Experimental State Weights: Providing More Geographic Data

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Microdata Users' Workshop
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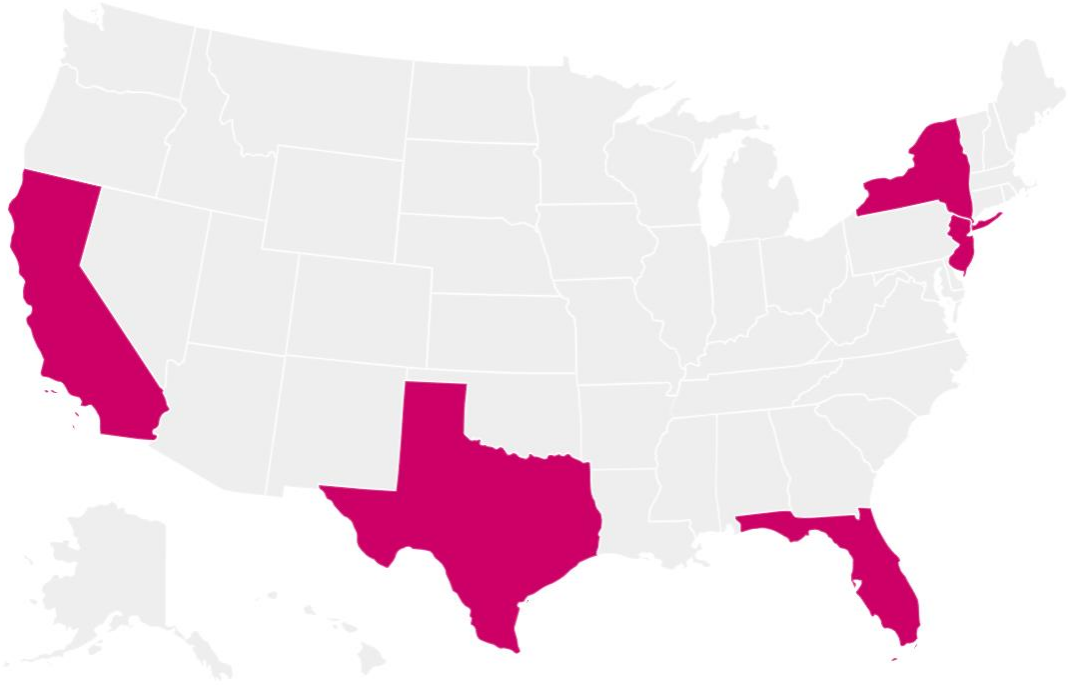
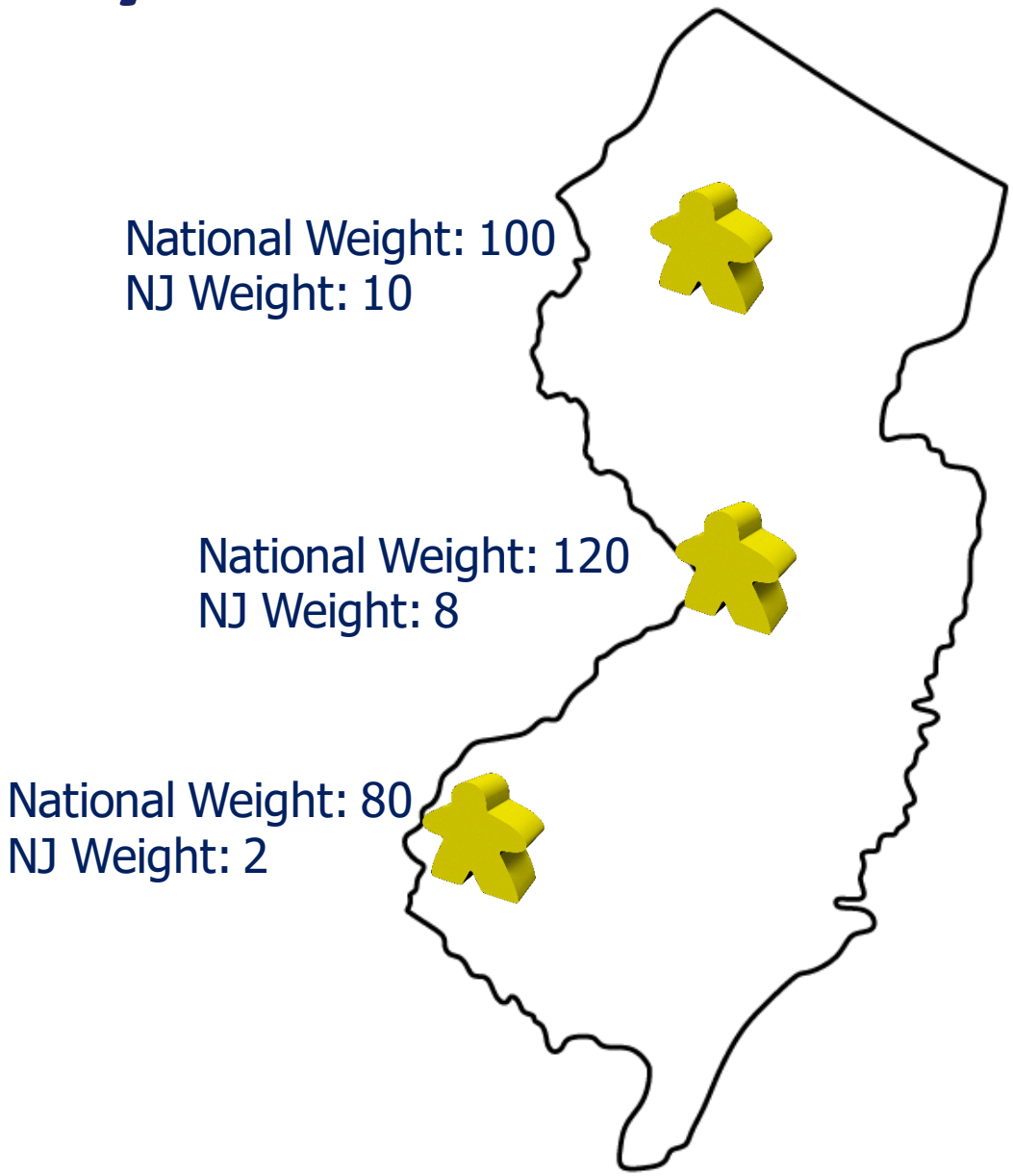
State Estimates

- First test estimates produced for three states (**CA,FL,** and **NJ**) using 2013 data.
- First official weights published using 2016 data for three states in 2018.
- Two additional states (**NY** and **TX**) were added in 2019.



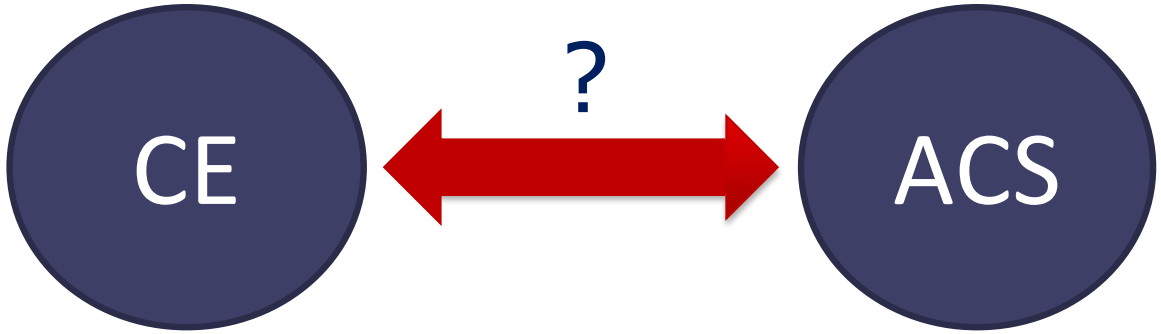
How do they work?

- Suppose the population of New Jersey was 20.
- Each consumer unit in New Jersey is re-weighted to represent the population of New Jersey *instead of* the national population.

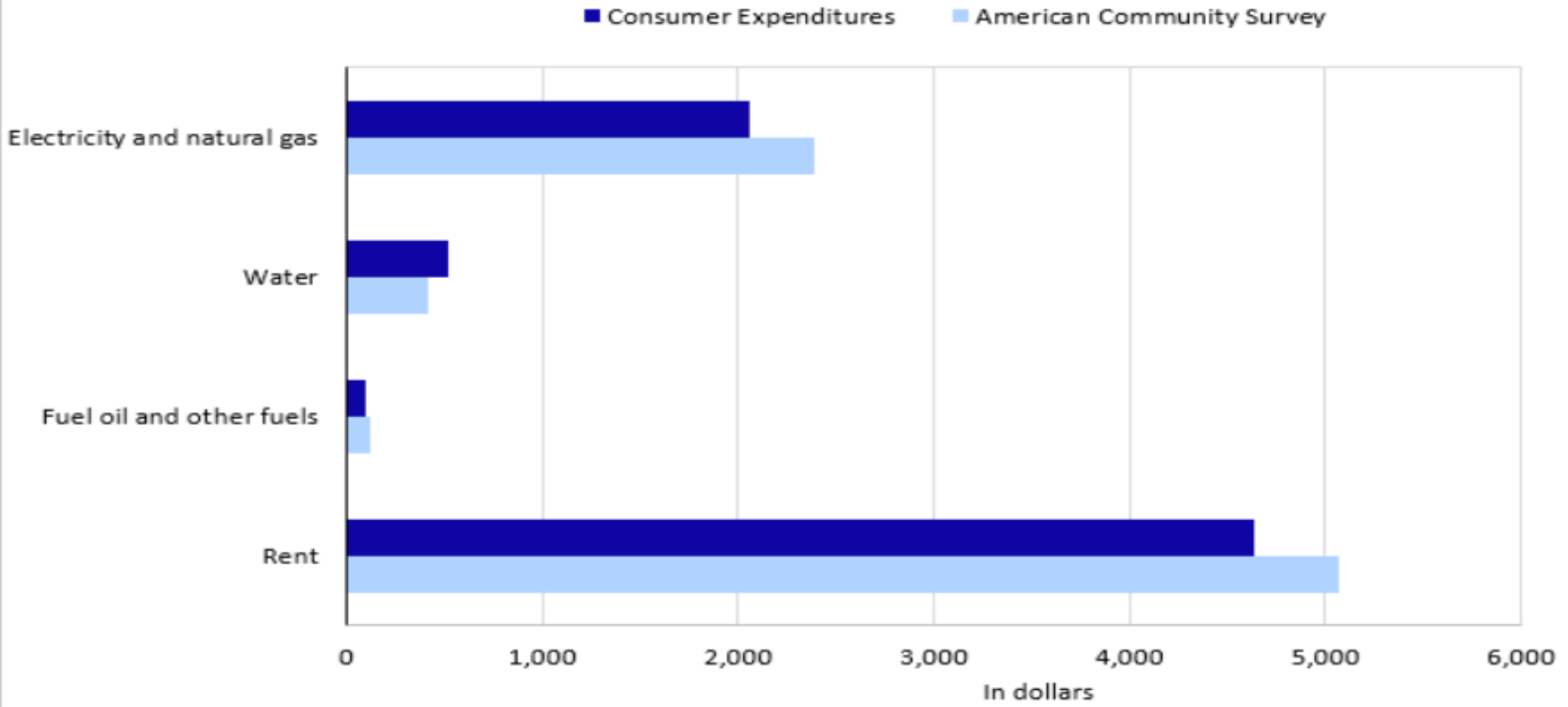


How well do they work?

- Use of other sources which already have state weights for comparison. (ACS)
- Does the state weight produce a difference from other sources that is equal to or better than the national weight?

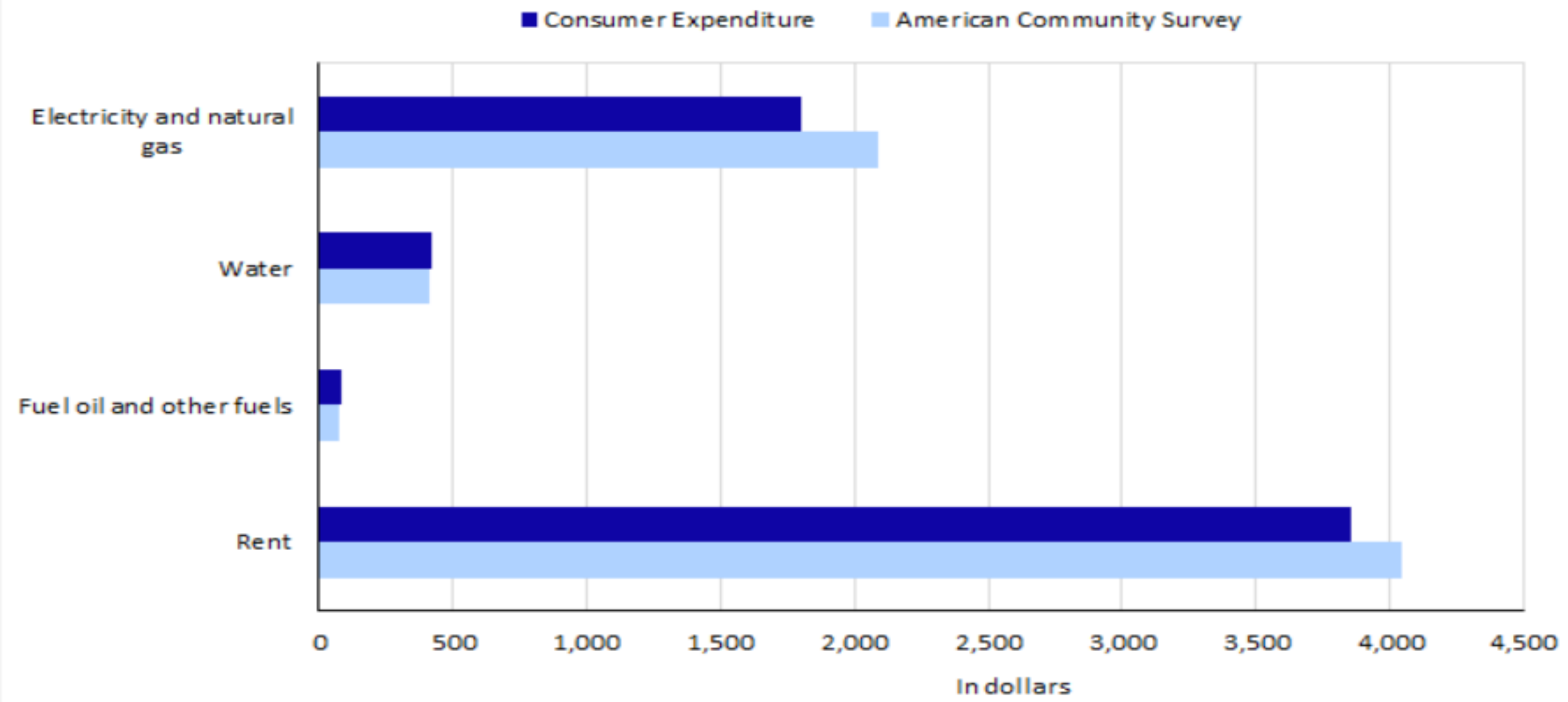


CE-ACS Comparison using New Jersey Weights from Each Survey, 2016



Source: U.S. Bureau of Labor Statistics, Consumer Expenditure Surveys Public-Use Microdata.

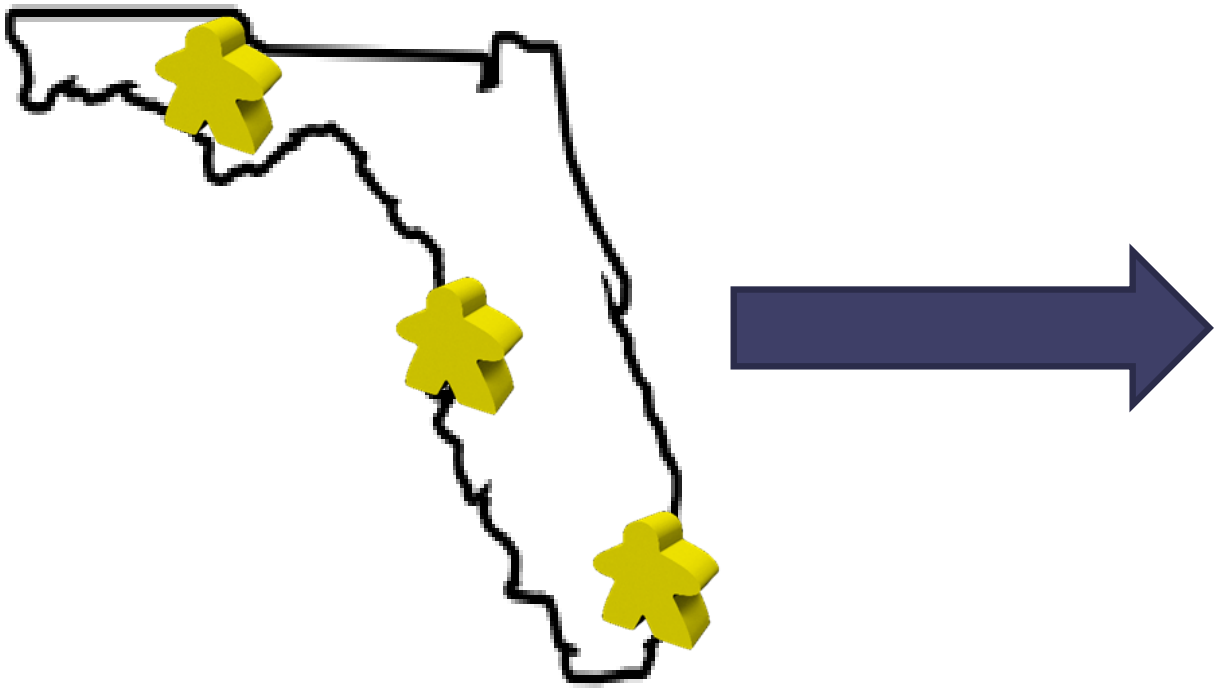
CE-ACS Comparison using National Weights from each Survey, 2016



Source: U.S. Bureau of Labor Statistics, Consumer Expenditure Surveys Public-Use Microdata.

How well do they work?

- Compare population targets to US Census.



1. Add up the weights for Florida from PUMD.
~8.5 Million Consumer Units (CU)

2. Compute average number of persons per CU with the weight.
2.4 persons per CU

3. Multiply and compare to census value.
8.5 * 2.4 = 20.4 million persons

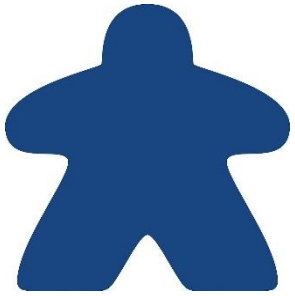
Approximately equal to the 20.6 million reported Florida population.

Who uses them?

- Academics
  - Researchers have been asking for greater geographic detail for a long time. This is an effort to provide it where we can.

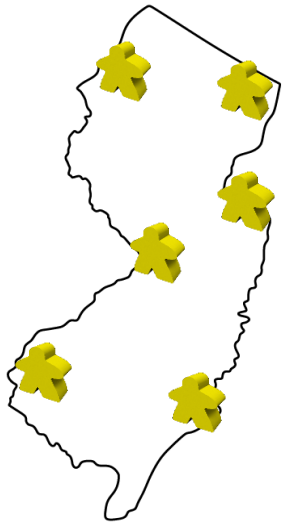
- Government
  - The New Jersey weights were utilized by the New Jersey State Government.

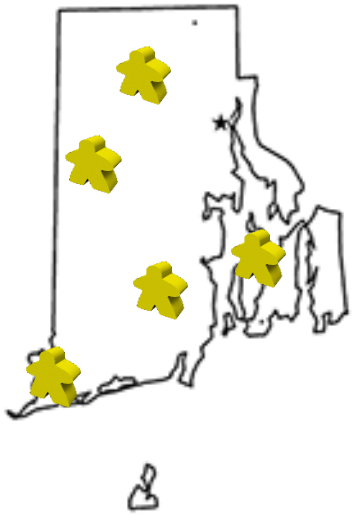
- You!
  - Curious individuals can now answer questions about state level expenditures.

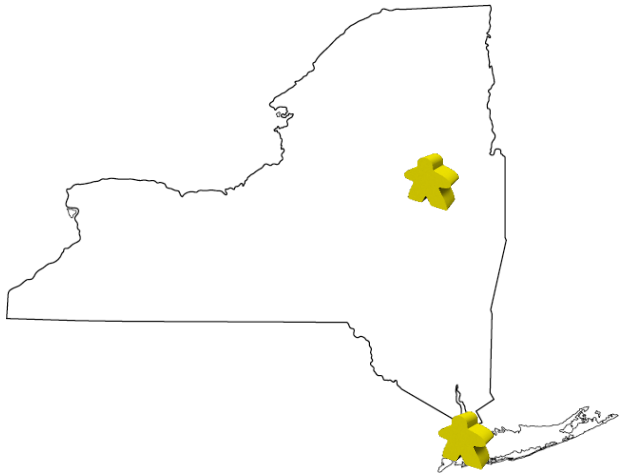


Do you have an example?

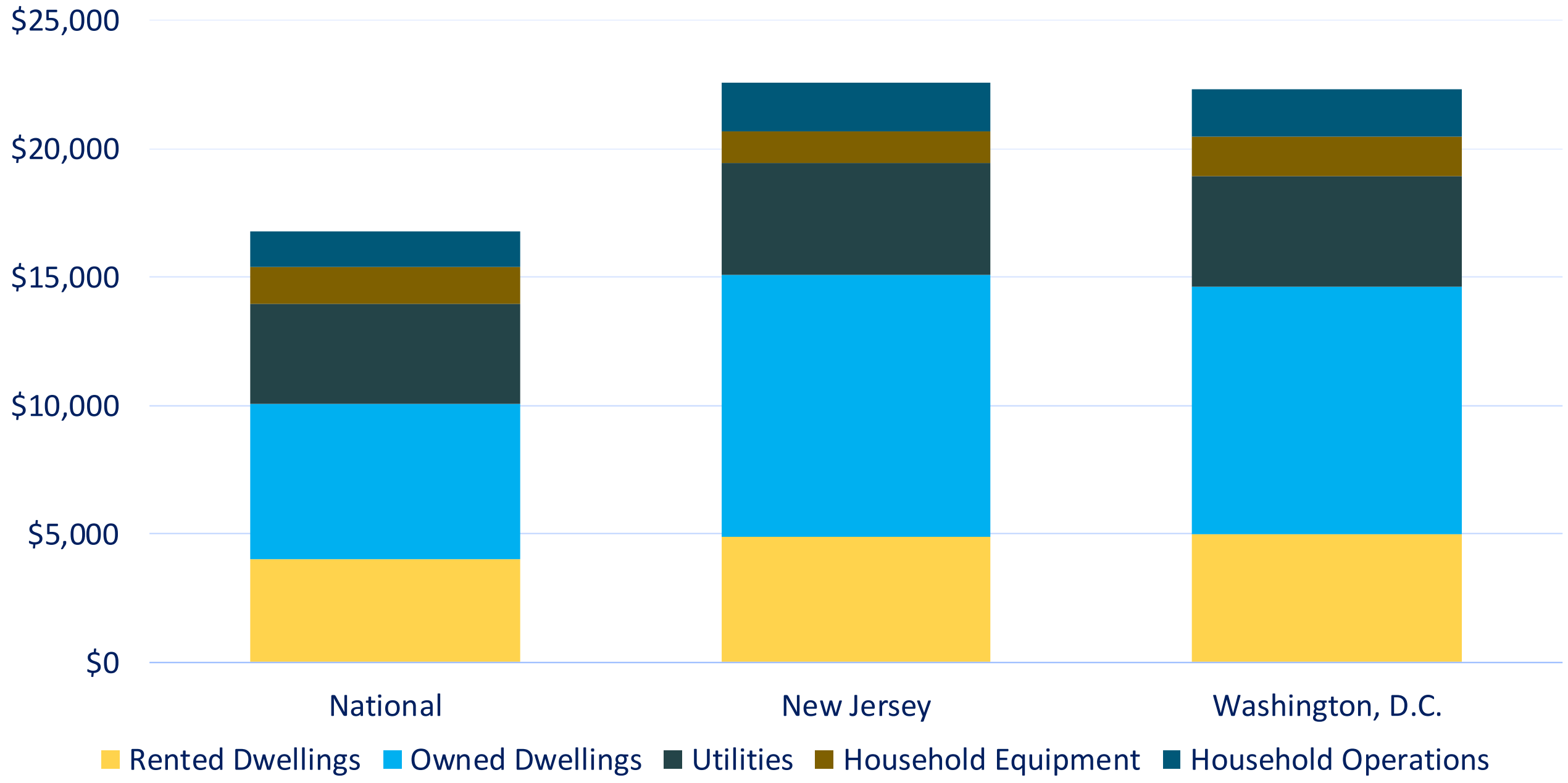
- Use case to do a static examination of the housing market in New Jersey.
- New Jersey has the highest population density of any state.



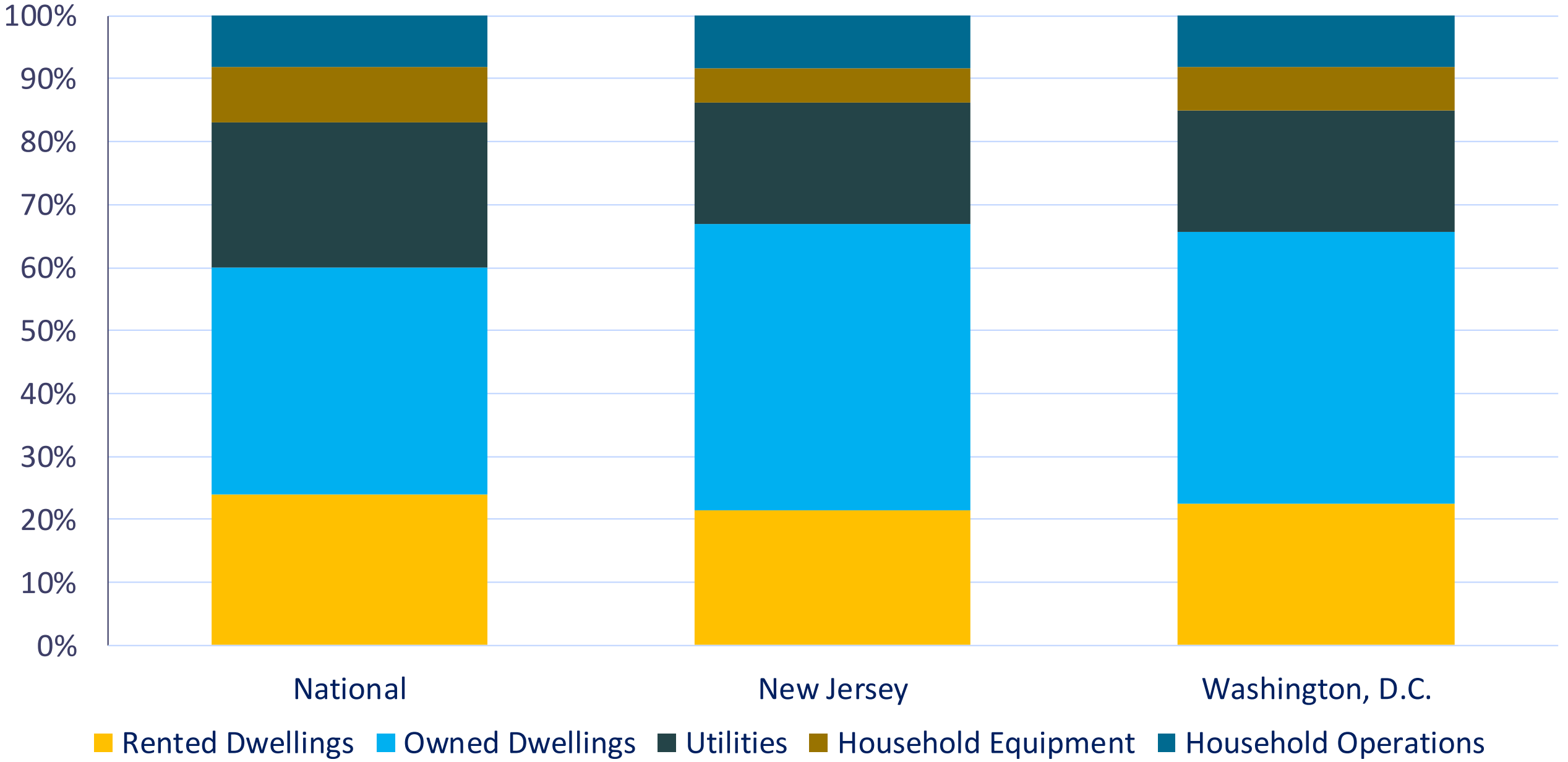




Housing Expenditures and Components by Selected Geographies

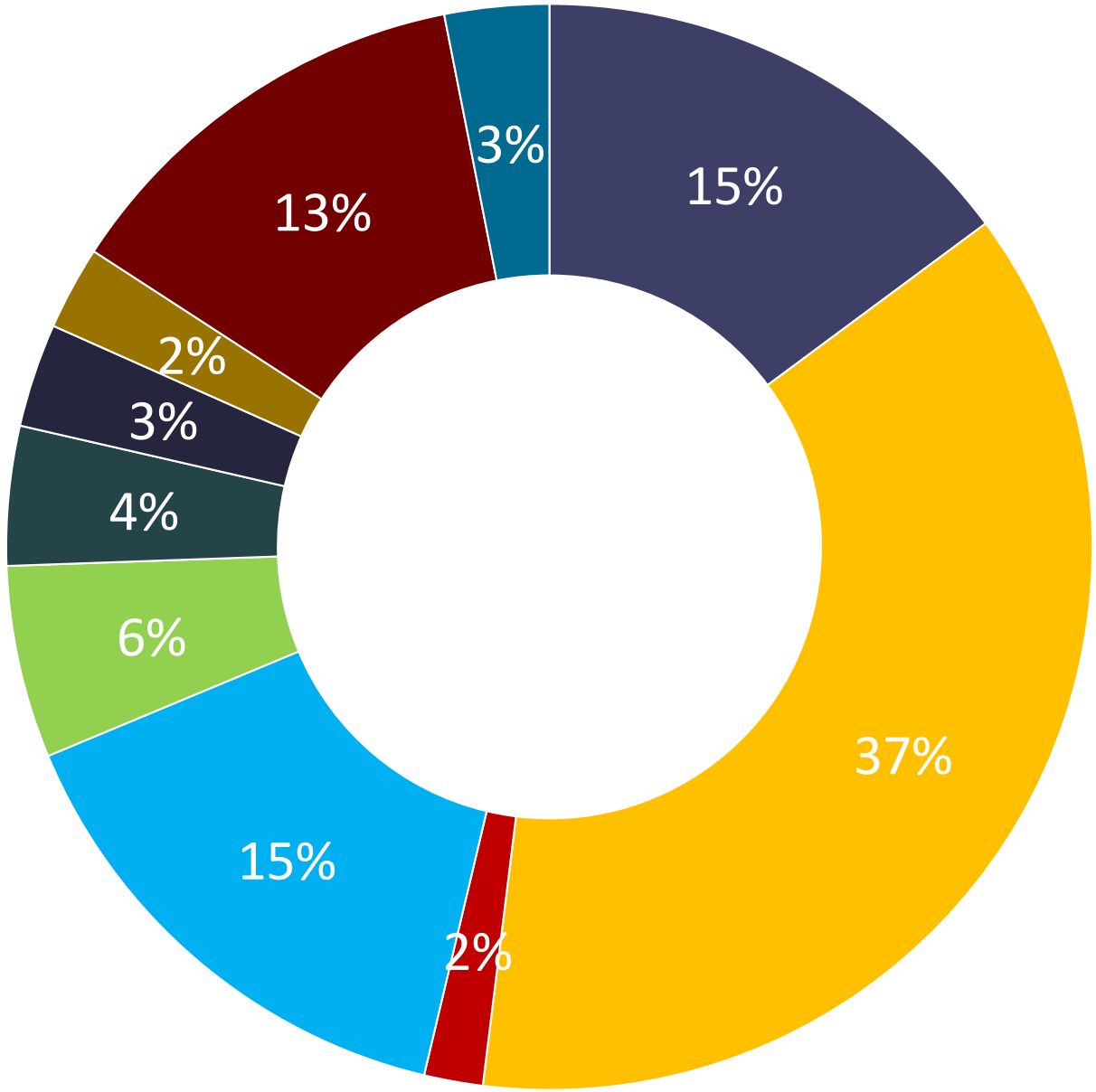


Proportion of Housing Expenditures and Components by Selected Geographies



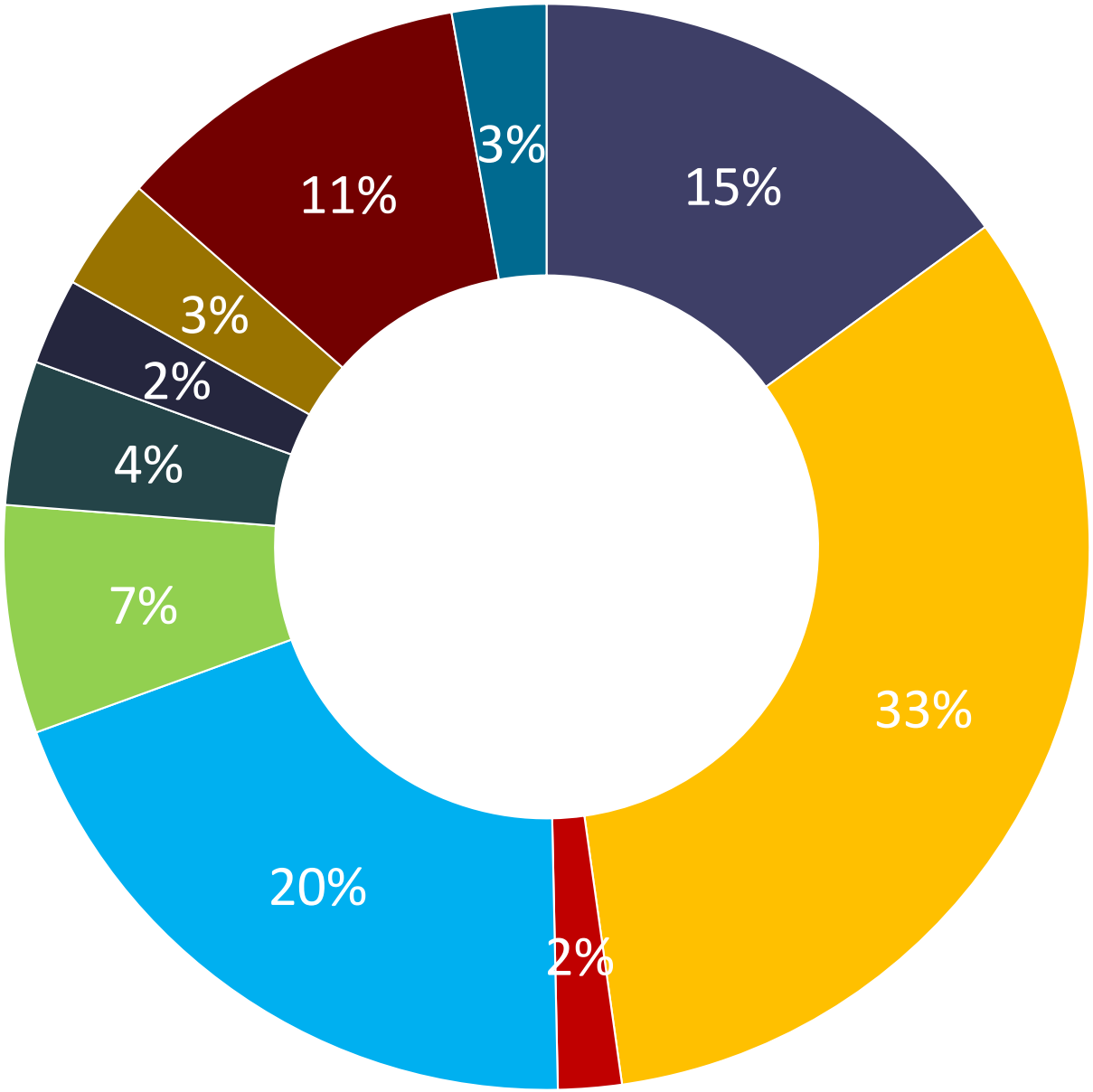
Other Uses?

- Creating state-level market baskets
- Has the potential to calculate cost weights for future consumer price indexes.
- Can be used to evaluate more local state-level decisions



California, 2017

- Food
- Housing
- Apparel and services
- Transportation
- Healthcare
- Entertainment
- Education
- Cash contributions
- Personal insurance and pensions
- All other expenditures



Texas, 2017

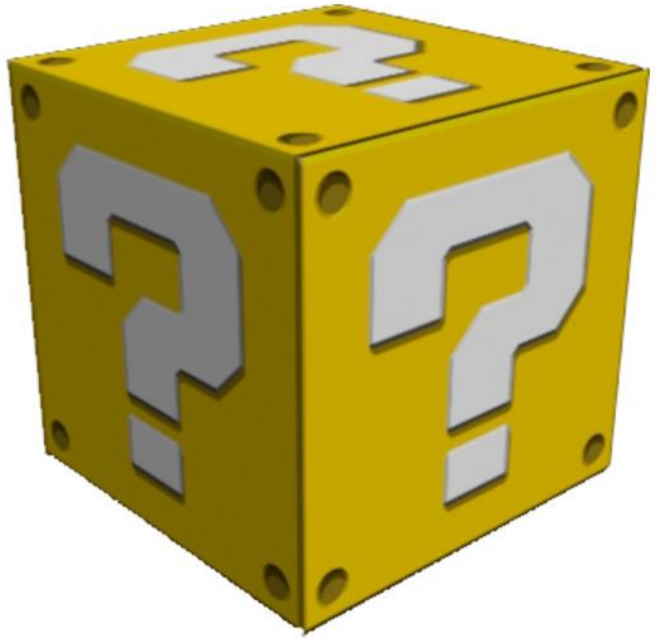
- Food
- Housing
- Apparel and services
- Transportation
- Healthcare
- Entertainment
- Education
- Cash contributions
- Personal insurance and pensions
- All other expenditures

Shares of Total Expenditure, by Major CPI Item Categories
2017 data, Texas

	Texas Shares	National Shares	Absolute Difference
Food and Beverages	0.15	0.13	0.02
Housing	0.33	0.33	0.00
Apparel	0.02	0.03	0.01
Transportation	0.20	0.16	0.04
Medical Care	0.07	0.08	0.01
Recreation	0.04	0.05	0.01
Education	0.03	0.02	0.01
Other Goods and Services	0.16	0.20	0.04

What's next?

- Every state is being evaluated for its potential to generate a weight.
- The following concerns are evaluated:
  - Sample size
  - Confidentiality
  - Long term retention in the survey



Interested?

- https://www.bls.gov/cex/csxresearchtables.htm#stateweights
  - Documentation
    - How the weights are created
    - How to utilize State Weights with PUMD
  - State weight files
  - Sample code

Contact Information

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