2023 CE Microdata Users' Workshop

Development of FINLWT21 and Related Variables

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Wednesday, July 19, 2023

The Function of Weights

- Unweighted averages will describe the respondents to our survey

- Weighted averages will describe the entire country

Overview

- Selecting a Sample of Households
- Calculation of Weights
  - Base Weight
  - Adjustment Factors
  - FINLWT21
- Conclusion

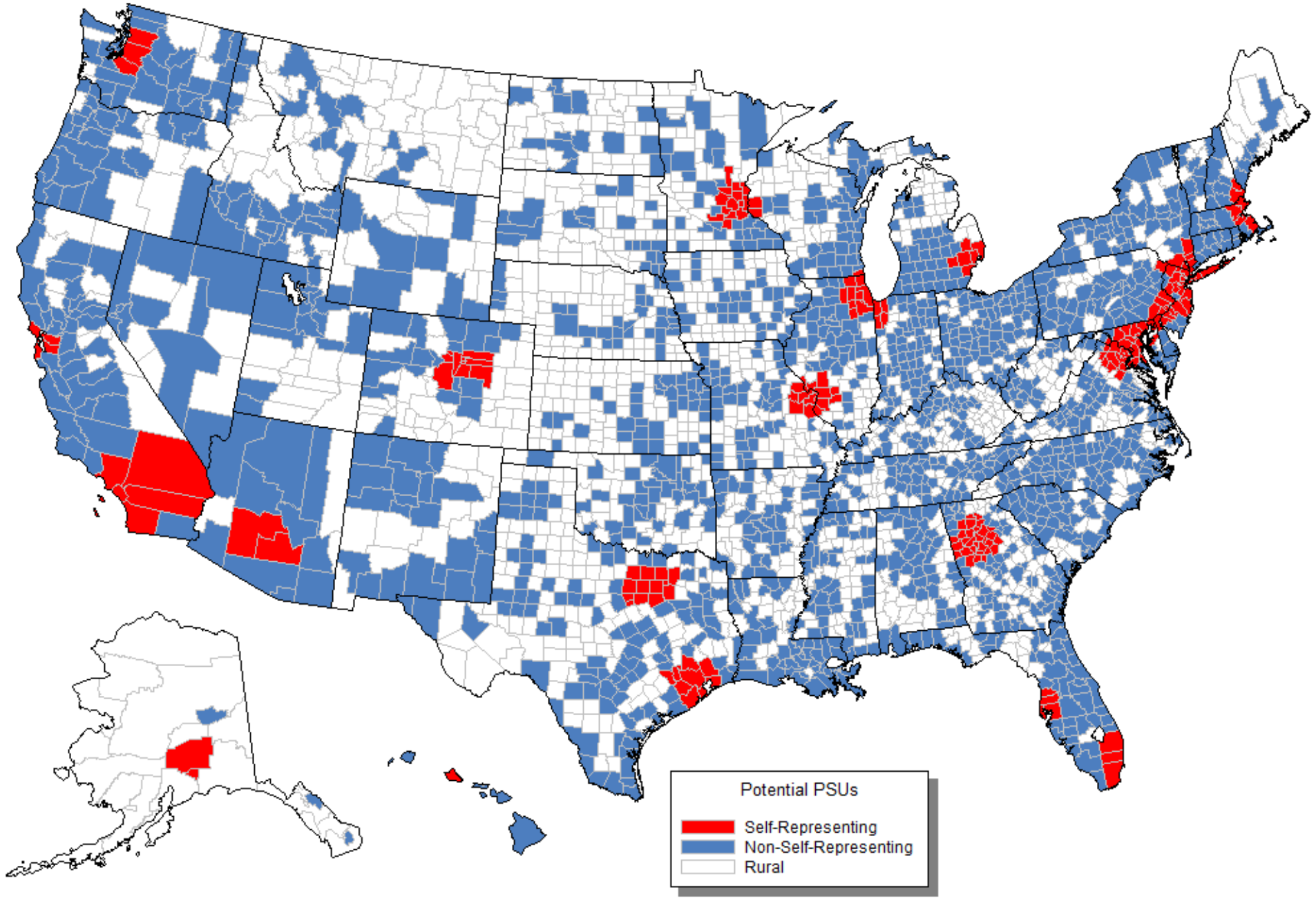
Selecting a Sample of Households

- We don’t have enough resources to visit every household in America
- Therefore, we must select a stratified random sample of households

Selecting a Sample of Households: Our Two-Stage Sample Design

- Geographic areas are randomly selected to represent the total U.S.
- Households are randomly selected to represent the geographic areas
- Guiding principle:

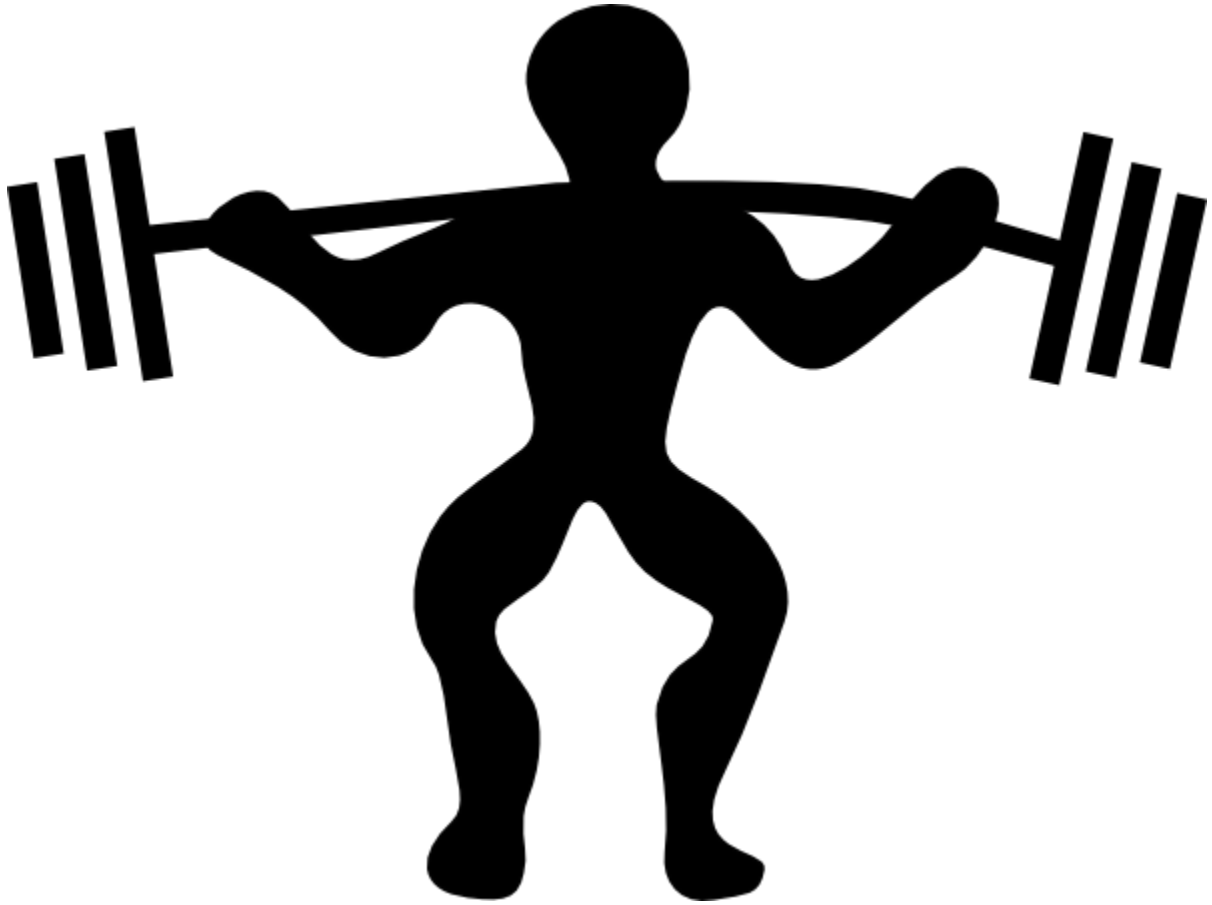
  "***Randomness ensures representativeness.***"


Potential PSUs
Self-Representing
Non-Self-Representing
Rural

Selecting a Random Sample of Households

- Sort households from poor to rich based on information from Decennial Census and ACS
- Compute the sampling interval for each PSU
  - Sampling interval = (# addresses in sampling frame) ÷ (# addresses in CE sample)
- Typical sampling intervals:
  - Every 1,000th address (N and R PSUs)
  - Every 5,000th address (S PSUs)

Calculation of Weights



The Function of Weights

- Unweighted averages will describe the respondents to our survey

- Weighted averages will describe the entire country

Base Weight

- Initial representation of how many households each CU in our survey represents
- The same across each PSU in survey
- ~10,000
  - So each household in the survey initially represents itself and 9,999 other households not selected for the survey

Calculation of Weights: Calculating the Base Weight

(using hypothetical values)

- Stratum population 3,000,000
- PSU Population 600,000
  - Census Bureau shows 230,000 housing units
  - 115 addresses allocated for each survey
  - "Take Every" = 230,000 / 115 ≈ 2,000
- PSU Weight = 3,000,000 / 600,000 = 5.000
- Base Weight = "Take Every" * PSU Weight

  ≈ 2,000 * 5.000 = 10,000

Adjustment Factors

- Non-interview Adjustment Factor
  - Adjusts for Type A non-interviews
  - About 2.30
  - Gradually increasing over time

- Calibration Adjustment Factor
  - Adjusts sample estimate to CPS Totals
  - About 1.10 for Interview Survey
  - About 2.20 for Diary Survey

Calculation of Weights: Calculating the Final Weight

- Variable FINLWT21

- = Base Weight
  - x Non-Interview Adjustment Factor
  - x Calibration Adjustment Factor

- 25-30,000 on average for Interview Survey

- 45-50,000 on average for Diary Survey

Conclusion

- Weighted calculations describe the entire country
  - (not just our respondents)
- Sample Selection and Weighting work together to produce:
  - unbiased estimates of U.S. Expenditures
  - subject to allotted CE budget

Contact Information

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