

American Community Survey Update

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CaSDC Annual Meeting
June 27, 2013



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Overview

- Data Collection
- Housing Vacancy Rate
- Adding New Topics



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DATA COLLECTION



What's New with Data Collection?

- New Internet Response Option
- New and Revised Survey Questions
- Adaptive Design



Internet Response Option



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Data Collection Operations

Online	Mail	Telephone	Personal Visit
			

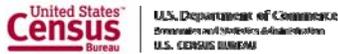


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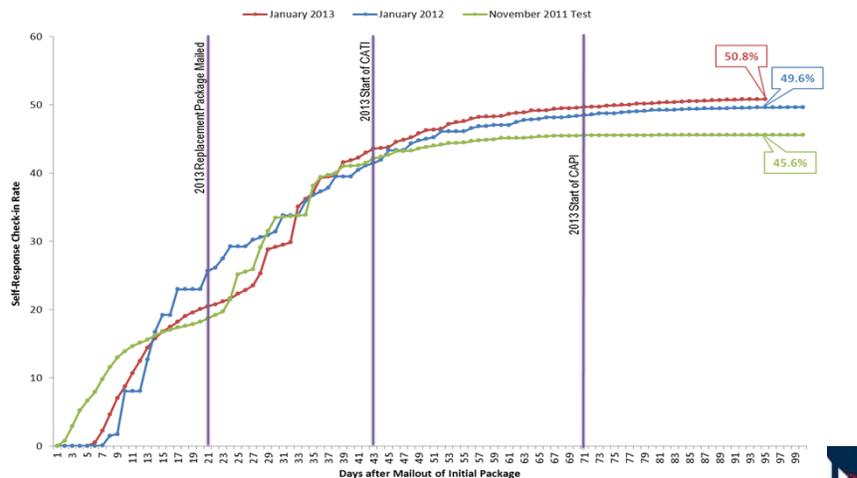
Implementation of an Internet Response Option for 2013

- Thus far, the introduction of an Internet response option has:
 - Slightly increased overall self-response check-in rates
 - Successfully encouraged the majority of self-responders to respond using the Internet
 - Decreased printing, postage and data capture costs



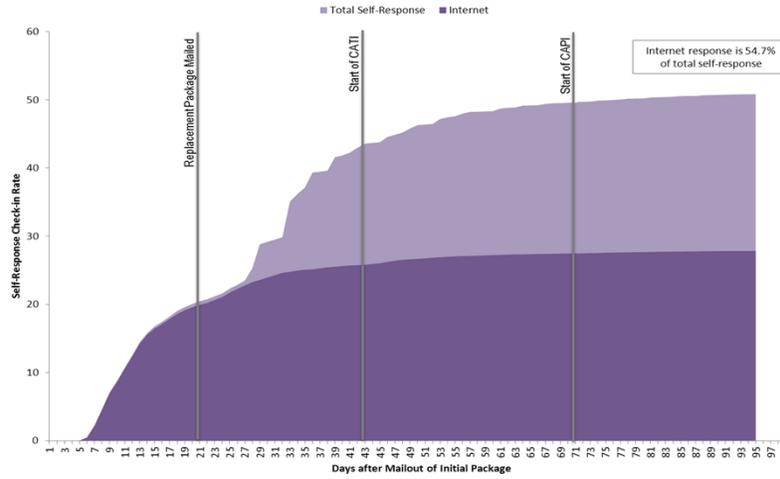
Self-Response Check-in Rates

Self-Response Check-in Rates - January 2013



Self-Response Check-in Rate by Mode

Self-Response Check-in Rate by Mode - January 2013

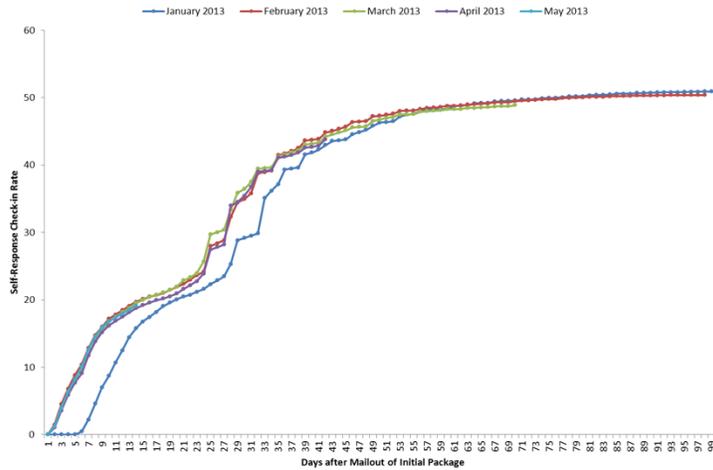


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Self-Response Check-in Rates January Through May 2013

Self-Response Check-in Rates - January 2013 through May 2013 Panels



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Impact on Other Data Collection Modes

- The workloads in the follow-up modes have not experienced significant changes.
- The Telephone Questionnaire Assistance operation workload has increased
- Changes in these workloads would influence cost savings from Internet implementation.

New Questions

- New Survey Questions added in 2013
 - Computer ownership
 - Internet access and Internet service type

9 At this house, apartment, or mobile home – do you or any member of this household own or use any of the following computers?

EXCLUDE GPS devices, digital music players, and devices with only limited computing capabilities, for example: household appliances.

	Yes	No
a. Desktop, laptop, netbook, or notebook computer	<input type="checkbox"/>	<input type="checkbox"/>
b. Handheld computer, smart mobile phone, or other handheld wireless computer	<input type="checkbox"/>	<input type="checkbox"/>
c. Some other type of computer <i>Specify</i> _____	<input type="checkbox"/>	<input type="checkbox"/>

10 At this house, apartment, or mobile home – do you or any member of this household access the Internet?

Yes, with a subscription to an Internet service

Yes, without a subscription to an Internet service → SKIP to question 12

No Internet access at this house, apartment, or mobile home → SKIP to question 12

11 At this house, apartment, or mobile home – do you or any member of this household subscribe to the Internet using –

	Yes	No
a. Dial-up service?	<input type="checkbox"/>	<input type="checkbox"/>
b. DSL service?	<input type="checkbox"/>	<input type="checkbox"/>
c. Cable modem service?	<input type="checkbox"/>	<input type="checkbox"/>
d. Fiber-optic service?	<input type="checkbox"/>	<input type="checkbox"/>
e. Mobile broadband plan for a computer or a cell phone?	<input type="checkbox"/>	<input type="checkbox"/>
f. Satellite Internet service?	<input type="checkbox"/>	<input type="checkbox"/>
g. Some other service? <i>Specify service</i> _____	<input type="checkbox"/>	<input type="checkbox"/>

Revised Survey Questions

- Revised 2013 Questions
 - Food stamps
 - Veterans identification and period of service
 - Wages/salary and Interest/dividends

Future Changes

- New 2014 Survey Questions
 - More detailed information about “other” vacants (CAPI mode only)
- Revised 2014 Questions
 - Removal of the term “negro” from the race question

Adaptive Design

- Adaptive Design efforts
 - Building an enterprise Mixed Mode Operational Control System
 - Used to control data collection and facilitate expanded adaptive design capabilities
 - Research to improve operational efficiencies and make better data collection decisions

HOUSING VACANCY RATE

Housing Vacancy Rate

- Four modes of data collection
- Most vacant units are identified / verified in the personal visit mode
- Our estimation process preserves different statistics at different stages:
 - Estimate of total vacant units
 - Estimate of vacancy rate

Basic HU Weighting Summary

- Each HU has its own weight
- Assign base weights account for probability of selection
- Adjust for nonresponse
- Adjust for total housing unit coverage
- Adjust for differential coverage of housing units based on demographics of householder

Base Weights

- Two sample selections occur for the ACS
- Initial sample selection
 - Affects all sample records
 - Rates vary from 0.5% to 15%
- Sample selection of nonrespondents for personal visit (CAPI)
 - Affects only housing units that do not respond to prior to personal visit
 - Rates vary from 1-in-3 to full followup (100%)

Examples: Base Weights

- Weights are the inverse of the sampling rates
 - Sampling rate = 5%, weight is $1/0.05 = 20$
 - Sampling rate = 10%, weight is $1/0.10 = 10$
- If a unit does not respond via mail, internet, or telephone, it may be sampled further before being selected for personal visit (CAPI)
 - CAPI sampling rate is 1-in-3, then the weight above is multiplied by 3

Adjustment for Nonresponse

- Key assumptions of nonresponse adjustment
 - All vacant units are properly identified in the field
 - All noninterviews are assumed to be occupied
- Based on these assumptions, the nonresponse adjustment
 - Adjusts the weights of the occupied interviews to account for the noninterviews
 - Does not adjust the weights of vacant interviews
 - Weights of noninterviews are set to zero

Examples: Adjust for Nonresponse

- Consider the following:
 - Weighted occupied interviews = 81
 - Weighted noninterviews = 9
 - Weighted vacant interviews = 10
- After adjustment [factor occ. int. = $(81+9)/81$]
 - Weighted occupied interviews = 90
 - Weighted noninterviews = 0
 - Weighted vacant interviews = 10
- Note weighted vacant interviews is fixed

Adjustment for HU Coverage

- The adjustment for coverage uses independent estimates of housing units (HUs)
 - Independent estimate is for total HUs only
 - No breakdown of occupied / vacant is available
- Thus, this adjustment has the following impact
 - Estimate of occupied and vacant HUs are impacted proportionally
 - Vacancy rate for HUs is not impacted

Example: Coverage Adjustment

- Consider the following:
 - Weighted occupied interviews = 90
 - Weighted vacant interviews = 10
 - Total weighted HUs = 100, Independent Est = 110
- After adjustment (factor = $110 / 100 = 1.1$)
 - Weighted occupied interviews = 99
 - Weighted vacant interviews = 11
 - Total weighted HUs = 110 = independent estimate
- Note that the vacancy rate:
start $10/100$ = finish $11 / 110 = 90\%$

Adjustment for Differential Householder Coverage

- Applied only to occupied HUs
- Total occupied housing units
 - Changes very little at county level
 - Can change more at the subcounty level
- Total vacant housing units
 - Unchanged at any geographic level
- Vacancy rate
 - Impacted by any change in estimated occupied
 - Impacted subcounty but very little at county level



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Example: Differential Coverage Adjustment

- Consider the following county total:
 - Estimated HUs with White Householder = 55
 - Estimated HUs with non-White householder = 44
 - Estimated vacant HUs = 11, Est. total HUs = 110
- After adjustment
 - Estimated HUs with White Householder = 53
 - Estimated HUs with non-White householder = 47
 - Estimated vacant HUs = 11, Est. total HUs = 111
- Note: estimated vacant HUs is unchanged
- Note: est. vacancy rate changes because total +1



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In summary

- Most of the vacant HUs are identified during the personal visit mode
- The noninterview adjustments do not affect the estimate of vacant HUs
- The total HU coverage adjustment
 - preserves the estimated vacancy rate
 - May adjust the estimate of vacant HUs
- Final adjustment for differential coverage
 - Preserves the estimate of vacant HUs
 - May change estimated vacancy rate slightly



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ADDING NEW TOPICS



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The Current ACS Content Policy

Based on the 2006 policy signed by Director Kincannon:

- “Any new ACS content will be determined by the OMB, in consultation with the Census Bureau.”
- “In making content determinations, the OMB, in consultation with the Census Bureau, will consider issues such as frequency of data collection; the level of geography needed to meet the required need; and whether any other source of data would meet the requestor's need in lieu of collection on the ACS.”
- “The fact that respondents' participation in the ACS is mandatory requires that the OMB will only approve, and the Census Bureau will only ask, necessary questions. On a periodic basis, the Census Bureau will reassess the questions contained on the ACS to ensure that this survey remains the appropriate vehicle for collection of these data.”
- “The OMB's responsibility under the PRA requires that practical utility of the data be demonstrated and that the respondent burden be kept to a minimum. As such, the Census Bureau will refer all agency requests for new content to the OMB.”



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Groups Assisting in the Management of ACS Content

- ACS Content Council (Census)
- OMB Interagency Committee for the ACS
- Interagency Council on Statistical Policy Subcommittee for the ACS



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The ACS Content Council

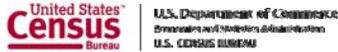
- Internal Census Bureau group that reviews any proposed content changes and provides input on their impact
- Functions as change control board for implementing any approved changes

The OMB Interagency Committee for the ACS

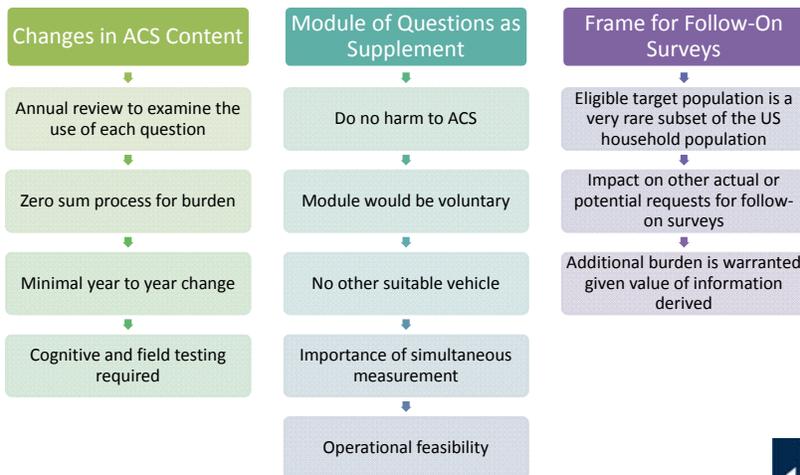
- Co-chaired by OMB and Census
- Membership from Federal agencies that have an interest in ACS data
- Primary source of requests for modified or new content for the ACS
- Ensures wide communication of potential survey changes to Federal stakeholders

The ICSP Subcommittee on the ACS

- On August 10, 2012, The Interagency Council on Statistical Policy Subcommittee on the American Community Survey was chartered
- Co-chaired by OMB’s Chief Statistician and the Census Bureau Director, and membership includes three heads of Federal statistical agencies, on rotating basis
- Advises OMB on “how the ACS can best fulfill its role in the portfolio of Federal household surveys and provide the most useful information with the least amount of burden.”



Guidance for the ICSP Subcommittee on the ACS



The Process for ACS Content Changes

Requests for changes come from Federal agencies participating in the OMB Interagency Committee for the ACS

ICSP Subcommittee for the ACS provides recommendations to OMB on the requested changes. OMB provides approval prior to beginning any testing, and a topical subcommittee is formed

Conduct cognitive testing in English and Spanish, followed by field testing in all modes of collection

Census provides empirical test results, Federal agency submits a final recommendation to OMB and Census, ISCP Subcommittee provides input, and OMB makes a final decision via the OMB clearance process.



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Frequency of Content Testing

- We have historically fielded a Content Test on a five year cycle.
- Pending receipt of adequate funding, we will begin work in 2013 to prepare for the next Content Test in 2016, with planned implementation of modified or new content for the production ACS in January 2019.



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2013 ACS Content Changes

- The content of the 2013 ACS questionnaire reflects changes to content, instructions, and forms design that were tested in the 2010 ACS Content Test
- We included federal agency stakeholder input to determine test content, cognitive laboratory pre-testing, and expert reviews to develop alternative versions of test questions
- For reports that provide a full description of the overall 2010 ACS Content Test and topic-specific research objectives, methodology, and empirical results, see the Census Bureau website at:

http://www.census.gov/acs/www/library/by_series/content_test_evaluation_reports/



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Modifications to Existing Questions

- Food stamp question: to incorporate the program name change to the Supplemental Nutrition Assistance Program (SNAP).

15 IN THE PAST 12 MONTHS, did you or any member of this household receive benefits from the Food Stamp Program or SNAP (the Supplemental Nutrition Assistance Program)? Do NOT include WIC, the School Lunch Program, or assistance from food banks.

Yes

No



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Modifications to Existing Questions

- Property income and wage questions: to improve response by breaking up these questions into shorter pieces to improve comprehension when the questions are asked by an interviewer. (This change will be incorporated into the interviewer-administered modes only.)



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Modifications to Existing Questions

- Veteran status and period of service questions: to simplify the reporting categories.

26 Has this person ever served on active duty in the U.S. Armed Forces, Reserves, or National Guard? Mark (X) ONE box.

- Never served in the military → SKIP to question 29a
- Only on active duty for training in the Reserves or National Guard → SKIP to question 28a
- Now on active duty
- On active duty in the past, but not now

27 When did this person serve on active duty in the U.S. Armed Forces? Mark (X) a box for EACH period in which this person served, even if just for part of the period.

- September 2001 or later
- August 1990 to August 2001 (including Persian Gulf War)
- May 1975 to July 1990
- Vietnam era (August 1964 to April 1975)
- February 1955 to July 1964
- Korean War (July 1950 to January 1955)
- January 1947 to June 1950
- World War II (December 1941 to December 1946)
- November 1941 or earlier



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Modifications to Existing Questions

- Puerto Rico utilities questions: to resolve data quality problems due to confusion with “hot and cold running water” because it is common for housing units in Puerto Rico to not have a water heater

8 Does this house, apartment, or mobile home have -		
	Yes	No
a. running water?	<input type="checkbox"/>	<input type="checkbox"/>
b. a water heater?	<input type="checkbox"/>	<input type="checkbox"/>
c. a flush toilet?	<input type="checkbox"/>	<input type="checkbox"/>
d. a bathtub or shower?	<input type="checkbox"/>	<input type="checkbox"/>
e. a sink with a faucet?	<input type="checkbox"/>	<input type="checkbox"/>
f. a stove or range?	<input type="checkbox"/>	<input type="checkbox"/>
g. a refrigerator?	<input type="checkbox"/>	<input type="checkbox"/>
h. telephone service from which you can both make and receive calls? <i>Include cell phones.</i>	<input type="checkbox"/>	<input type="checkbox"/>

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New Questions

- Computer and Internet usage questions: The Broadband Data Improvement Act of 2008 requires that the ACS elicit information from residential households to determine whether persons at such households own or use computers at their address, whether persons subscribe to Internet service and, if so, whether they subscribe to dial-up or broadband Internet service at that address.
 - Section 103(d) of the Broadband Data Improvement Act, Pub. L. No. 110-385, § 103(d), 122 Stat. 4096, 4098 (2008)

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Computer and Internet Usage Questions

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b. Handheld computer, smart mobile phone, or other handheld wireless computer	<input type="checkbox"/>	<input type="checkbox"/>
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d. Fiber-optic service?	<input type="checkbox"/>	<input type="checkbox"/>
e. Mobile broadband plan for a computer or a cell phone?	<input type="checkbox"/>	<input type="checkbox"/>
f. Satellite Internet service?	<input type="checkbox"/>	<input type="checkbox"/>
g. Some other service? Specify service <i>z</i>	<input type="checkbox"/>	<input type="checkbox"/>



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Contact Information

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Contact Information

- Mark.E.Asiala@census.gov
- Useful links:
 - ACS webpage:
<http://www.census.gov/acs/>
 - Design and Methodology Report:
http://www.census.gov/acs/www/methodology/methodology_main/
(working on update for 2013 and internet)



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