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# SNAP PER Modeling Workshop (6/1/26)

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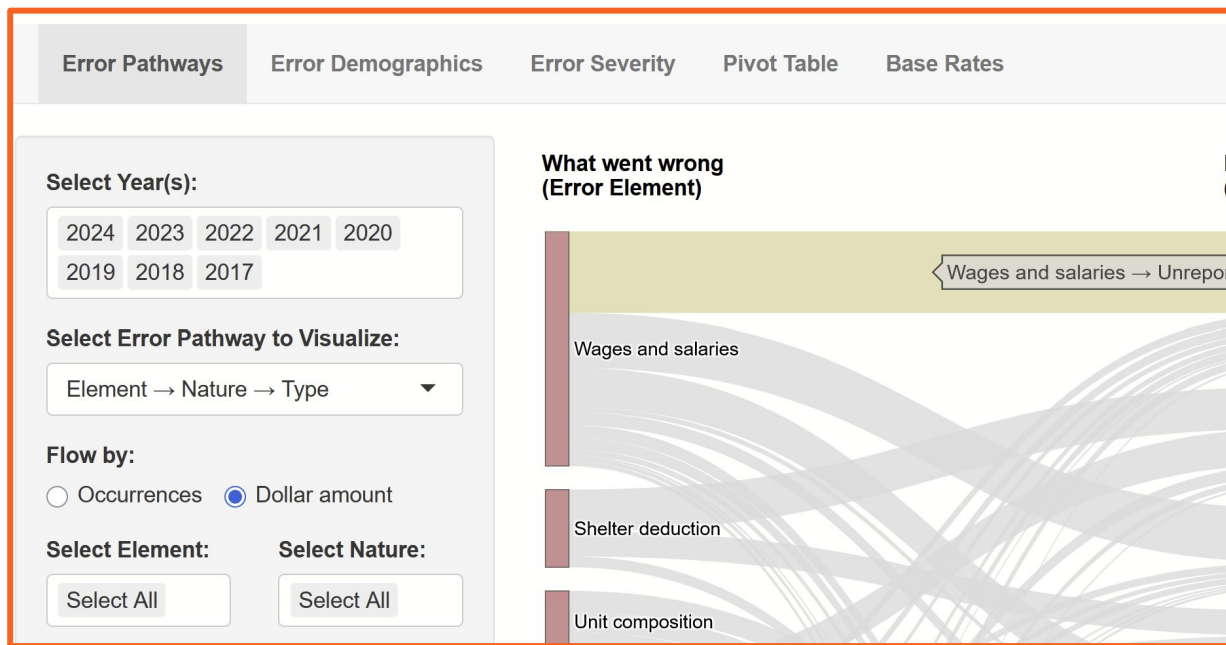


## Part 1: New resources

**Quick overview** of new and in-progress resources

- **FY2024 Data on Viz Tool**  
[bettergovernmentlab.org/resources/snap](https://bettergovernmentlab.org/resources/snap)
- **Uncapped Variable Analysis**  
Try it out!
- **Write-up of Modeling Lessons from these Workshops**  
Draft synthesis doc - we'd love input

# 1) New FY24 Microdata in QC Viewer



## 2) Uncapped Benefit Variable

**Better Government Lab**

McCourt School of Public Policy  
GEORGETOWN UNIVERSITY

Ford School of Public Policy  
UNIVERSITY OF MICHIGAN

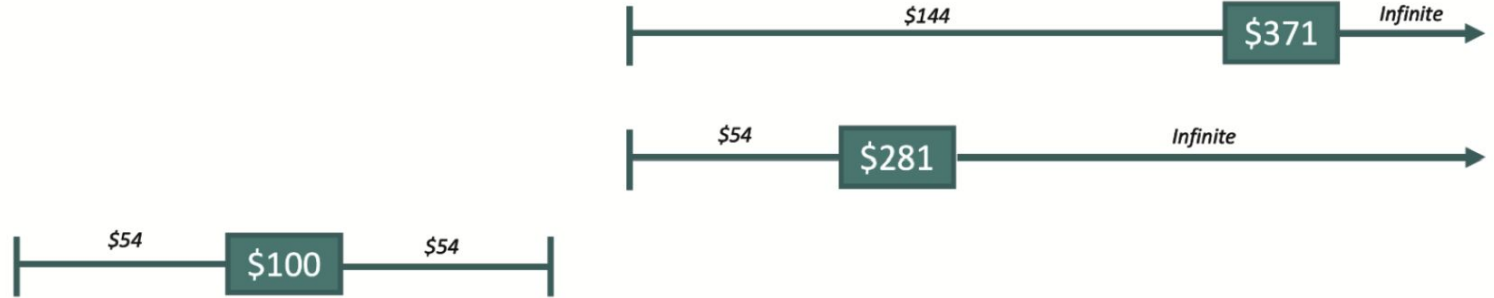
**Unlocking the potential of payment error  
buffers through uncapped benefit analysis**

May 22, 2026

# Error buffers as uncapped benefit amounts

**\$50** = Benefit Amount

— = Error Buffer (FY23 = \$54)



**\$23**  
Minimum  
Benefit

*Benefit Range  
For Households of 1*

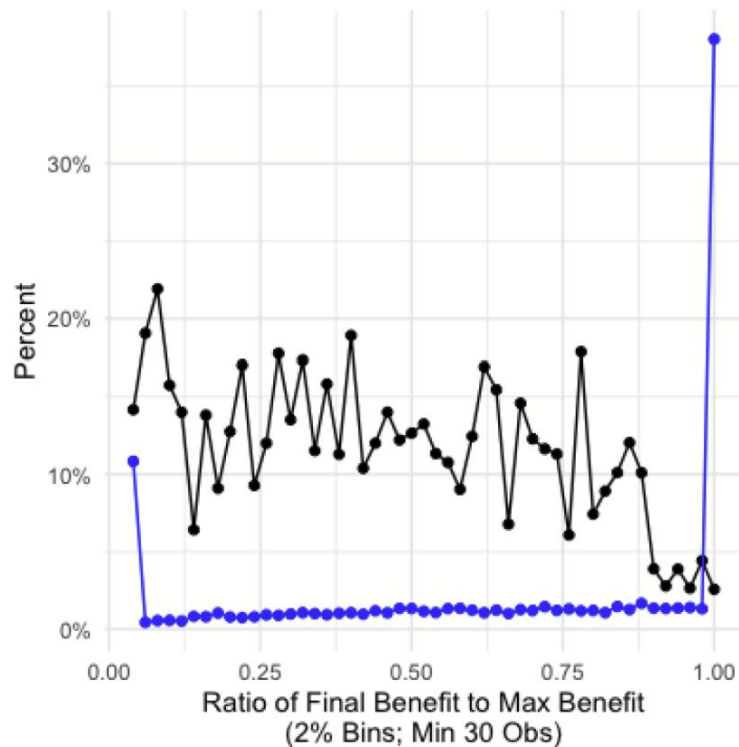
**\$281**  
Maximum  
Benefit

# Net income vs. unbounded net income

|                      |                         | Household 1     | Household 2            |
|----------------------|-------------------------|-----------------|------------------------|
| Standard Calculation | Reported Income         | \$1,000         | \$1,000                |
|                      | Reported Deductions     | \$1,000         | \$1,300                |
|                      | Net income              | \$0             | \$0                    |
|                      | Benefit amount          | Maximum benefit | Maximum benefit        |
|                      | Payment Error Buffer    | \$54            | \$54                   |
| Uncapped Calculation | Unbounded net income    | \$0             | \$ - 300               |
|                      | Uncapped benefit amount | Maximum benefit | Maximum benefit + \$90 |
|                      | Payment Error Buffer    | \$54            | \$144                  |

# A more informative variable (1)

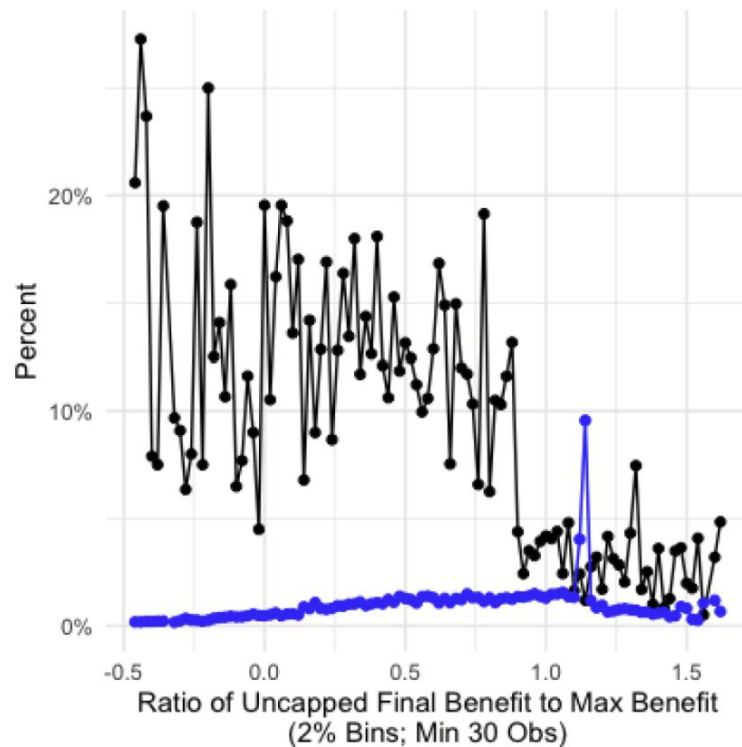
Error Rate vs Fraction of Cases  
(Household Size = 2)



—●— Error Rate —●— Fraction of Cases

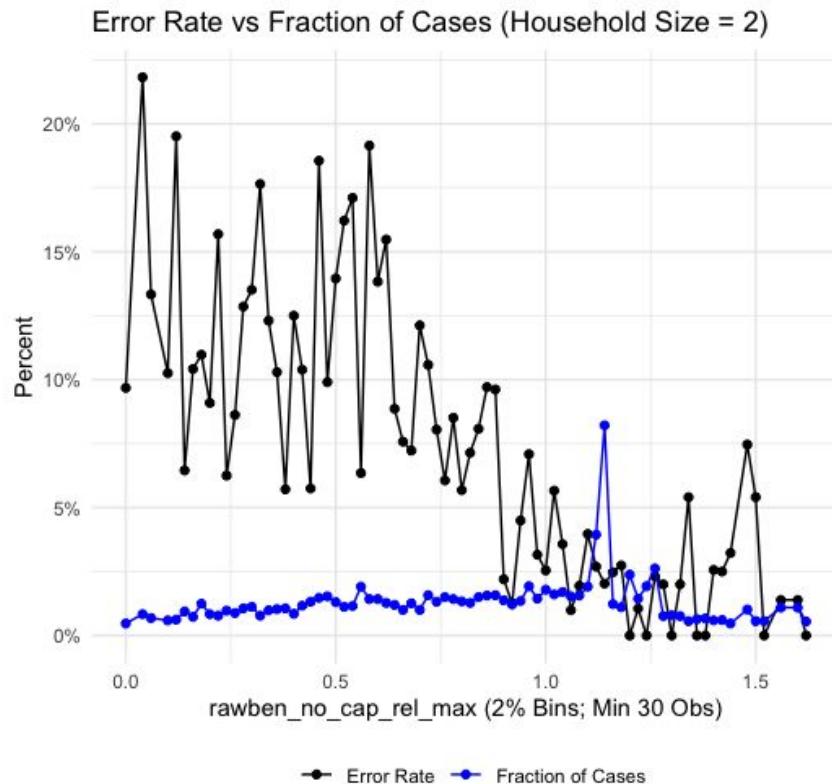
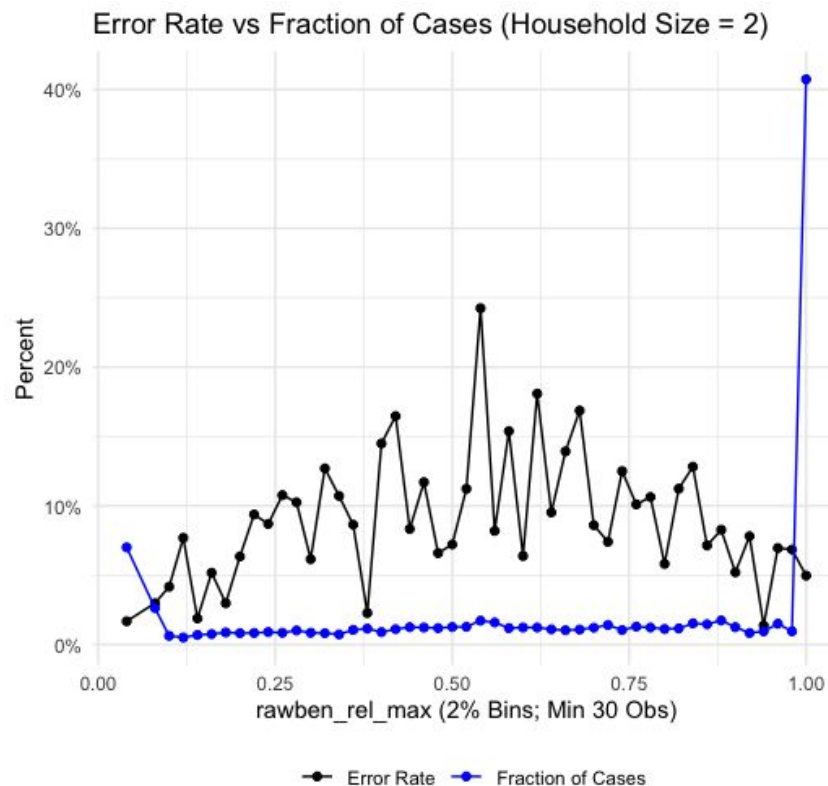


Error Rate vs Fraction of Cases  
(Household Size = 2)



—●— Error Rate —●— Fraction of Cases

# A more informative variable (2)



## It's easy to test

### **RAWNET\_ALLOW\_NEGATIVE =**

- + Earned Income
- + Unearned Income
- Earned Income Deduction
- Dependent Care Deduction
- Medical Expenses Deduction
- Child Support Deduction
- Excess Shelter Deduction
- Standard Deduction
- Homeless Shelter Deduction

### **RAWBEN\_UNCAPPED =**

- + Maximum Benefit
- 30% \* RAWNET\_ALLOW\_NEGATIVE

*Note: Do not apply minimum benefit amounts*

# 3) Lessons Learned Blog Post

## *What's working: promising practices from states*

- **Separate models, focused on material errors:** consider different models for over-payments, underpayments, and ineligible cases; focus all models only on errors >\$58
- **Fine-tuning model precision:** work backwards from your team's review capacity to set the target number of cases for your model to flag
- **Sequencing reviews:** be thoughtful about where in your process to deploy your data-driven reviews (shown to caseworkers, preauthorization, QA)
- **Feature engineering:** use of system data, calculated metrics, and raw case characteristics to prioritize reviews
- **Machine learning based prioritization criteria:** Compound criteria with multiple variables
- **Exclusion criteria:** Identifying and removing cases less likely to have errors
- **Targeted reviews:** Lighter review of more cases, focused on reviewing higher-risk case elements

# Quick wins + low-resource ideas

- Make your prioritization rules/models better (if you don't have data scientists, access to AI tools):
  - If your model isn't based on error amount (and only over \$58), try making this your outcome
  - Try adding variables from workshops to see if they improve your explanatory power
  - Try out promising rules from our list with your own data
    - Test and optimize using historical data (w/ grid search for thresholds)
    - Test them out for a month against a control sample based on your current methodology
  - Test out exclusion criteria to improve precision after modeling
- Use your prioritized lists/risk scores more effectively
  - If you don't have enough resources to review all cases you'd like to, sort by highest expected error amount (or benefit amount) and review as many as you can
  - Try doing a more targeted review of just a few fields (vs the whole case) to allow for more files to be reviewed with the same team



## Part 2: Is this working?

**How will we know** if we're headed in the right direction with using predictive analytics?

→ **Official vs. Actual PER**

How are you handling this?

→ **Error reduction measures**

E.g., QA or preauth yield -> QC?

→ **What's resonating internally?**

Traction of various eval approaches

→ **Discussion**

Questions, ideas, troubleshooting

# PER: Official vs. Actual

- Despite efforts that reduce a state's actual error rate, small sample sizes mean that a few large errors in / out could make
- Are you discussing this internally?

# Measures depend on interventions

At application or renewal

**Preventing client errors:**

re-writing confusing questions; providing navigation supports and interactive forms; prompting for missing or incorrect documents

During processing

**Preventing caseworker errors:**

job aids and training to ensure correct application of policies; flagging file discrepancies or incomplete verifications; focusing the interview on key likely issues

Supervisor or QA review

**Finding and fixing errors:**

prioritizing the right cases for review before certification or within 30 days

Post-certification (between periods)

**Preventing client errors:**

following up with clients likely to have inter-period case file changes to prompt them to make updates

**Preventing caseworker errors:**

ensuring timely processing of client submitted updates

# Effect of improved inputs

Interventions that focus on clarity of forms and notices as well as real-time validation and guidance for clients.

- **Proxies for potential errors:**
  - Such as eligibility workers asking clients to submit documents on top of what they've already submitted for a specific circumstance (RFIs)
  - Share of cases considered straightforward or relatively complete before the interview
  - Fewer over-writes of client-entered / precomputed data (especially focused on fields that were targeted for rewrite/redesign)
- **Ineligible clients seek other services sooner (screen-out)**
- **Reduced client confusion/request for assistance on hotlines and helpdesks**

# Effect of improved eligibility process

**Interventions that focus on reducing the probability of worker error during eligibility determination, such as UX improvements, auto-ingestion of verification doc data, real-time chatbot or prompting tools, and validation logic.**

- Increased processing speed for cases
- Decreased rate of secondary interviews
- Decreased rate of doc requests from supervisory / QA review
- No changes to circumstances between enrollment and recert when machine recognized docs data shows no change (if applicable).
- Staff self-reported job satisfaction & client experience metrics

# Effect of better-targeted secondary review

## Supervisor / pre-auth or QA review

- Errors above tolerance threshold
- Error dollars found by the review teams
- YoY / temporal change in rate of errors remedied
- Monitoring specific types of errors in QA or pre-QA reviews

# What's easy vs. difficult in terms of measurement?

- 1) Have you implemented any of these metrics? Have you found better or more feasible alternatives?
- 2) Which metrics seem to be most important in your agency for assessing how PER reduction is going?
- 3) For which metrics do you feel confident about reliability and accuracy?

## Q&A / Discussion