

# Modernizing the Census Bureau's Demographic Surveys

Organizers:

Neil Bennett, SIPP Modernization Transition Lead

Lisa Cheok, CPS ASEC Modernization Manager

*This presentation is released to inform interested parties of ongoing research and to encourage discussion. Any views expressed are those of the authors and not those of the U.S. Census Bureau.*

# Modernization in the Demographic Directorate (DEMO)

- Need for modernization:
  - Stabilize response rates, data quality, and survey costs.
  - Boost resilience and expand capabilities to leverage multiple streams of data.
  - Ability to respond to increased demand for timely statistics.
- How are we modernizing?
  - Transitioning to bureau-wide data-centric business ecosystem.
  - Utilizing open-source software and cloud-based environments.
  - Introducing a web mode to many existing surveys.
  - Exploring adaptive design.
  - Incorporating administrative records and models into data product creation.

# Major Modernization Efforts Within DEMO

- Current Population Survey (CPS).
  - Annual Social and Economic Supplement (ASEC).
- Survey of Income and Program Participation (SIPP).
- American Housing Survey (AHS).
  - Conducted on behalf of the Department of Housing and Urban Development (HUD).
- National Health Interview Survey (NHIS).
  - Conducted on behalf of the National Center for Health Statistics (NCHS).

# Current Population Survey (CPS) Overview

- Source of major labor force estimates:
  - Unemployment rate.
  - Labor force participation rate.
  - Employment-population ratio.
- Historical time series.
- Base for many federal agency supplements, including ASEC.
- Data collection:
  - 10 days of interviewing each month.
  - Address in sample for 8 months over 16 months (4-8-4).
  - Initial in-person interview, with following months collected in person or by phone.

# Annual Social and Economic Supplement (ASEC) Overview

- Produces data on work experience, income, poverty, health insurance, and migration.
- Historical time series.
- Reports and microdata released in September each year.
- Data collection:
  - During CPS interviews.
  - Annually in February, March, and April.

## Measuring the Nation's Social and Economic Well-Being

		2024	2023
	<b>Median household income</b> (in 2024 inflation-adjusted dollars)	\$83,730	\$82,690
	<b>Percentage of people in poverty</b>	10.6%	11.1%
	<b>Supplemental Poverty Measure</b>	12.9%	12.9%
	<b>Percentage of people without health insurance</b>	8.0%	8.0%

Note: — indicates that change is not statistically significant.

# CPS and ASEC Modernization Overview

- Key components:
  - Introduce a self-response web mode.
  - Transition to new operational software.
  - Research on the use of administrative records for ASEC.
- Web mode development priorities:
  - Designing questions with clear concepts and reference periods.
  - Minimizing respondent burden.
  - Maximizing item response rates.
  - Assessing effect on estimates.
  - Pre-testing questions.

# CPS Modernization Timeline

## First Field Test

- Field experiments on options for data collection methods
- First full output
- Analysis and updates to instrument/data collection

## Experimental Production

- Go live
- Parallel sample for comparison and full validation before phase-in ASAP



## Development/Testing

- Enterprise system development
- Instrument conversion to new system
- Content review: expert review, crowd source testing, cognitive testing, etc.

## Second Field Test

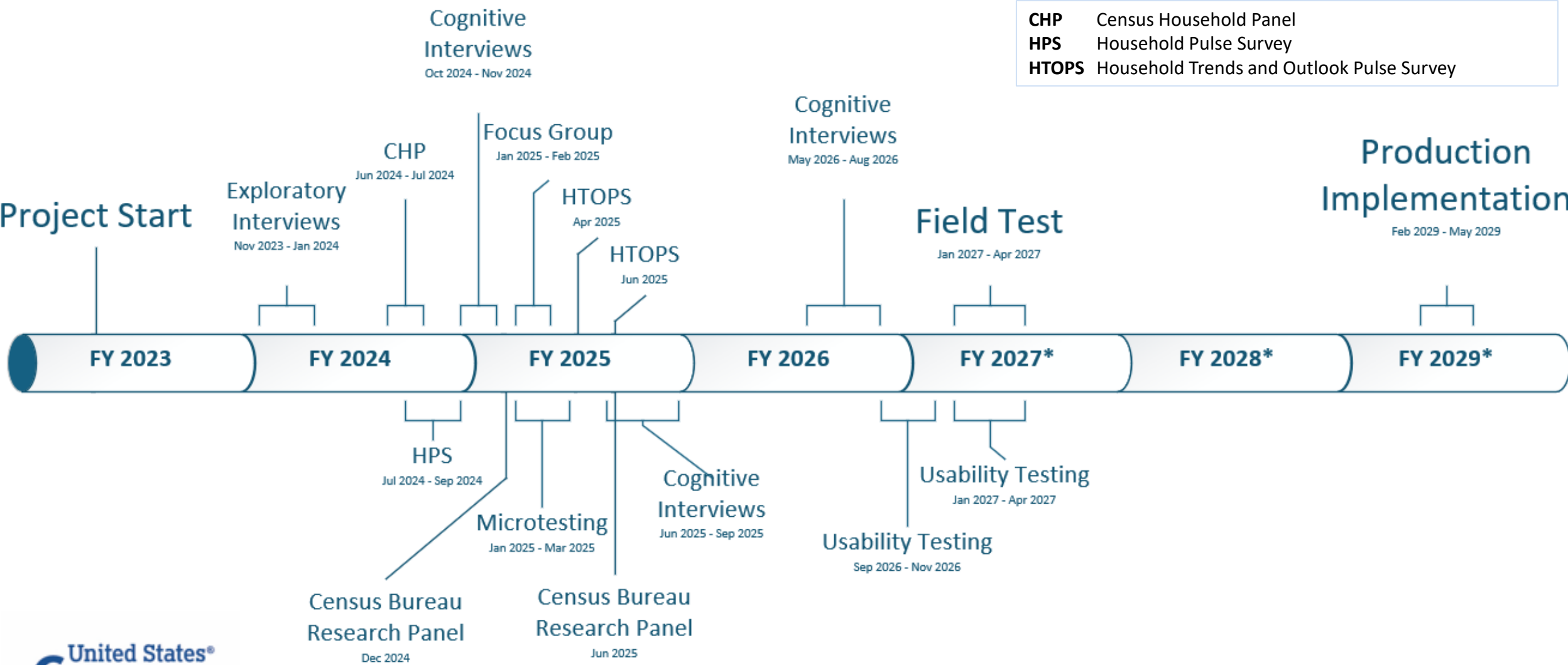
- Field test to define production
- Analysis and finalize production data collection

# ASEC Modernization Timeline



# ASEC Modernization Timeline

**CHP** Census Household Panel  
**HPS** Household Pulse Survey  
**HTOPS** Household Trends and Outlook Pulse Survey



\*Timing based on budget, resources, and test results.

# Next for ASEC: Multi-Mode Field Test


- Early 2027.
- Computer Assisted Personal Interview (CAPI) and web modes.
- A/B design with control and test questionnaires.
- Goals:
  - Compare two questionnaire designs.
  - Assess data quality across web and CAPI modes.
  - Evaluate the effect of supplements on CPS web data.
  - Assess the effect on estimates.
- Edited results for internal use by end of 2027.

# The Survey of Income and Program Participation

The mission of the Survey of Income and Program Participation (SIPP) is to provide a nationally representative sample for evaluating:

- Annual and sub-annual dynamics of income,
- Movements into and out of government transfer programs,
- Family and social context of individuals and households, and
- Interactions between these items.

# Legacy SIPP Structure and Visual Design

- Households are surveyed annually and asked about the prior year.
  - Select information is collected and stored in an Event History Calendar (EHC). 
  - Additional information is collected with traditional survey questions.
- SIPP is a person-month longitudinal dataset.
- Public-use file for the reference year is released annually.

Re-Engineered SIPP 2011 Ver 3.29--12/08/2010

Ctrl+P - Previous Topic Ctrl+N - Next Topic F3-Check Progress F10-Exit EHC

Topic	REFERENCE YEAR 2010												INTERVIEW YEAR 2011					
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Landmarks																		
Residency																		
Marital History																		
Education																		
ABC Employer																		
Job 2																		
Job 3																		
Job 4																		
Job 5																		
Job 6																		
Job 7																		
More Jobs (if any)																		
No Job																		
SSI																		
Food Stamps																		
TANF																		
Gen. Assist.																		
WIC																		
Private 1																		
Private 2																		
Medicare																		
Medicaid																		
Military																		
Other Coverage																		
No Coverage																		

# Modernization Vision

To be a trusted and timely source of data about the social and economic dynamics of people and households participating in, and transitioning into or out of, government assistance programs.

# Modernization Mission

To produce data on the dynamics of participation in government assistance programs and related socioeconomic outcomes by building a modern, adaptable program that administers a timely household survey and leverages administrative records.

# Modernization Strategies

- **Strategy 1:**

Generate regular data products on well-being, with an emphasis on the unique aspects of the program: change/dynamics, program participation, and hardship.

- **Strategy 2:**

Create a lean, adaptable household survey producing a regular data file for internal analysis.

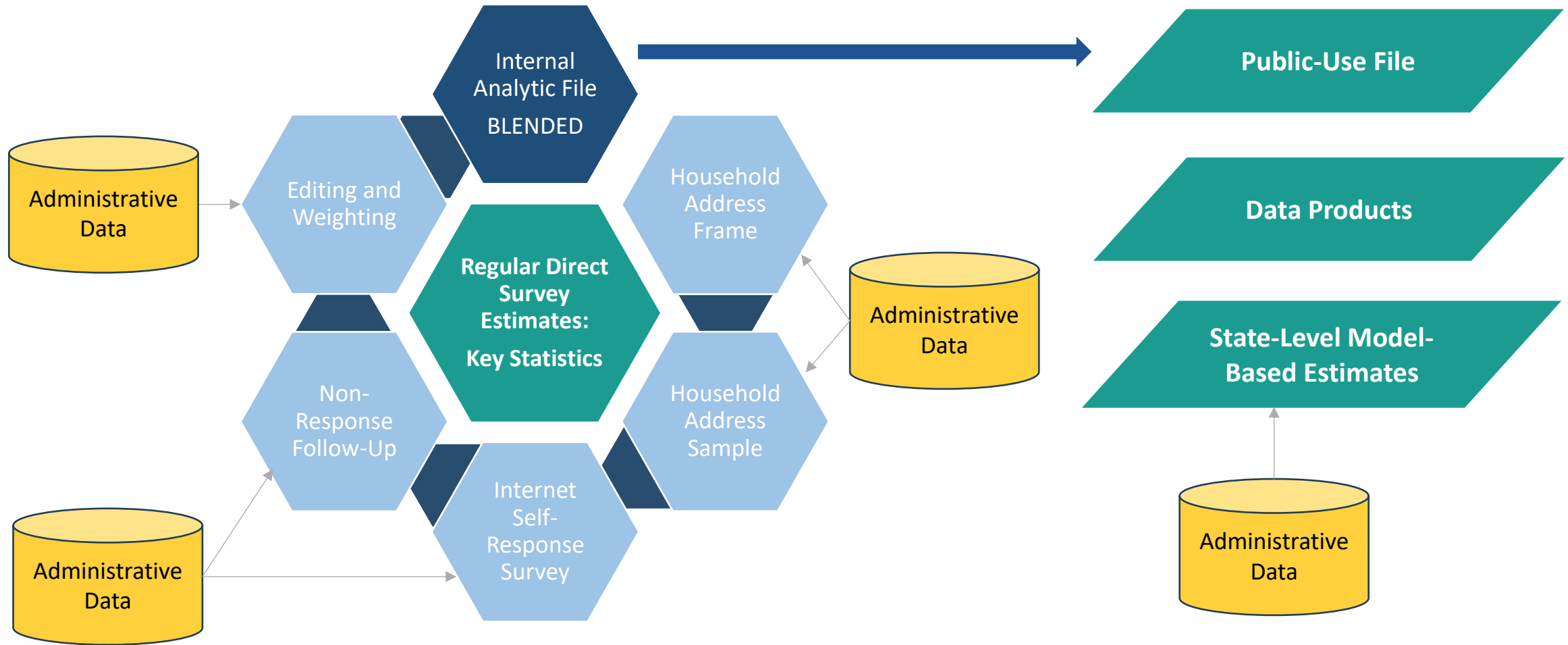
- **Strategy 3:**

Employ innovative methods that reduce respondent burden and improve quality in the data sets and products.

- **Strategy 4:**

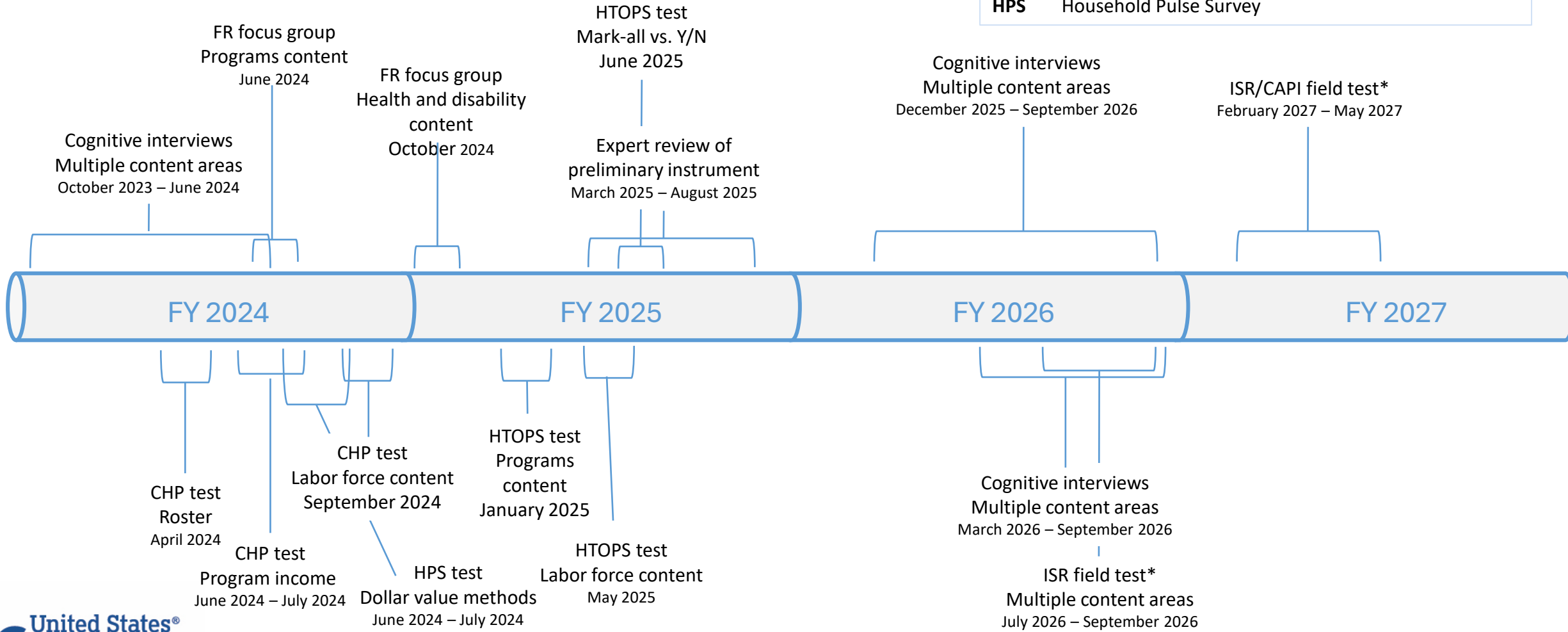
Engage stakeholders (researchers, policymakers, federal agencies, advocates, respondents), share results, and receive feedback on current progress of the program.

# Innovation Along the SIPP Lifecycle



# SIPP Modernization Timeline

- CAPI** Computer-assisted personal interview
- CHP** Census Household Panel
- FR** Field representative
- HTOPS** Household Trends and Outlook Pulse Survey
- ISR** Internet self-response
- HPS** Household Pulse Survey



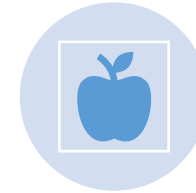
# Areas for ASEC and SIPP Collaboration



Demographic characteristics



Earned income



Program participation



Health insurance



Migration



Income from assets



Household relationships



Employment



Data collection methods

# Collaboration on Data Collection Methods

## **Complex topics:**

Clarifying and simplifying broad, complex content to reduce respondent burden.

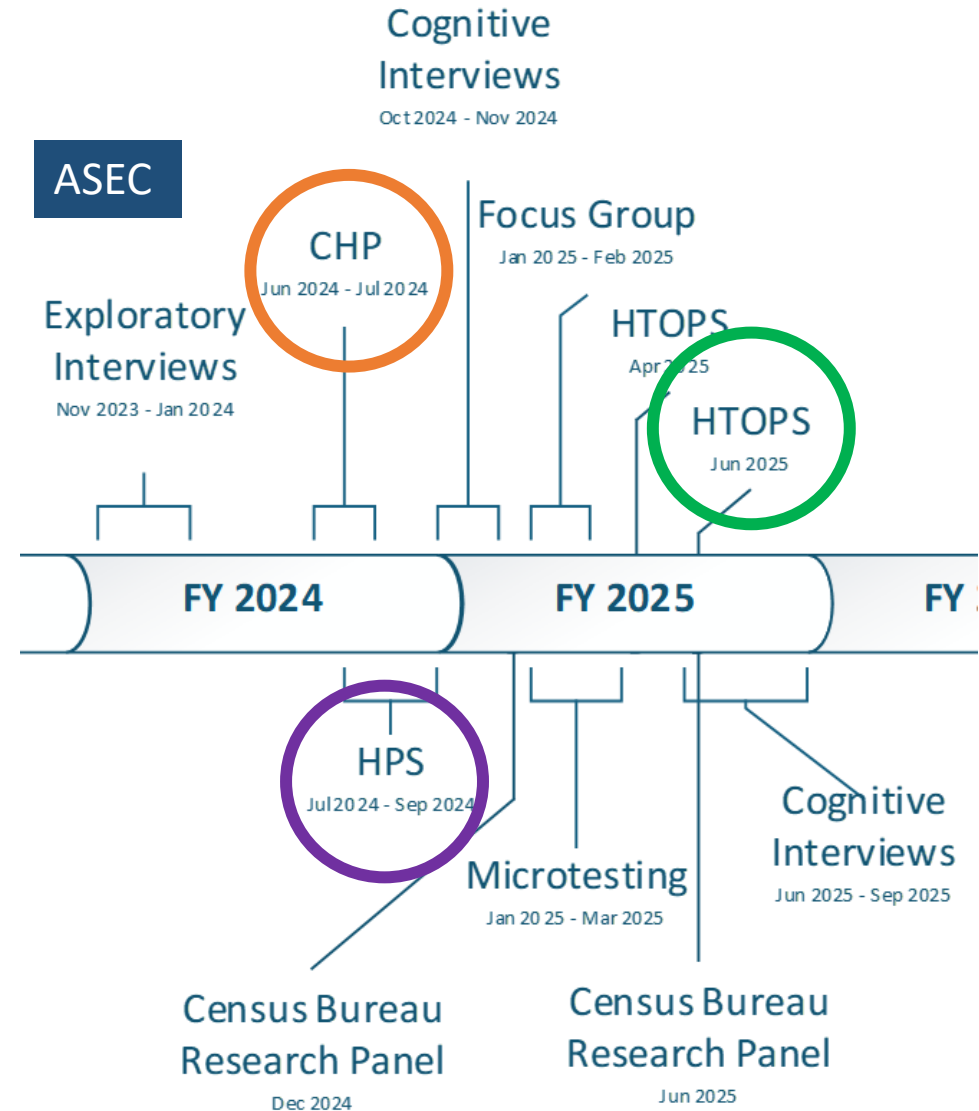
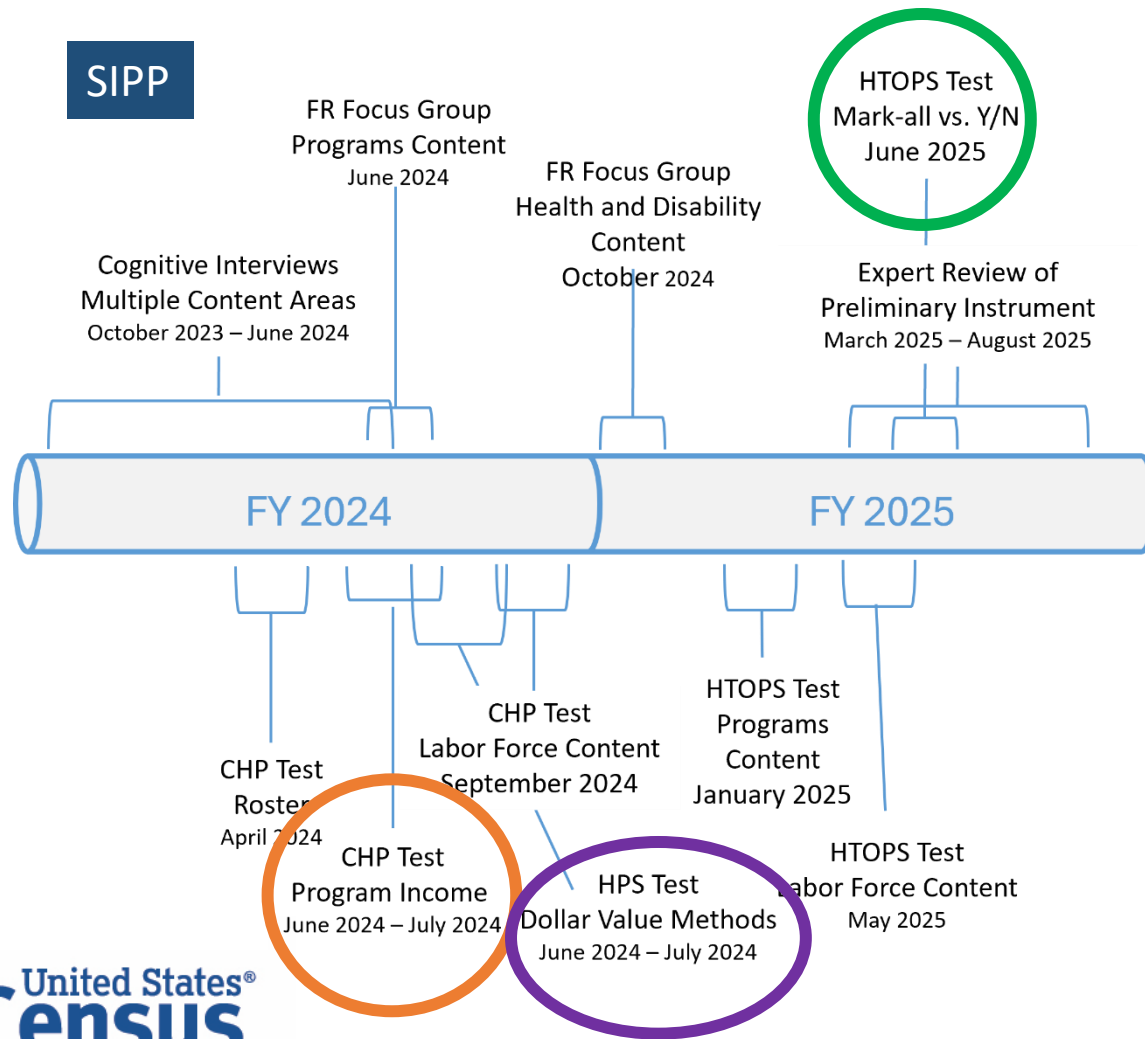
## **Collection windows:**

Defining field procedures, including mode interactions, that maximize response rates within tight timelines.

## **Longitudinal design:**

Balancing PII protection with reuse of previously collected data.

# Collaboration Timeline



# Panelists

- **Kevin Tolliver:** *Targeted CAPI Follow-up in Multimode Household Surveys: A Simulation-Based Evaluation.*
- **Rachel Lindstrom:** *Redesigning Health Insurance Survey Questions for ISR: A Case Study of Two Household Surveys.*
- **Besufekad Alemu:** *Model-Based or Hot Deck? Imputing Item Non-Response Data in the Survey of Income and Program Participation (SIPP).*
- **Rachel Horwitz:** *Forced to Choose or Free to Select? Understanding How People Respond to Sensitive Survey Questions.*
- **Elizabeth Pelletier:** *A Study on Grid Design: Can Reducing the Number of Screens Improve Respondent Burden Without Sacrificing Data Quality for Web-Collected Income Data?*

# Panelist Contact Information

**Kevin Tolliver:** <kevin.p.tolliver@census.gov>.

**Rachel Lindstrom:** <rachel.a.lindstrom@census.gov>.

**Besufekad Alemu:** <besufekad.alemu@census.gov>.

**Rachel Horwitz:** <rachel.t.horwitz@census.gov>.

**Elizabeth Pelletier:** <elizabeth.pelletier@census.gov>.

**Neil Bennett:** <neil.bennett@census.gov>.

**Lisa Cheok:** <lisa.a.p.cheok@census.gov>.

**CPS ASEC Modernization:** <demo.asec.modernization@census.gov>.