

# Developing a Longitudinal Database to Facilitate Research on SNAP Participation

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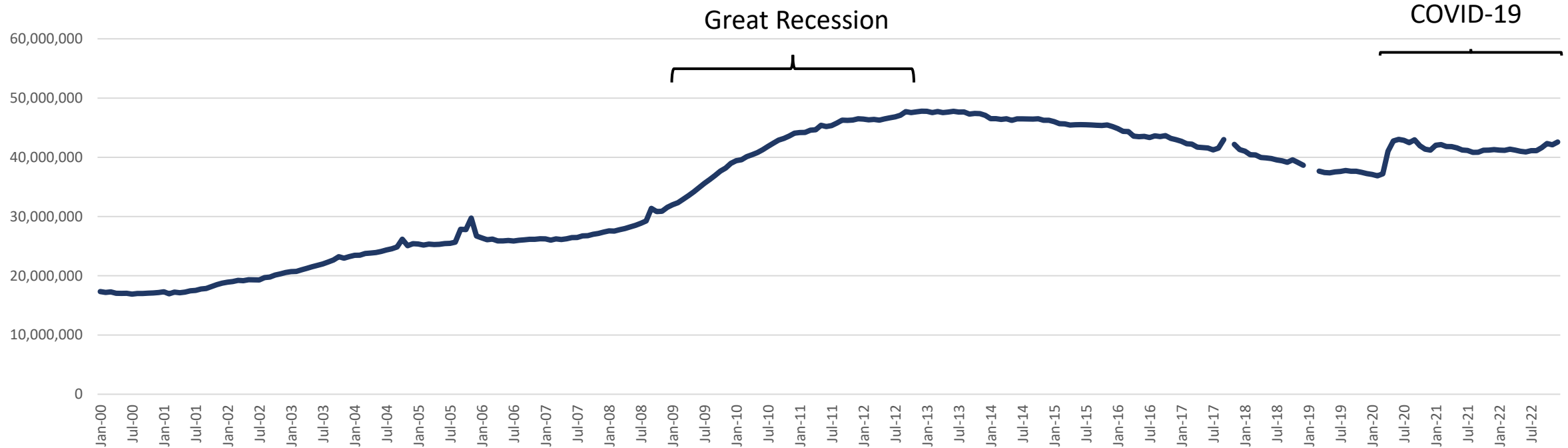
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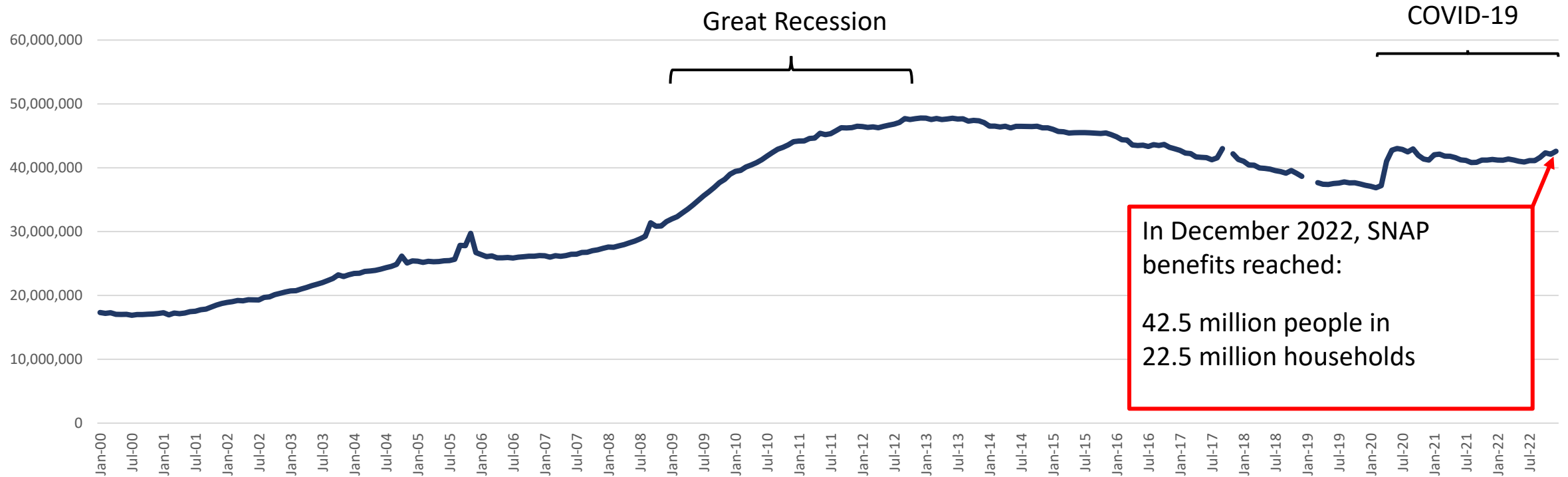
# Supplemental Nutrition Assistance Program (SNAP), 2000-2022



Source: [SNAP National Data Bank estimates available from USDA](#)

- Largest nutrition assistance program aimed at reducing domestic hunger by providing low-income households benefits that can be used to purchase food at authorized retailers
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# Who participates in SNAP?

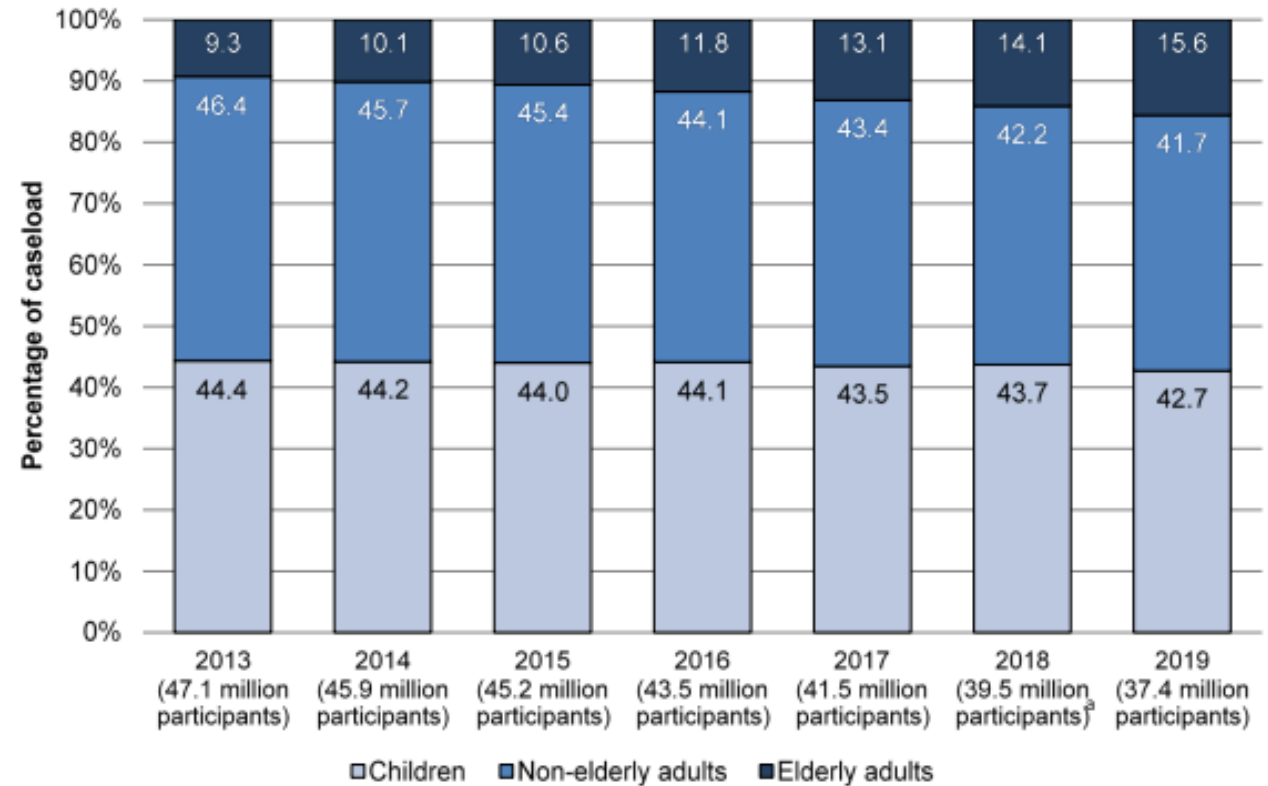
- USDA's Food and Nutrition Service releases estimates on the characteristics of SNAP participants

<i>SNAP, FY 2019</i>	Total participants	
	Number (000)	Percent
<b>Total</b>	37,202	100.0
<b>Age</b>		
Children	15,871	42.7
Preschool-age children	4,822	13.0
0–1 year	1,783	4.8
2–4 years	3,040	8.2
School-age children	11,049	29.7
5–7 years	2,843	7.6
8–11 years	3,734	10.0
12–15 years	3,170	8.5
16–17 years	1,302	3.5
Non-elderly adults (age 18–59)	15,532	41.7
Elderly adults (60 or older)	5,800	15.6
<b>Citizenship</b>		
U.S.-born citizen	33,906	91.1
Naturalized citizen	1,861	5.0
Refugee	295	0.8
Other noncitizen	1,141	3.1
<b>Citizen children living with noncitizen adults<sup>b</sup></b>	2,470	6.6
<b>Non-elderly individuals with disabilities</b>		
Children with disabilities	562	1.5
Non-elderly adults with disabilities	3,619	9.7

# Who participates in SNAP?

- USDA's Food and Nutrition Service releases estimates on the characteristics of SNAP participants
- Estimates over time provide understanding of how the SNAP population is changing over time but do not tell us about length of participation or breaks in participation spells

Figure 3.2. SNAP participants by age group, fiscal years 2013–2019



Source: <https://fns-prod.azureedge.us/sites/default/files/resource-files/Characteristics2019.pdf>

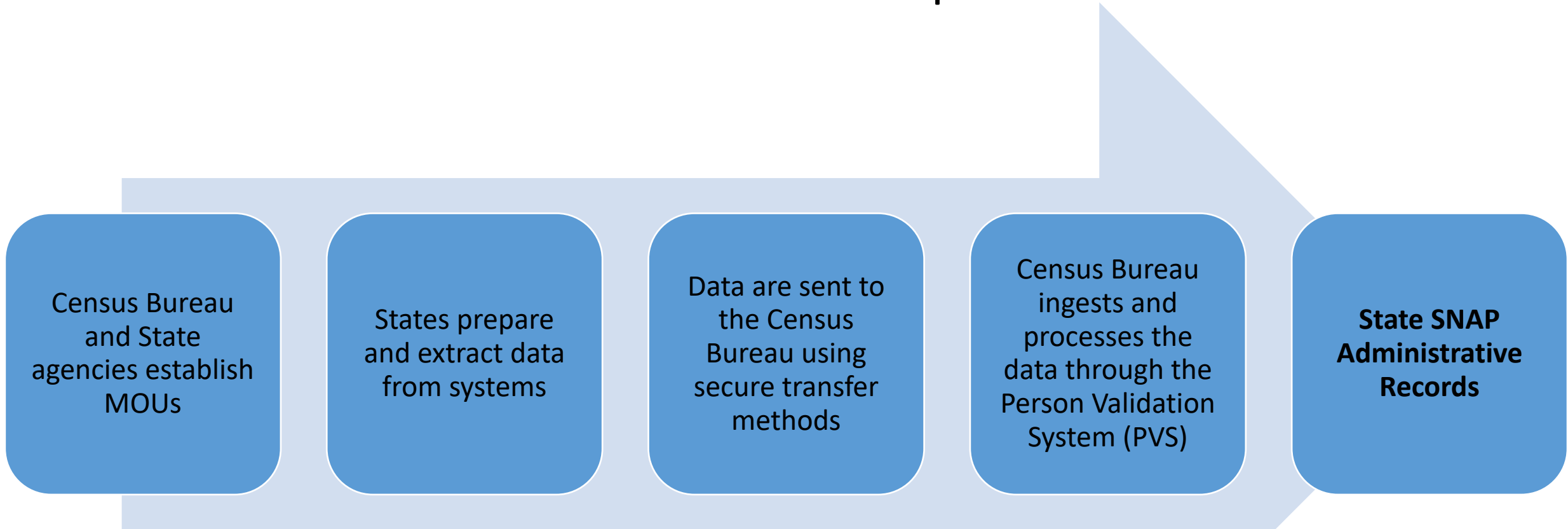
# Longitudinal SNAP research

- Research on longitudinal participation in SNAP has largely relied on longitudinal surveys
  - Baum 2011; Vartanian and Houser 2020; Pak and Kim 2020
- Survey data is limited by potential under-reporting of SNAP receipt
  - Meyer et al. 2022, 2009; Rothbaum et al. 2021 Colby et al. 2017
- Research using administrative records has examined SNAP participation dynamics during early childhood
  - Danielson et al 2020; Hefling et al. 2021

# SNAP administrative records at the Census Bureau

- Through joint efforts with USDA's Food and Nutrition Service (FNS) and Economic Research Service (ERS), the Census Bureau has entered into agreements with states to receive administrative data on SNAP participants
- Long-standing project to better understand SNAP eligibility and access at granular levels
- More recent effort to begin development of a SNAP Longitudinal Database

# SNAP administrative records process





# Estimating SNAP Eligibility and Access

- Methodology based on work by Newman and Scherpf (2013)

American Community  
Survey  
(ACS)

- ~ 3.5 million households sampled annually
- **Define SNAP units and estimate individual SNAP eligibility**



- Data are linked at the individual level using Census-Bureau assigned identifiers

State SNAP  
Administrative  
Records

- Monthly records on participating clients and cases

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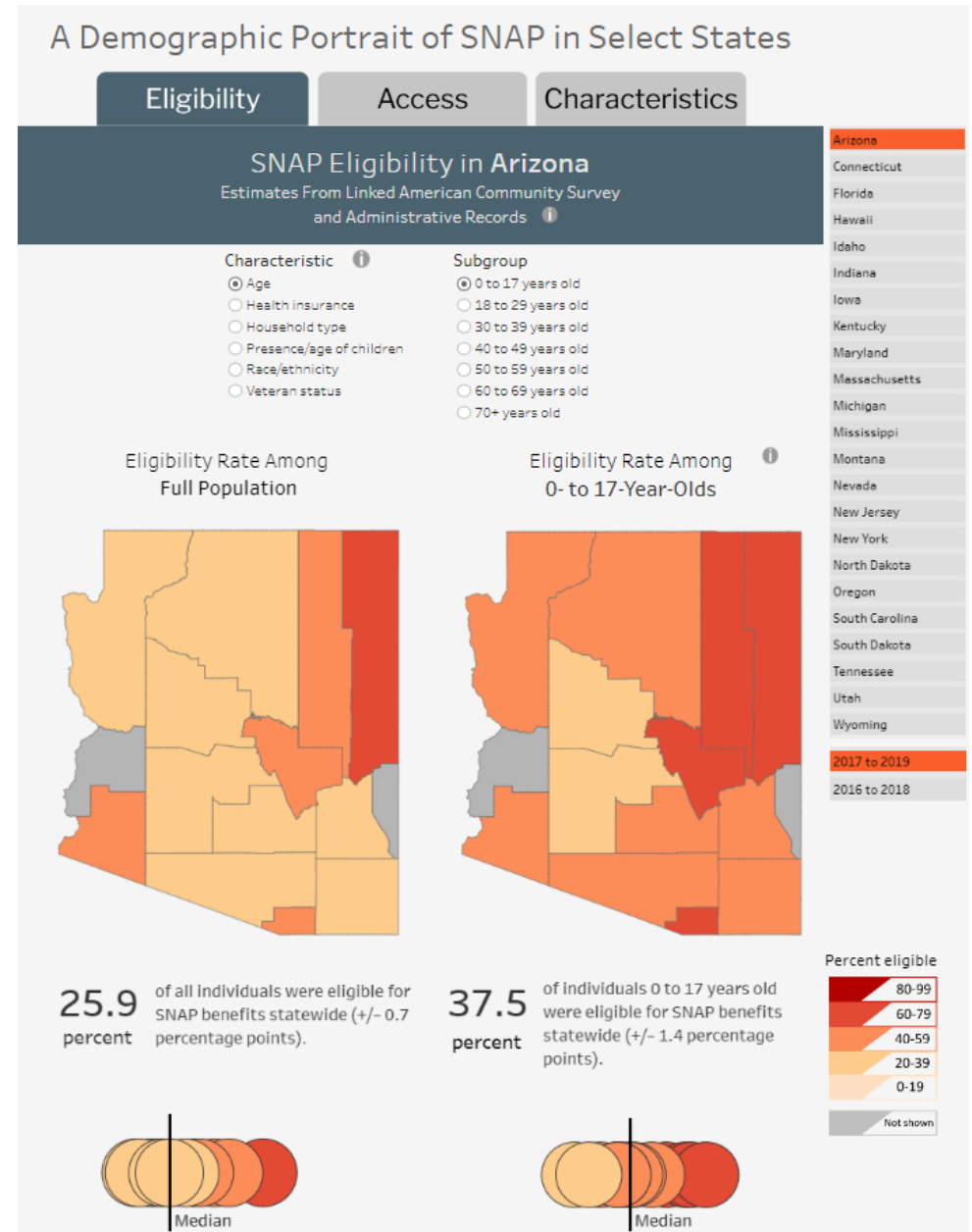
Estimates of SNAP  
Eligibility and Access

# Cross-sectional estimates: Annual SNAP Table Packages & Data Visualization

**Table 1a. <State> SNAP Modeled Eligibility and Access by Demographic Characteristics, <Year>**

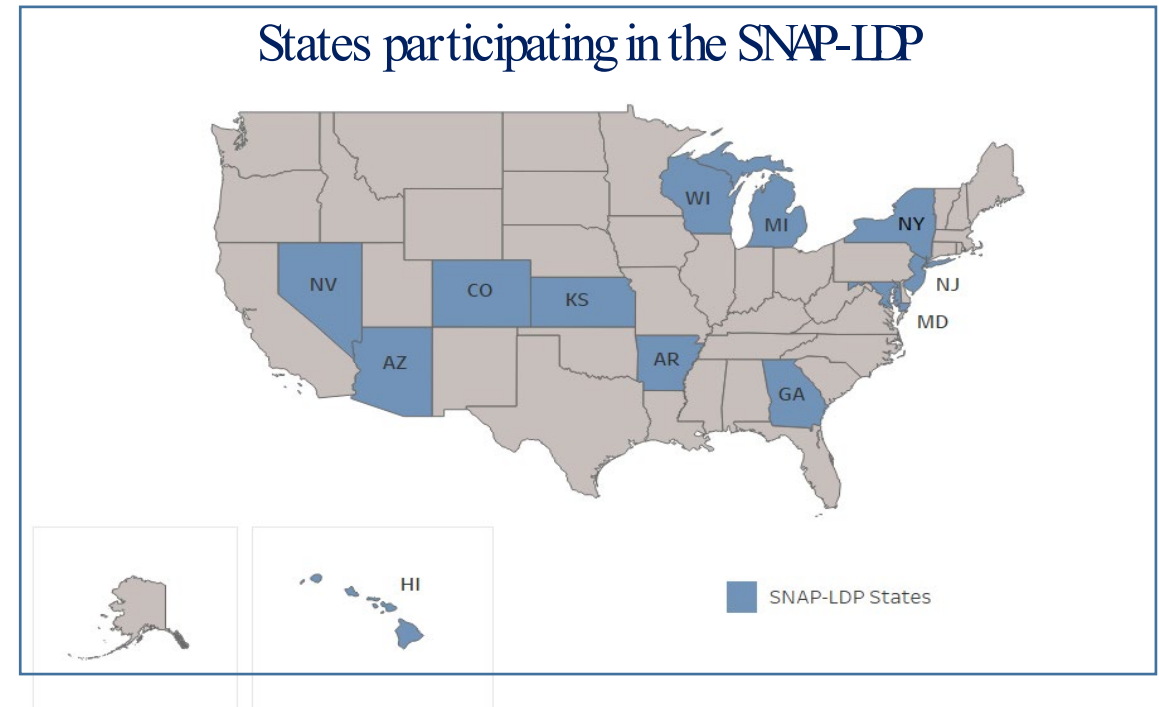
	Modeled Eligibility Rate		Access Rate (of Modeled Eligible)	
	Est	ME	Est	ME
Total	30.3	±1.2	79.5	±0.7
<b>Race and Ethnicity</b>				
Hispanic	63.1	±2.8	78.3	±4.3
Non-Hispanic White alone	28.6	±0.8	71.7	±1.0
Non-Hispanic Black alone	60.4	±2.1	82.5	±1.3
Non-Hispanic AIAN alone	38.3	±12.7	89.3	±9.0
Non-Hispanic Asian alone	24.8	±4.6	53.1	±10.1
Non-Hispanic NHPI alone	55.4	±33.0	46.2	±42.5
Non-Hispanic Some Other Race alone	44.3	±14.1	72.7	±28.5
Non-Hispanic Two or More Races	41.3	±5.4	83.0	±4.5

**Note:** Estimates shown above are mock data for a hypothetical state/year.



# Supplemental Nutrition Assistance Program Longitudinal Data Project (SNAP-LDP)

- The 2018 Farm Bill required FNS to develop a SNAP longitudinal research database and prior to approval, consult with Federal research agencies including the Census Bureau
- Goal is for the database to be used “solely to conduct research on participation in and the operation of the supplemental nutrition assistance program, including duration of participation in the program”



# State data for the SNAP-LDP

- States have the opportunity to apply for grant funding from FNS to support their participation in the SNAP-LDP
- States are encouraged, but not required, to use some portion of their grant funds to standardize their data to a pre-specified format (<https://www.fns.usda.gov/snap/longitudinal-data-project-ldp>)

# State data for the SNAP-LDP

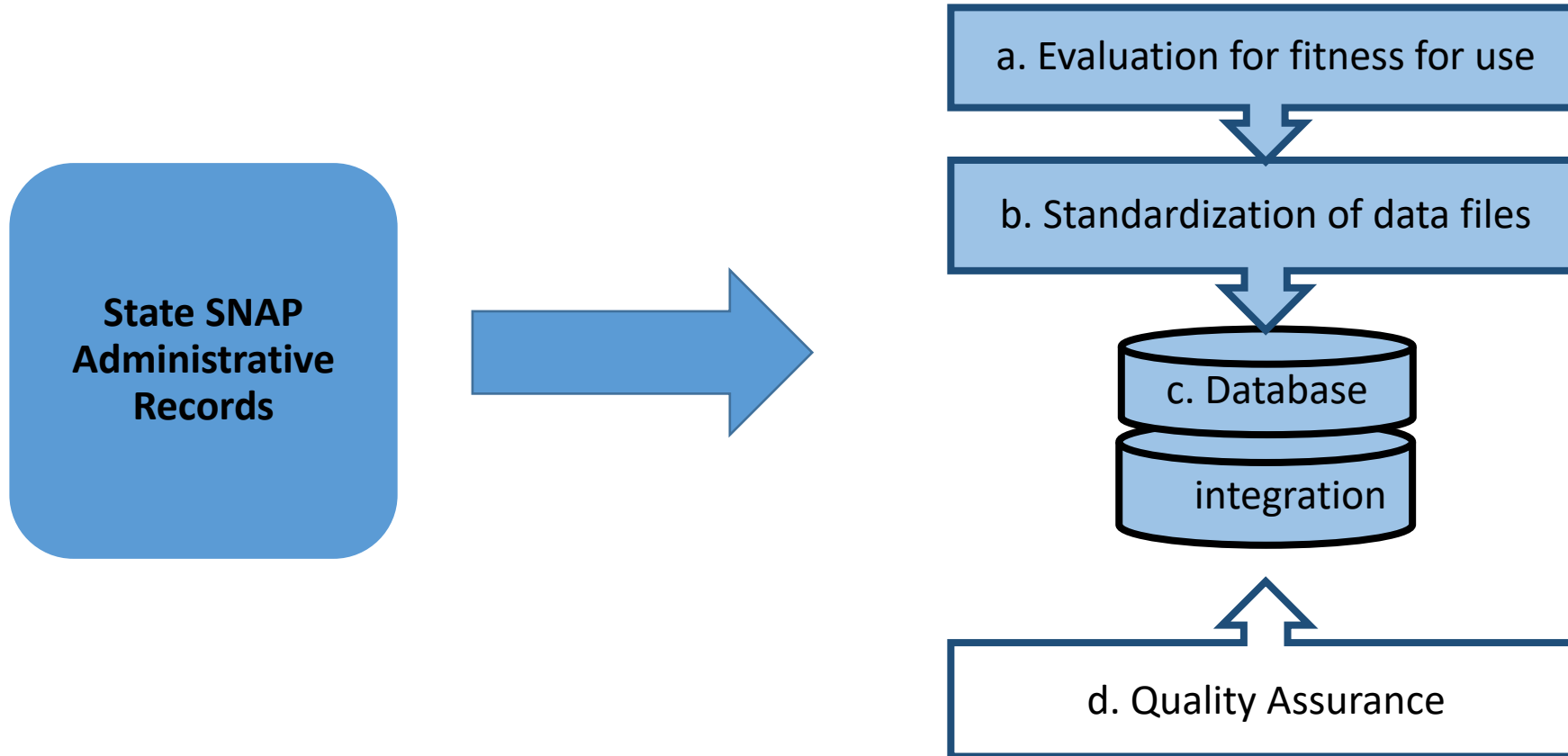
## CASE FILE

- Monthly information about the SNAP household
- Case unit identifiers
- Benefit amount information
- Dates related to certification
- Active participant flag
- Net and gross income
- Address information
- **Census adds: unique address identifiers**

## INDIVIDUAL FILE

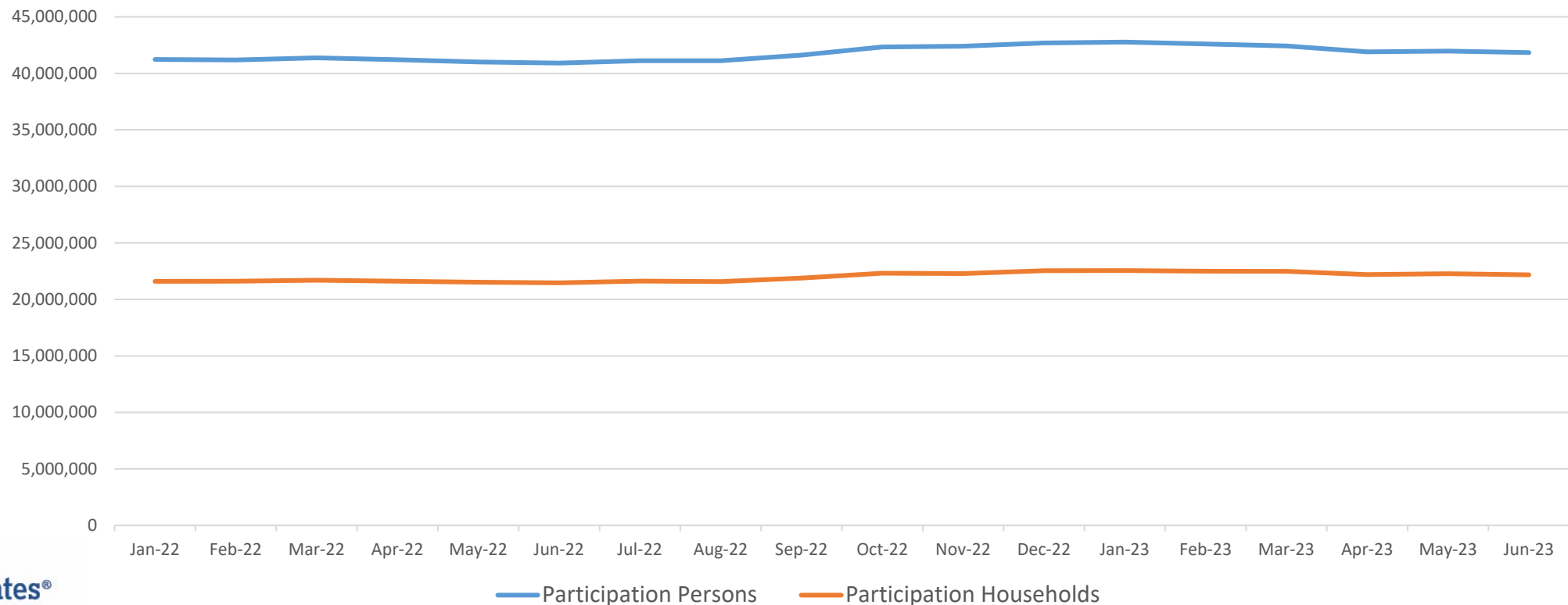
- Monthly information about the individuals in each case
- Case unit and client identifiers
- Demographic characteristics and relationship to primary applicant
- Active participant flag
- Employment and income
- Personally Identifiable Information
- **Census adds: unique person identifiers**

# SNAP-LDP Database Development



# Fitness for use evaluation: example

- To assess quality of State data, we compare monthly counts of SNAP cases and individuals to SNAP National Data Bank estimates published by FNS





# Conclusions

- Goal of the SNAP-LDP is to facilitate research on SNAP participation over time and across state lines
- Plans for database include:
  - Multi-state
  - Anonymized linkage keys to enhance research capabilities
  - Standardized across states to the extent possible
  - Accompanied by documentation
  - Eventually be available as a restricted dataset for researchers working through Federal Statistical Research Data Centers

# Thank you!

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