

Concerns about Privacy, Trust in Government, and Willingness to Use Administrative Records to Improve the Decennial Census

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Abstract

This paper does three things. First, we trace trends in attitudes toward administrative record use as well as related constructs such as privacy and confidentiality concerns, trust in government, and importance attached to the decennial census by means of a series of replicated surveys. This analysis shows that respondents have become more concerned about privacy and confidentiality, and they have less trust in government and the Census Bureau and less regard for the importance of the census today than fifteen years ago. They are also less likely to favor the Census Bureau's use of administrative records, even when told that this practice might improve accuracy or save money. Second, we model attitudes toward using administrative records to augment or replace the census from a set of demographic characteristics and from attitudes toward privacy, government, and the census itself. The aim is to understand the basis for attitudes toward administrative record use to the extent that this is possible. Finally, we review experiments that examine effects on behavior, rather than simply measuring attitudes. We draw several tentative conclusions and suggest further needed research.

Key Words: Administrative records, trust, privacy, decennial census, attitudes and behavior

1. Trends in Attitudes toward Administrative Record Use

For at least twenty years, the Census Bureau has been considering the use of administrative records to enhance data collection for the decennial census. Administrative records have the potential for locating people who might otherwise be missed; their use may significantly reduce the cost of following up households that fail to return their census forms, and they may also reduce respondent burden. A growing number of other countries, primarily in Europe, are in the process of adopting or have already adopted register-based censuses (e.g. Denmark, Finland) or some combination of register-based census plus complete enumeration (e.g. Czech Republic, Italy, Spain) or register data and ad hoc surveys (e.g. Israel in 2008; see Valente 2010). According to a joint survey conducted by the United Nations Economic Commission for Europe in cooperation with the United Nations Statistics Division, among 40 European countries, 21 conducted a traditional census in 2010, 5 a census based on registers, and 13 others a mixed approach using data from registers and other sources (France adopted a five-year rolling census in 2004 *ibid.*). At the same time, instituting their use poses significant technical and logistical problems, especially in a large and diverse country such as the United States, which does not have a system of population registers. It also has the potential of stimulating significant negative public opinion. As a result, the Census Bureau has been loath to implement the use of administrative records on a large scale.

However, beginning with a series of focus groups in various parts of the country in 1992 (Singer and Miller 1992), the Census Bureau has intermittently studied public reactions to the potential use of administrative records. During this same period, the Census Bureau also carried out a number of experiments to measure the impact on behavior of requests

for identifiers that would permit matching survey responses to administrative records—for example, requests for Social Security Numbers (Dillman, Sinclair, and Clark 1993; Guarino, Hill, and Woltman 2001; Pascale 2011).

1.1 Methods

We examine attitudes at three points in time: 1995, 2000, and 2010. All three of the surveys were carried out using random digit dialing; the most recent one included a cell phone subsample as well as landline telephones. Three surveys were carried out by different organizations, and response rates also varied—dramatically, in the case of the most recent survey (see Table 1).

Table 1. Sample Size and Response Rate of Three Privacy Surveys

Year of Survey	1995	2000	2010
Data Collector	JPSM/University of Maryland Survey Research Center	Gallup Inc.	Abt/SRBI
Sample Size	1443	1978	1961 (1569 landline plus 392 cell)
Mode	RDD	RDD	RDD plus cell phone subsample
Response Rate	61 (Interviews divided by total sample less businesses, nonworking numbers, and numbers not answered after at least 20 calls)	62 (Interviews divided by total sample less businesses, nonworking numbers, and estimated ineligible among noncontacts)	14 (landline), 19 (cell); AAPOR RR2; 15 (total) AAPOR RR2

Unfortunately, none of the three surveys carried out nonresponse follow-up that would permit us to assess nonresponse bias. However, since the survey introduction, constant across the years of the survey, mentioned government agencies and privacy, it is plausible to assume that some bias exists in all three surveys in favor of people concerned about privacy, especially in relation to government agencies.

The questionnaires for the three surveys were virtually identical. Respondents were asked what they knew about confidentiality and the Census Bureau's legal obligations to maintain it, as well as whether they trusted the Census Bureau to observe its obligations; whether they thought other agencies could get access to Census Bureau data; whether they knew about the undercount; and whether or not they favored the Census Bureau's obtaining data from other agencies in order to improve the accuracy of the census, to save money, or both. These questions were asked in the context of obtaining data to answer the questions asked on the census short form. Respondents were also asked a series of questions designed to measure their trust in/alienation from government and their concerns about personal privacy. The 2000 and 2010 surveys carried out interviews in both English and Spanish; 1995 interviews were conducted in English only.

1.2 Results

Table 2 shows trends in the importance attached to the census, felt obligation to participate in the census, and the importance attributed to the demographic questions asked on the census form. The trends in Table 2 all show a curvilinear pattern. The importance attributed to the census and to participation in the census rises from 1995 to 2000, reflecting the increased salience of the decennial count in a census year. But, ominously enough, it declines in the next census year, 2010, in all three of the measures shown in Table 1, though not to the level of the baseline measurement in 1995.

Table 2. Trends in Importance Attached to Decennial Census

Question Wording	1995 % (N)	2000 % (N)	2010 % (N)
Every 10 years the Census Bureau counts the people in the U.S. How important do you think it is to count the people in the United States? (Very imp't)	32 (1415)	46 (1962)	42 (1950)
Everyone has a responsibility to cooperate with the census (Strongly agree)	54 (1426)	66 (1969)	60 (1930)
How important do you think it is for the Census Bureau to ask (the questions they do on the Census form/for your sex, age, date of birth, Hispanic origin, and race?) (Very imp't)	40 (1407)	66 (1969)	41 (1914)

Table 3 shows trends in knowledge about three aspects of the census: awareness of census uses, awareness of the undercount, and knowledge that the Census Bureau is legally obligated to maintain the confidentiality of the information it collects. Like the trends shown in Table 2, all three measures of public awareness increased from 1995 to 2000, as their salience increased, but then declined between 2000 and 2010.

Table 3. Knowledge about the Census

Question Wording	1995 % (N)	2000 % (N)	2010 % (N)
. . . The Census is used to decide how many representatives each state has in Congress. The Census is also used to decide how much money communities get from the government. Have you heard about either of these uses of the Census: (Yes)	47 (1434)	71 (1967)	68 (971)
. . . Have you heard about (some communities/big cities and cities with large minority populations) getting fewer representatives or less money because they were under-counted? (Yes)	40 (1417)	53 (1949)	44 (1937)
As far as you know, is the Census Bureau forbidden by law from giving other government agencies census information identified by name or address? (Yes)	28 (579*)	49 (973)	42 (1957)

*1996.

Trends in trust in government and self-efficacy are shown in Table 4. The table actually shows trends in the negative pole of responses to these questions—that is, trends in feelings of distrust, alienation, and feelings of powerlessness. While there is little variation between responses in 1995 and 2000, feelings of distrust, alienation, and powerlessness actually increased substantially between 2000 and 2010, as measured by all five questions tracked in these surveys.

Trends in concerns about privacy, which are hypothesized to underlie at least some of the public's reluctance to have the Census Bureau use administrative records as part of its data collection, are shown in Table 5. Unlike earlier tables, which showed generally consistent trends in various measures of opinion or belief over time, concerns about privacy show a more varied pattern. Of the seven trends in Table 5, four show essentially no change, either over all three time periods or between 2000 and 2010, and only three

show an increase between census years. Two of the three trends showing an increase in concern are general worries about personal privacy, whereas one pertains specifically to the census. Thus, although concerns about privacy have increased somewhat over the last ten to fifteen years, there has been a less dramatic change in this area than in those examined earlier.

Table 4. Trends in Distrust, Alienation, and Powerlessness

Question Wording	1995 % (N)	2000 % (N)	2010 % (N)
People like me don't have any say about what the government does (Strongly agree)	32 (1407)	31 (1948)	37 (1931)
I don't think public officials care much what people like me think (Strongly agree)	33 (1416)	35 (1943)	45 (1923)
People have lost all control over how personal information about them is used (strongly agree)	40 (1400)	44 (1935)	40 (1922)
How much do you trust the government in Washington to do what is right? (Almost never)	19 (1425)	21 (1970)	34 (1938)
How about the people running the government—would you say you have a great deal of confidence, only some confidence, or hardly any confidence in the people running the government? (Hardly any)	31 (1418)	25 (1960)	40 (1926)
Do you trust the Census Bureau not to give other government agencies information identified by name and address? (No)	33 (464*)	32 (1197)	43 (743)

*1996.

The final set of trends we examine is attitudes toward the use of administrative records to supplement or replace the decennial count (Table 6). Support for the use of administrative records was highest in 1995 and has declined in successive decennial years. The big 2010

decline in support for the use of data from “other agencies” is no doubt due to the introduction of a private credit rating agency, Experian, into the mix.

Table 5. Trends in Concerns about Privacy

Question Wording	1995 % (N)	2000 % (N)	2010 % (N)
Do you feel it is an invasion of your privacy for the Census Bureau to ask (these questions/ your age, race, sex, Hispanic origin, and marital status) along with your name and address? (Yes)	24 (1429)	21 (1966)	31 (957)
How much would it bother you if (another government agency, outside of the Census Bureau, got your name and address along with your answers to the census/your answers to the census were not kept confidential) (A lot)	37 (1367)*	47 (1295)	49 (885)
In general, how worried would you say you are about your personal privacy? (Very worried)	22 (1432)	25 (1973)	32 (954)
People’s rights to privacy are well protected (Strongly disagree)	27 (1417)	27 (1947)	29 (1913)
The government knows more about me than it needs to (Strongly agree)	52 (1376)	43 (1924)	42 (1891)
Have you personally ever been the victim of what you felt to be an invasion of privacy (Yes)	27 (1431)	28 (1970)	33(1948)

*Alternate wording not asked in 1995.

Table 6. Trends in Attitudes toward the Use of Administrative Records

Question Wording	1995 % (N)	2000 % (N)	2010 % (N)
Now I will ask you about a proposal to fix the census count. It involves using records from a number of government agencies to identify people who are missed in the census. One of the agencies is the (Social Security Administration/IRS/ another agency) . People missed by the census who have (a Social Security record/ a tax return/ information in their files) could then be counted. Would you favor or oppose the SSA giving the Census Bureau the sex, age, date of birth, Hispanic origin (and race) of (all the people for whom they have information in their files/people who are missed by the census)? (Favor)	77 (1372)	65 (1925)	60 (1874)
IRS	71 (1366)	55 (1925)	52 (1852)
Other agency*	78 (1336)	68 (1906)	23 (1872)
Another proposal is to do away with census forms entirely. . . . The Census Bureau would count the entire population by getting information from other government agencies. Would you favor or oppose the Census Bureau getting everyone's sex, age, date of birth, Hispanic origin, and race from the records of other government agencies, so no one would have to fill out a census form? (Favor)	59 (1337)	42 (1915)	37 (1824)

*In 1995, the agency asked about was the Immigration and Naturalization Service; in 2000, "agencies providing public housing assistance," and in 2010, "a private credit rating agency such as Experian."

In addition to asking whether respondents favored or opposed replacing census forms with data from administrative records, the survey probed the strength of the opposition by asking respondents whether they would favor a record-only census if it led to reduced costs and, if they continued to oppose the use of administrative records, greater accuracy (the order of asking about costs and accuracy was reversed for half of those opposed). Increasing accuracy was a slightly more persuasive argument than reducing costs: about three quarters (74%) of those originally opposed remained so when told the change might reduce costs, while about two thirds (66%) did so when told it might increase accuracy.

Regardless of whether they favored or opposed proposals to supplement or replace personal enumeration with administrative records, respondents were asked whether or not they would be willing to provide their Social Security Number (SSN) in order to facilitate combining records from federal, state, and local agencies. Two thirds of the sample (66 percent) said they would *not* be willing to do so—an increase of 22 percent over those who had given this response in 2000, and an increase of 34 percent over those who had given it in 1995.

2. Modeling Favorability toward Administrative Records Use

2.1 Methods

The following demographic characteristics are used as predictors in each of the models discussed in this section—age, gender, race (White, Black, Other), Hispanic origin (yes, no), education (high school, some college, college degree), political party (Democrat, Republican, Independent), income (below \$50,000, \$50,000 or higher), and the 9 regional census division.

Also included as predictors are all the indicators of beliefs and attitudes that were considered relevant to attitudes toward the use of administrative records to improve or replace the census and were asked of all, or nearly all, of the sample. In some cases, when a split-ballot wording experiment produced equivalent distributions, we combined the responses of the randomly created subgroups and included them as well. This was true of two questions: Q. 30A/30B, which combined two alternative wordings asking about how worried respondents were about their personal privacy; and Q. 15A/16A, which combined two alternative ways of asking how important respondents considered the information obtained on the census form.

Altogether, 16 attitude questions, including the two combined questions just described, were subjected to an exploratory factor analysis to reduce the number of variables in the analysis. Four factors were extracted. Factor 1, labeled Trust in Government, had high loadings on the items shown in Table 4, but with scoring reversed to reflect trust and self-efficacy. Factor 2, labeled Census Importance, had high loadings on the three items shown in Table 2. Factor 3 had high loadings on three questions about possible misuse of census responses: by the police and the FBI “to keep track of troublemakers” and “to locate illegal aliens,” and the use of people’s answers “against them.” Factor 4 was a Privacy factor; the items with high loadings on Factor 4 are shown in Table 5.

Two sets of scores were created for each of these factors: standardized scoring coefficients, with loadings on all of the variables included in the factor analysis; and indexes, made up of the variables with high loadings (0.5 or above) on the corresponding factor, with scores added and averaged across the items making up the index. Results

based on the two sets of scores were virtually identical; the tables below show models using index rather than factor scores.

Five different dependent variables, all related to administrative record use, were examined: Favorability toward having the Census Bureau obtain administrative data from the Social Security Administration, from the IRS, and from a private credit rating agency like Experian in order to improve the census count; favorability toward a census based entirely on administrative records; and willingness to provide one's Social Security Number to facilitate the use of administrative records in the census. All of these are favor-oppose questions, so logistic regression is used to model the responses. All models were estimated from responses to the 2010 survey.

2.2 Results

Table 7 shows the results of a logistic regression predicting favorability to the Census Bureau's getting data from the Social Security Administration (SSA) in order to count "people missed by the Census." Of the demographic variables, age, other race, gender, and income are significantly related to favorability toward the Census Bureau's obtaining administrative records from the SSA: the first two variables significantly reduce such favorability, whereas female gender and high income increase it. Three of the 9 geographic census divisions are also significantly related to attitudes toward administrative record use, all of them in a positive direction: Mid-Atlantic, East-South Central, and West-South Central.¹ Also shown in the table is the total variance explained by the demographic variables: 3.6 percent, in the case of the SSA.

Of the four attitudinal variables included in Table 7, trust in the government is not significantly related to favorability toward data sharing, nor is a belief that census data can be used for purposes like identifying illegal aliens. The two other indexes—belief in the importance of the census and the data collected on the census form, and being unconcerned about personal privacy—are significantly related to willingness to have the Census Bureau get administrative records.² The variance explained by the attitudinal items is 6.05 percent, almost twice that explained by the demographic characteristics; the total explained variance in favorability toward data sharing by the SSA is 9.7 percent.

With a few exceptions, the relationships of demographics and attitudes to favorability toward data sharing by the IRS are very similar to those shown in Table 7 (data not shown). Those with some college are significantly less favorable than high school graduates to data sharing by the IRS but not to data sharing by the SSA, and residence in only one census division—East South Central—is significant, rather than three. Trust is

¹ The divisions consist of the following states: *New England*: Maine, Vermont, Massachusetts, Rhode Island, Connecticut; *Middle Atlantic*: New York, New Jersey, Pennsylvania; *East North Central*: Wisconsin, Michigan, Illinois, Indiana, Ohio; *West North Central*: North Dakota, Minnesota, South Dakota, Iowa, Nebraska, Kansas, Missouri; *South Atlantic*: West Virginia, Virginia, North Carolina, South Carolina, Georgia; *East South Central*: Kentucky, Tennessee, Alabama, Mississippi; *West South Central*: Oklahoma, Arkansas, Texas, Louisiana; *Mountain*: Montana, Idaho, Wyoming, Colorado, Utah, Nevada, Arizona; *Pacific*: Washington, Oregon, California.

² The negative relationship between the Census Importance index and favoring data sharing by the SSA is due to the coding of the items making up the index. It is lack of importance attributed to the census, as well as the absence of a felt obligation to participate, that are negatively related to favoring data sharing.

significantly related to favorability toward data sharing by the IRS, but not by the SSA. The variance explained by the demographics is 4.37 percent and that by the attitudinal items is only somewhat higher—5.87 percent; the total explained variance is 10.25 percent.

Table 7. Demographic and Attitudinal Predictors of Favoring Census Bureau's Use of SSA Administrative Data to Supplement Census Count

Characteristic/Attitude	Parameter Estimate (Std. Error)
Age	-0.0104 (0.004)**
Race	
Black	-0.2665 (0.225)
Other (White)	-0.6918 (0.217)**

Hispanic	-0.1229 (0.226)
Education	
Some college	-0.1425 (0.148)
College degree (High school)	-0.0301 (0.163)

Political Party	
Democrat	0.0937 (0.149)
Republican (Independent)	-0.1133 (0.155)

Female	0.2663 (0.266)*
Income (\$50,000+)	0.3039 (0.134)*
Census Division	
New England	0.3977 0.304
Mid-Atlantic	0.6151 (0.237)**
NE Central	0.2981 (0.229)
WN Central	0.4996 (0.272)
South Atlantic	0.3825 (0.214)
ES Central	0.5996 (0.282)*
WS Central	0.6628 (0.248)**
Mountain	0.0236 (0.271)
Pacific	---
Trust Government	0.1147 (0.1123)
Census Not Important	-0.6067 (0.101)***
Census Can Be Misused	0.1685 (0.190)
Not Worried about Privacy	0.6867 (0.122)***
Intercept	0.1193 (0.477)

* <.05 **<.01 ***<.001; No. observations=1961; No. observations used=1295

R-square Demographics=0.0365; total R-square=0.097

With one startling exception, the model predicting attitudes toward the Census Bureau's use of records from a private agency such as Experian (model not shown) is generally similar to models for the SSA and IRS but explains somewhat less variance (total R-square=0.084). The exception is the relationship between willingness to use administrative records and the index of census misuse, which is significantly positive rather than nonsignificantly negative. That is, respondents who mistakenly believe that information from the census can be used for law enforcement purposes are significantly

more willing to have the Census Bureau get information from a private credit rating agency than those who don't share such beliefs. Whether this simply reflects greater trust in private rather than government agencies is impossible to tell from the data, but it is worth noting that the option of obtaining records from private agencies produced the lowest proportion in favor—some 23 percent, compared with 60 percent for the SSA and 53 percent for the IRS.

Respondents were also asked whether they would favor or oppose a census based entirely on administrative records instead of the traditional count. This option produced the second-lowest favorable response of all the alternatives offered; only 37 percent favored such a change (model not shown). The model also has the lowest explanatory power—only some 5 percent of the variance is explained by demographic characteristics and attitudinal variables combined. Interestingly enough, however, those who do not consider the census important and/or regard the obligation to participate in it as low are significantly *more* likely to approve of replacing the traditional count with administrative records.

Although a Social Security Number (SSN) may no longer be required for linking to the Social Security record, asking whether respondents would be willing to provide their SSN may be a useful indicator of how likely they would be to cooperate with the Census Bureau's possible attempts at linkage. Only 34 percent of respondents said they were willing to provide their SSN.

The model for responses to the question about willingness to provide one's SSN to facilitate linkage is shown in Table 8. Black respondents are significantly *more* likely to be willing to provide their SSN, and members of "other" races, Republicans, and residents of the South Atlantic census division significantly less so. As in the case of the record-only census, those willing to provide their SSN are significantly less likely to consider the census important, and they are also relatively unconcerned about their personal privacy. Only 3.2 percent of the variance in this model is explained by the demographic; but the total variance, including that explained by the attitude indexes, is 10.5 percent, higher than that explained in any other model.

In sum, none of the obvious variables examined in this section—trust in government, belief in self-efficacy, information about the confidentiality of census data, concerns about privacy, and importance attributed to the decennial census—is capable of explaining very much of the variance in favorability toward administrative record use or willingness to provide one's SSN to facilitate data linkage. Although the attitude variables explain about twice as much variance as the demographic characteristics, together they never succeed in accounting for more than about 10 percent of the total variance, and in most models the percentage is even less. The question we turn to next is how well attitudes toward administrative-record use and stated intentions to provide one's SSN predict actual behavior.

3. Administrative Record Use: Attitudes and Behavior

A variety of evidence suggests that what people *say* they would oppose in a hypothetical situation does not necessarily predict what they would actually do in a real situation.³

³ Much of the review in this section is taken from pages 17-18 of "Privacy Research in Census 2000," Census 2000 Topic Report No. 1, Washington DC: US Census Bureau, 2003.

Table 8. Predictors of Willingness to Provide One's Social Security Number

Characteristic/Attitude	Parameter Estimate (Std. Error)
Age	0.0062 (0.004)
Race	
Black	0.5040 (0.228)*
Other (White)	-0.8184(0.240)*** ---
Hispanic	0.4628 (0.237)
Education	
Some college	-0.1491 (0.157)
College degree (High school)	0.2128 (0.163) ---
Political Party	
Democrat	-0.5544 (0.170)**
Republican (Independent)	-0.0069 (0.153) ---
Female	-0.1626 (0.129)
Income (\$50,000+)	-0.0570 (0.138)
Census Division	
New England	-0.4476 (0.306)
Mid-Atlantic	0.0149 (0.241)
NE Central	-0.2651 (0.239)
WN Central	-0.2943 (0.287)
South Atlantic	-0.6453 (0.232)**
ES Central	-0.4905 (0.291)
WS Central	0.2071 (0.252)
Mountain	0.2876 (0.278)
Pacific	---
Trust Government	0.0053 (0.113)
Census Not Important	-0.3826 (0.110)***
Census Can Be Misused	0.2079 (0.196)
Not Worried about Privacy	1.0045 (0.129)***
Intercept	-2.0570 (0.507)***

* <.05 **<.01 ***<.001; No. observations=1961; No. observations used=1295
R-square Demographics=0.0321; total R-square=0.1047.

When asked in the context of a focus group, large majorities react negatively to the prospect of such a request (Singer and Miller, 1992; Aguirre, 1995). In response to a hypothetical request on a survey, substantial and growing minorities indicate they would oppose such a request; those opposed increased from 32 percent in 1996 to 66 percent in 2010. Yet when respondents were actually asked for their SSN in a 1992 experiment, the request generated a much smaller than expected (3.4 percent) decline in response rates, and an additional 17 percentage point increase in item nonresponse (Dillman, Sinclair, and Clark 1993). The Census 2000 Social Security Number, Privacy Attitudes, and Notification (SPAN) experiment was designed to clarify these discrepancies, and its findings were consistent with earlier research. Requesting a SSN for one or all members of the household resulted in a small, significant decrease in mail response to the 2000 census: 2.1 percent in High Coverage Areas and 2.7 percent in Low Coverage Areas when the request was for all household members (Guarino, Hill, and Woltman 2001). These percentages are

not statistically different from each other or from the 3.4 percent decline reported in 1993. Some 15.5 percent of SSNs were missing for Person 1 when a request was made for Person 1 only, with increasing percentages missing for Persons 2 through 6 when SSNs are requested for all members of the household (*ibid.*, Table 5). Validation of the SSNs showed that 94.8 percent of those given were accurate (Brudvig 2003, p. iv). Thus, the number of respondents for whom a valid SSN was missing is considerably smaller than the number who said they were opposed to providing one.

More recent Census Bureau research (Pascale 2011) has focused on the effects of *notification of linkage* rather than a specific SSN request, since SSN is no longer considered a requirement for linkage. However, as in the experiment reviewed above, the research focused on actual, rather than hypothetical, consent. Furthermore, the dependent variable consists of both *implicit* and *explicit* consent. “Implicit” consent is said to occur if respondents have received an advance letter including an explanation of linkage plans and instructing them to inform the interviewer if they do not want their data linked, and if they do not inform the interviewer that they object. *Explicit* consent was requested only if no letter had been mailed to the respondent or if the respondent did not acknowledge the letter that had been sent. Although the reasons given for linkage were varied among three conditions, all three were identical in requiring respondents to object if they did not consent (“Do you have any objections?”).

The sample was drawn from two frames—an RDD frame, with 2/3 of the 36,169 cases, and a Medicare file with the remaining third. The response rate was 47.6 percent for the RDD portion of the sample and 61.4 percent for the Medicare sample. Of the original 36,169 cases, 66 percent were out of scope, leaving 12,338 cases for analysis.

Thirty-eight percent of the household respondents who participated in the survey gave implicit consent to link and another 52 percent raised no objections, for a total consent rate of 90 percent. Of those households asked for explicit consent, 84 percent did not object. This is far higher than the 63 percent who gave explicit consent in a 2004 Census Bureau survey testing a similar question (Bates and Pascale 2005). Pascale attributes the difference in consent rates to differences in question wording and the passage of time. But the fact that 38 percent of respondents to the later survey were assumed to have given implicit consent and never directly asked for explicit consent may also have contributed to the difference between the two surveys. In this connection, it is worth noting that a review of data linkage procedures at the National Centre for Social Research in eight large population surveys in England reports consent to such procedures ranging from 59 percent to 94 percent, depending on the demographic category consenting, the kind of information requested, the agency involved, and whether the survey organization or the statistical agency is doing the linking (Gray 2009, 2010).

4. Summary and Conclusions

This paper has reviewed Census Bureau-sponsored research on attitudes toward the use of administrative records to supplement or replace the census and toward a variety of related concepts. In general, we found a deterioration since the last census in attitudes favorable toward cooperation with the census: trust had declined, concerns about privacy had remained the same or increased, fewer people regarded the census as important or participation obligatory, and fewer favored the use of administrative records to reduce costs or improve accuracy. In spite of these changes in attitudes, the mail participation rate in the 2010 census was very close to that in 2000, though at an increased cost.

The paper also examined predictors of attitudes toward the Census Bureau's use of administrative records to supplement or improve the decennial count. Among demographic predictors, age, gender, and income were significant in most of the models estimated, with younger people, women, and those with higher incomes more likely to favor this approach. Attitudes explained almost twice as much variance in these models as demographic characteristics, with trust in government, importance attached to the census, and less concern about personal privacy conducive to favoring the use of administrative records from the IRS and importance and privacy concerns significant in predicting favorability to getting records from the SSA. However, those who favored replacing the conventional count entirely with information from administrative records were significantly less inclined to view the census as important than those who opposed it. The total amount of variance in attitudes toward administrative record use explained by both demographics and attitudes was low: No more than 10 percent at best, and less in some models.

Finally, we reviewed research on willingness to provide one's SSN in order to facilitate administrative record use with actual provision of this number in response to Census Bureau requests. Although expressed willingness to a hypothetical request was quite low, actual compliance with the request was considerably higher, a finding that has been replicated in a number of studies. Similarly, though favorable attitudes toward record linkage have decreased, a high proportion of people asked for their consent to such linkage actually offer no objections. Thus, attitudes should be used with caution in predicting actual behavior, though they can be fruitfully used to explore reasons for opposition and ways of deflecting it.

5. Suggestions for Further Research

The findings reported in the present paper suggest the need for considerable further research. (1) The results of experiments involving implicit consent raise important questions concerning this method of informing people about the intended linkage of survey and administrative record data. What do people understand when this implicit consent is used? Are they aware that they are consenting to data linkage? What do they know about the intended uses of the linked data and about the information that will be obtained from administrative records? Answers to questions such as these are crucial if the object of the procedure is to gain informed consent rather than simply agreement to data linkage, and so far the only information the experiments provide is the percentage of those who agree, implicitly or explicitly, to the linkage. (2) What does an "administrative records only" census mean to the general public? Why do people object to it? (3) More generally, what do people understand from various statements that may be used to obtain implicit or explicit consent? Debriefing of random samples of those exposed to different consent procedures (including "implicit" consent), and analysis of their responses, could be very informative about this question. (4) Does the mere process of asking (for consent to link data, for a signature, for allowing one's children to participate in research) increase the number of those who refuse? If so, is this increase due to informed objections, or is it merely a function of asking the question, which makes salient the existence of two alternative responses? (5) Under what circumstances is informed consent required legally? Ethically? When is notification rather than consent sufficient? Are there situations where neither consent nor notification is required? (6) Has administrative record linkage improved census taking in those countries where it is being used? Has it increased accuracy and/or reduced costs? Has it won public acceptance?

What drawbacks, if any, do those countries see to the procedure? Can the techniques be adapted to a large and ethnically diverse country such as the United States?

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