

# **Evolution of a Phoenix: Re-engineering the Survey of Income and Program Participation – Event History Calendar (SIPP-EHC)**

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BLS CE Survey Redesign Seminar  
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# SIPP Re-engineering

## Implement Improvements to SIPP

- reduce costs
- reduce R burden
- improve processing system
- modernize instrument
- expand/enhance use of admin records

## Key Design Change:

- annual interview, 12-month reference pd.,  
Event History Calendar methods

# EHC Interviewing

Human memory

- structured/organized
- links and associations

EHC exploits memory structure

- links between the occurrence and timing of events

EHC encourages active assistance to Rs

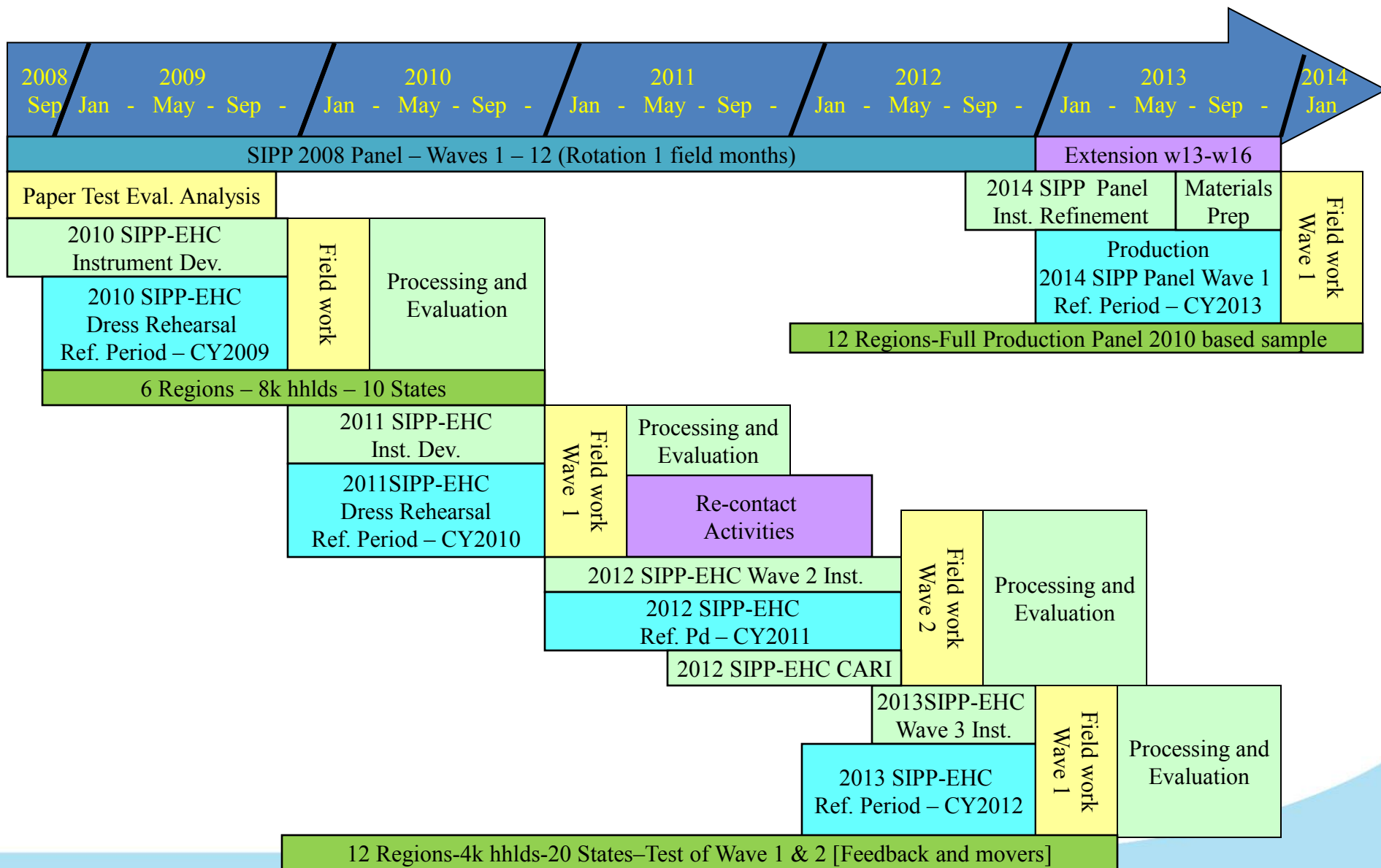
- flexible approach to help elicit an autobiographical “story”

Goal – facilitate the recall and reporting of accurate monthly level information over the full prior calendar year.

# SIPP Re-engineering Field Test Plans

- Proof of concept test - *Sample, design, results*
  - 2008 paper and pencil reinterview test
- EHC CAPI test - *Hurdles and highlights*
  - 2010 Integrated Blaise and C# instrument prototype
- CAPI revised test
  - 2011 Test improvements to the wave 1 instrument, training, and expand sample to all regional offices.
    - Interwave locating experiment
  - 2012 Test wave 2 concepts and instrument, examine movers and attrition issues, dependent interviewing methods and refine training.
  - 2013 wave 3 interview allows returns to household and additional mover and dependent interviewing evaluation
- 2014 SIPP-EHC is the production SIPP instrument
  - *A new Phoenix "A Bird of a Different Color"*

# SIPP-EHC Development and Implementation for 2014



# Developing the CAPI SIPP-EHC : Challenges Faced

Developing new technical capacity.

- experimentation
- limitations
- evolution

Crisis planning.

- limited lead time / preparation
- changing goals and required flexibility

New procedures.

- training and acceptance
- development and refinement of procedures

# SIPP-EHC CAPI Comparisons

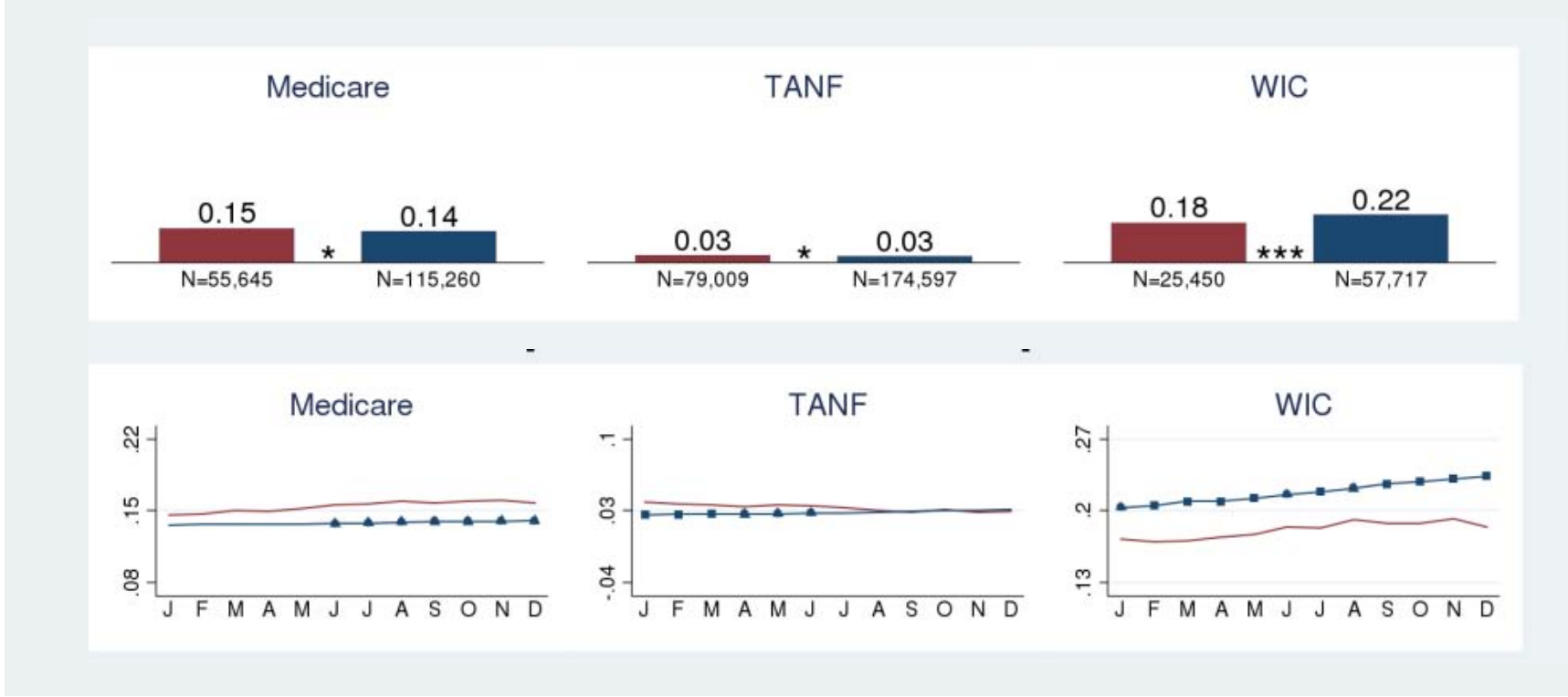
# Probability of Employment and Program Participation and Monthly Time Trend 2010 SIPP-EHC and 2008 Panel data matched in MSIPP



An Initial Evaluation of the 2010 Field Test of Re-Engineered SIPP. SIPP-EHC Data Evaluation Workgroup, March 2011 (Rebecca Chenevert, Ashley Edwards, Renee Ellis, Jason Fields, Graton Gathright, David Hedengren, Carolyn Hronis, Jeongsoo Kim, Lindsay Monte, Daniel Perez-Lopez, Michelle Sandhoff, Marina Vornovytsky, and Rachael Walsh)

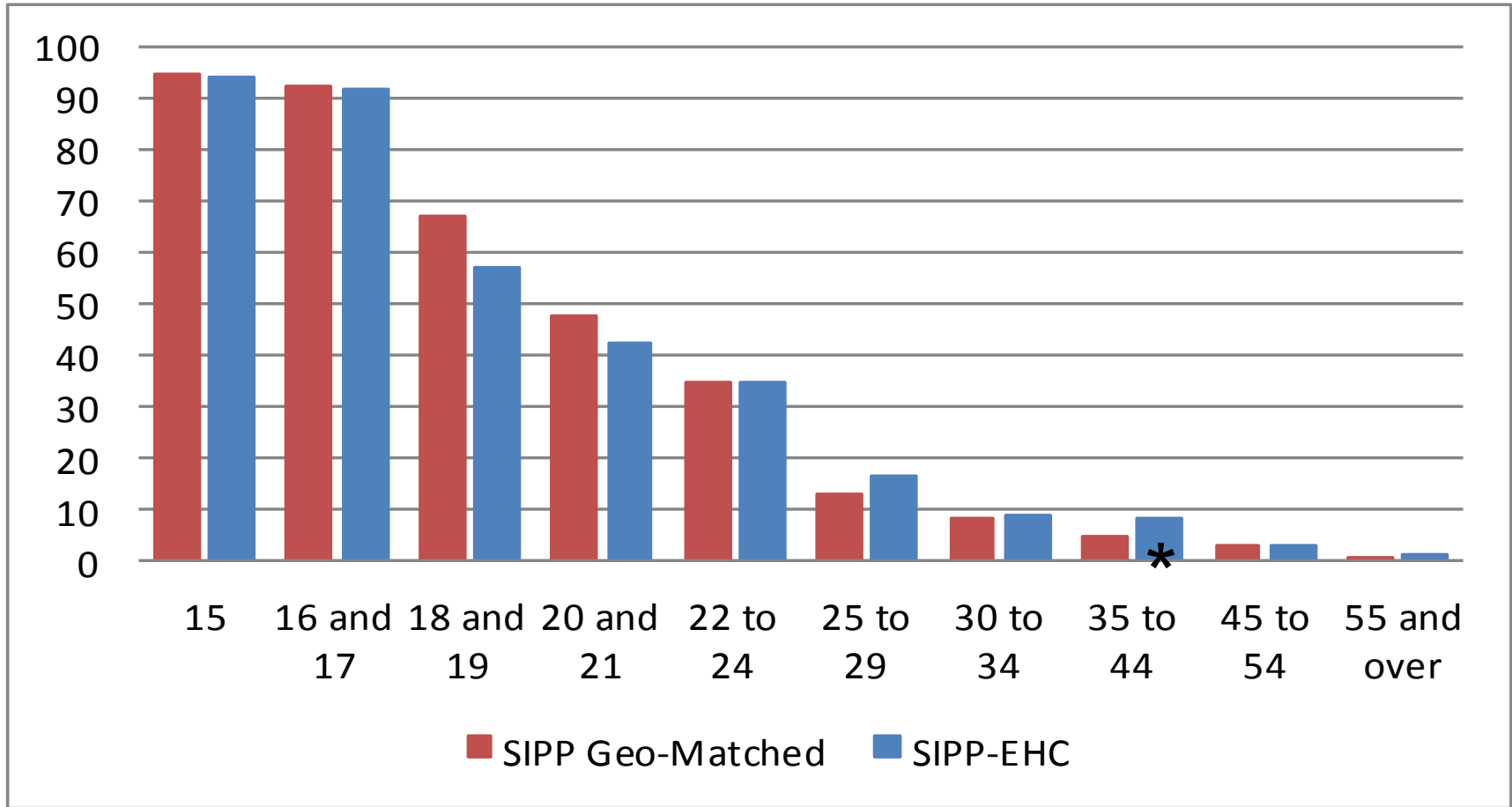


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# Percent Enrolled by Age - Adults Age 15 and Over: 2010 SIPP Geo-Matched versus SIPP-EHC

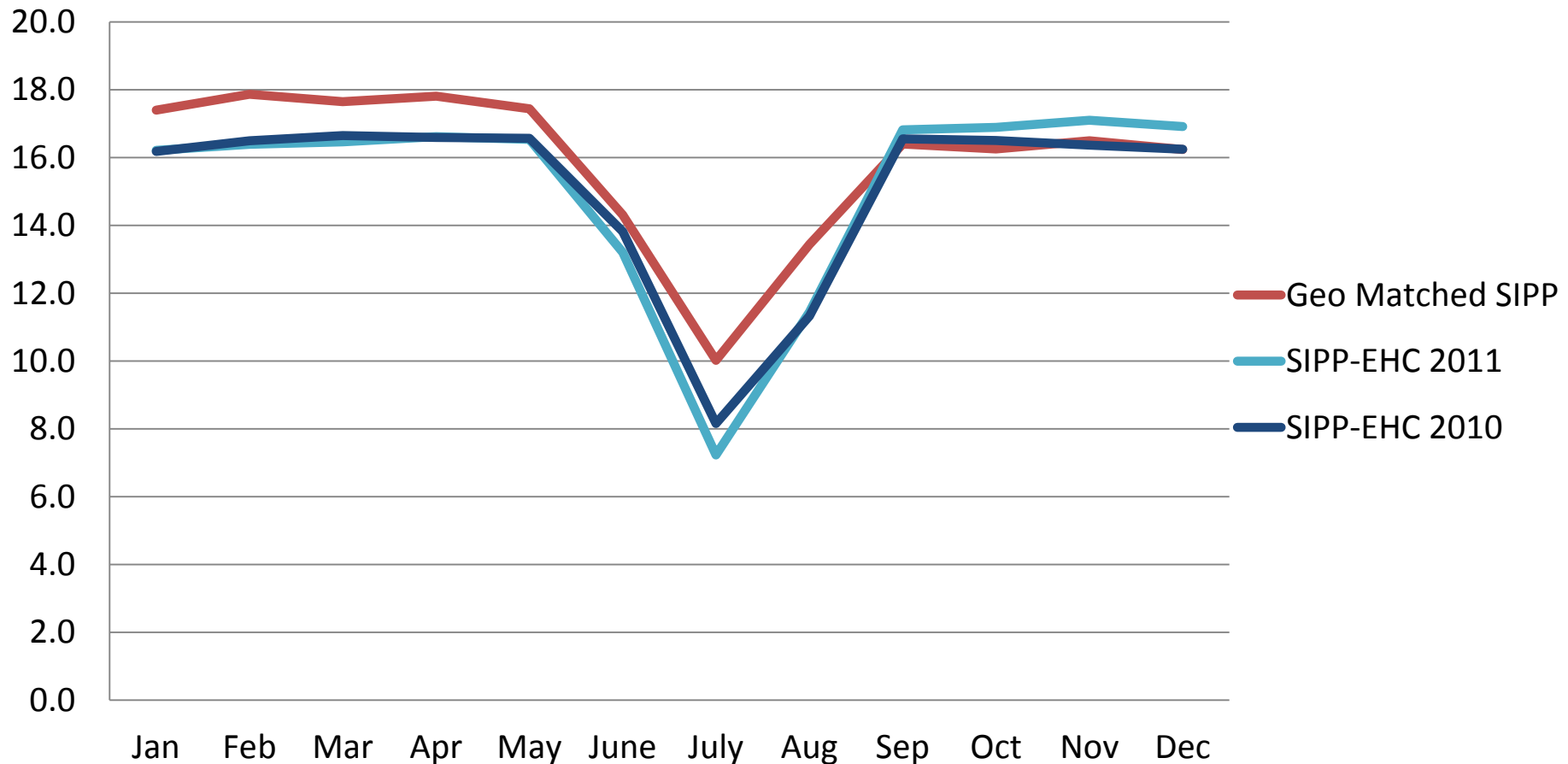


Measuring School Enrollment in the 2011 SIPP-EHC Field Test. Stephanie Ewert and Sarah Crissey, January 2012 - FCSM

\*= Estimates are significantly different at the  $p < .10$  level

Source: U.S. Census Bureau, Survey of Income and Program Participation, 2008 Panel Waves 5-8, 2011 SIPP-EHC.

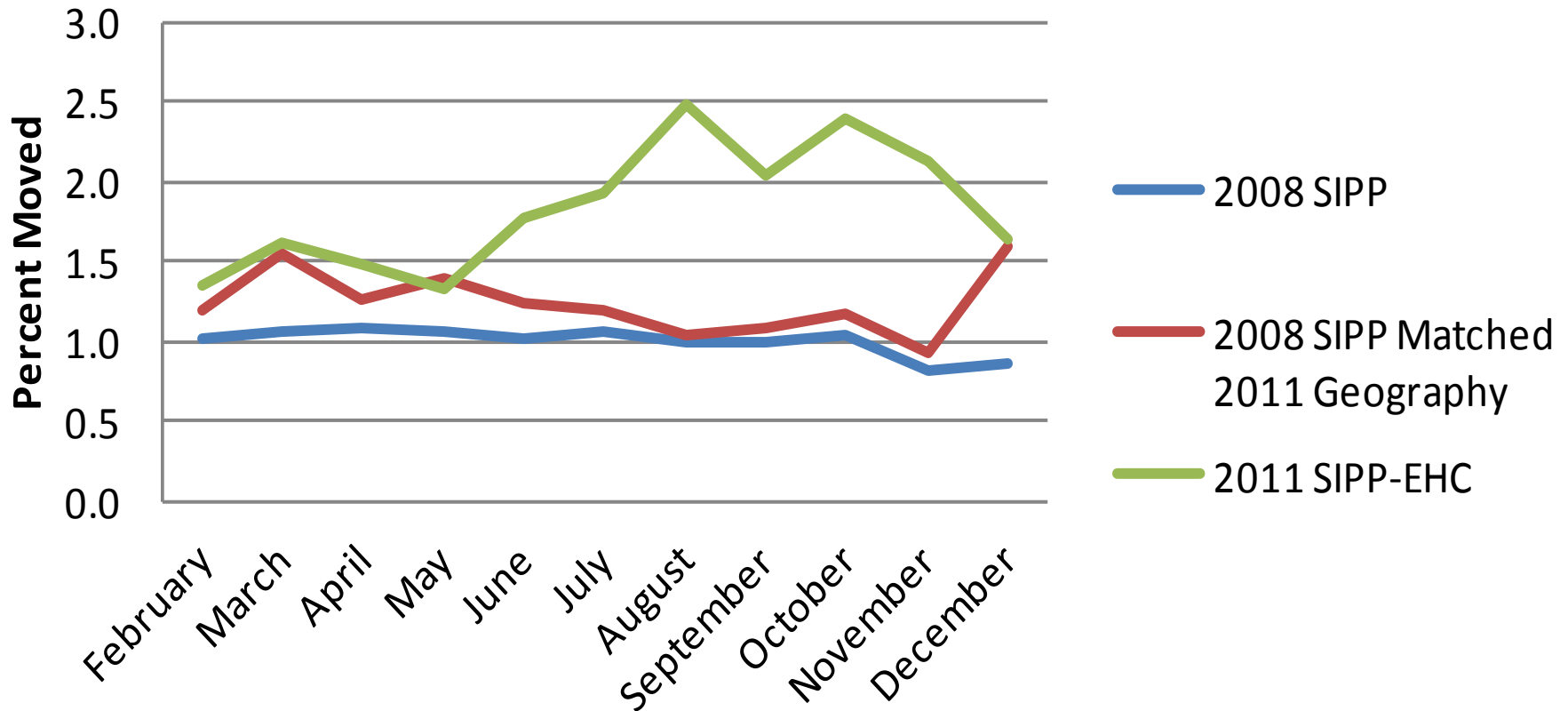
# Percent Enrolled by Month - Adults Age 15 and Over: SIPP 2008, SIPP-EHC 2010, and SIPP-EHC 2011



Measuring School Enrollment in the 2011 SIPP-EHC Field Test. Stephanie Ewert and Sarah Crissey, January 2012 - FCSM

Source: U.S. Census Bureau, Survey of Income and Program Participation, Panel 2008 Waves 5-8, 2010 SIPP-EHC, 2011 SIPP-EHC.

# Movers by Month for the 2010 Calendar Year



Evaluating Residence History Information in the SIPP-EHC. Matthew Marlay and Peter Mateyka, January 2012 - FCSM

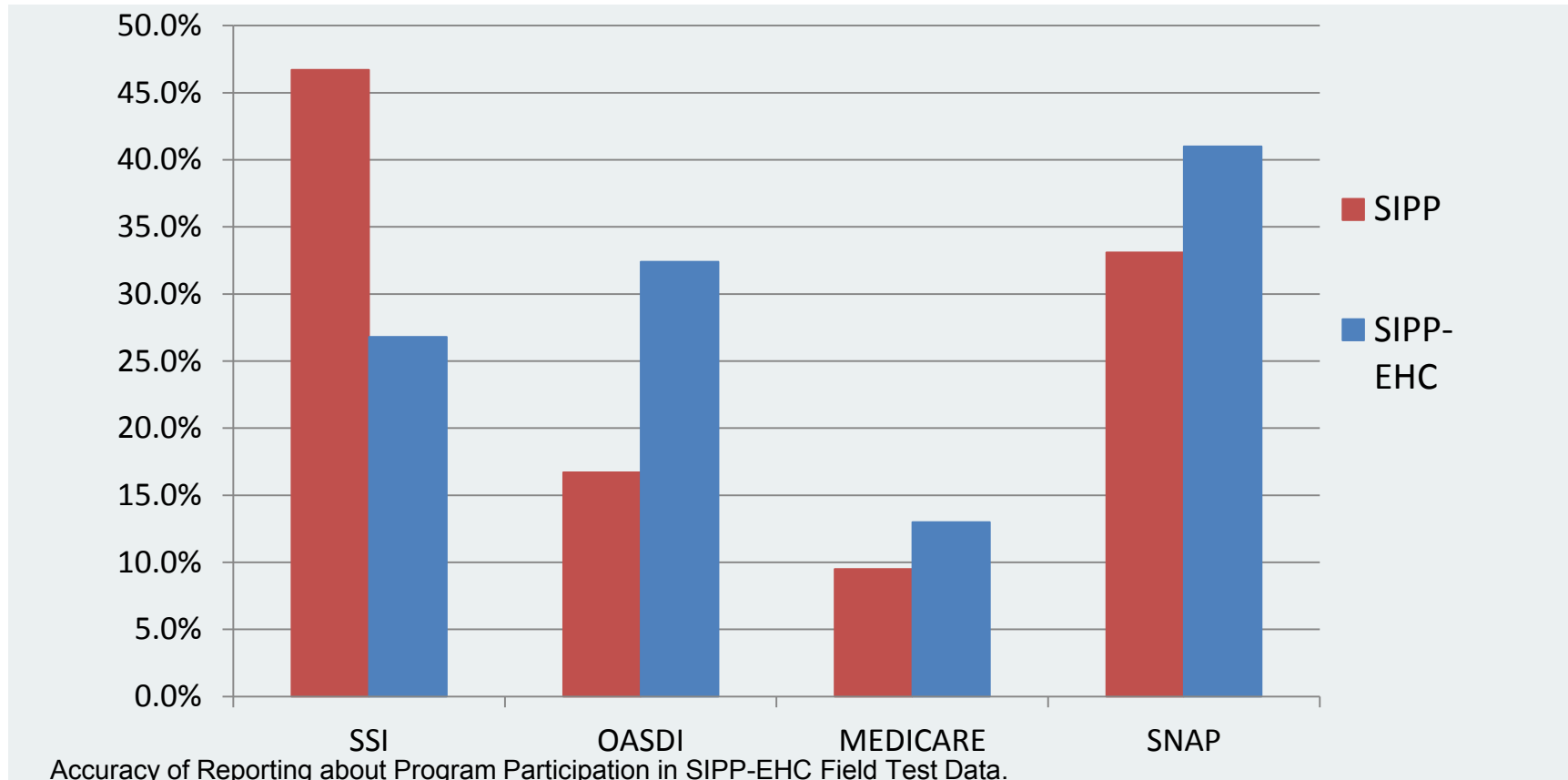
# Initial Poverty Measurement Evaluation Findings

Ashley Edwards, 2012 – Presented at the 2012 PAA

- Reduced capture of income sources although higher income amounts reported in the SIPP-EHC
- Higher monthly poverty rates, greater number of poverty spells for unrelated individuals, and longer duration poverty spells captured in SIPP-EHC
  - Variation by calendar years as well as family types
- Respondents in CY2009
  - SIPP-EHC less likely to exit an initial poverty spell than respondents in production SIPP
  - no significant difference across instruments in CY2010
- SIPP-EHC does a better job of capturing poverty exits within the interview period

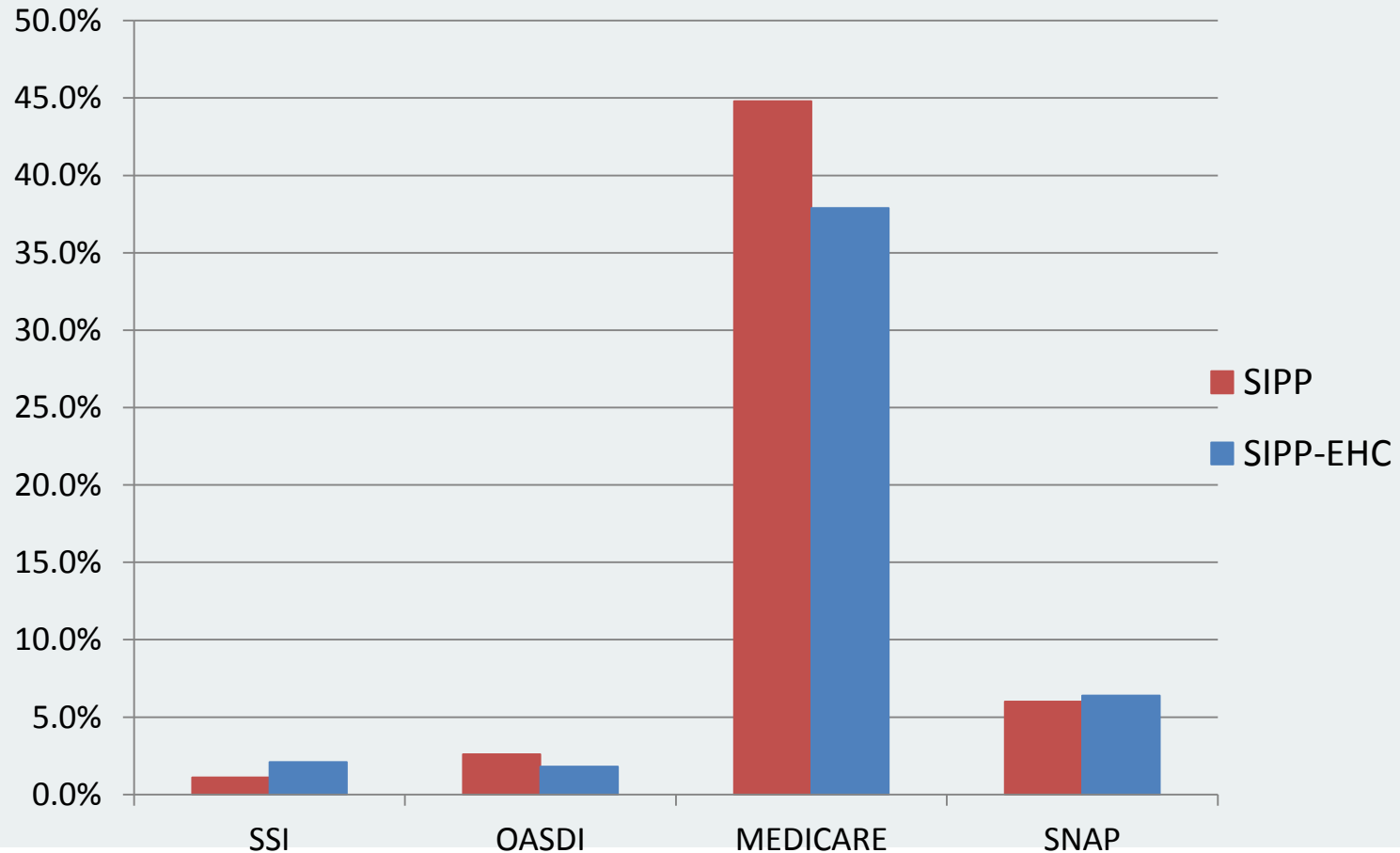
# Administrative Data Comparisons

# False Negatives – (Does not report receipt when Administrative Data Does) 2010 SIPP-EHC and 2008 Panel data



Accuracy of Reporting about Program Participation in SIPP-EHC Field Test Data.  
Graton Gathright, Martha Stinson, and Lori Reeder, FCSM 2011

# False Positives – (Reports receipt when Administrative Data does Not) 2010 SIPP-EHC and 2008 Panel data



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# Paradata Evaluations

# Paradata elements currently in use with SIPP-EHC

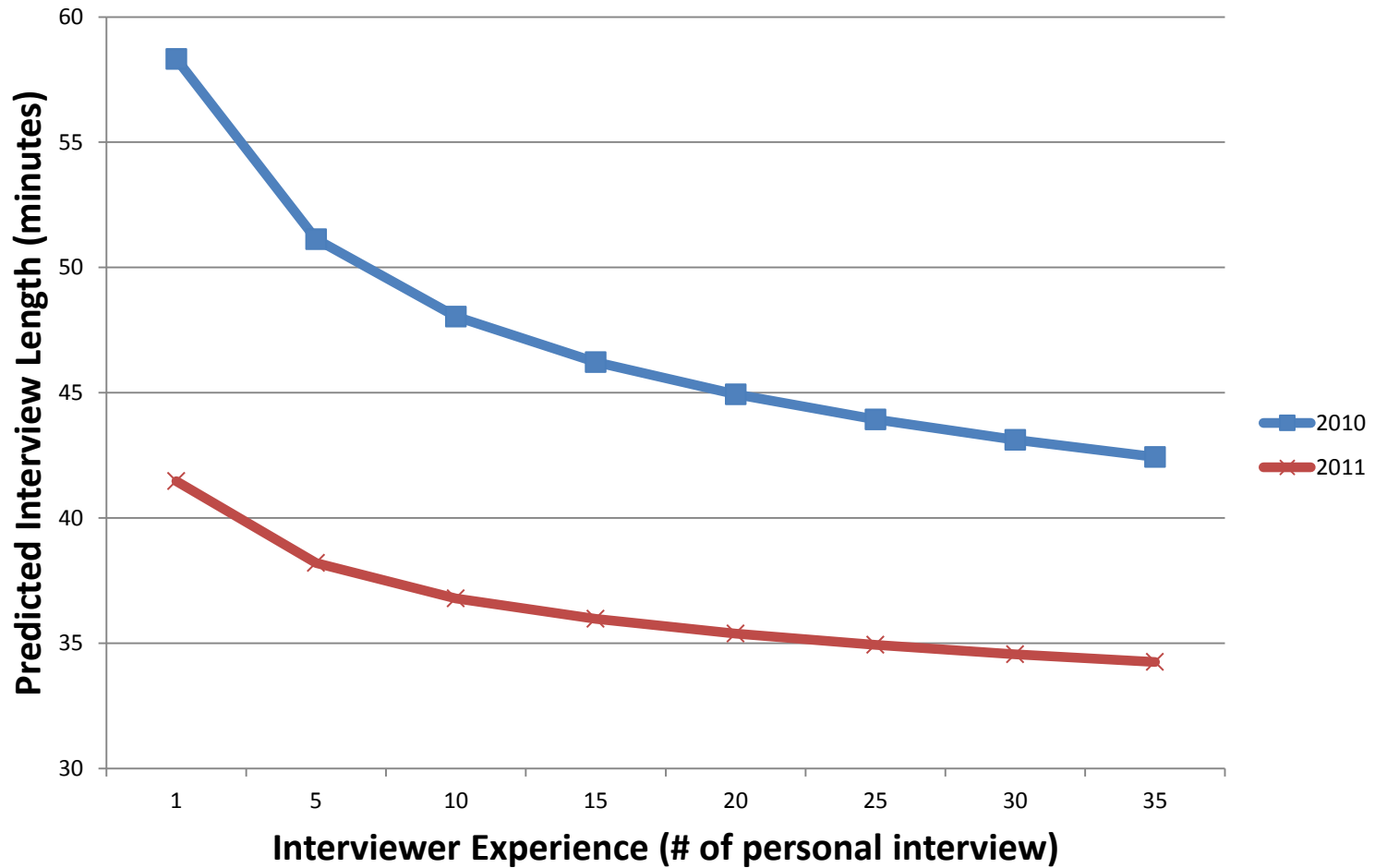
- audit trail data from the Blaise/C# instrument
- certification test for interviewer training
- interviewer characteristics
  - census experience
  - prior SIPP experience
  - supervisory status
  - demographics
- contact history instrument
- mileage, case load, supervisor observation
- neighborhood observation

# Interview Burden and Length 2010 SIPP-EHC and 2011 SIPP-EHC

		2010 SIPP-EHC	2011 SIPP-EHC
<u>Questions Asked</u>			
Full Sample	Mean	280.5	281.5
	Min	156	138
	Max	492	445
Adult, Non-Type Z	Mean	300.7	305.3
	Min	173	152
	Max	492	445
<u>Interview Length</u>			
Personal Interview Length (Min.)		42.36	32.06
Household Interview Length (Min.)		100.84	76.75

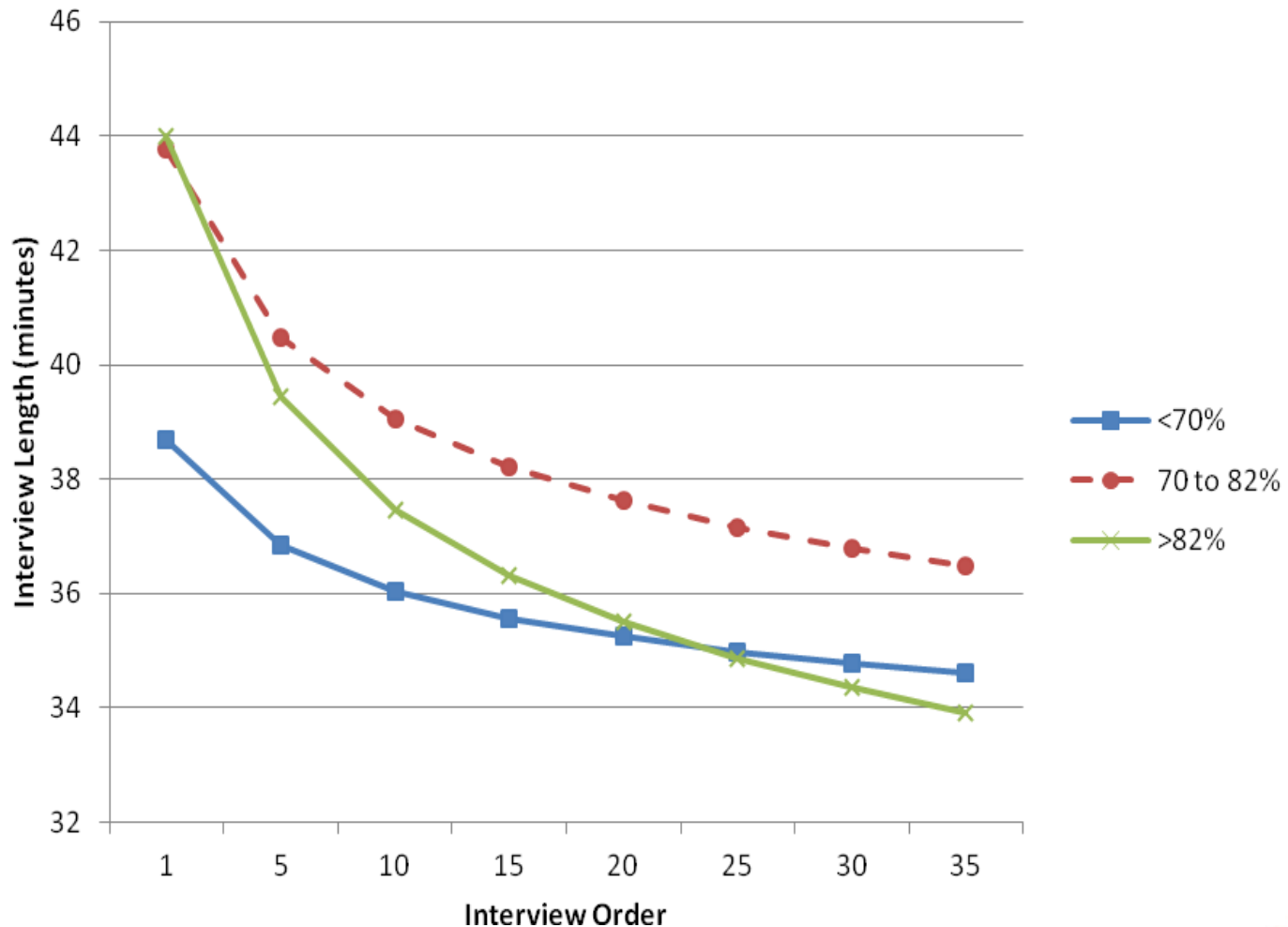
Source: U.S. Census Bureau, Survey of Income and Program Participation-Event History Calendar (SIPP-EHC), 2010 and 2011.  
Reducing Respondent Burden: Evaluating the Progress of the SIPP-EHC  
Rachael Walsh and Jason Fields, FCSM 2012

# Interviewer Learning Curve



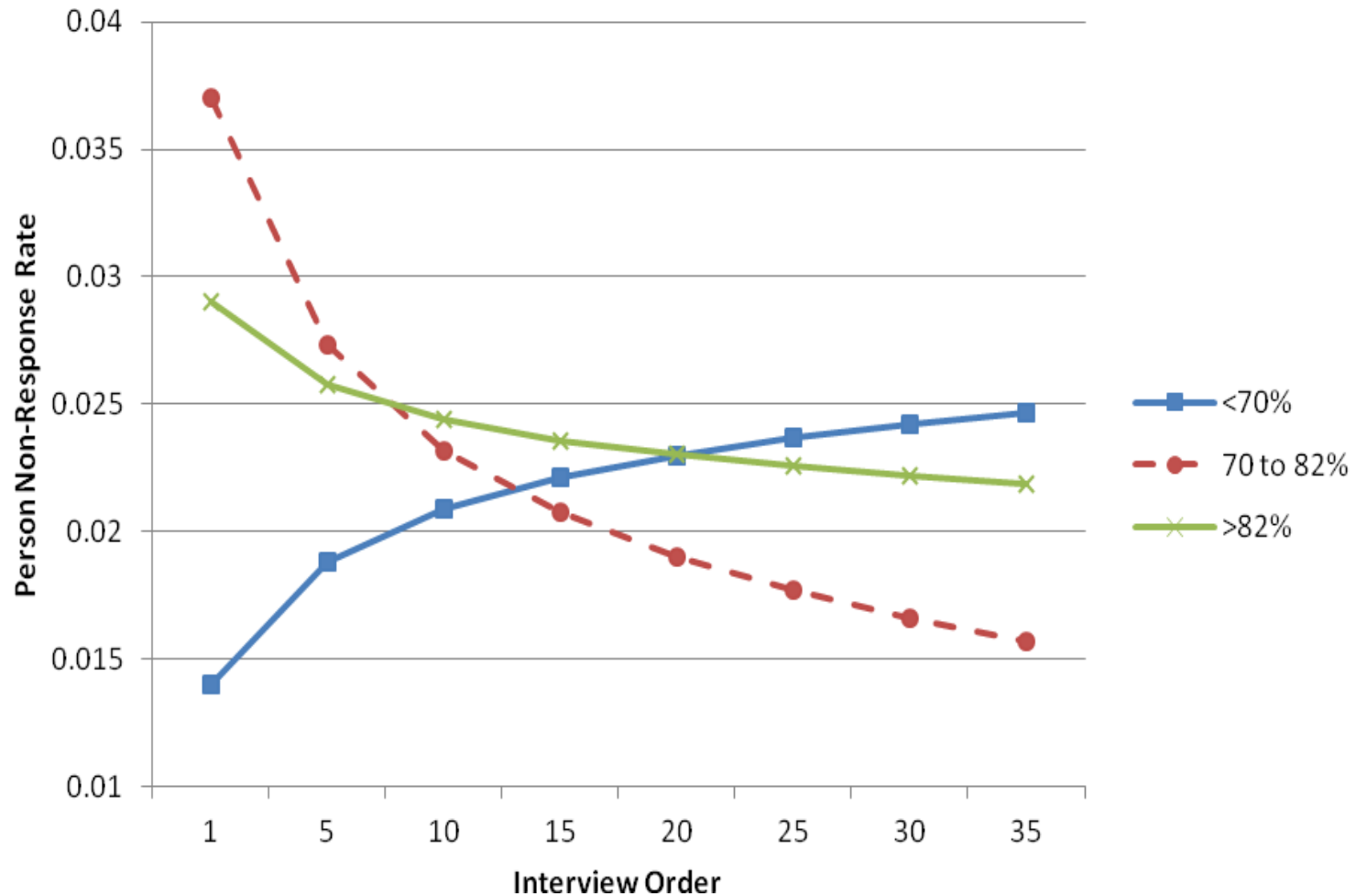
Interviewer Effect on Conversational Interviews: Results from the 2010 & 2011 SIPP-EHC  
Rachael Walsh, PAA 2012

# 2011 Interviewer Progress Curve for Interview Length by Certification Exam Score.



Certifying Interviewers: The role of testing interviewers to improve data quality  
Rachael Walsh, 2012

# 2011 Interviewer Progression Curve for Person Non-Response by Certification Exam Score.



Source: U.S. Census Bureau, Survey of Income and Program Participation-Event History Calendar (SIPP-EHC), 2011.

# A Challenge - Dependent Data & Seams

- Dependent Interviewing – a critical component.
- Why use dependent interviewing (DI)?
  - Bias
    - Seam
    - Recall
  - Burden
    - Interview length
    - Cognitive challenge
  - Data quality
    - Longitudinal consistency
    - Corrections / improvements

## SIPP-EHC Dependent Interviewing (DI)

- Differentiates Spells expected to continue from closed spells that the interviewer should use as memory cues.
- Utilizes DI to provide bounding to the Interviewer / Respondent timeline resolution.
- CQ sections utilize DI to remind and continue with resolving current year's monthly receipt.
- Focus on minimizing the impact to processing and assisting data handling tasks.



## 2013 SIPP-EHC high-level instrument contents and flow

The roster and basic demographics are collected by the household respondent for the whole household.

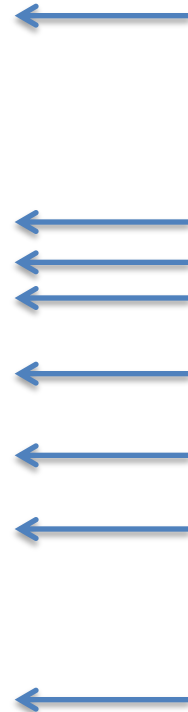
The Type-2 items are answered by the household respondent for the people they live with all year, additionally the income screener is answered for a subset of those people meeting a relationship restriction, else these two sections are person level.

Person level interviewing begins with the Event History Calendar and continues to the wrap-up section. Each available household member 15 and over are interviewed in person and data are collected for each household member (by proxy for those under age 15). Respondents are subject to the universe restrictions of each section and item.

The last interviewed knowledgeable person age 15 and over responds to the final section of the interview.

Address verification
Sample address characteristics and coverage
Roster creation and demographics
Type 2 Roster/Info
Additional person level demographics
Income and program screener
Landmark Events
Residence History
Marriage and Cohabitation
School Enrollment
Labor Force (Jobs, Businesses, Contingent Work, Unemployment, Not In Labor Force, Commuting, Work Schedule)
Programs (SSI,FS,TANF,GA,WIC)
Health Insurance (Private, Medicare, Medicaid, Military, Other, and Uninsured)
Health insurance follow-up
Dependent care expenses
Social Insurance - Annual Programs - Other GI - Lump Sum - Child Support
Assets / Balances
Health (Medical Expenditures - Utilization, Disability)
Fertility, Child Care, Child Well-Being
Housing - Material Wellbeing, Food Security, Basic Needs
Wrap-up and Missing Follow-up visit/call Info
Interview closeout, Respondent debriefing, Neighborhood observation Interviewer debriefing
Contact history instrument (CHI)

E  
H  
C  
  
C  
A  
L  
E  
N  
D  
A  
R



## SIPP-EHC Contents

# 2011 SIPP-EHC Completed Calendar

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																		

# 2012 SIPP-EHC Calendar w/ Dependent Data

Re-Engineered SIPP 2012 Ver 4.35--02/02/2012

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

REFERENCE YEAR 2011   INTERVIEW YEAR 2012

Topic	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Landmarks																		
Residency	█	█	█	█														
Marital History	█	█	█	█														
Education																		
Job 1		█																
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																		

Complete spells  
representing information that was reported last time, but not active at the time of the interview.  
**Should be left alone.**

Provisional spells  
representing information that was reported last time, and current at the time of the interview.  
**Needs to be extended.**

I'm showing when we talked in March of 2011, you were living at this address.

---

Have you lived at 5020 HIGH PLACE continuously since March of 2011?

1) Yes  
 2) No  
 3) DK/RF

Dependent Text

The information displayed here changes depending on the dependent information.

Jan 11 - Feb 11

Set Period  
From:  To:

- All months of the reference period must be accounted for; this includes both 2011 PLUS any months to date in 2012.
- A maximum of 5 addresses is collected per household member for the reference period.
- When recording changes in residences, FROM and TO months should be selected for the residence where the respondent lived for the majority of the month.

**Residency**

## DI Constraints and Considerations

- 2004 SIPP DI success but processing challenge
  - Over 3100 dependent items
- Formatting necessary bring data from instrument output to instrument input.
- 2012 SIPP-EHC
  - Provisional = 197 (limited data plus processing created longitudinal Job and Residence ID's)
  - Complete = 339 (passes full data back in addition to processing created longitudinal Job and Residence ID's)

## DI Constraints and Considerations

- Including DI has many sources for error in implementation
  - Reformatting data from the instrument to the processing system
  - Translating months 13 through the interview into months 1 to n during the subsequent wave reference period. (Months, changes in hours/earnings, and weeks for transitions)
  - Preparing ascii input file for the Blaise instrument
  - Translating input file into proper fields and Blaise function
  - Testing and verifying proper feedback functions
  - Field verification

## Evaluation Plans

- Issues related to successful use of dependent data
- Flexibility for Interviewer/Respondent interaction
- False transitions and mis-timed transitions – recall or seams.
- Mover individuals
- Changing respondents
- Respondent Identification Policy

## **Handling the Unexpected**

- Instrument development testing and retesting
- Delay in fielding 2012 SIPP-EHC
- Disruption to training development
- Non-response and RIP
- Some comparisons are made difficult

## **Final Redesign**

- 2013 SIPP-EHC „last dry run,’ implemented CCB

## **Redesign Evaluation**

- Continued use of survey comparisons, administrative evaluations, and paradata

## Current Status

- Interviewing for 2012 SIPP-EHC Wave 3 in all 12 regional office areas (20 States)
  - Interviewing conducted in May and June 2012.
- Reviewing and making changes to content and design (Dependent Interviewing for 2013 – Wave 3).
- Reviewing and revising training materials and methods
- Planning for 2014 Production Implementation of SIPP-EHC



## Lining the nest.

- crosswalks
- workshops
- data utilities
- SIPP small grants
- users groups
- concerns to evaluate
- overhaul public perception

Contact: [Jason.M.Fields@Census.Gov](mailto:Jason.M.Fields@Census.Gov)

CalendarForm

List of Topics

Topic1  
Topic2  
Topic3  
Topic4  
Topic5

Landmarks: From Jan To Dec  
Residences: From Jan To Dec  
Welfare: From # To #

February 2007

Topic2

Select places where you have lived.

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec Reset

Street: 4700 Silver Hill Road  
City: Suitland  
State: 29

Do you own or rent your home?  
 Own  Rent

Form1

Display Question Text

April/May 2007

Previously Collected Information

Address Change Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec

Fertility Events Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec

Education Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec

Enter Data Here

Employer - 1 Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec  Enable

Employer - 2

Interview

REFERENCE YEAR 2010 INTERVIEW YEAR 2011

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(Next are some questions about assistance programs for people in need.) Now I'm going to ask about Supplemental Security Income, also known as SSI.

Are you currently receiving SSI (either for yourself or on behalf of a child)?

1) Yes  2) No  3) DK/RF

Set Period: From: To: OK

(Only collect SSI spells that cover the person being interviewed. SSI collected on behalf of someone else - such as a child - will be collected in that person's interview. SSI provides assistance to blind and disabled children and adults, and, in some instances, people over age 65 who have low income. It is not the same as income from Social Security.)

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REFERENCE YEAR 2010 INTERVIEW YEAR 2011

Topic	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
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SIPP-EHC 2012

SIPP-EHC 2010