

The 2013 Annual Social Economic Supplement Content Test

The Sample Design

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ASEC Content Test Sample Design

- Introduction
- ASEC Test Sample Requirements
- CPS Rotation Chart
- ASEC Sample
- ASEC Test Sample Size
- Response Rates and Coverage Ratios
- ASEC Test Weighting
- Cautionary Note of Using Data

ASEC Content Test Sample Design

- Annual Social and Economic (ASEC) Supplement
 - Official Source of Income and Poverty Statistics
 - Collect Data on:
 - Income
 - Health Insurance Coverage
 - Work Experience
 - Program Participation
 - Geographic Mobility

ASEC Content Test Sample Design

- Annual Social and Economic (ASEC) Supplement
 - Publish Estimates on:
 - Poverty
 - Family Characteristics
 - Household Composition
 - Educational Attainment
 - Country of Origin

ASEC Content Test Sample Design

- Purpose of our study:
 - Test a New Questionnaire
 - Income
 - Health Insurance Coverage
- Purpose of my presentation:
 - Present the ASEC Content Test Sample Design

ASEC Content Test Sample Design

- Requirements:
 - ASEC Test Cases to be drawn from expired CPS cases – not exposed to ASEC
 - Not be expired for more than 2 ½ years
 - Avoid the American Time Use Survey (ATUS)
 - Detect a significant difference of 0.5%
 - Data collection only using CATI

CPS Rotation Chart

Month	A89/B89								A90/B90								A91/B91								A92/B92								A93/B93																										
2012 July	1	2	3	4	5	6	7	8									
Aug		2	3	4	5	6	7	8	1									
Sept			3	4	5	6	7	8									
Oct				4	5	6	7	8									
Nov					5	6	7	8									
Dec						6	7	8	1									
2013 Jan							7	8	1	2									
Feb								8	1	2	3									
Mar									1	2	3	4									
Apr										2	3	4	5									
May											3	4	5	6									
Jun												4	5	6	7									
Jul													5	6	7	8									
Aug														6	7	8	1										
Sept															7	8	1	2									
Oct																8	1	2	3								
Nov																	1	2	3	4							
Dec																		2	3	4	5						
2014 Jan																			3	4	5	6					
Feb																				4	5	6	7				
Mar																					5	6	7	8			
Apr																						6	7	8	1		
May																							7	8	1	2	
Jun																								8	1	2	3

Incoming Rotation



CPS Rotation Chart

Month	A89/B89								A90/B90								A91/B91								A92/B92								A93/B93																				
2012 July	1	2	3	4	5	6	7	8																																					
Aug		2	3	4	5	6	7	8	1																																				
Sept			3	4	5	6	7	8	1	2																																			
Oct				4	5	6	7	8		1	2	3																																		
Nov					5	6	7	8	1	2	3	4																																	
Dec						6	7	8	1	2	3	4	5																																	
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Apr										2	3	4	5	6	7	8	1																														
May											3	4	5	6	7	8	1	2																												
Jun												4	5	6	7	8	1	2	3																											
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Apr																						6	7	8	1	2	3	4	5																		
May																							7	8	1	2	3	4	5	6																	
Jun																								8	1	2	3	4	5	6	7																



Reactivated

CPS ASEC Sample Rotations

Month	A89/B89								A90/B90								A91/B91								A92/B92								A93/B93							
2012 July	1	2	3	4	5	6	7	8																								
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May																							7	8	1	2	3	4	5	6		
Jun																								8	1	2	3	4	5	6	7	

Interviewed Months:

Regular March Cases

CPS ASEC Sample Rotations

Month	A89/B89								A90/B90								A91/B91								A92/B92								A93/B93							
2012 July	1	2	3	4	5	6	7	8																								
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Additional Case Identified in these months and April

Regular March Cases

ASEC Content Test Sample Design

- Revisiting ATUS Requirement:
 - ATUS
 - Selects sample from expired CPS
 - Interviewed just once
 - Two months after CPS sample
 - Stratified by race ethnicity and presence of children
 - Identified and removed from ASEC Questionnaire Test sample

ASEC Content Test Sample Design

- Revisiting Requirements
 - CATI
 - Approximately 95% of expired CPS completed cases have phone numbers
 - All interviewing attempted in CATI Centers

ASEC Questionnaire Test Sample Design

- Sample Size Determination:
 - Requirement to detect a 0.5% difference between: ASEC and ContentTest
 - For the Direct Health Insurance Purchase (Alone) Estimate
 - 2012 Estimate: 3.7%
 - Standard Error: 0.06% using the GVF parameters

ASEC Content Test Sample Design

- Sample Size Determination:
 - Using:

$$n_0 = \left(\frac{z_{\alpha/2} S}{e} \right)^2$$

Where n_0 is the sample size,

S is the standard error ($\sqrt{p * (1 - p)}$)

e is the margin of error (or absolute precision)

ASEC Content Test Sample Design

- Sample Size Determination:

$$n_0 = \left(\frac{1.645 * \sqrt{0.042 * (1 - 0.042)}}{0.0027} \right)^2$$

$$= 14,935$$

$$n_0 = \frac{14,935}{0.75} = 19,913$$

ASEC Content Test Sample Design

- Response Rate:

	n	Response Rate
Interviews	9,195	43.1%
Noninterviews	12,145	
Total	21,340	

ASEC Content Test Sample Design

- Coverage Ratios

	Total	Males	Females
Total	0.71	0.70	0.71
0-15 Years Old	0.59	0.59	0.58
16-44 Years Old	0.53	0.54	0.53
45+ years Old	0.93	0.93	0.94
White	0.79	0.78	0.80
Black	0.33	0.32	0.33
Residual Race	0.53	0.53	0.53
Hispanic	0.51	0.50	0.51
Non-Hispanic	0.75	0.75	0.75

ASEC Content Test Sample Design

- Coverage Ratios

	Total	Males	Females
Total	0.71	0.70	0.71
0-15 Years Old	0.59	0.59	0.58
16-44 Years Old	0.53	0.54	0.53
45+ years Old	0.93	0.93	0.94
White	0.79	0.78	0.80
Black	0.33	0.32	0.33
Residual Race	0.53	0.53	0.53
Hispanic	0.51	0.50	0.51
Non-Hispanic	0.75	0.75	0.75

ASEC Questionnaire Test Sample Design

- Weighting
 - CPS ASEC Test Base Weight
 - Non-Hispanic Household Adjustment
 - ATUS Adjustment
 - Nonresponse Adjustment
 - First-stage Adjustment
 - Second-stage Adjustment
 - Family Equalization

ASEC Content Test Sample Design

- Cautionary Warning:
 - Response Rate < 60%
 - Some Coverage rates < 70%
 - **Can NOT use data to create estimates**
 - Can use data:
 - To discuss data quality issues
 - For research on methodological improvements

ASEC Content Test Sample Design

That's IT! The Sample Design