Expenditure Patterns of Low and High Income Groups by State: California, Florida, New Jersey, New York, and Texas
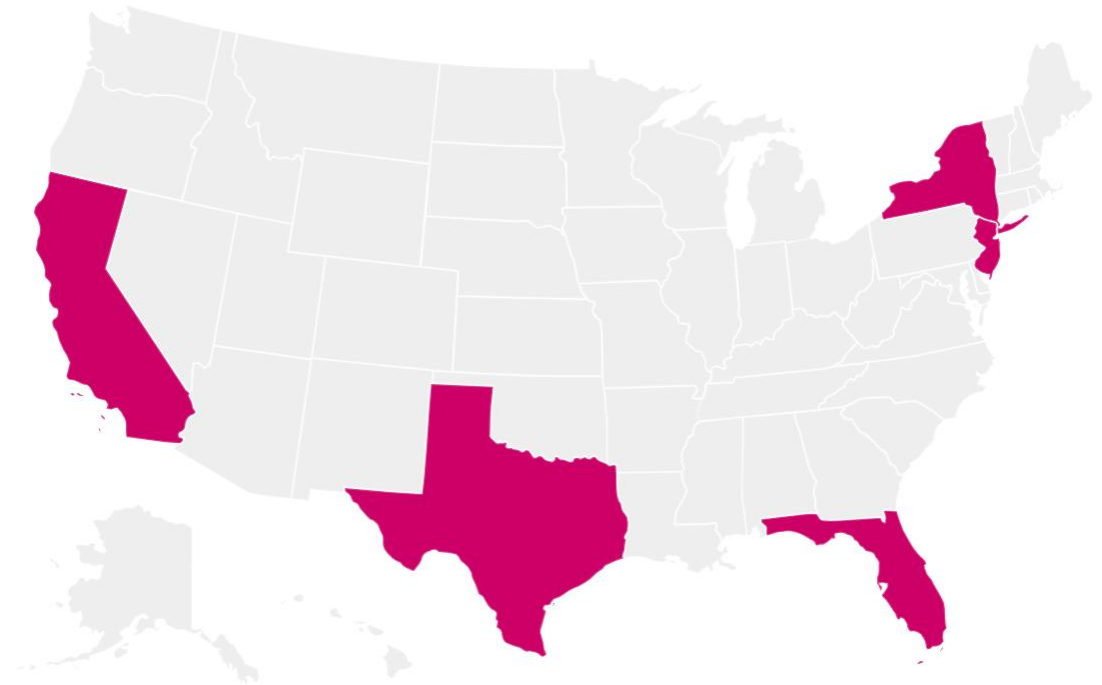
Grayson Armstrong
Economist
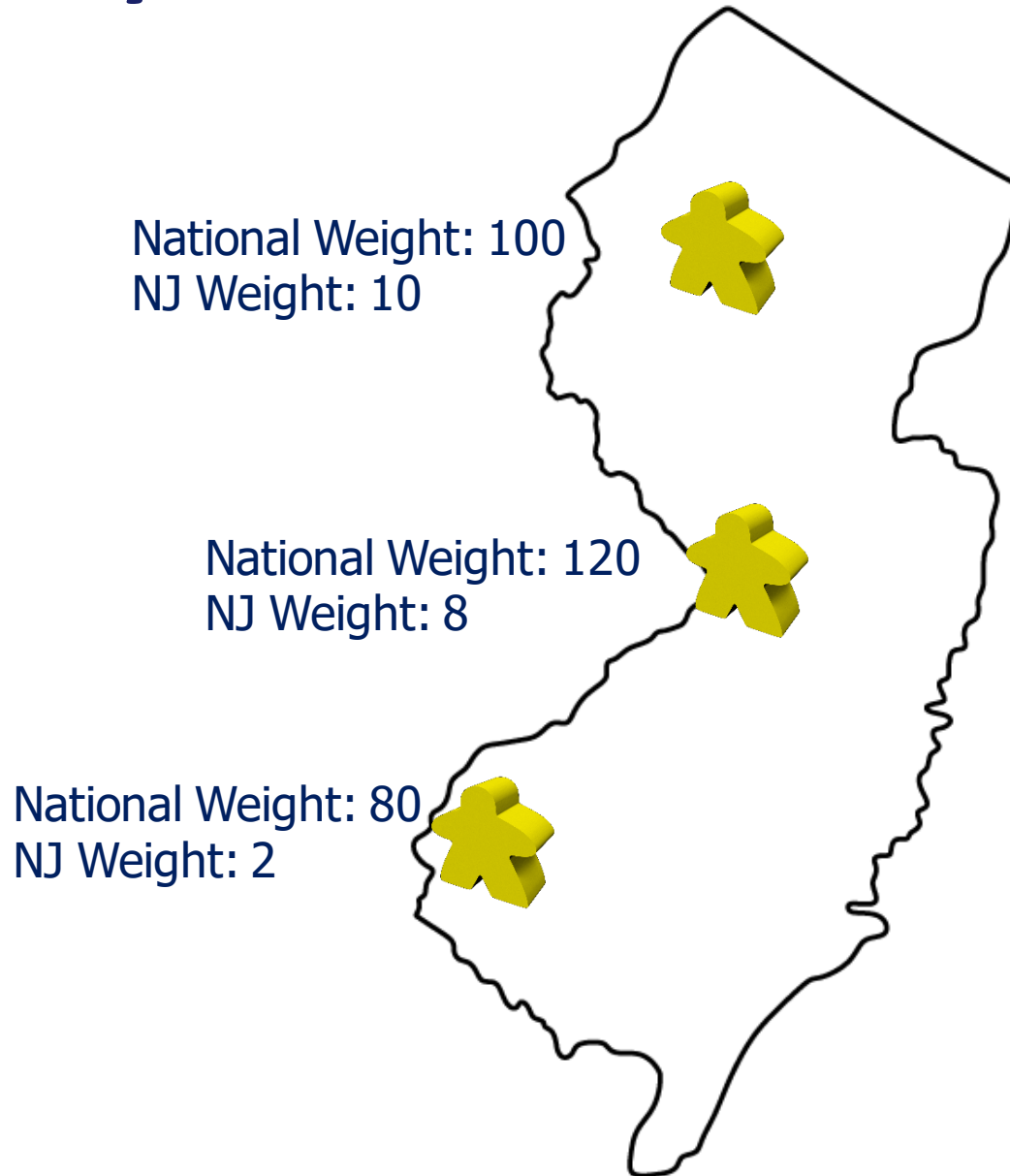Division of Consumer Expenditure Surveys
Eastern Economic Association

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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.

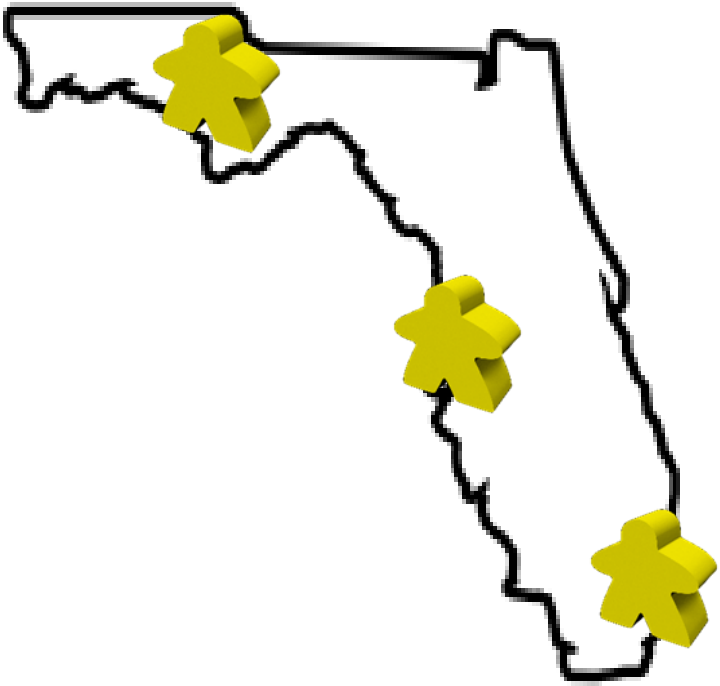- Two additional states (**NY** and **TX**) were added in 2019.

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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.

National Weight: 100
NJ Weight: 10

National Weight: 120
NJ Weight: 8

National Weight: 80
NJ Weight: 2

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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 people per CU with the weight.
2.4 people per CU

3. Multiply and compare to Census value.
8.5 * 2.4 = 20.4 million people

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.
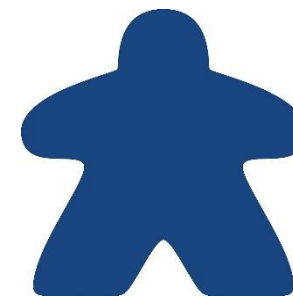
■ Government
  ▶ The New Jersey weights were utilized by the New Jersey State Government.

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

Using the weights

- By taking national data and applying a state's weight we can create data estimates that are representative of CUs within that state

- Here we've taken all 5 state weights and applied them to data from 2017 - 2018 and aggregated into 10 expenditure categories
  - ▶ Food, Housing, Apparel and services, Transportation, Healthcare, Entertainment, Education, Cash contributions, Personal insurance, All other expenses.

- We then further evaluated the data by examining the differences between income quintiles, focusing mainly on the lowest 20% and highest 20% of incomes

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Trends across States

■ In all 5 states the lowest income group allocates a greater proportion of expenditures to necessary items (food and housing) than the highest income groups

■ The highest income groups spend more on personal insurance and pensions than the lower income groups

  ▶ California's top quintile has the highest share at 17%, where New York, New Jersey, and Texas all have 15% at the low end

  ▶ Comparatively California's lowest quintile only allocates 3% of expenditures on personal insurance, with New York having the lowest at only 1%

The Necessity Gap

- Across all 5 states and nationally there is a gap in necessity (food + housing) expenditures between income quintiles
  - New York's lowest group has the largest share at 65% of all expenditures, while low-income Texans have the lowest at 56%
  - New York's top quintile has a necessity expenditure share of 44%, while Texas has 42%
- Nationally this gap is 15%, New York and California have the highest gaps at 20% and 17%
- Texas has a 14% gap, while New Jersey and Florida both have the lowest at only 13%

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State vs National Trends

- Almost all the patterns displayed by the states also appear at the national level

- Nationally, necessities make up 57% of expenditures for the lowest income group, close to most states besides California and New York at 61% and 65% respectively.

- Conversely, the personal insurance spending share for the highest group is 16% nationally, nearly the same as all 5 states

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Conclusion

- The state weights can be used to produce estimates of average annual expenditures and shares for selected states. Those examined here are close, but not identical to, national estimates

- The weights can be used to better aggregate and account for geographical patterns in spending where possible

- Our example shows clear patterns by income level that appear across state data as well as at the national level

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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

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