

# The Pros and Cons of Consumption- and Income-based Measures of Economic Well-being

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Starting at 12.30 PM

**ESCoE ECONOMIC MEASUREMENT WEBINARS**

# Overview

- I. Consider the strengths and weaknesses of income and consumption as measures of economic well-being
  - Conceptual issues
  - Measurement issues
- II. Examine how these measures inform our understanding of changes in economic well-being over time
  - Poverty
  - Inequality
- III. Note some directions of future research

# Notes/Caveats

- I will draw on several papers
- There are many other ways to measure economic well-being
- My comments will be very US focused, but are relevant elsewhere

# Consumption vs Income, conceptually

- Conceptual issues favor consumption, Meyer and Sullivan (2003, 2011, 2022)
  - Permanent income
  - Consumption of durables
  - Public and private insurance
  - Access to credit
  - Changes in asset prices
- Some have noted conceptual advantages of income
  - Individuals can choose to have low consumption, while income reflects access to resources (Atkinson, 1991)
  - Bequests

# Consumption vs Income, data quality

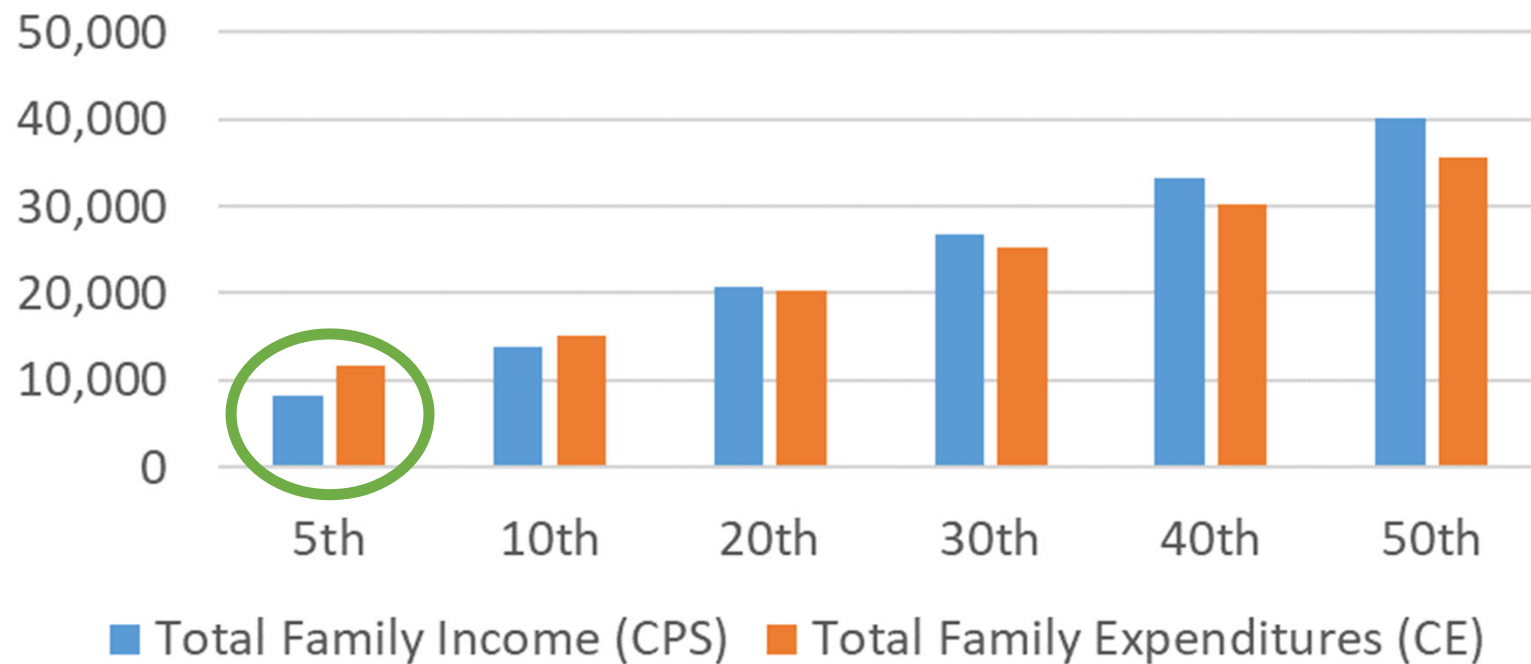
## 3 myths about consumption data

- I. Income is more accurately captured in surveys than consumption
- II. Consumption is measured poorly
- III. Diary surveys do a better job of capturing consumption than recall surveys

# Myth #1: Income is more accurately captured than consumption

- At the bottom
  - Low percentiles of expenditures greatly exceed low percentiles of income

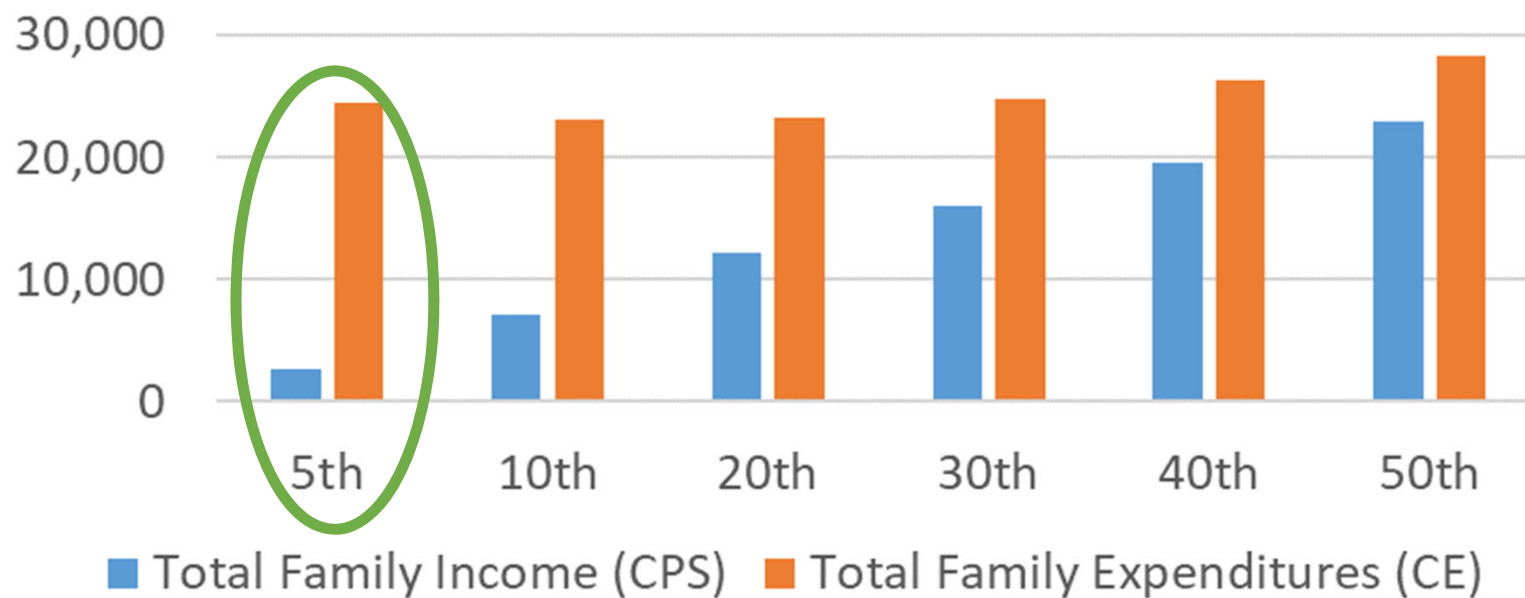
## Percentiles of Income and Expenditures, CPS and CE Survey, 1993-2003



Source: Meyer and Sullivan (2011)



# Mean Income and Expenditures below Given Percentile of Income, CPS and CE Survey, 1993-2003



Source: Meyer and Sullivan (2011)

# Evidence from the UK

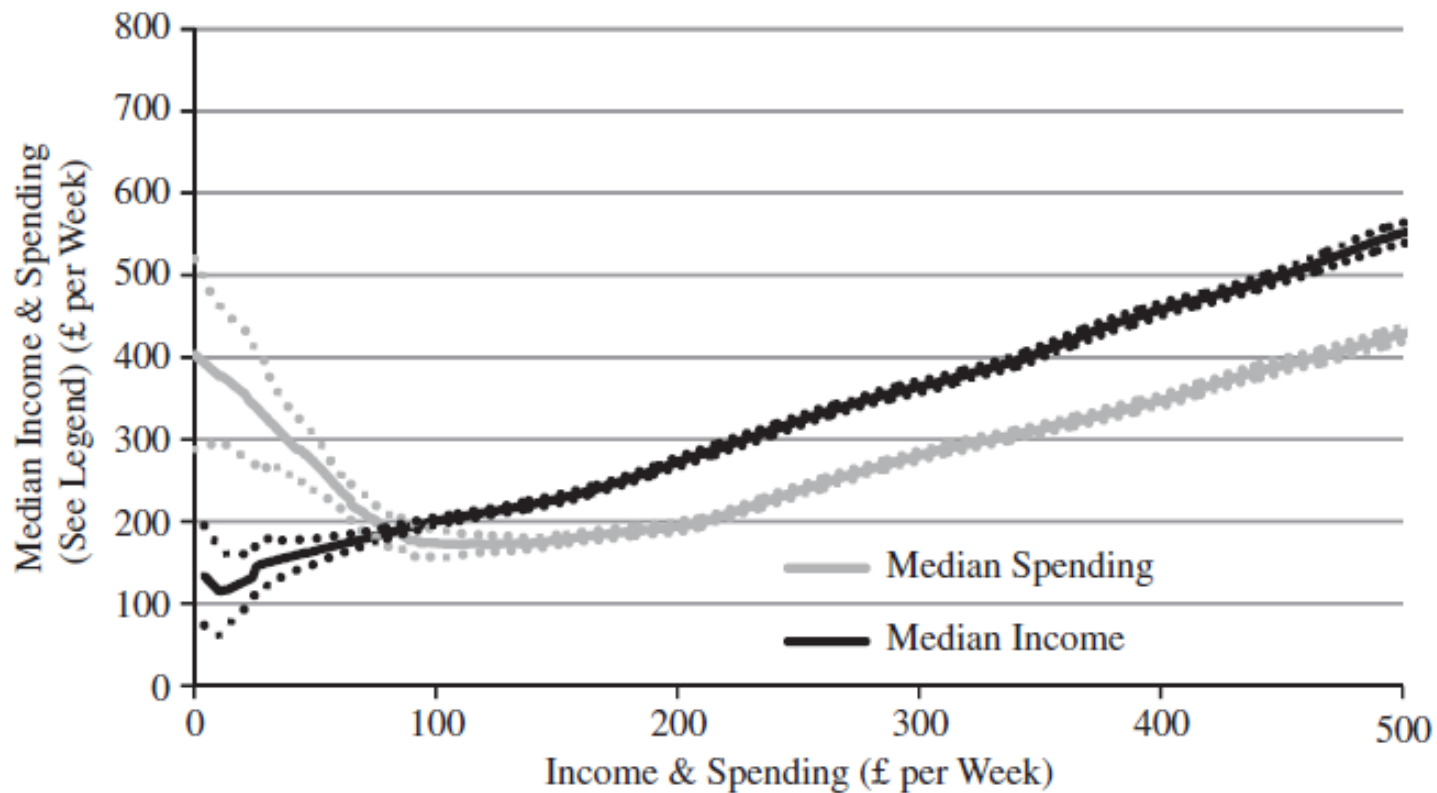


Fig. 1. *Median Expenditure by Income, and Median Income by Expenditure*

Source: Brewer, Etheridge, and O'Dea (2017)

# Myth #1: Income is more accurately captured than consumption

- At the bottom
  - Low percentiles of expenditures greatly exceed low percentiles of income
  - Consumption is more strongly associated with other measures of well-being

Table 3: Means, Official and Consumption Poor by Poverty Status, CE Survey, 2010

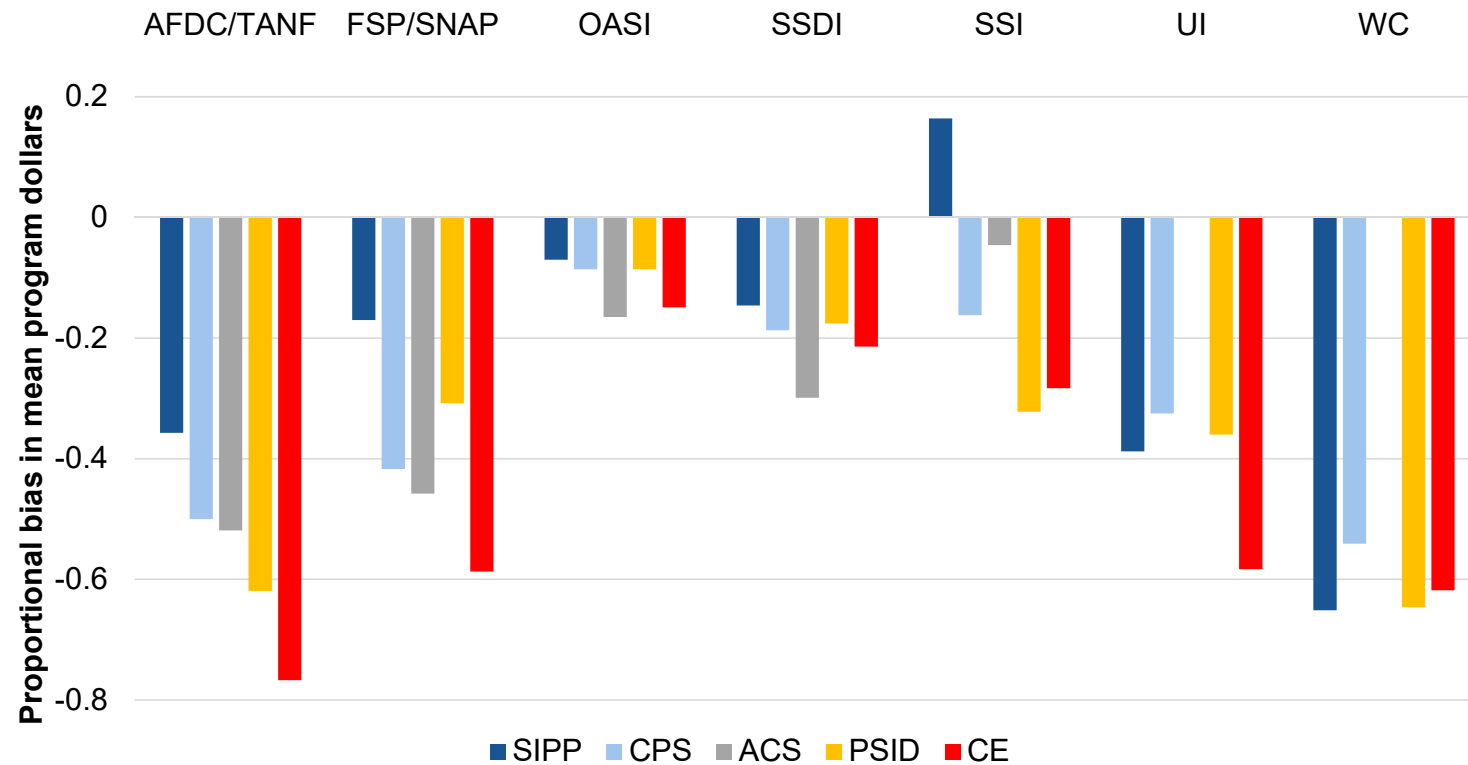
	Consumption Poor Only	Official Poor Only	+ Favors Consumption
Consumption	\$ 18,956	\$ 36,959	
Any health insurance	55%	65%	+
Private health insurance	35%	34%	-
Homeowner	45%	48%	+
Own a car	83%	80%	-
Family size	4.696	3.103	+
# of rooms	5.09	7.04	+
# of Bedrooms	2.58	3.41	+
# of Bathrooms	1.36	1.96	+
Appliances and Amenities			
Dishwasher	40%	50%	+
Any Air Conditioning	73%	77%	+
Central Air Conditioning	48%	53%	+
Washer	77%	75%	-
Dryer	68%	72%	+
Head is a College Graduate	10%	13%	+
Total Financial Assets			
75th Percentile	\$ 800	\$ 700	-
90th Percentile	\$ 3,600	\$ 4,200	+

Source: Meyer and Sullivan (2012)

# Myth #1: Income is more accurately captured than consumption

- At the bottom
  - Low percentiles of expenditures greatly exceed low percentiles of income
  - Consumption is more strongly associated with other measures of well-being
  - Under-reporting of means-tested transfers

# Surveys Understate Income from Government Programs



Source: Meyer, Mok, and Sullivan (2015), by program and survey, 2000-2012

# Myth #1: Income is more accurately captured than consumption

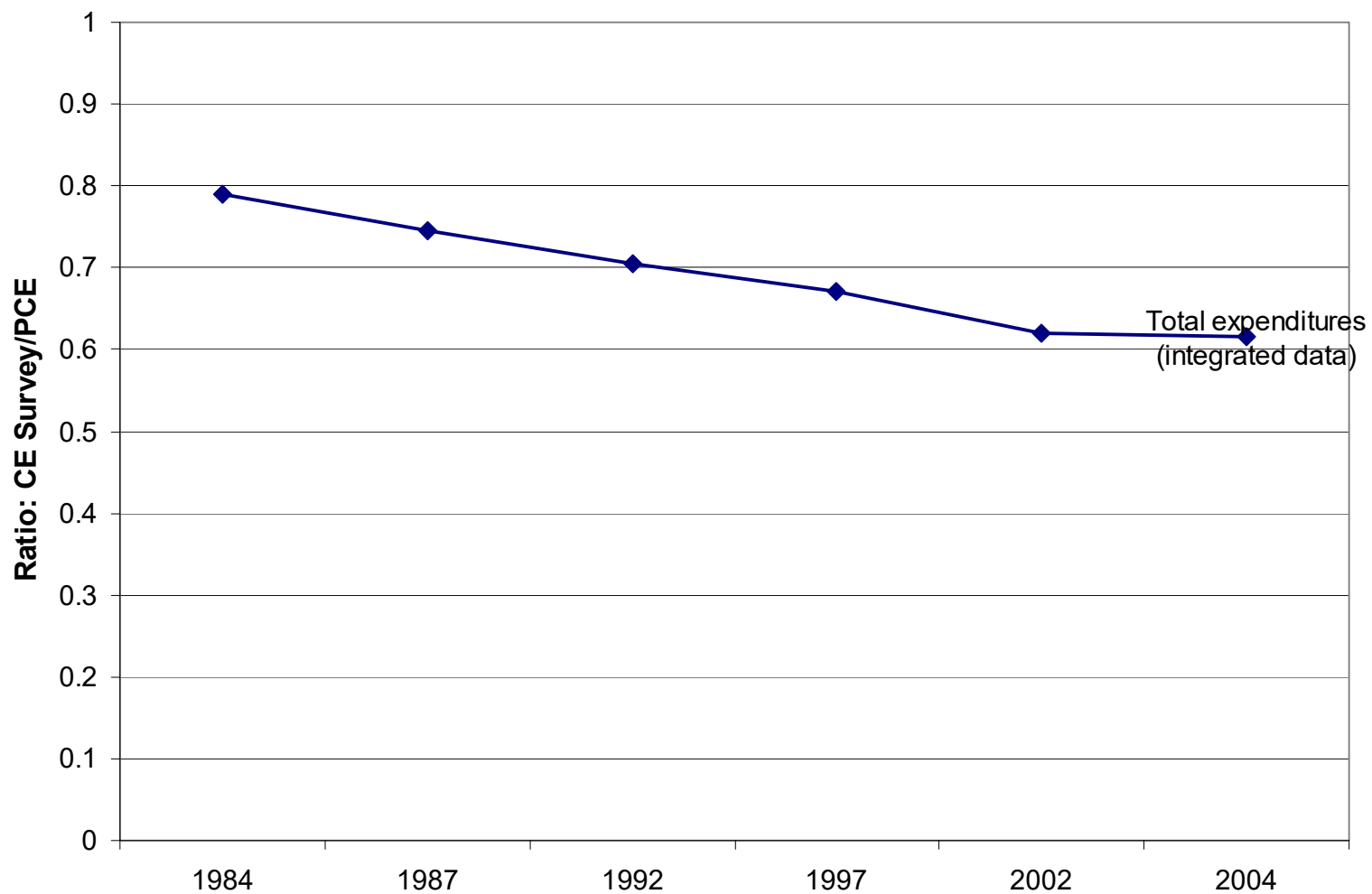
- At the bottom
  - Low percentiles of expenditures greatly exceed low percentiles of income
  - Consumption is more strongly associated with other measures of well-being
  - Under-reporting of means-tested transfers
- At the top
  - Top income areas under-represented in CE Survey, but under-representation is small
  - Small differences in response rates by income from linked CE Survey and tax data, only likely to matter at very highest percentiles

## Myths #2 and 3

- Consumption is measured poorly
- Diary surveys do a better job of capturing consumption than recall surveys



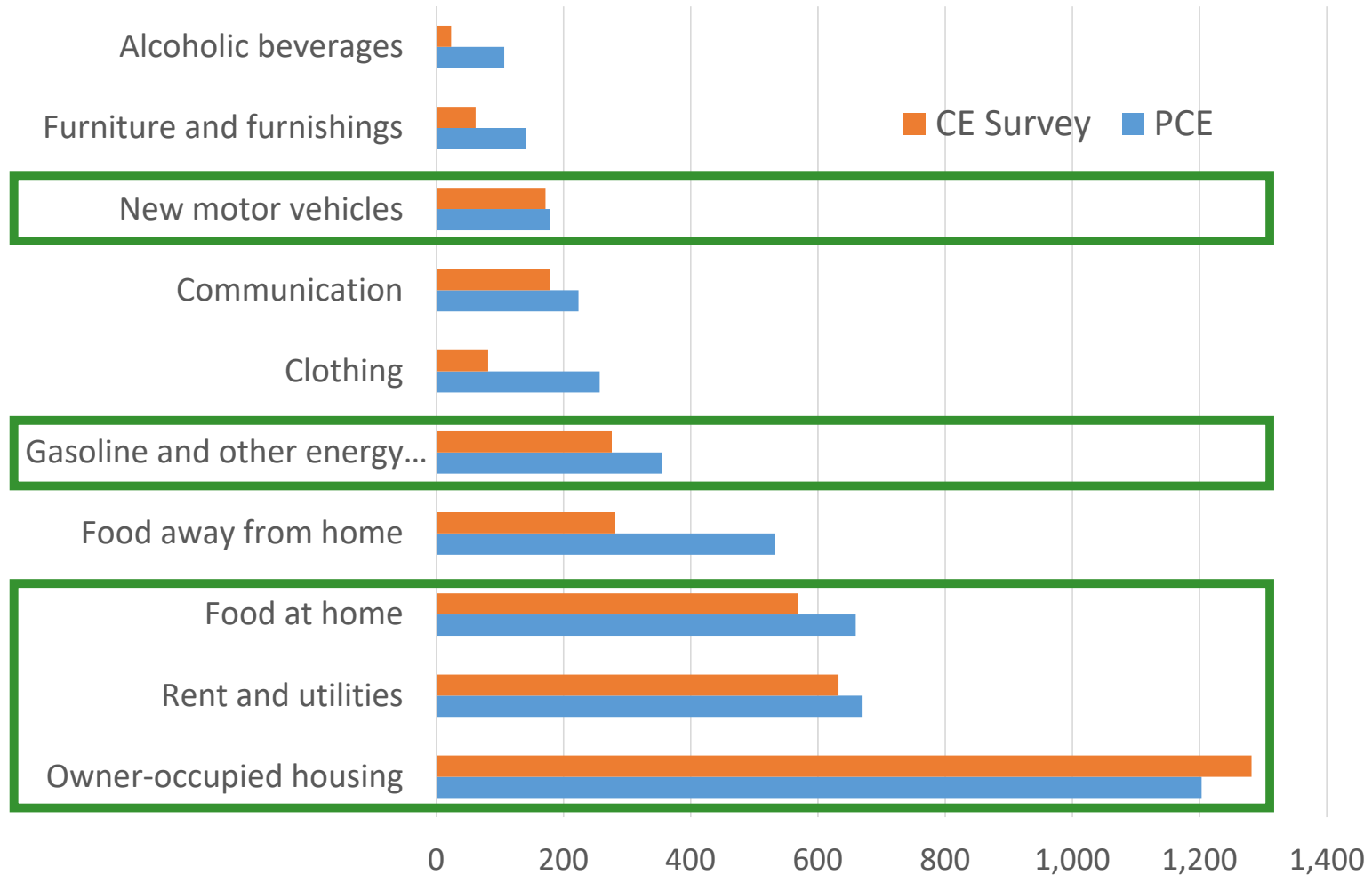
Comparison of CE Expenditure Measures to National Aggregates, 1984-2004



# Apples to Oranges

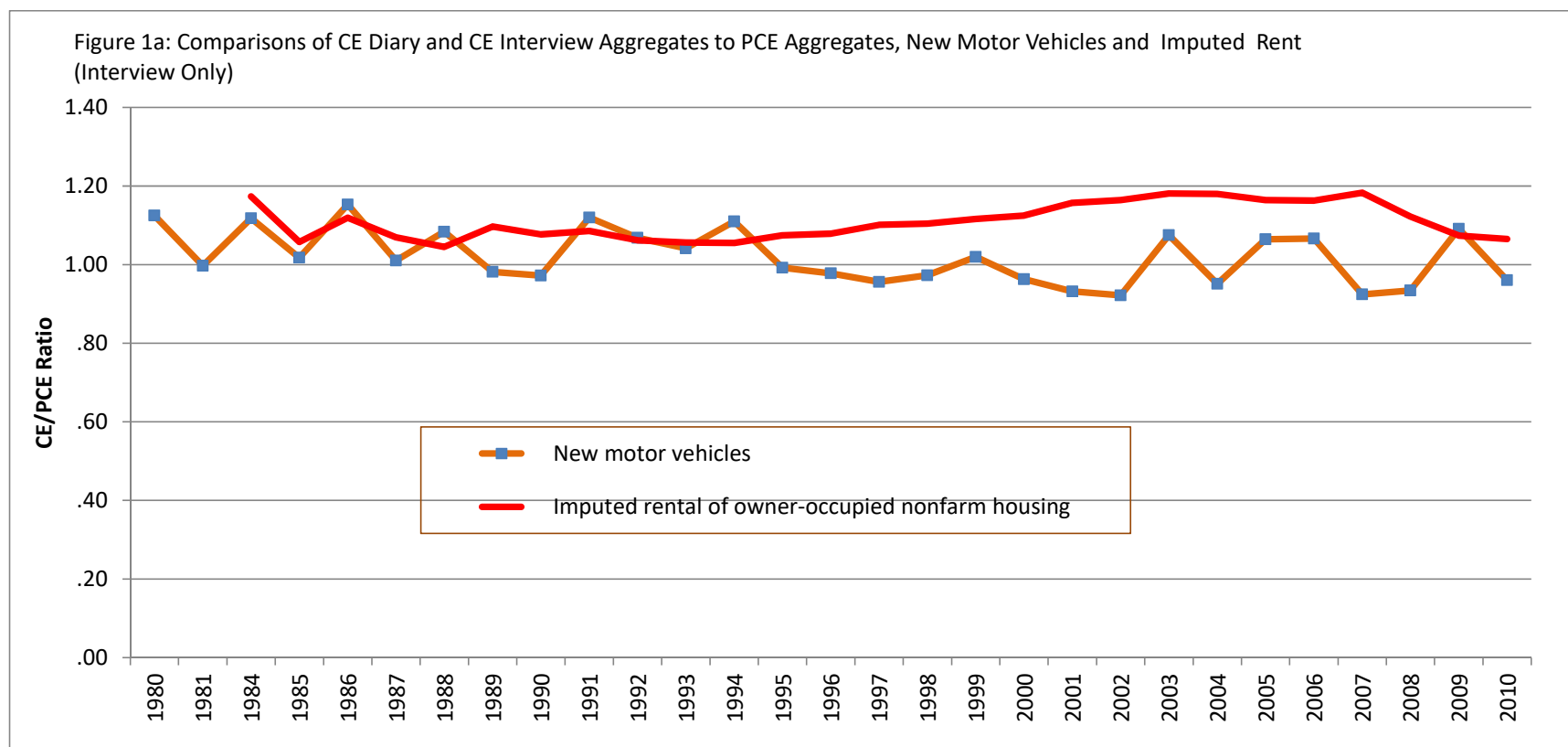
- NIPA and CE Survey are intended to measure different things
- By 2009, nearly 30 percent of NIPA PCE not intended to be captured by CE Survey up from 7 percent in 1959
- NIPA captures all produced in economy that people consume
- CE Survey out of pocket expenditures by households
  - Employer contributions to health insurance
  - Purchases by nonprofits on behalf of households

### CE PCE Comparisons for 10 Large Categories, 2010 [In billions of \$]



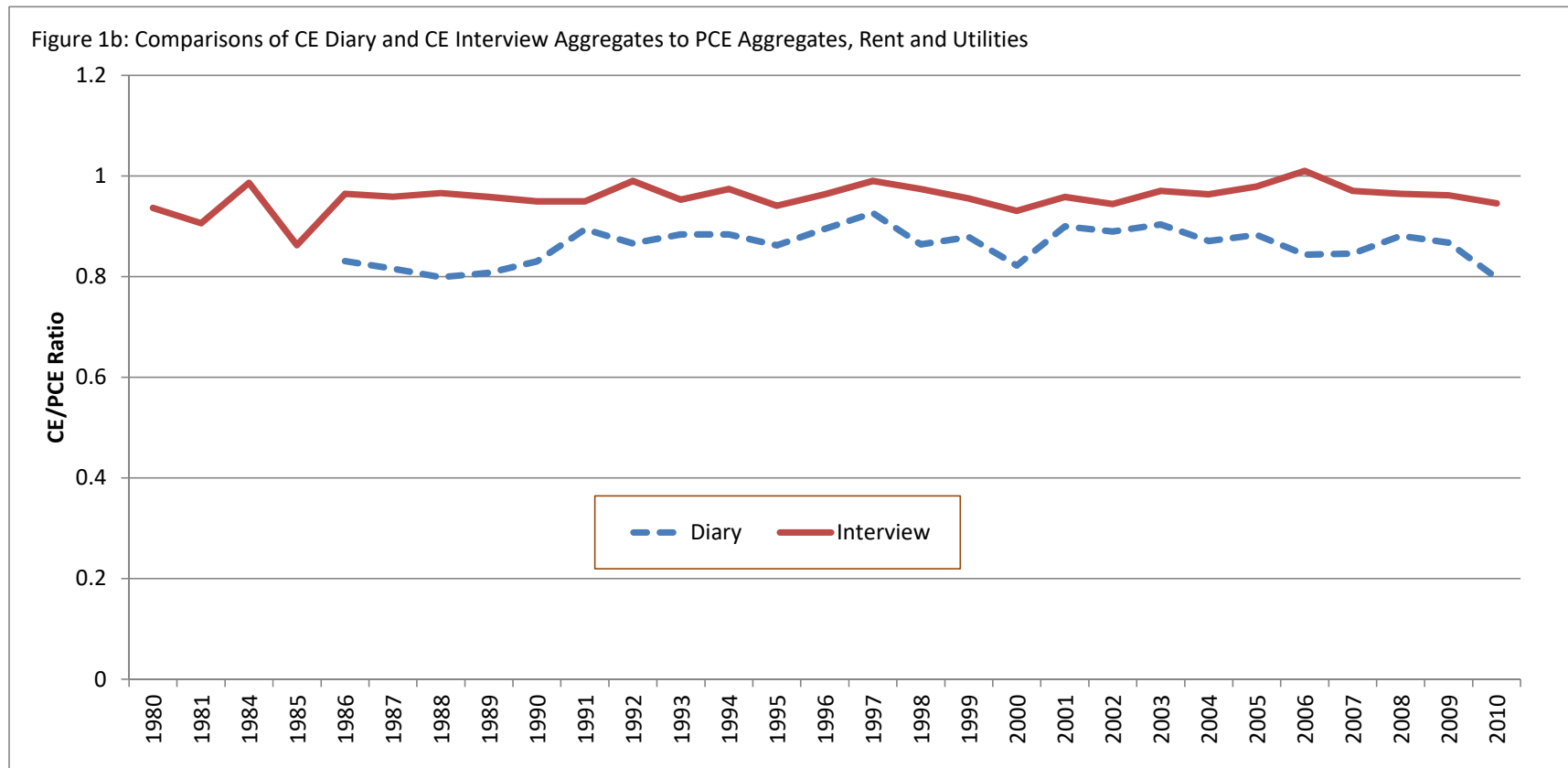
Source: Bee, Meyer, and Sullivan (2015)

# CE PCE Comparisons: cars, homes



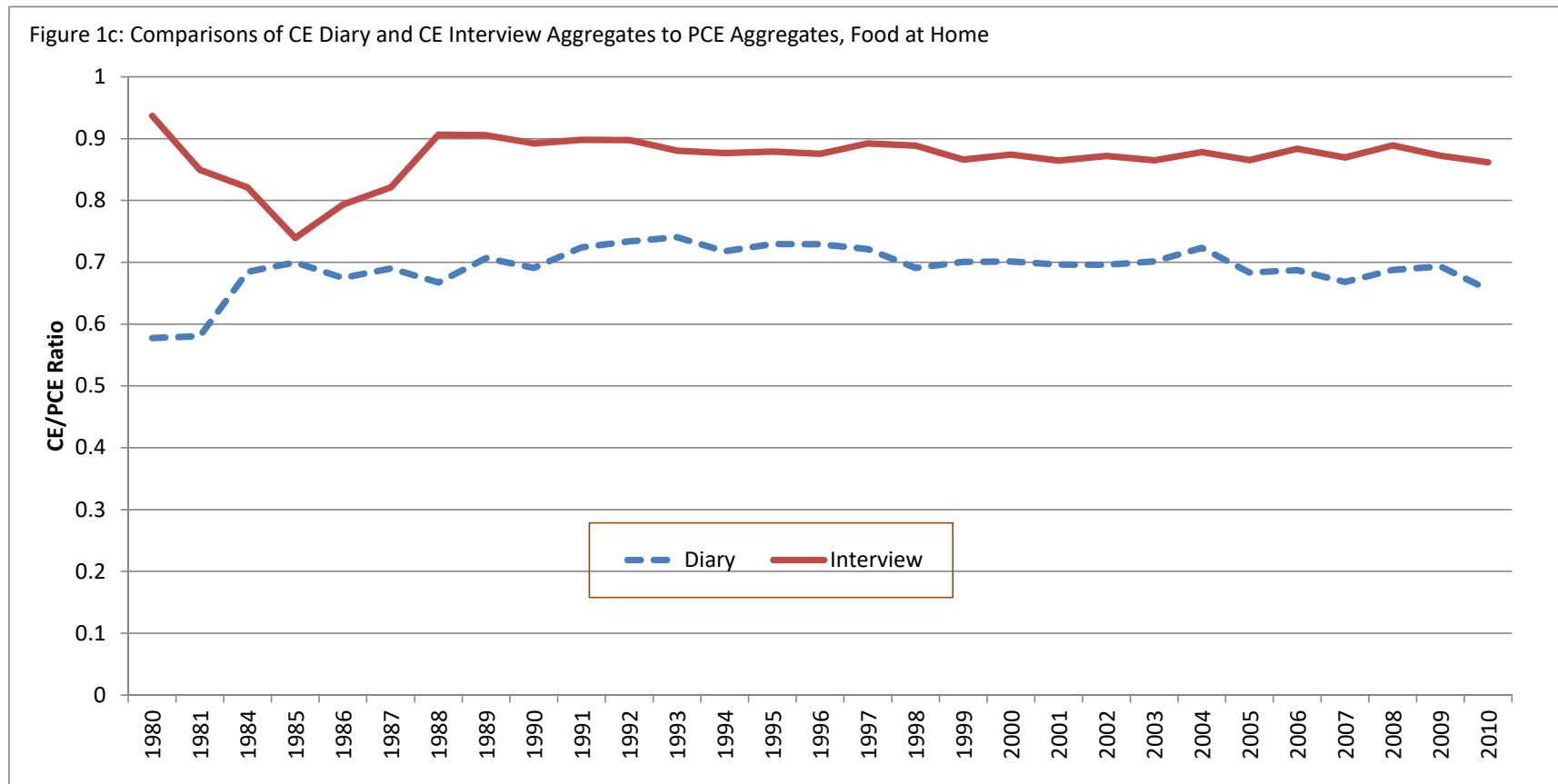
Source: Bee, Meyer, and Sullivan (2015)

# CE PCE Comparisons: rent, utilities



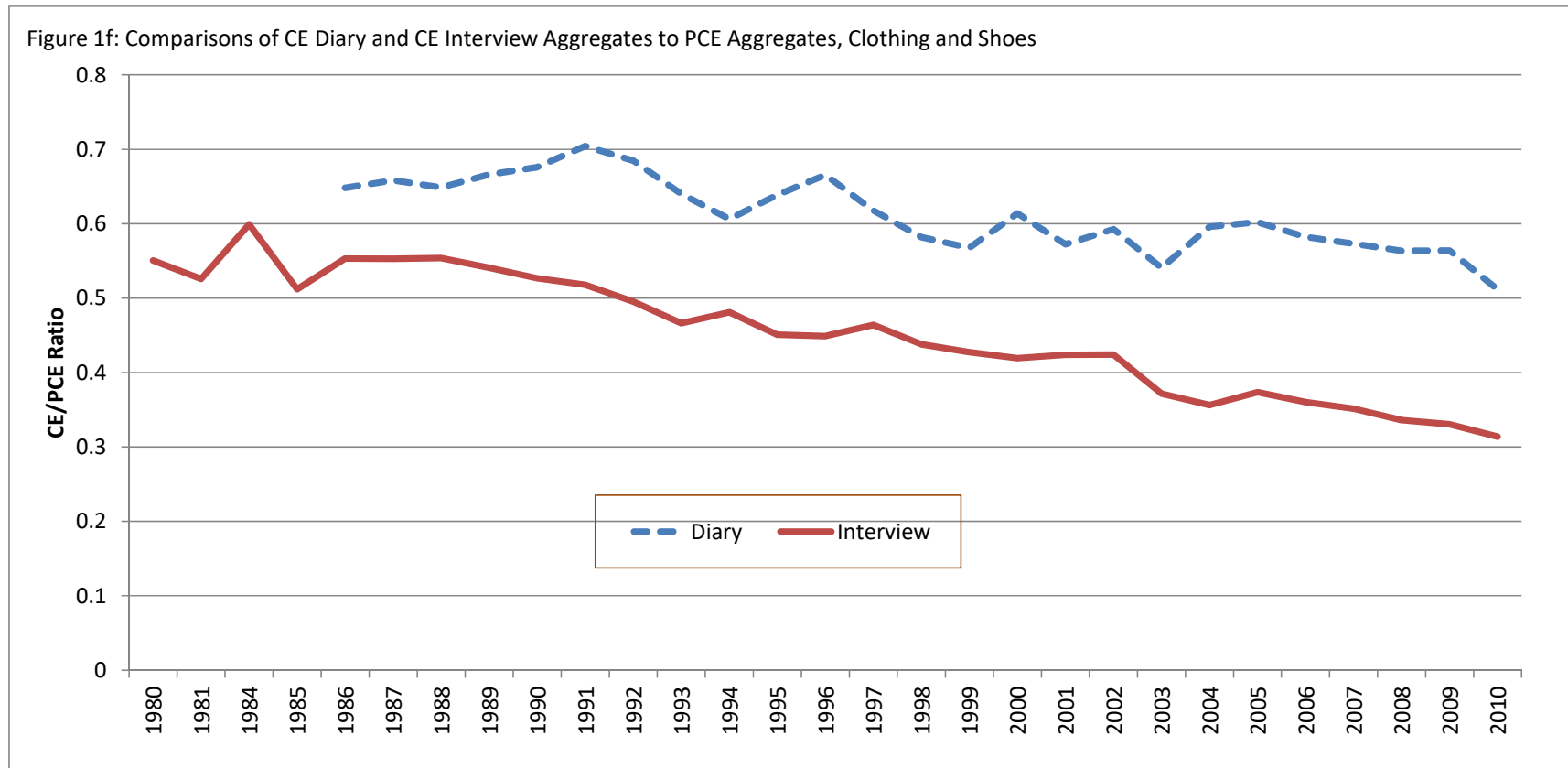
Source: Bee, Meyer, and Sullivan (2015)

# CE PCE Comparisons: food at home



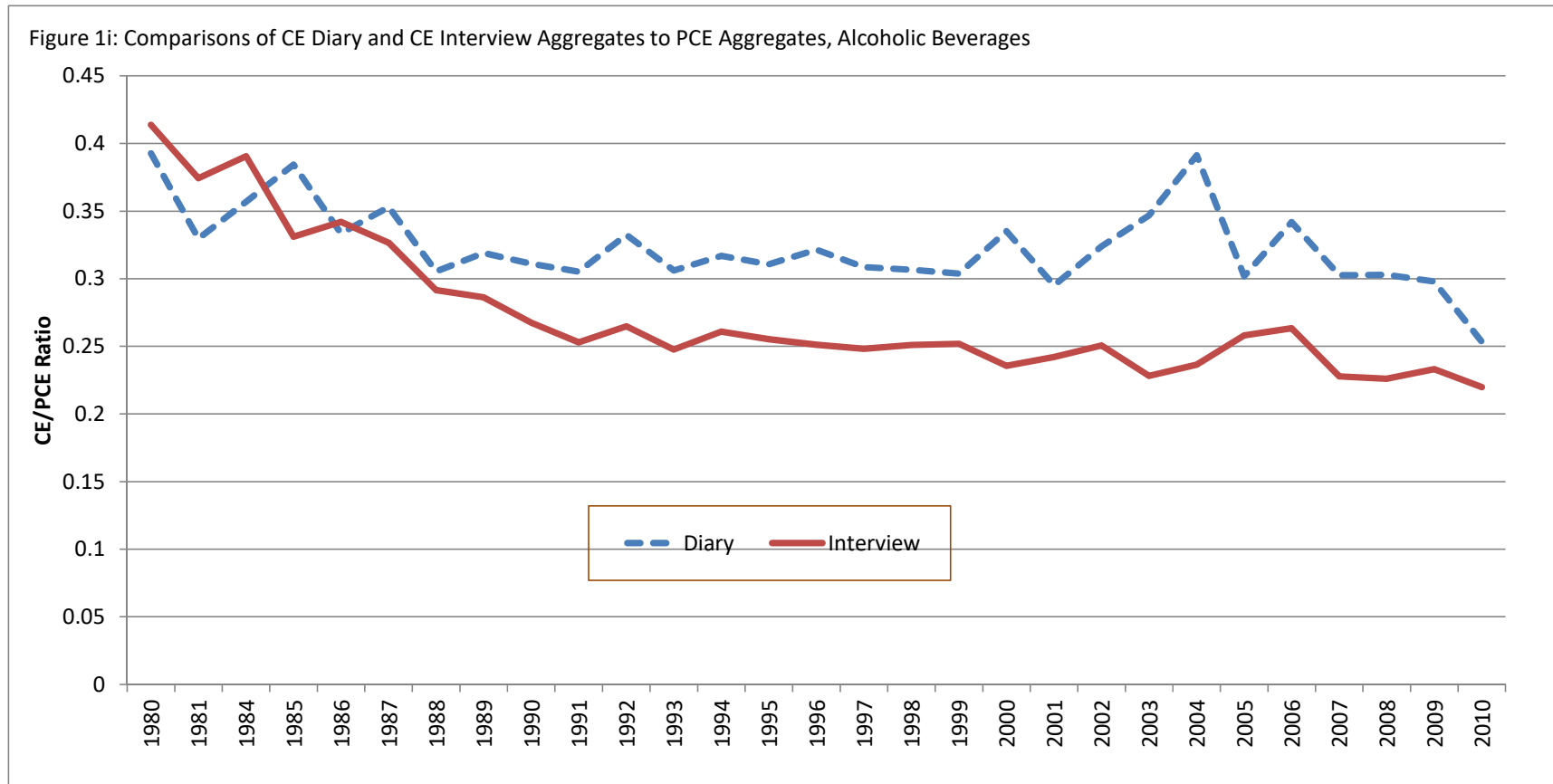
Source: Bee, Meyer, and Sullivan (2015)

# CE PCE Comparisons: clothing



Source: Bee, Meyer, and Sullivan (2015)

# CE PCE Comparisons: Alcohol

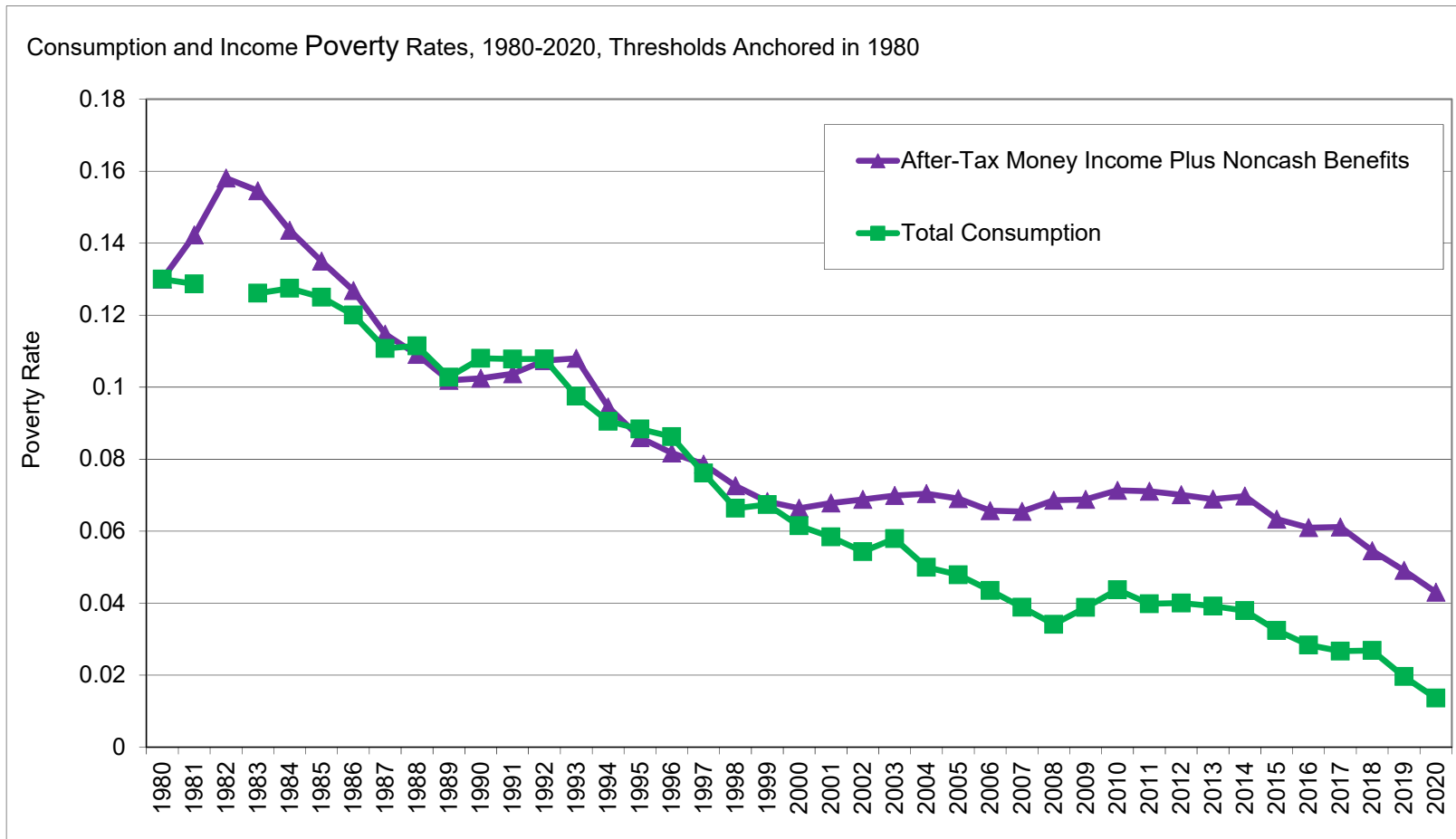


Source: Bee, Meyer, and Sullivan (2015)



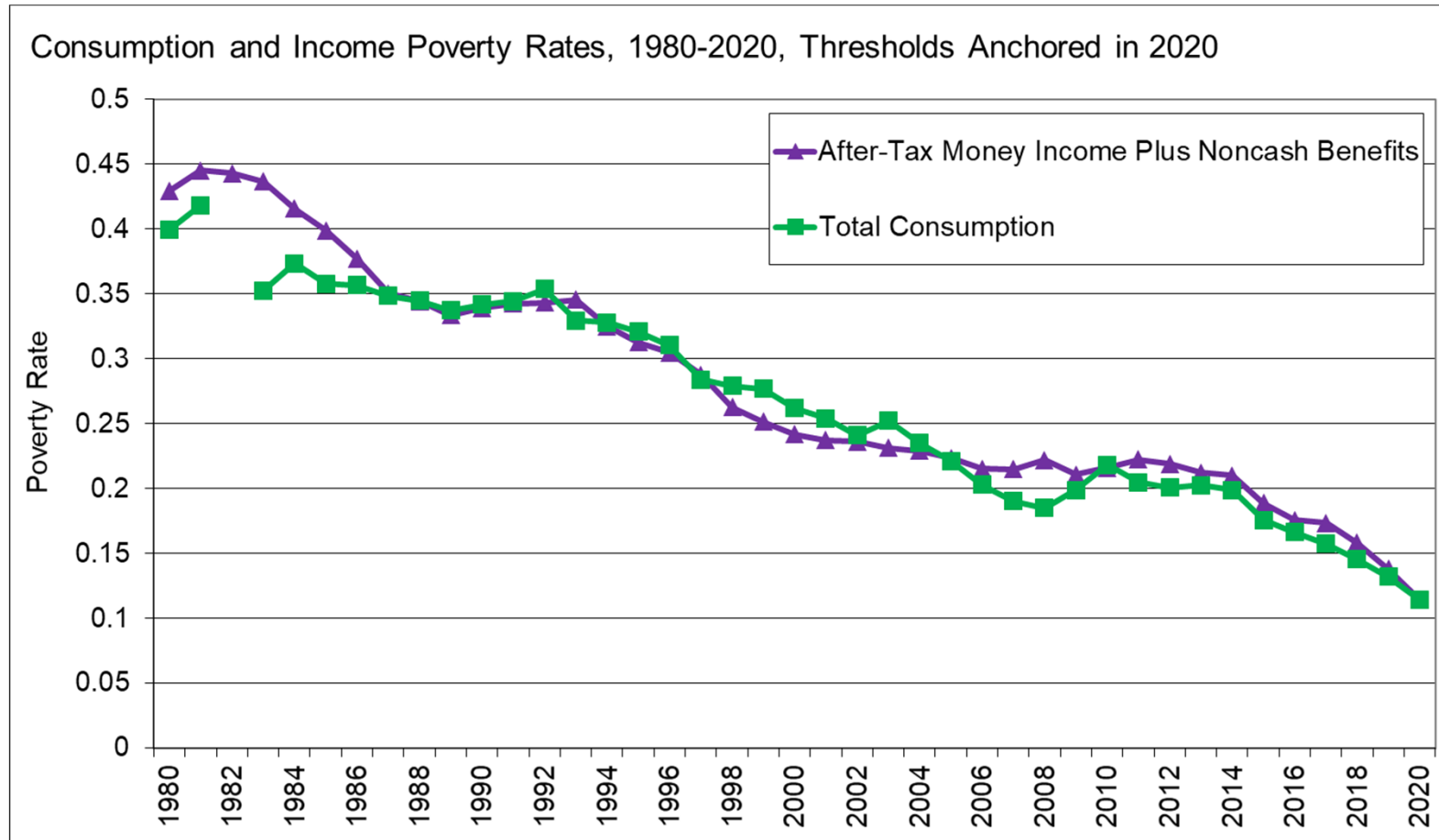
# Consumption vs Income, Trends

# Changes in Income and Consumption Poverty



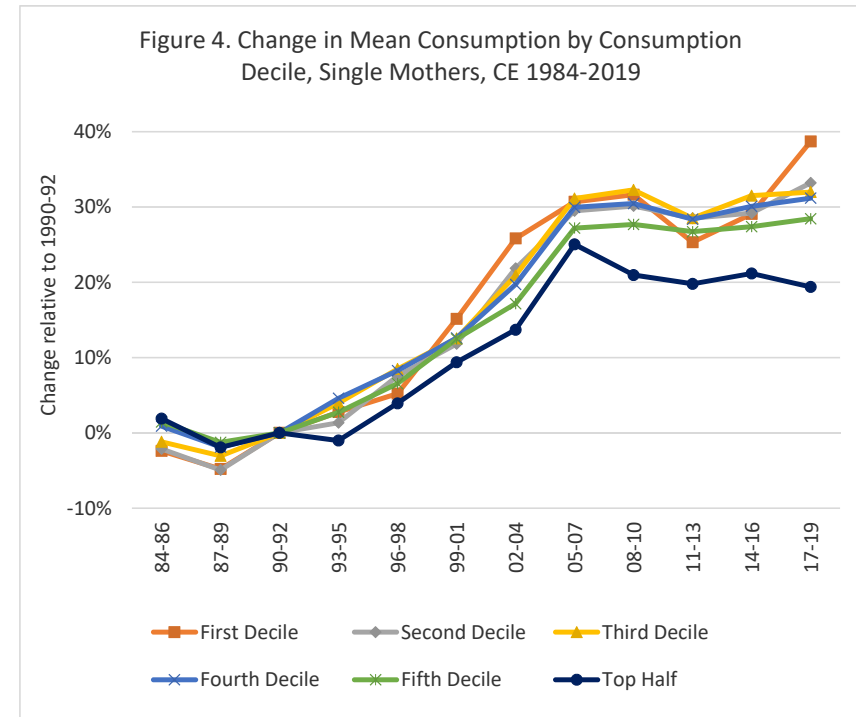
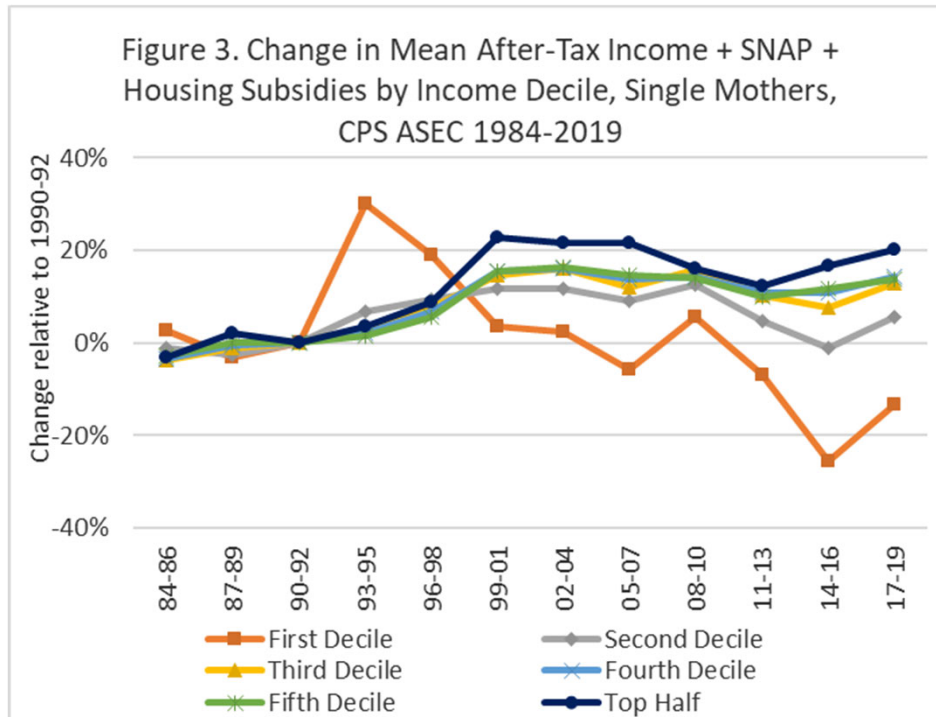
Source: Han, Meyer, and Sullivan (2022)

# Changes in Income and Consumption Poverty



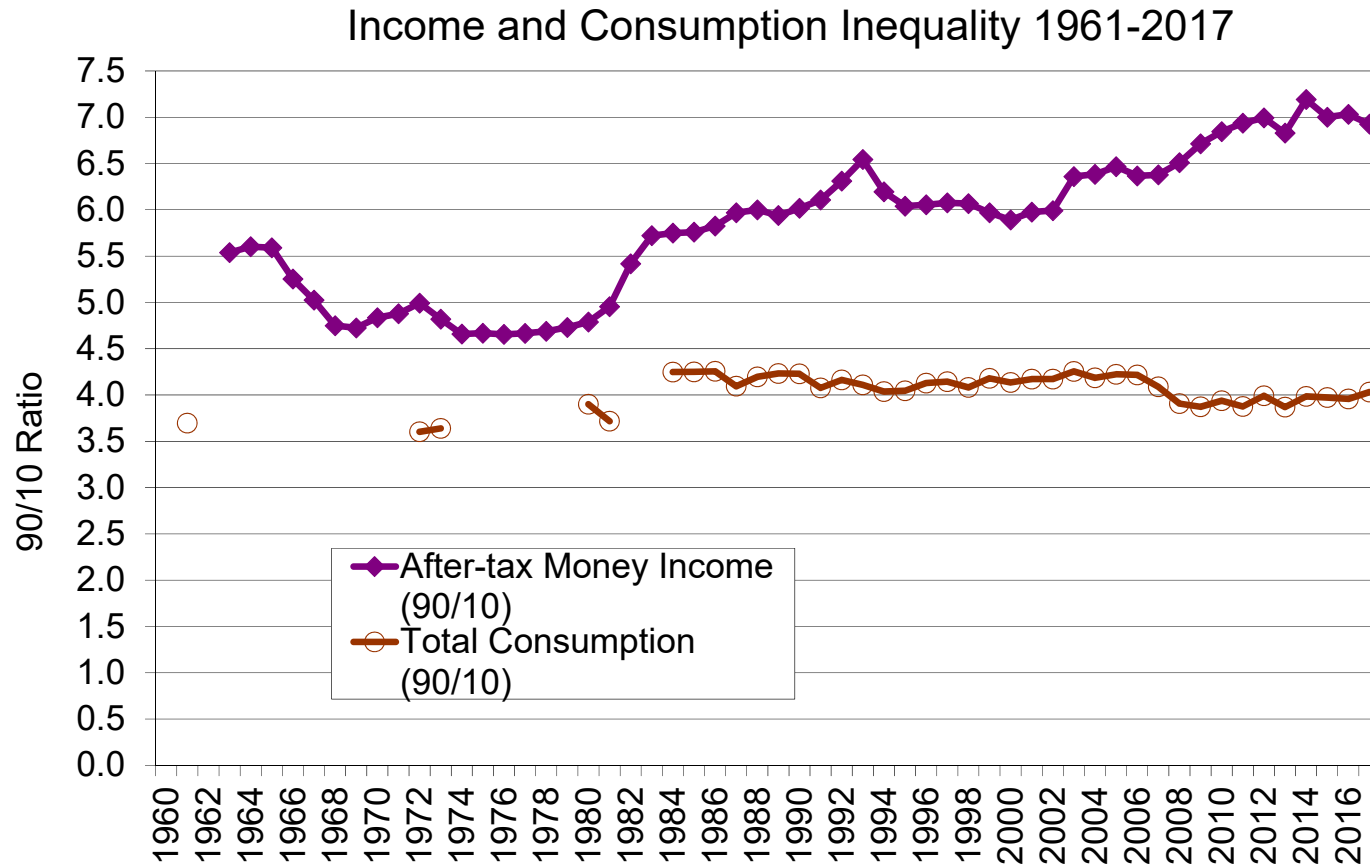
Source: Han, Meyer, and Sullivan (2022)

# Changes in Income and Consumption Percentiles for Single Moms



Han, Meyer, Sullivan (2021)

# Changes in Income and Consumption Inequality

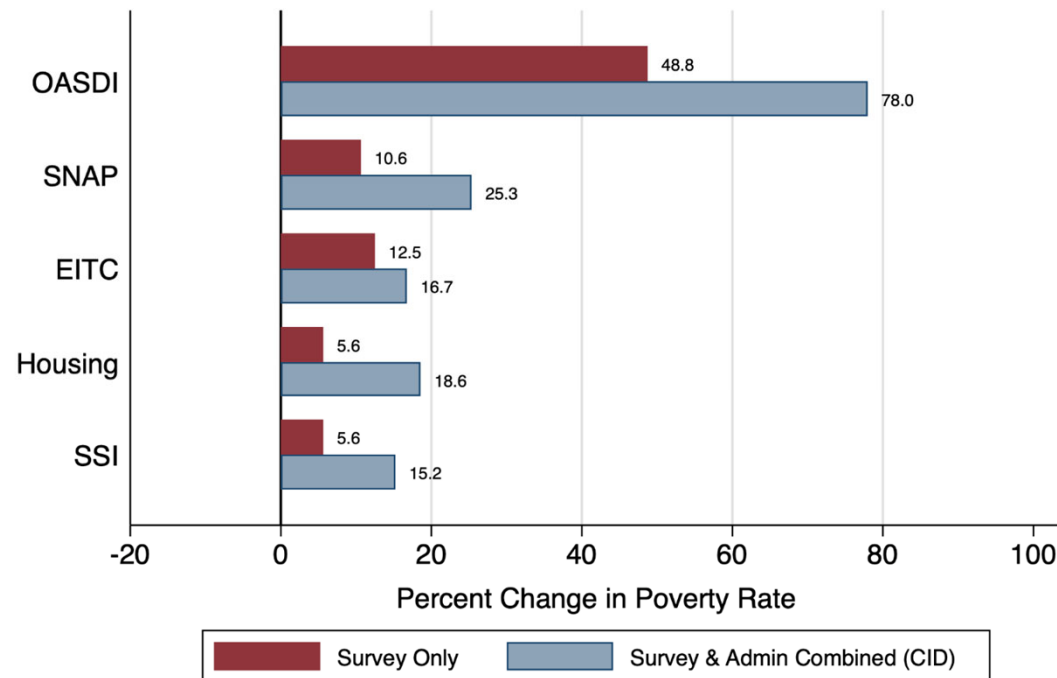


Meyer and Sullivan (2021)

# Directions of future research

- One way to address income mis-reporting is to link major surveys to administrative tax and program data
- Comprehensive Income Dataset
- Some applications
  - Examine the effect of transfer income on poverty after adjusting for under-reporting (Meyer et. al, 2021)
  - Looks at how much of the difference between income and consumption can be explained by unreported income (Meyer et al. 2022)

# Administrative Data Show Poverty Would Be Higher Without Government Programs



Sources: 2011 CPS ASEC, Various Administrative Data, 2011 & 2010 SPM Reports  
Approved for release by the Census Bureau's Disclosure Review Board, authorization number CBDRB-FY20-019  
Geography: 15 States with Administrative SNAP Data (for CID Poverty Measure)  
Note that survey only estimates are based on SPM

# Directions of future research

## Recommendations of the Interagency Technical Working Group on Evaluating Alternative Measures of Poverty

- Adopting both an expanded income- and a consumption-based measure of poverty
- Integrate administrative data with household survey data when appropriate
- Future research areas:
  - Multi-dimensional measures
  - Including those typically not captured in surveys (such as the homeless)
  - Timely updates of poverty



# Conclusions

- Conceptual issues almost always favor consumption
- Data quality issues also favor consumption, at least at the bottom
- These differences matter for changes in poverty over time, changes in inequality, and changes in low percentiles; less so for changes further up the distribution
- Administrative data offers a promising way to improve the quality of income data from surveys