

# Who Are We Most Likely to Reach with Digital Advertising?

Stephanie Baumgardner, US Census Bureau

## Digital Advertising

- Any advertisement using a form of electronic media (Internet, social media, mobile phones)
- Includes display ads, video ads, social media ads, related content ads, retargeting ads, etc.
- Targets specific populations based on geography or on information about an individual's internet activity
- Also provides the ability to reach individual households in a survey sample

## Decennial Census Advertising Campaigns

- Census 2000 - For the first time, used a paid advertising campaign including print and broadcast media and outdoor advertising (e.g. billboards)
- 2010 Census – Added digital advertising in the form of a 2010 Census website and used social media (YouTube, Facebook, Twitter) to get messaging out
- 2015 Census Test (Savannah, GA) – Included targeted digital advertising to reach hard-to-count populations

## Feasibility of Advertising for a Survey

- Focused on the American Community Survey (ACS)
- Broad-based advertising is cost-prohibitive
- Digital advertising provides the opportunity to deliver promotional messages to individual households
- This research provides information on who the ACS could reach with digital advertising if we were to consider it
- For more information on the ACS, visit [www.census.gov/acs](http://www.census.gov/acs)

## Methodology

To show how the ACS is affected by decennial census advertising, computed ACS self-response check-in rates

- Used 2009 and 2010 ACS paradata at the national level
- Used 2014 and 2015 ACS paradata for the Savannah, GA area

Computed as:  $\frac{\text{Number of self-responses}}{\text{Sample addresses eligible for mail delivery}} \times 100$

To understand who we could reach with digital advertising, computed digital advertising metrics

- Used unedited 2016 ACS Content Test data for operational and logistical reasons
- Used third-party vendor to link sample addresses to digital profiles
- Computed propensity to self-respond and response distributions of selected characteristics for addresses to which we could digitally advertise and those we could not

All metrics weighted by the ACS sampling weights  
Used replicate weights to calculate standard errors and performed statistical testing at the 0.10 significance level

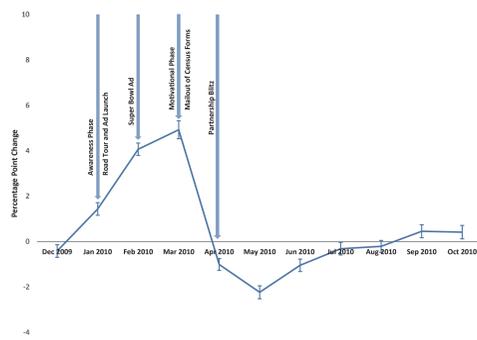
## Limitations

- Some differences in the self-response check-in rates are due to factors other than Census advertising
- To protect confidentiality, special processes were used in communicating sample addresses to the third-party vendor which may have resulted in fewer addresses being linked to a digital profile
- We were restricted to using only one third-party vendor to link sample addresses to digital profiles
- Data weighted only for probability of selection; not adjusted for unit-nonresponse or population controls

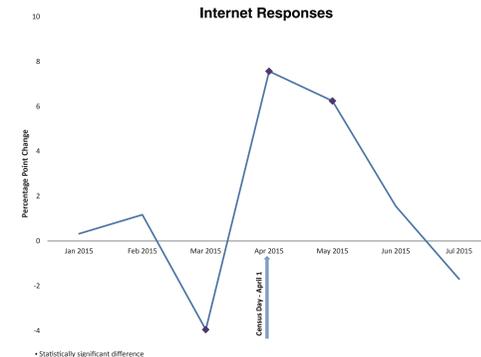
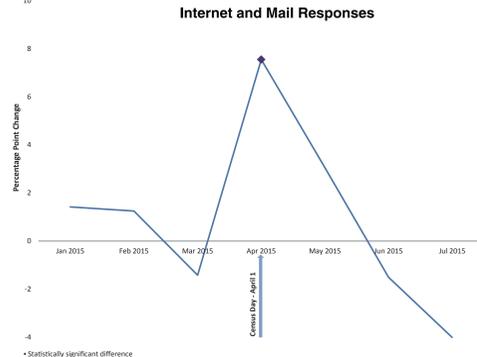
## Results

### How is ACS self-response affected during Census advertising and activities?

**2010 Census**  
Differences in the ACS Mail Check-in Rates from Prior Year by ACS Panel (National Level)

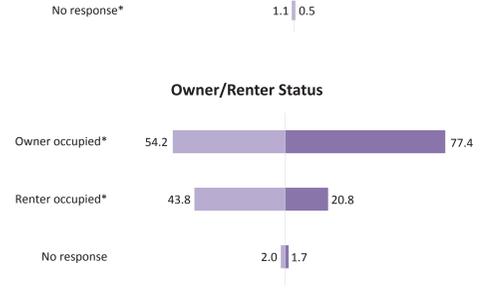
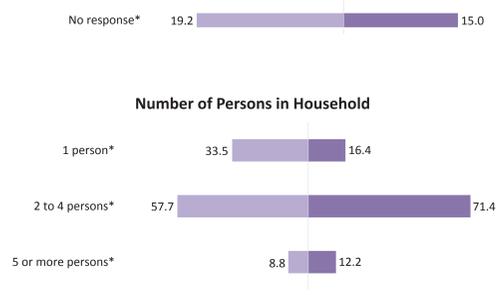
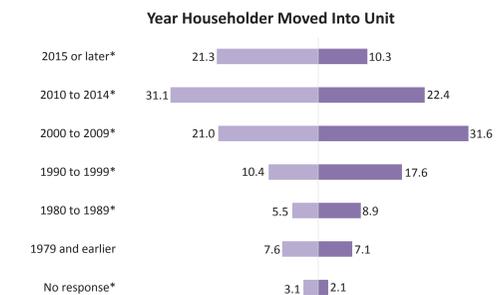
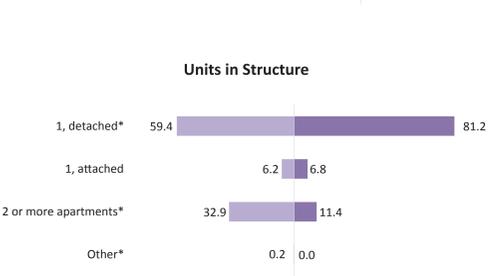
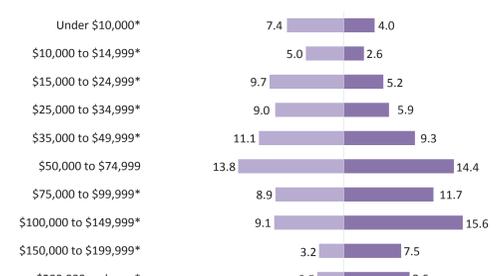
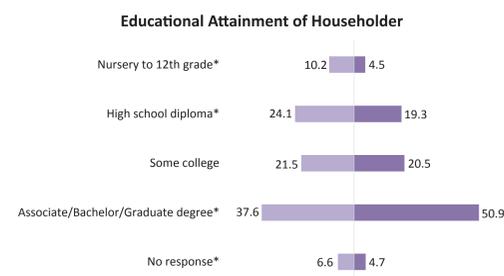
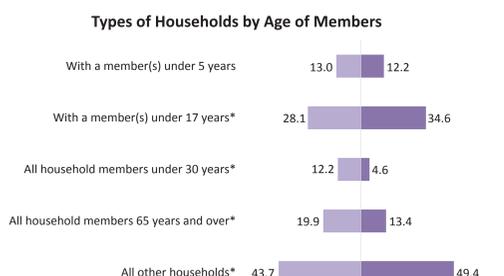
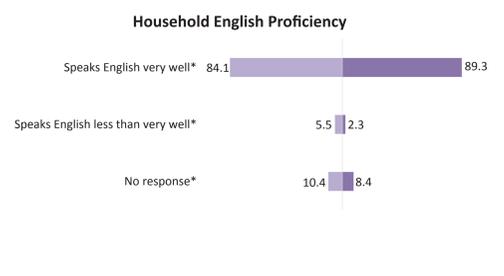
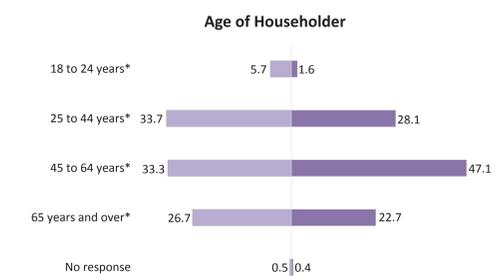


**2015 Census Test**  
Differences in the ACS Check-in Rates from Prior Year by ACS Panel (Savannah, GA area)



### Are the characteristics of survey households with digital profiles significantly different from those with no digital profile?

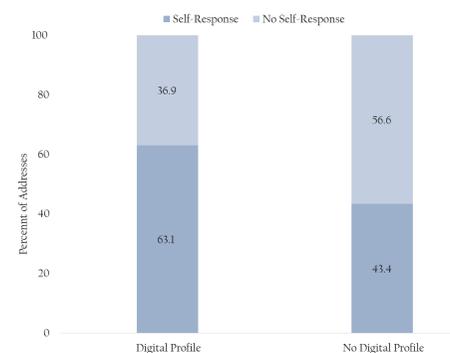
Yes, we found statistically significant differences in the distributions<sup>1</sup> of the 2016 ACS Content Test addresses with digital profiles and those with no digital profiles.



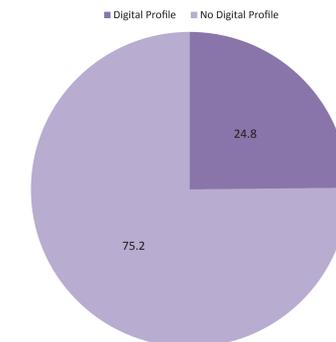
\* Indicates a statistical significant difference  
<sup>1</sup>All distributions are percent of households

### Can we reach survey households who are not likely to self-respond with digital promotional messages?

Propensity to Self-Respond by Presence of a Digital Profile (2016 ACS Content Test Addresses)



Addresses that did not Self-Respond by Presence of a Digital Profile (2016 ACS Content Test Addresses)



## Conclusions

- Census advertising and activities positively affected ACS self-response leading up to 'Census Day' in 2010
- After 'Census Day' in 2010, ACS self-response was negatively affected
- About 63 percent of the 2016 ACS Content Test addresses with a digital profile self-respond to the ACS
- About 43 percent of the 2016 ACS Content Test addresses with no digital profile self-respond to the ACS
- Of the 2016 ACS Content Test addresses that did not self-respond, about 25 percent had a digital profile

Characteristics of 2016 ACS Content Test addresses without a digital profile (compared to those with a digital profile):

- Householder is more likely to be aged 18 to 44 or 65 and over
- Householder is less likely to have a college degree
- More likely to
  - Have members who speak English less than very well
  - Be renters
  - Live in an apartment
  - Have moved into unit in 2010 or later
  - Be one-person households
  - Have household incomes less than \$50,000
  - Consist of members all under 30 years or 65 and over