

American Community Survey Content Review: Respondent Burden

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Background

The 2014 ACS Content Review built upon earlier efforts begun during the comprehensive ACS Program Review to...

- Examine and confirm the value of each ACS question
- Confirm and update the legal basis for questions
- Gather input from federal agencies and other data users
- Analyze data using pre-specified criteria established by the Interagency Council on Statistical Policy (ICSP), Subcommittee on the ACS
- Develop recommendations for ACS content that will provide the most useful information with the least amount of burden to the public

Candidate Questions for Removal

- Business or Medical Office on Property
- Undergraduate Field of Degree
- Married in the Last 12 Months
- Widowed in the Last 12 Months
- Divorced in the Last 12 Months
- Number of Times Married
- Year Last Married

Cost/Burden Measures

1. Cognitive Burden Score
 2. Sensitivity Score
 3. Overall Difficulty Score
 4. Number of Complaints to Census Bureau HQ
 5. Median Seconds to Answer
 6. Median County-Level item Response Rate
- } Interviewer Survey

ACS Interviewer Survey: Background

- Get measure of burden from those who have contact with respondents
- Surveyed Telephone Center interviewers & Field Representatives
 - Minimum one year of experience with ACS & conducted 10 ACS interviews in previous two months
 - 2,814 eligible, 1,125 sampled, 1,063 responded
 - Results weighted for probability of selection
- Data collected: May 1 to June 3, 2014

ACS Interviewer Survey: Questions

- Five yes/no questions for each ACS question:
 - Does the question contain terms or concepts that your respondents find confusing or difficult to understand?
 - Do respondents give answers other than the response categories, causing you to probe further to mark an appropriate response category?
 - Do respondents take longer to respond to the question because they are not able to immediately retrieve information needed to provide an answer?
 - Do respondents show discomfort or reluctance to answer this question?
 - Are you uncomfortable asking the question as worded?

ACS Interviewer Survey: Questions

- One five-point Likert Scale question for each ACS question:
 - How difficult is it to collect responses for this question?
 - Very difficult, Difficult, Neutral, Easy, Very easy
- One overall question:
 - What are the three most problematic questions for respondents?



Interviewer Survey: Criteria and Scoring

Criteria	Description	Scale
Cognitive Burden	Yes to any of these questions: <ul style="list-style-type: none">• Confusing/difficult to understand• Further probing required• Respondents have to retrieve information to answer	1: Low, 0% up to 20% 3: Medium, 20% up to 60% 5: High, 60 to 100%
Sensitivity	Yes to any of these questions: <ul style="list-style-type: none">• Respondent reluctant to answer• Interviewer uncomfortable asking	1: Low, 0% up to 20% 3: Medium, 20% up to 60% 5: High, 60 to 100%
Overall Difficulty	Yes to any of these responses: <ul style="list-style-type: none">• Rated difficult or very difficult• In the top three problematic questions	1: Low, 0% up to 20% 3: Medium, 20% up to 60% 5: High, 60 to 100%

Interviewer Survey: Results

Cognitive Burden	%Yes to Any
Type of Internet Access	88.4%
Value of Property	79.1%
Real Estate Taxes	76.6%
Ancestry	75.1%
Insurance	74.3%
Water and Sewer Cost	66.7%
Rooms	66.6%
Race	66.1%
Year Structure Built	63.7%
Weeks Worked	63.2%

Sensitivity	%Yes to Any
Income - Wages	84.9%
Total Income	71.1%
Income - Self Employment	69.0%
Income - Interest/Dividends	67.3%
Income - Retirement	65.6%
Time Left for Work	61.0%
Income - Social Security	58.3%
Place of Work	56.3%
Value of Property	55.9%
Mortgage Payment	55.6%

Interviewer Survey: Results

Overall Difficulty	%Diff/Top3
Income - Wages	69.6%
Type of Internet Access	55.5%
Total Income	47.0%
Income - Interest/Dividends	46.1%
Value of Property	44.3%
Income - Self Employment	44.1%
Real Estate Taxes	33.2%
Ancestry	32.9%
Insurance	32.1%
Income - Retirement	31.1%

Overall Score	Score
Income - Wages	15
Race	11
Type of Internet Access	11
Water and Sewer Cost	11
Value of Property	11
Real Estate Taxes	11
Insurance	11
Ancestry	11
Time Left for Work	11
Weeks Worked	11
Income - Self Employment, Int/Div, Retirement, Total	11

Interviewer Survey: Results

Question	Cognitive	Sensitive	Difficult	Score
Business or Medical Office on Property	12.2%	10.8%	1.5%	3
Undergraduate Field of Degree	16.7%	11.2%	2.2%	3
Change in Marital Status in Last 12 Months*	17.5%	25.9%	6.4%	5
Number of Times Married	15.4%	48.7%	11.4%	5
Year Last Married	42.6%	27.3%	10.6%	7

* Includes Married in Last 12 Months, Widowed in last 12 Months, and Divorced in Last 12 Months

Median Seconds to Answer: Background

- From Internet, CATI (telephone), and CAPI (personal visit) data collections.
 - Only responses from occupied housing units
- Used data collected from December 2013-February 2014
 - 283,530 responses used in the analysis
- Calculated at the household level
 - For person questions, time added up for all persons in the household

Median Seconds to Answer: Calculations

- Had to develop right metrics
 - Median instead of mean, so extremes would not skew
 - Length of question time for household
 - Number of households asked a question
- Resulting measures:
 - Median calculations of households asked a given question
 - Adjusted median takes into account that some questions aren't asked of all households

Median Seconds to Answer: Calculations

- Median seconds to answer
 - Only includes households asked the question
 - Including all households would mean a lot of medians of zero
- Adjusted median
 - Takes into account the percentage of households asked a given question
 - Formula: Median * % of HHs asked question

Median Seconds to Answer: Calculations

- Scoring
 - Used 1 (low), 3 (median), and 5 (high) system
 - Groupings done using SAS FASCLUS procedure
 - Done separately for median and adjusted median
 - Final score: higher of the two scores

Median Seconds to Answer: Results

Question	Median	Adjusted	Median Cluster	Adjusted Cluster	Final Cluster
Income - Wages	49	41	5	5	5
Address One Year Ago	48	7	5	1	5
Age/Date of Birth	36	36	5	5	5
Ancestry	34	34	3	5	5
Rooms	31	31	3	5	5
Place of Birth	29	29	3	5	5
Educational Attainment	29	29	3	5	5
Place of Work Address	33	24	3	3	3
Class of Worker	30	25	3	3	3
Employer Name	30	25	3	3	3



Median Seconds to Answer: Results

Question	Median	Adjusted	Median Cluster	Adjusted Cluster	Final Cluster
Business/Medical Office on Property	5	4	1	1	1
Undergraduate Field of Degree	23	9	3	1	3
Married in the Last 12 Months	4	3	1	1	1
Widowed in the Last 12 Months	6	5	1	1	1
Divorced in the Last 12 Months	5	4	1	1	1
Number of Times Married	7	6	1	1	1
Year Last Married	9	7	1	1	1

Conclusions/Next Steps

- Survey has questions that have notable burden: cognitivity, sensitivity, difficulty, time-consuming
 - Many of these questions had high benefit as measured in the ACS Content Review
- Additional analysis is planned to look at questions like these to reduce burden, such as:
 - Administrative records
 - Modifying questions

Stay Involved!

- View the ACS Content Review Web Page:
http://www.census.gov/acs/www/about_the_survey/acs_content_review/
- Sign up for GovDelivery ACS Subscriber Notices:
<https://public.govdelivery.com/accounts/USCENSUS/subscriber/new>
- Review 60-day *Federal Register* Notice
(Open for comment from October 31, 2014 to December 30, 2014)
<https://www.federalregister.gov/articles/2014/10/31/2014-25912/proposed-information-collection-comment-request-the-american-community-survey-content-review-results>