# Do Names Matter? Experiments Comparing Different Branding and Levels of Personally Identifiable Information in a Mail Questionnaire

## Sarah Hastedt Carroll

National Center for Education Statistics Sarah.Carroll@ed.gov

# **Andrew Zukerberg**

National Center for Education Statistics Andrew.Zukerberg@ed.gov

Proceedings of the 2013 Federal Committee on Statistical Methodology (FCSM) Research Conference

This paper is intended to promote the exchange of ideas among researchers and policy makers. The views expressed in this paper are part of ongoing research and analysis and do not necessarily reflect the position of the U.S. Department of Education.

#### Introduction

The survey methodology literature has long looked at ways to increase response in mail surveys. Two areas that have been of interest are the effects of sponsorship and level of anonymity (see for example: Jones 1979, Heberlein and Baumgartner 1978, and De Leeuw et al. 2007). Government sponsorship and increased anonymity are thought to improve response rates (Heberlein and Baumgartner 1978, Jones 1979, Dillman 2007). However, we are not aware of research that directly compares the impact of sponsorship by different Federal agencies on response rates. This paper presents results from an experiment designed to look at these issues that was conducted as part of the 2012 National Household Education Surveys Program (NHES:2012). The experiment used a 2x2 factorial design. As part of the first treatment in the experiment, households were randomly assigned to receive materials emphasizing the Census Bureau's involvement in the NHES:2012 data collection (Census Bureau "branding") or materials emphasizing Department of Education (ED) sponsorship of the NHES:2012 (ED "branding"). For the second treatment in the experiment, households were randomly assigned to receive a screener questionnaire that asked for the names of children living in the household as well as demographic information or a screener questionnaire that only collected the demographic information. This experiment also allows us to examine the interaction between the two treatments. The analysis focuses on differences in response rates between respondents in the different treatment groups, but is extended to subgroup comparisons in some cases using demographic data available on the sample frame.

## **Background**

The National Household Education Surveys Program (NHES) is the primary household survey sponsored by the National Center for Education Statistics (NCES). The NHES uses rotating topical survey modules to collect information on a variety of topics that are difficult to address in school-based surveys such as homeschooling, early childhood care and education, school choice, and adult education. The NHES was conducted as a landline random digit dial (RDD) survey using computer-assisted telephone interviewing (CATI) approximately every two years from 1991 through 2007. Following the 2007 data collection, the NHES underwent a methodological redesign due to declining response rates and concerns about population coverage using the landline telephone frame.

As part of the NHES redesign, the data collection mode changed from an RDD CATI survey to an address-based sample (ABS) with data collection using self-administered surveys conducted through the mail. Cognitive testing

<sup>&</sup>lt;sup>1</sup> Response rates to the first phase of the survey fell from 81% in 1991 to 53% in 2007 (Van de Kerckhove et. al. 2008).

<sup>&</sup>lt;sup>2</sup> In 2007 the percentage of households with cell phone only telephone service was 15.8 percent and in 2012 that percentage had increased to 38.2 percent. (Blumberg and Luke 2009 and Blumberg and Luke 2013).

was conducted on the questionnaires and mailing materials during initial development, followed by a feasibility test of the new design in 2009 and a field test in 2011. The results of these tests provided guidance on the design for the full scale NHES:2012 data collection. The NHES:2012 was a two-phase mail survey. In the first phase, called the "screener" phase, sampled households were mailed a brief screener survey designed to identify households with eligible children for the second phase of the survey, referred to as the "topical" phase. Households were asked to enumerate children age 20 or younger living in the household and provide basic demographic information about each child (including age, sex, and school enrollment status). In households that returned the screener survey and contained at least one eligible child, one child was sampled for a topical follow-up survey. The topical survey was a longer survey that collected more detailed information about the early care and education of the focal child. Children age six or younger who were not yet in kindergarten were eligible for the Early Childhood Program Participation Survey (ECPP) and children age 20 or younger who were enrolled in public or private school or homeschooled for kindergarten through twelfth grade were eligible for the Parent and Family Involvement in Education Survey (PFI). Children's eligibility for either topical survey was determined by the information provided on the screener survey. Parents of children sampled for the topical survey were mailed the survey and asked to respond. At both the screener and topical phase, up to three nonresponse mailings after the initial mailing were sent to households in an effort to maximize response rates.

The NHES:2012 contained a screener questionnaire experiment designed to look at ways to improve coverage and response rates in future administrations of the survey. The screener experiment used a 2x2 factorial design. The first treatment varied the "branding" used for the survey. The second treatment varied whether or not the screener survey included a request for respondents to provide children's names on the survey. Households were randomly assigned to different treatment groups. The following paragraphs describe the experimental treatments in more detail.

Prior to 2012, the NHES had been conducted by Westat on behalf of ED. As noted previously, research literature has suggested that highlighting government sponsorship of a data collection improves response rates over private sector sponsorship (Heberlein and Baumgartner 1978, Dillman 2007). For this reason the past NHES materials emphasized ED's sponsorship of the study. In 2012, data collection for the NHES moved to the U.S. Census Bureau. This presented the opportunity to highlight the Census Bureau's role in data collection. The first experimental treatment involved random assignment of households to receive survey materials featuring the Census Bureau as the primary brand or survey materials using the Department of Education as the primary brand. Elements of the primary survey brand included the use of the primary brand agency's official seal on respondent materials and greater prominence of the primary brand agency's name on respondent materials. Materials with the Census Bureau as the primary brand contained references to the Department of Education as the sponsor of the survey and materials with the Department of Education as the primary brand indicated that the Census Bureau was collecting data for the Department of Education. However, these references were much less prominent (in the text of a letter or in the authorization and confidentiality text on the survey forms) than the primary brand's name and seal.

We hypothesized that the Census Bureau could have greater name recognition as a result of contacting every household in the U.S. for the Decennial Census, and many households in the U.S. for the American Community Survey (ACS), and that this would generate higher response rates compared to surveys with the Department of Education as the primary brand. Alternatively, given the survey's focus on education and the target population of households with children, using the Department of Education as the primary brand may increase the perceived legitimacy of the survey request and generate higher response rates. The basic content of the survey materials was the same regardless of the branding and the screener survey questions did not vary by primary brand. Exhibit 1 shows the advance letters with the Department of Education as the primary brand or the Census Bureau as the primary brand. Letters with ED as the primary brand were printed on Department of Education letterhead and were signed by the NCES Commissioner. Letters with the Census Bureau as the primary brand were printed on Census Bureau letterhead and were signed by the Director of the Census Bureau. The mailing envelopes differed by brand as shown in exhibit 2. The envelopes for materials with the Department of Education as the primary brand had a large image of the Department of Education's seal printed in light grey below the address window, while the envelope for materials with the Census Bureau as the primary brand contained the Census Bureau's official logo in small print along the bottom of the envelope. Both types of envelopes were printed on identical paper stock, had the same return address, and had text stating that they were for official business only. Exhibit 3 shows the cover page of the screeners with the Department of Education and Census Bureau as the primary brand. The cover pages of the surveys included either the Department of Education seal or the Census Bureau seal and the respective agency's name in a banner across the top. The inside of the questionnaire of both primary brands (shown in exhibit 4)

contained a banner across the top left with the following text: National Household Education Survey. On screeners with the Department of Education as the primary brand, U.S. Department of Education National Center for Education Statistics was printed on the top right of the questionnaire. Screeners with the Census Bureau as the primary brand had the statement "conducted for:" placed above the U.S. Department of Education line (this difference can be seen in exhibit 4).

Exhibit 1. NHES:2012 advance letters, by primary brand

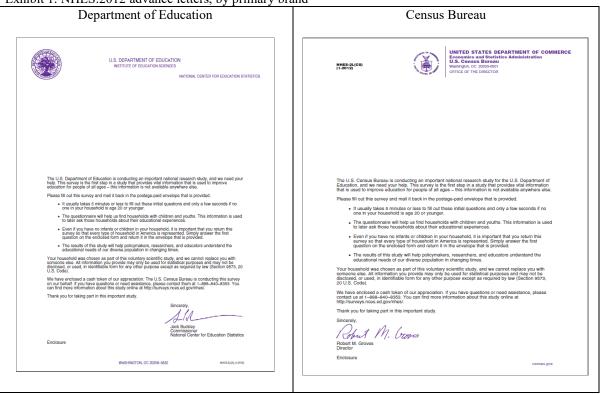


Exhibit 2. Outgoing screener envelopes, by primary brand

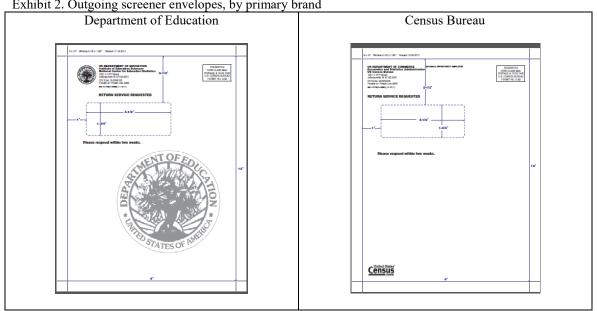
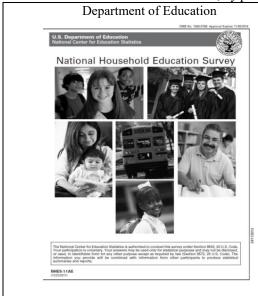


Exhibit 3. NHES:2012 screener covers, by primary brand



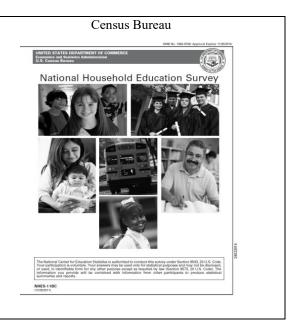
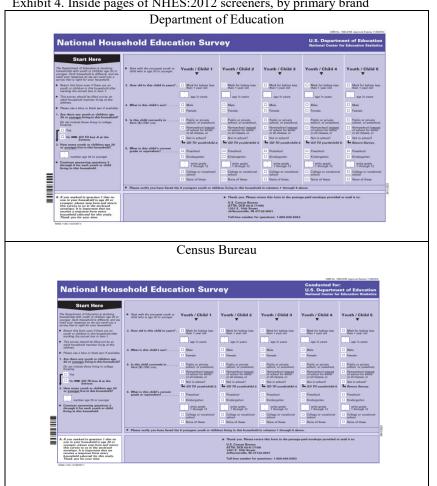


Exhibit 4. Inside pages of NHES:2012 screeners, by primary brand



The second experimental treatment tested the effect of requesting each child's name, initials or nickname on the screener survey compared to not requesting this information. Exhibit 5 shows the NHES:2012 screener surveys with and without the request for the child's name. In addition to the potential request for the child's name, the screener survey contained questions asking for each child's age, sex, school enrollment status, and grade, if the child was enrolled in school. Collecting each child's name in the household at the screener allows the topical survey materials to be personalized. If the child's name is available, the child's name is used in the topical cover letters and printed on the topical questionnaire to remind parents to focus on a particular child when responding to the survey. A similar experiment was conducted during a 2011 field test. At the time, there appeared to be a slightly lower response rate at the screener level when name was collected but a higher response rate at the topical level when name was used. Unfortunately, that experiment was confounded with a request for telephone number which may have been perceived as sensitive by respondents (McPhee and Mamedova 2012). Parents may perceive the request for the child's name as sensitive, particularly in combination with other characteristics about the child collected in the screener. This may discourage parents from responding and depress response rates.

Screener with name **National Household Education Survey** Start with the youngest youth or child who is age 20 or younger. Youth / Child 1 Youth / Child 2 Mark for babies less Mark for babies less Mark for babies Homeschool instead of school for some or all classes, or Homeschool instuad of school for some or all classes or How many youth or children age 21 or younger live in this household? write grade 1 through 12 ➤ Thank you. Please return this form in the post U.S. Census Bureau ATTN: DCB 60-A (7198) 1201 E. 10th Street Joffersonville, IN 471324 Screener without name **National Household Education Survey** U.S. Department of Educati National Center for Education Statis Youth / Child 1 Youth / Child 2 Youth / Child 3 Public or private Homoschool instead of school for some Homeschool instead of school for some or all classes, or Homeschool instead of school for solliclasses, or Homeschool instead of school for action Homeschool instea of school for some or all classes, or How many youth or children age 2 or younger live in this household? write grade 1 through 13 write grade 1 through 12 write grade 1 through 12 If you marked in question 1 that no rise in your household is age 20 or rounger, please stop here and noturn his survey to us in the enclosed invelope. It is important that we seeive a response from every rousehold selected for this study.

Exhibit 5. NHES:2012 screeners, with and without children's names

## Data

The NHES:2012 data collection was conducted from January through August 2012 using an address-based sample of approximately 159,990 addresses in the United States. The NHES:2012 sample was a two-stage stratified sample. In the first stage, residential addresses were sampled and sent a brief screener survey to determine if the household had an eligible child for the second stage topical surveys. Households returned completed questionnaires to the Census Bureau and in the second stage an eligible child was selected based on information provided on the screener survey. Households with an eligible child were mailed the appropriate topical survey. Census tracts with a high percentage of Black and Hispanic households were oversampled in the NHES:2012 in order to provide more reliable estimates by race and ethnicity. Addresses were assigned to the following three strata: (1) Census tracts with 25 percent or more Black persons (Black stratum), (2) Census tracts with 40 percent or more persons of Hispanic origin (Hispanic stratum), and (3) all other tracts (All Other stratum). Twenty percent of the sample was allocated to the Black stratum, 15 percent of the sample was allocated to the Hispanic stratum, and 65 percent of the sample was allocated to the All Other stratum.

This paper uses data available at the screener level of the survey. The information available at the screener level is primarily from the sample frame. In addition to basic address information, the sample frame vendor, Marketing Systems Group (MSG), appended demographic data to the addresses included in the sample. These variables were drawn from commercial databases to provide supplemental information about the addresses included in the sample. The characteristics examined in this paper from the appended frame data are whether or not the address is associated with a Hispanic surname, whether or not a phone number was associated with the address, the education level of the head of the household, the home ownership status of the address, household income, and gender of the head of the household.

## **Findings**

This paper focuses on the results of these experimental treatments at the screener level because it is where they are expected to be the most salient for respondents. For the branding treatment, the screener phase is where the survey sponsorship is established. If survey sponsorship influences respondent decisions regarding whether or not to participate, we would expect the effect to start at the screener level where respondents are first introduced to the survey. For the name/no-name treatment, the screener contact is where the request for this potentially sensitive information is made. If respondents are making decisions about whether or not to participate in the survey based on the perceived sensitivity of the information requested in the initial contact, we would expect to see an effect at the point where the request is first made.

Table 1 presents screener response rates and the number of cases in different response status categories by screener treatment. Respondents are cases that returned a non-blank screener form. Within the primary branding experimental treatment, a higher percentage of cases were assigned to receive materials with the Department of Education as the primary brand (approximately 80%). This allocation was used because only Department of Education materials had been tested as part of the development work for the NHES:2012. Given that these materials had achieved acceptable response rates and Census Bureau materials had not been tested in this context, a higher proportion of cases were allocated to receive materials with the Department of Education as the primary brand in case materials with the Census Bureau as the primary brand received lower response rates. A higher proportion of cases within the name/no name treatment were assigned to receive surveys requesting the child's name (approximately 80%). In a previous field test, there appeared to be a slightly lower response rate at the screener level when name was collected but a higher response rate at the topical level when name was used. However, that experiment was confounded by the request for a phone number on the screener form (McPhee and Mamedova 2012). Due to the expected higher response rate at the topical level, a higher proportion of cases were assigned to receive screeners that asked for the child's name. The overall base-weighted response rate to the screener was 71 percent. The response rate did not vary according to whether or not the screener included a request for the child's name. The screener response rate did differ by primary questionnaire brand. Forms that had the Census Bureau as the primary brand had a five percentage point higher response rate than forms with the Department of Education as the primary brand (75% Census compared with 70% ED).

Table 1. Screener response rates and response status, by screener treatment

Screener Type	Response Status		
	Response Rate	Responded	Total
Total	71	99,570	159,990
Primary Brand			
Department of Education	70	79,620	129,980
Census Bureau	75*	19,950	30,020
Level of PII			
No name	71	18,760	30,020
With name	71	80,810	129,980

<sup>\*</sup> Significant at p<.05 between Department of Education and Census Bureau primary branding.

Note: Response rates calculated using base weights. Sample sizes rounded to the nearest 10. Detail may not sum to total due to rounding.

Source: U.S. Department of Education, National Center for Education Statistics, National Household Education Surveys Program of 2012 (NHES:2012).

Table 2 presents screener response rates and the number of cases in different response status categories by the interaction of the two treatments, questionnaire branding and request for the child's name. Within the surveys that had the Department of Education as the primary brand, the screener that did not include the request for the child's name had a slightly higher response rate compared to the forms that did request name. The response rate did not vary according to whether or not the screener included a request for the child's name within forms that had the Census Bureau as the primary brand.

Table 2. Screener response rates and response status, by screener treatment interaction

Screener Type	Response Status		
	Response Rate	Responded	Total
Total	71	99,570	159,990
Department of Education – No name	71*	15,060	24,390
Department of Education – With name	70	64,560	105,590
Census Bureau – No name	75	3,700	5,630
Census Bureau - With name	76	16,250	24,390

<sup>\*</sup> Significant at p<.05 between the name and no name conditions with Department of Education as the primary brand.

Note: Response rates calculated using base weights. Sample sizes rounded to the nearest 10. Detail may not sum to total due to rounding.

Source: U.S. Department of Education, National Center for Education Statistics, National Household Education Surveys Program of 2012 (NHES:2012).

Table 3 looks at the percentage of respondents with and without eligible children by screener type. Eligible children are defined as children age 20 or younger who were enrolled in public or private school or homeschooled for kindergarten through twelfth grade or not yet enrolled in kindergarten. The percentage of respondents with eligible children to the form with the Department of Education as the primary brand was one percentage point higher than the percentage of respondents with eligible children to the form with the Census Bureau as the primary brand. The percentage of respondents with children to the without name screener form was one percentage point higher than the percentage of respondents with children to the with name form. When the interaction between primary screener brand and name is examined, the only statistically significant difference is that a higher percentage of respondents to

the survey with the Department of Education as the primary brand that did not request the child's name had eligible children compared to respondents to the form with the Census Bureau as the primary brand that did request the child's name. All of the statistically significant differences noted were relatively small in magnitude, one to two percentage points, but there is some evidence that materials with the Department of Education as the primary brand yielded a slightly higher percentage of respondents in the target population of interest, those with eligible children.

Table 3. Percentage of respondents with and without eligible children, by screener type

Screener Type	Percentage of resp	Percentage of respondents		
	No eligible children reported	At least one eligible child reported		
Total	66	34		
Primary Brand				
Department of Education	65	35*		
Census Bureau	66	34		
Level of PII				
No name	65	35*		
With name	66	34		
Primary Brand and Level of PII Interaction				
Department of Education - No name	65	35*		
Department of Education - With name	66	34		
Census Bureau – No name	66	34		
Census Bureau - With name	67	33		

<sup>\*</sup> Significant at p<.05 for respondents with eligible children. Differences are between primary brands, level of PII requested, and for the treatment interaction group between the Department of Education no name request and Census with a name request.

Note: Percentages calculated using base weights.

Source: U.S. Department of Education, National Center for Education Statistics, National Household Education Surveys Program of 2012 (NHES:2012).

Next, we look at differences in response rates to the different screener types by selected address frame characteristics. Table 4 presents screener response rates by whether or not the screener survey requested children's names and selected frame characteristics. Across the frame characteristics examined, the only differences in response rates observed were that the response rate was higher for the screener survey that did not request children's names in the stratum composed of census tracts with 25 percent or more Black persons, among households where the head of the household had a bachelor's degree, and households headed by males.

Table 4. Base-weighted screener response rates, by presence of name request and selected frame characteristics

Characteristic	With name	Without name
Total	71	71
Stratum		
Tracts with 25% or more Black persons	61	62*
Tracts with 40% or more Hispanic persons	62	63
All other tracts	74	74
Hispanic surname		
Yes	63	64
No	72	72
Phone number available		
Yes	79	80
No	64	65
Education level of head of household		
Less than high school	67	67
High school	76	75
Some college	72	73
Bachelor's degree	79	81*
Graduate degree	82	82
Missing on frame	65	66
Home ownership status		
Own	78	78
Rent	62	62
Missing	56	57
Household income		
\$0-\$10,000	63	65
\$10,001-\$20,000	63	64
\$20,001-\$30,000	65	64
\$30,001-\$40,000	68	68
\$40,001-\$50,000	71	72
\$50,001-\$60,000	73	75
\$60,001-\$75,000	75	75
\$75,001-\$100,000	77	78
\$100,001-\$150,000	81	81
\$150,001 or more	82	84
Missing See notes at end of table.	55	56

See notes at end of table.

Table 4. Base-weighted screener response rates, by presence of name request and selected frame characteristics – Continued

Characteristic	With name	Without name
Sex of head of household		
Male	75	76*
Female	70	70
Missing	56	56

<sup>\*</sup> Significant at p<.05 between with name and without name.

had broader appeal than using ED as the primary brand.

Source: U.S. Department of Education, National Center for Education Statistics, National Household Education Surveys Program of 2012 (NHES:2012).

Table 5 shows that the screener with the Census Bureau as the primary brand had a significantly higher response rate across all of the demographic groups we looked at. This suggests that using the Census Bureau as the primary brand

Table 5. Base-weighted screener response rates, by primary survey brand and selected frame characteristics

Characteristic	Department of Education	Census Bureau
Total	70	75*
Stratum		
Tracts with 25% or more Black persons	60	66*
Tracts with 40% or more Hispanic persons	61	66*
All other tracts	73	78*
Hispanic surname		
Yes	62	67*
No	71	76*
Phone number available		
Yes	78	83*
No	63	69*
Education level of head of household		
Less than high school	65	72*
High school	74	80*
Some college	72	77*
Bachelor's degree	78	83*
Graduate degree	81	86*
Missing on frame	64	69*
Home ownership status		
Own	77	82*
Rent	61	67*
Missing	56	61*

See notes at end of table.

Table 5. Base-weighted screener response rates, by primary survey brand and selected frame characteristics

Characteristic	Department of Education	Census Bureau
Household income		
\$0-\$10,000	62	70*
\$10,001-\$20,000	62	68*
\$20,001-\$30,000	63	69*
\$30,001-\$40,000	67	73*
\$40,001-\$50,000	70	76*
\$50,001-\$60,000	72	78*
\$60,001-\$75,000	74	80*
\$75,001-\$100,000	76	81*
\$100,001-\$150,000	80	85*
\$150,001 or more	82	87*
Missing	54	60*
Sex of head of household		
Male	75	80*
Female	68	75*
Missing	55	60*

<sup>\*</sup> Significant at p<.05 between Department of Education and Census Bureau primary branding across characteristics. Source: U.S. Department of Education, National Center for Education Statistics, National Household Education Survey Program of 2012 (NHES:2012).

## Discussion

In this paper we looked at the impact of two naming conditions on response to a general population survey. The first condition is the impact of highlighting sponsorship by different Government agencies on response. Past literature has shown that government sponsorship can increase response rates to a survey, but has not explored whether this difference is impacted by the government agency sponsoring the study (Heberlein and Baumgartner 1978, Dillman 2007). Often this is because it is not possible to change the sponsorship of the study. The NHES is sponsored by the U.S. Department of Education and had previously been conducted by Westat, a private research firm. In 2012, the NHES was conducted for ED by the U.S. Census Bureau. Transitioning to the Census Bureau provided an opportunity to look at the relative impact of highlighting ED sponsorship of the study compared with the Census Bureau role in data collection. The results showed that materials utilizing the Census Bureau as the primary survey brand consistently achieved a 5 percentage point higher response rate than those emphasizing ED as the primary survey brand. The increased response held across all groups which were looked at using extant data provided by the frame vendor. There are many possible explanations for the difference. In preparation for the 2010 Decennial Census, the Census Bureau undertook a 140 million dollar advertising campaign to promote<sup>3</sup> the Census. In addition to this campaign, the Census Bureau received support from organizations and state and local governments in raising awareness about the data collection. It is possible that these efforts had a lasting effect on encouraging response to Census Bureau data collections. Another explanation may lay in the branding itself. In a test of Census materials that compared different designs of a Decennial questionnaire, Leslie (1997), found that a more official looking design yielded a significantly higher response rate than one designated as "respondent-friendly." This difference occurred in spite of the fact that both forms indicated that the Census Bureau was conducting the study. It is possible that differences in elements of the Census Bureau branding, particularly the different envelope design, compared to elements of the ED branding impacted the response rate. The ED materials were developed through many years of qualitative testing and two rounds of field tests. However, it is possible that an alternate ED design may result in a higher response rate as occurred in the comparison of Census designs described by Leslie (1997). We plan to conduct additional analysis at the topical level to look at the impact of branding on nonresponse bias.

-

<sup>&</sup>lt;sup>3</sup> See: http://www.census.gov/2010census/news/pdf/advertising budget.pdf

The second experimental treatment looked at the impact of collecting children's names as part of a two-stage self-administered data collection. Prior testing with smaller samples on the NHES yielded mixed results and we wanted to better understand the impact of collecting names on the survey. The results indicate that at the screener level, collecting child's name did not impact the overall response rate and had less than a 2 percentage point impact on response rates among a few subgroups (the stratum composed of census tracts with 25 percent of more Black persons, among households where the head of the household had a bachelor's degree, and households headed by males). This suggests that within the context of a screener survey that does not collect sensitive information like telephone numbers, asking child's name is not problematic from a response rate perspective.

### References

Blumberg S.J., Luke J.V. (2013) *Wireless substitution: Early release of estimates from the National Health Interview Survey*, July–December 2012. National Center for Health Statistics. Available from: <a href="http://www.cdc.gov/nchs/nhis.htm">http://www.cdc.gov/nchs/nhis.htm</a>.

Blumberg S.J. and Luke J.V. (2009) *Wireless substitution: Early release of estimates from the National Health Interview Survey*, January-June 2009. National Center for Health Statistics. Available from: <a href="http://www.cdc.gov/nchs/nhis.htm">http://www.cdc.gov/nchs/nhis.htm</a>.

De Leeuw, E., Callegaro, M., Hox, J., Korendijk, E. and Lensvelt-Mulders, G. (2007). "The Influence of Advance Letters on Response in Telephone Surveys: A Meta-Analysis." *Public Opinion Quarterly* 71(3): 413-443 doi: 10.1093/poq/nfm014

Dillman, D. (2007). Mail and Internet Surveys: The Tailored Design Method, 2007 Update with New Internet, Visual, and Mixed-Mode Guide. Hoboken, New Jersey: John Wiley & Sons.

Heberlein, T.A. and R. Baumgartner (1978) "Factors affecting response rates to mailed questionnaires: a quantitative analysis of the published literature." *American Sociological Review* 43:447-62.

Jones, W.H. (1979). Generalizing Mail Survey Inducement Methods: Population Interactions with Anonymity and Sponsorship." *Public Opinion Quarterly* 43 (1): 102-111 doi:10.1086/268495

Leslie, T.F. (1997) "Comparing two approaches to questionnaire design: official government versus public information design." Proceedings of the Survey Research Section of the American Statistical Association. Available at: <a href="http://www.amstat.org/sections/srms/Proceedings/">http://www.amstat.org/sections/srms/Proceedings/</a>

McPhee, C. and Mamedova, S. (2012). "Return to Sender: Improving Response Rates in Two Stage Mail Surveys." Paper presented at the 2012 Federal Committee on Statistical Methodology Research Conference. Washington, DC. Paper available at: <a href="http://www.fcsm.gov/12papers/Mamedova\_2012FCSM\_II-C.pdf">http://www.fcsm.gov/12papers/Mamedova\_2012FCSM\_II-C.pdf</a>.

Van de Kerckhove, W., Montaquila, J.M., Carver, P. R., and Brick, J.M. (2008). *An Evaluation of Bias in the 2007 National Households Education Surveys Program: Results From a Special Data Collection Effort (NCES 2009–029)*. National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education. Washington, DC

Table A-1. Standard errors for table 1: Screener response rates and response status, by screener treatment

Screener Type			Response Statu	IS	
	Response Rate	Responded	Did not respond	Ineligible	Total
Total	0.1	†	†	†	†
Primary Brand					
Department of Education	0.1	†	†	†	†
Census Bureau	0.3	†	†	†	†
Level of PII					
No name	0.3	†	†	†	†
With name	0.1	†	†	†	†

<sup>†</sup> Not applicable.

Source: U.S. Department of Education, National Center for Education Statistics, National Household Education Surveys Program of 2012 (NHES:2012).

Table A-2. Standard errors for table 2: Screener response rates and response status, by screener treatment interaction

Screener Type	Response Status				
	Response Rate	Responded	Did not respond	Ineligible	Total
Total	0.1	†	†	†	†
Department of Education – No name	0.3	†	†	†	†
Department of Education - With name	0.2	†	†	†	†
Census Bureau – No name	0.6	†	†	†	†
Census Bureau - With name	0.3	†	†	†	†

<sup>†</sup> Not applicable

Table A-3. Standard errors for table 3: Percentage of respondents with and without eligible children, by screener type

Screener Type	Percentage of respondents		
_	No eligible children reported	At least one eligible child reported	
Total	0.2	0.2	
Primary Brand			
Department of Education	0.2	0.2	
Census Bureau	0.3	0.3	
Level of PII			
No name	0.4	0.4	
With name	0.2	0.2	
Primary Brand and Level of PII Interaction			
Department of Education - No name	0.4	0.4	
Department of Education – With name	0.2	0.2	
Census Bureau – No name	0.4	0.4	
Census Bureau – With name	0.8	0.8	

Note: Percentages calculated using base weights.

Table A-4. Standard errors for table 4: Base-weighted screener response rates, by presence of name request and selected frame characteristics

Characteristic	With name	Without name
Total	0.1	0.3
Stratum		
Tracts with 25% or more Black persons	0.3	0.7
Tracts with 40% or more Hispanic persons	0.4	0.8
All other tracts	0.2	0.3
Hispanic surname		
Yes	0.5	0.9
No	0.1	0.3
Phone number available		
Yes	0.2	0.4
No	0.2	0.4
Education level of head of household		
Less than high school	0.4	0.9
High school	0.3	0.7
Some college	0.3	0.7
Bachelor's degree	0.4	0.7
Graduate degree	0.4	0.9
Missing on frame	0.2	0.5
Home ownership status		
Own	0.2	0.3
Rent	0.3	0.7
Missing	0.3	0.7
Household income		
\$0-\$10,000	0.9	1.8
\$10,001-\$20,000	0.6	1.2
\$20,001-\$30,000	0.5	1.0
\$30,001-\$40,000	0.5	.9
\$40,001-\$50,000	0.4	.9
\$50,001-\$60,000	0.4	.9
\$60,001-\$75,000	0.4	.8
\$75,001-\$100,000	0.4	.7
\$100,001-\$150,000	0.4	.7
\$150,001 or more	0.5	1.0
Missing See notes at end of table	0.4	0.8

See notes at end of table.

Table A-4. Standard errors for table 4: Base-weighted screener response rates, by presence of name request and selected frame characteristics—Continued

Characteristic	With name	Without name
Sex of head of household		
Male	0.2	0.3
Female	0.3	0.5
Missing	0.4	0.8

Table A-5. Standard errors for table 5: Base-weighted screener response rates, by primary survey brand and selected frame characteristics

Characteristic	Department of Education	Census Bureau
Total	0.1	0.3
Stratum		
Tracts with 25% or more Black persons	0.3	0.7
Tracts with 40% or more Hispanic persons	0.4	0.7
All other tracts	0.2	0.3
Hispanic surname		
Yes	0.5	0.9
No	0.1	0.3
Phone number available		
Yes	0.2	0.2
No	0.3	0.4
Education level of head of household		
Less than high school	0.4	0.8
High school	0.3	0.6
Some college	0.3	0.6
Bachelor's degree	0.4	0.7
Graduate degree	0.5	0.8
Missing on frame	0.2	0.5
Home ownership status		
Own	0.2	0.3
Rent	0.2	0.7
Missing	0.3	0.7
Household income		
\$0-\$10,000	0.9	1.7
\$10,001-\$20,000	0.6	1.2
\$20,001-\$30,000	0.5	1.0
\$30,001-\$40,000	0.5	0.9
\$40,001-\$50,000	0.4	0.9
\$50,001-\$60,000	0.4	0.8
\$60,001-\$75,000	0.4	0.7
\$75,001-\$100,000	0.4	0.7
\$100,001-\$150,000	0.4	0.7
\$150,001 or more	0.5	0.9
Missing	0.4	0.8

Table A-5. Standard errors for table 5: Base-weighted screener response rates, by primary of survey brand and selected frame characteristics – continued

Characteristic	Department of Education	Census Bureau
Sex of head of household		
Male	0.2	0.3
Female	0.3	0.5
Missing	0.4	0.8