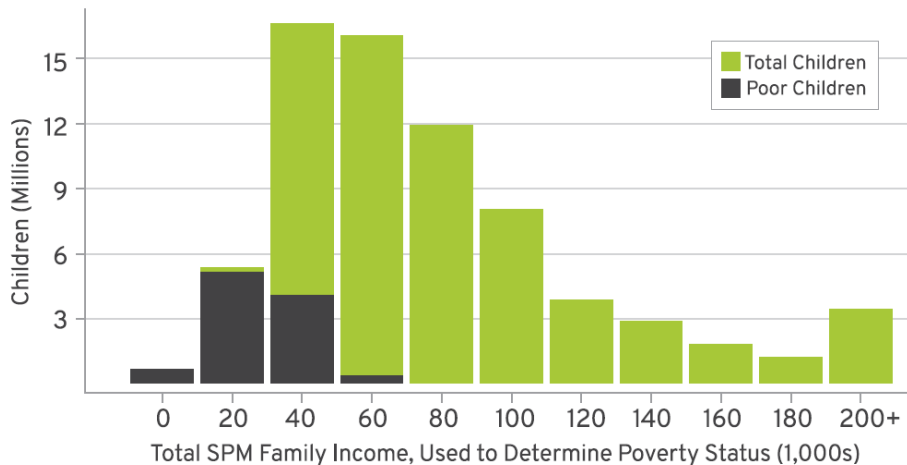
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- Previous work has explored how different labor supply elasticities affect the simulated impact on parental employment (e.g., Corinth et al, 2021; Goldin et al, 2021; Bastian, 2023) and poverty (Bastian, 2023)

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- In this project, I propose three CTC expansions and simulate the impact on parent employment, poverty, fiscal cost, cost per child pulled out of poverty, etc.

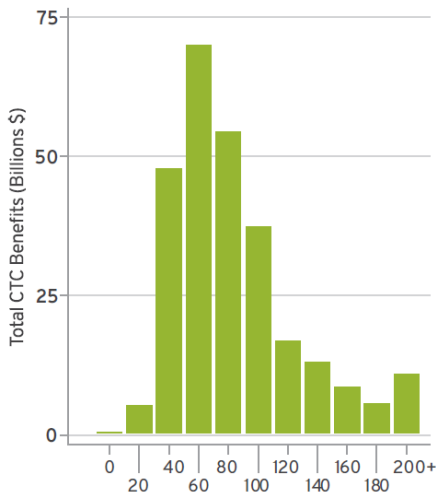
# Status Quo 2023 CTC



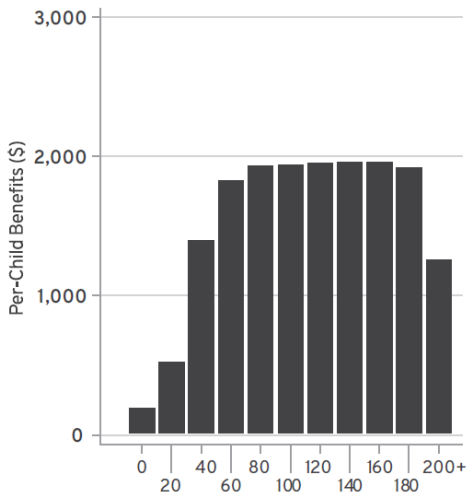
# Income Distribution (from Children's Point of View)



# Distribution of Benefits Under Status Quo 2023 CTC



Panel A: Total CTC Benefits



Panel B: Per-Child CTC Benefits

# Three CTC Proposals

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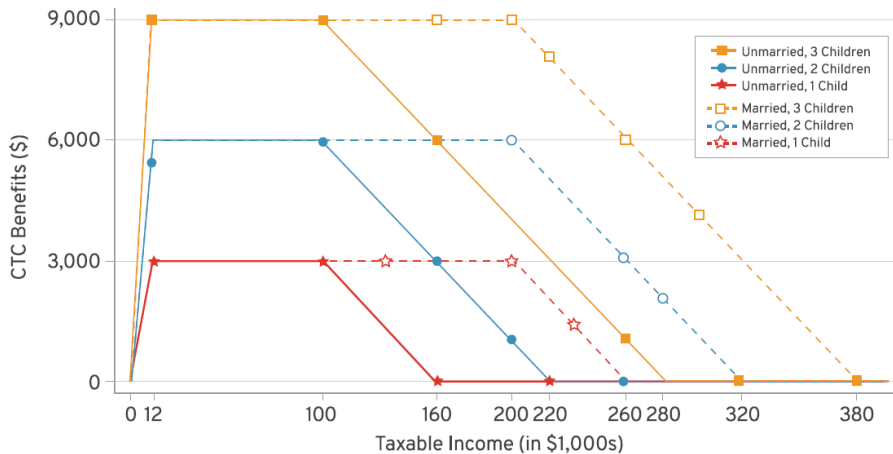
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- Proposal #2: benefits do not require work (like 2021 policy)
- Proposal #3: hybrid approach (some benefits phase-in, some do not)

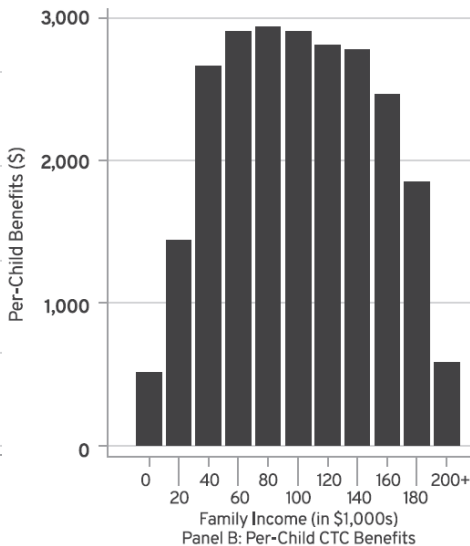
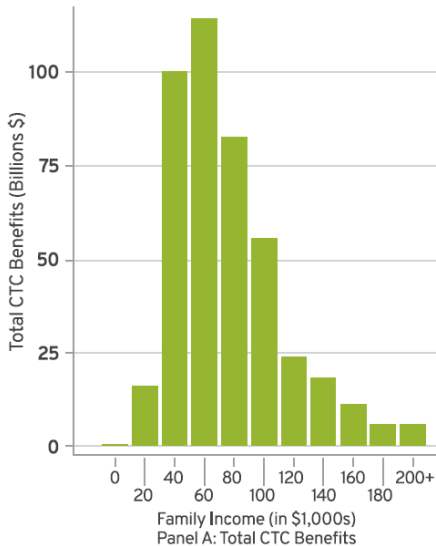
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- Proposal #2: benefits do not require work (like 2021 policy)
- Proposal #3: hybrid approach (some benefits phase-in, some do not)
- The following three proposals are identical except for how benefits phase-in for poorest households
  - \$3,000 per child
  - Full benefits up to family income of \$200,000 (\$100,000 if unmarried)
  - Benefits phase out at 5% rate after these thresholds

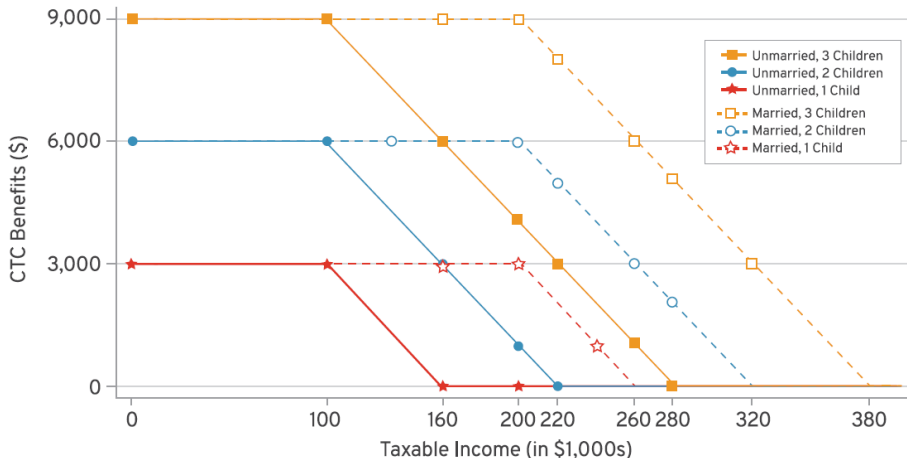
# CTC Proposal #1



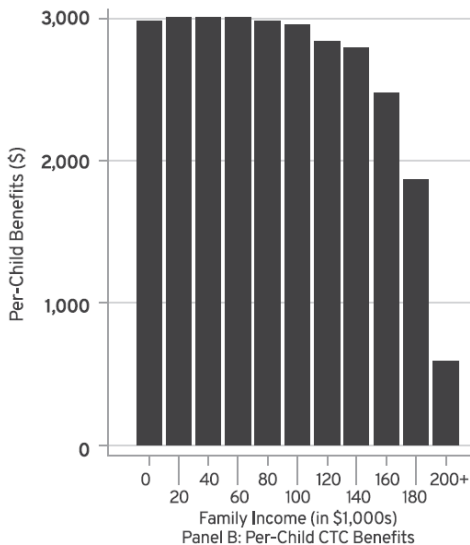
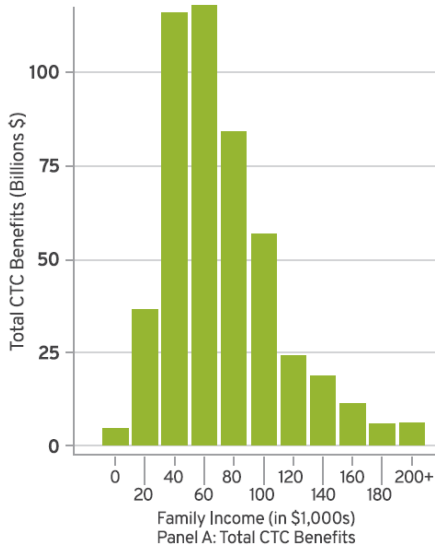
# Distribution of Benefits Under CTC Proposal #1



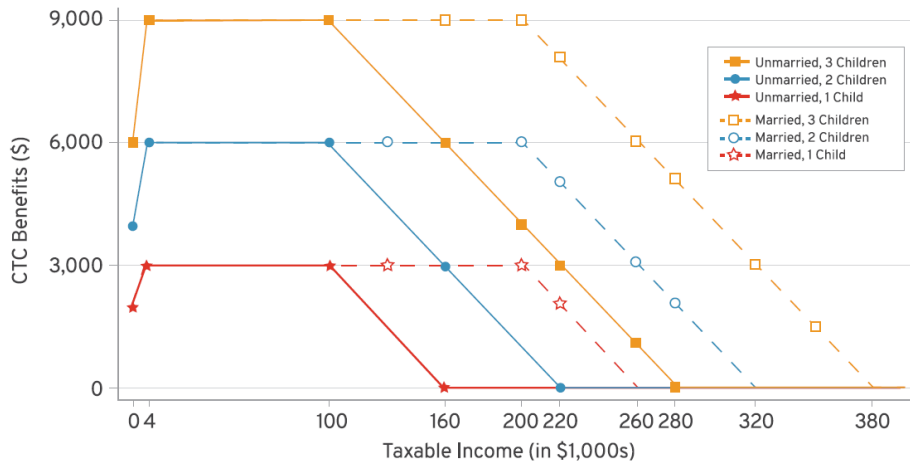
# CTC Proposal #2



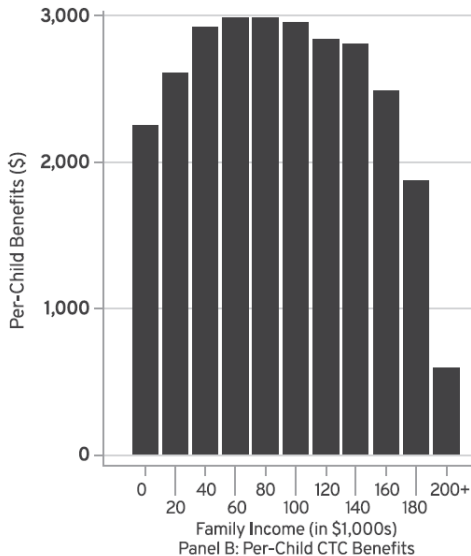
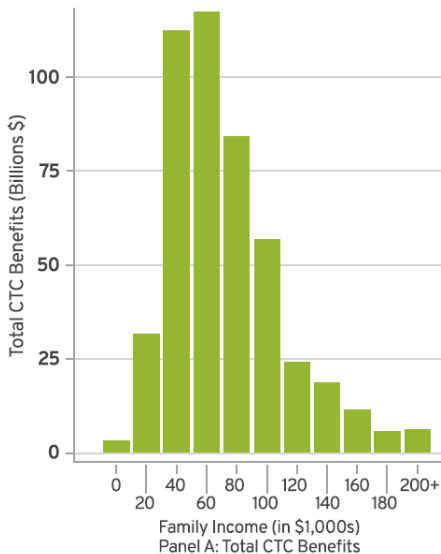
# Distribution of Benefits Under CTC Proposal #2



# CTC Proposal #3



# Distribution of Benefits Under CTC Proposal #3





# Employment Changes Can Offset Static Poverty Effects

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- To simulate each policy's impact on employment, need to (1) make assumptions about labor supply elasticities, and (2) observe the change in the “return to work”
- $RTW = (Income_{work} - Income_{no\ work}) / (PreTaxIncome_{work})$
- Examples:
  - In a world with no taxes or transfers,  $Income_{no\ work} = 0$  and  $RTW = 1$
  - With welfare payments only available to non-workers, then  $Income_{no\ work} > 0$  and  $RTW < 1$
  - Programs like the EITC or 2023 CTC are a “negative income tax” that increase with earnings and  $RTW > 1$

# Employment Changes Can Offset Static Poverty Effects

- How would these CTC proposals change the RTW?
- From the point of view of each parent, the RTW change depends on the CTC she was eligible for if she did not work
- Consider the 2020-to-2021 CTC change:
- For each parent,  $\Delta RTW = \Delta CTC_{no\ work}^{2020-2021} / (PreTaxIncome_{work})$

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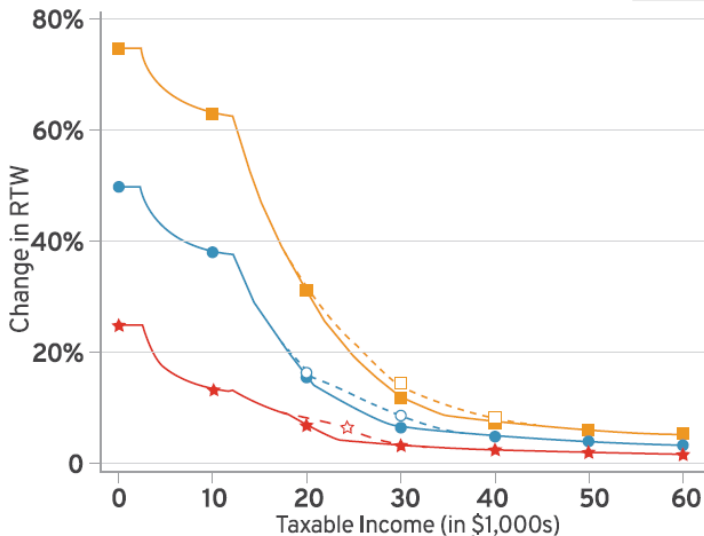
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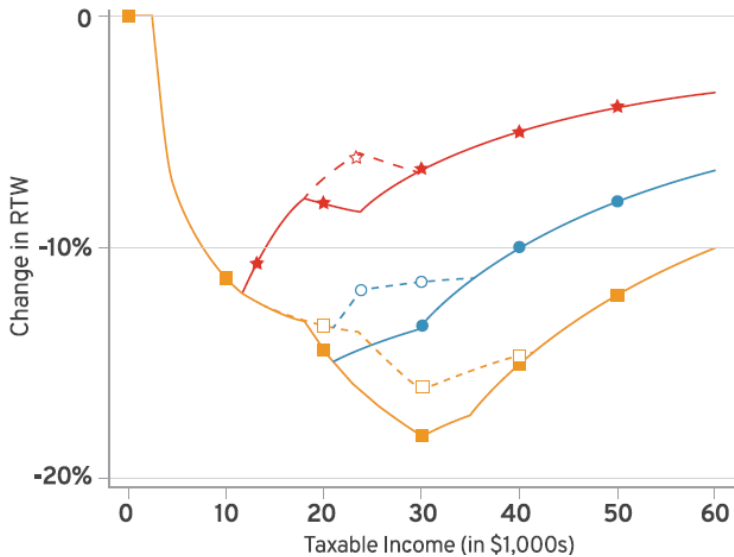
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# RTW Change (vs 2023 CTC) Under CTC Proposal #1

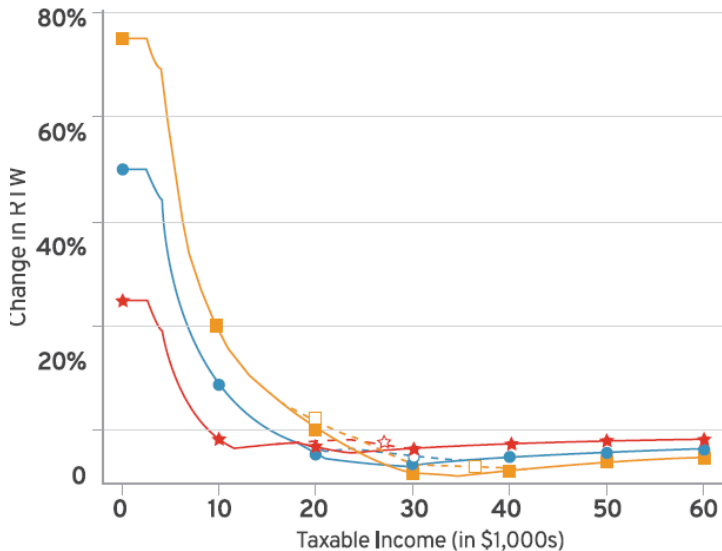




# RTW Change (vs 2023 CTC) Under CTC Proposal #2



# RTW Change (vs 2023 CTC) Under CTC Proposal #3



# Calculating Parents that Stop Working

- Assume each parent decides whether or not to stop working
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- Calculate RTW change based on current income
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- For example, if a subgroup had 10 million people with a RTW change of 10% and an elasticity of 0.2, this would imply employment effect of 200,000

# Summary of Effects from CTC Proposal #1

| Group                                       | Total Parents       |             |             | Total Children |             |             |
|---|---------------------|-------------|-------------|----------------|-------------|-------------|
|   | Elasticity Scenario | Low         | Middle      | High           | Low         | Middle      |
| <b>Panel A: CTC Proposal #1</b>             |                     |             |             |                |             |             |
| Net Change in Employment (1,000s)           | 98                  | 154         | 252         | —              | —           | —           |
| Parents Who Start Working (1,000s)          | 100                 | 156         | 255         | —              | —           | —           |
| Parents Who Become Newly Non-Poor (1,000s)  | 31                  | 55          | 98          | —              | —           | —           |
| Parents Who Stop Working (1,000s)           | 1                   | 2           | 3           | —              | —           | —           |
| Parents Who Become Newly Poor (1,000s)      | 0                   | 0           | 0           | —              | —           | —           |
| Dynamic Poverty Rate (%)                    | 8.4                 | 8.4         | 8.3         | 10.7           | 10.6        | 10.5        |
| <b>Dynamic Poverty Reduction (%)</b>        | <b>20.1</b>         | <b>20.5</b> | <b>21.1</b> | <b>23.2</b>    | <b>23.7</b> | <b>24.5</b> |
| <b>Dynamic Poverty Reduction (Millions)</b> | <b>1.35</b>         | <b>1.37</b> | <b>1.41</b> | <b>2.36</b>    | <b>2.41</b> | <b>2.49</b> |

# Summary of Effects from CTC Proposal #2

| Group                                       | Total Parents |             |             | Total Children |             |             |
|---|---------------|-------------|-------------|----------------|-------------|-------------|
|   | Low           | Middle      | High        | Low            | Middle      | High        |
| Elasticity Scenario                         |               |             |             |                |             |             |
| <b>Panel B: CTC Proposal #2</b>             |               |             |             |                |             |             |
| Net Change in Employment (1,000s)           | -397          | -537        | -781        | —              | —           | —           |
| Parents Who Start Working (1,000s)          | 0             | 0           | 0           | —              | —           | —           |
| Parents Who Become Newly Non-Poor (1,000s)  | 0             | 0           | 0           | —              | —           | —           |
| Parents Who Stop Working (1,000s)           | 397           | 537         | 781         | —              | —           | —           |
| Parents Who Become Newly Poor (1,000s)      | 76            | 122         | 204         | —              | —           | —           |
| Dynamic Poverty Rate (%)                    | 7.7           | 7.7         | 7.9         | 9.0            | 9.0         | 9.2         |
| <b>Dynamic Poverty Reduction (%)</b>        | <b>27.5</b>   | <b>26.8</b> | <b>25.6</b> | <b>35.6</b>    | <b>35.1</b> | <b>34.3</b> |
| <b>Dynamic Poverty Reduction (Millions)</b> | <b>1.84</b>   | <b>1.80</b> | <b>1.71</b> | <b>3.61</b>    | <b>3.56</b> | <b>3.48</b> |

# Summary of Effects from CTC Proposal #3

| Group  | Total Parents |             |             | Total Children |             |             |
|--|---------------|-------------|-------------|----------------|-------------|-------------|
|  | Low           | Middle      | High        | Low            | Middle      | High        |
| Elasticity Scenario                          |               |             |             |                |             |             |
| <b>Panel C: CTC Proposal #3</b>              |               |             |             |                |             |             |
| Net Change in Employment (1,000s)            | -139          | -179        | -251        | —              | —           | —           |
| Parents Who Start Working (1,000s)           | 10            | 17          | 29          | —              | —           | —           |
| Parents Who Become Newly Non-Poor (1,000s) 1 |               | 2           | 5           | —              | —           | —           |
| Parents Who Stop Working (1,000s)            | 148           | 196         | 280         | —              | —           | —           |
| Parents Who Become Newly Poor (1,000s)       | 32            | 52          | 86          | —              | —           | —           |
| Dynamic Poverty Rate (%)                     | 7.8           | 7.8         | 7.9         | 9.3            | 9.3         | 9.4         |
| <b>Dynamic Poverty Reduction (%)</b>         | <b>26.1</b>   | <b>25.9</b> | <b>25.4</b> | <b>33.2</b>    | <b>33.0</b> | <b>32.7</b> |
| <b>Dynamic Poverty Reduction (Millions)</b>  | <b>1.75</b>   | <b>1.73</b> | <b>1.70</b> | <b>3.37</b>    | <b>3.35</b> | <b>3.32</b> |

# Summary

- While proposal #2 has the largest anti-poverty effect, determining which proposal is “best” is subjective and depends on how one values the tradeoff between reducing poverty and reducing parental employment
- If the main goal is to reduce child poverty, proposal #2 would be the best option
- If the main goal is to increase parental employment, proposal #1 would be best
- If the goal is to reduce child poverty and minimize parental disemployment, proposal #3 (or a version of it) is best



# Cost and Cost-Effectiveness of the Three Proposals

|                   | <b>Total Cost<br/>(Billions \$)</b> | <b>Total Cost<br/>vs 2022 CTC<br/>(Billions \$)</b> | <b>Total Cost<br/>Per U.S.<br/>Child (\$)</b> | <b>Cost Per Child<br/>Pulled Out of<br/>Poverty (\$)</b> |
|-------------------|-------------------------------------|---|---|--|
| Baseline 2022 CTC | 119                                 | --  | 1,631   | --   |
| CTC Proposal #1   | 188                                 | 69  | 2,574   | 78,000   |
| CTC Proposal #2   | 206                                 | 87  | 2,824   | 57,900   |
| CTC Proposal #3   | 202                                 | 83  | 2,762   | 60,300   |

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- I also consider a number of variations on proposal #3
- There are ways to decrease poverty with a net zero or even positive effect on employment

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|   | <b>Benefits that Phase-In at 25%</b> |         |         |         |         |
|---|--------------------------------------|---------|---------|---------|---------|
|   | \$0                                  | \$1,000 | \$2,000 | \$3,000 | \$4,000 |
| <b>Panel C: Benefits = \$2,000 for Everyone</b> |                                      |         |         |         |         |
| Change in Child Poverty (%)                     | -18.1                                | -32.9   | -43.0   | -49.1   | -52.8   |
| Change in Employment (1,000s)                   | -424                                 | -179    | +50     | +152    | +246    |
| Total Cost vs 2022 CTC (Billions)               | \$17.2                               | \$82.6  | \$147.5 | \$211.2 | \$273.2 |
| Cost Per Child Pulled Out of Poverty (1,000s)   | \$73.8                               | \$60.1  | \$60.8  | \$65.9  | \$72.8  |