

PARTICIPATION IN THE 1990 DECENNIAL CENSUS

Politics, Privacy, Pressures

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Theoretical perspectives on survey participation suggest that survey participation is a form of community involvement, reflecting a sense of civic obligation that also motivates such behavior as voting, serving on juries, and paying taxes. Using data from the Survey of Census Participation (SCP), we investigate this hypothesis with respect to mail response to the 1990 census. We examine such motivating factors as structural and attitudinal measures of alienation as well as more proximal measures of knowledge of and attitudes toward the census and concerns about privacy and confidentiality. We also examine a variety of constraining factors, including literacy, facility with the English language, and available time to complete the form. Using multivariate analysis, we explore the relative effects of these factors on the likelihood of returning the completed census form by mail and discuss the implications of our findings for participation in the census and political participation more generally.

Theoretical perspectives on survey participation (e.g., Goyder & Leiper, 1985; Groves, Cialdini, & Couper, 1992) suggest that willingness to complete an interview or mail back a questionnaire is a form of community involvement, reflecting a sense of civic obligation that also motivates such behavior as voting, serving on juries, and paying taxes. This argument has special force with respect to the U.S. decennial census, an enterprise of the U.S. government that represents the only mandatory survey of individuals in this country and involves all

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residents (citizens and noncitizens alike) rather than a sample of persons.

During the past several years, a number of studies in the United States have pointed to declines in participation across a broad range of activities, from more traditional forms of political participation such as voting (e.g., Abramson & Aldrich, 1982; Rosenstone & Hansen, 1993) to community and civic activities such as association membership, church attendance, and charitable giving (Knack, 1992; Putnam, 1995a; Uslaner, 1995). To this list of activities can be added the decennial census. Mail return rates for the census declined from 78% in 1970 to 75% in 1980, then to 65% in 1990 (U.S. General Accounting Office, 1992). This recent precipitous decline has led to a great deal of effort to understand the underlying causes of the low mail return rate (see, e.g., Edmonston & Schultze, 1995).

A number of studies have found strong links between census return rates and electoral participation, whether measured at the individual or aggregate level (Keller, 1991; Knack, 1992; Mathiowetz, DeMaio, & Martin, 1991). This suggests that it may be useful to consider census participation in the context of other forms of civic and political participation to shed light both on census nonresponse and on other forms of participation in U.S. society.

Efforts to understand the causes of declining civic or political participation have focused on a variety of factors, including declining trust and increasing cynicism (e.g., Abramson, 1983; Miller & Borrelli, 1991), increasing time pressures (see Uslaner, 1995), the changing demographic character of U.S. society (e.g., Jennings & Markus, 1988; Kahn & Mason, 1987), and declines in social capital and connectedness (e.g., Knack, 1992; Putnam, 1995a, 1995b; Uslaner, 1995). However, many of these studies have been unable to explore different sets of factors together in a multivariate context.

This article examines individual participation in the 1990 census in the context of these social and political factors. We explore two broad sets of variables relating to census participation: motivation to participate and constraints on participation. The motivational variables we examine are those we would expect to be most relevant if our theory concerning survey participation is correct. That is, we examine the effect on census return of a series of variables indexing the individual's

relationship to the polity: diffuse attitudes of alienation of attachment as well as structural indicators of these concepts, more specific attitudes toward the census, and concerns about privacy and confidentiality. The constraints we examine have to do with competing demands or opportunity costs on one hand and access and capacity on the other.

MOTIVATION TO RESPOND

ATTACHMENT TO POLITY

One hypothesis for the low mail return rate to the 1990 census relates to decreasing levels of attachment to the central institutions of U.S. society. This view equates census mail return with other forms of political and social participation and argues that these are all shaped by one's relationship to the core institutions of society (see Mathiowetz et al., 1991). For example, Knack (1992) links declines in church attendance, charitable contributions, income tax compliance, voting, and participation in surveys as evidence of a general decline in cooperative behavior in U.S. society during the past few decades. Levels of political efficacy and trust in government have been declining over the years and were at an all-time low in 1990 (Rosenstone & Hansen, 1993). Political and social participation were also declining during this period (Abramson & Aldrich, 1982; Conway, 1991).

Attachment to the polity can be conceptualized in different ways. Here, we consider attitudinal, demographic, and behavioral indicators of attachment. A key attitudinal component of attachment is the concept of alienation. Although there is much debate over its meaning and measurement (see, e.g., Southwell, 1985), alienation is hypothesized to affect reactions to requests/demands for participation in data collection efforts in a negative way.

In contrast to the view of attachment as a social psychological construct (see Seeman, 1959), in which individuals are not only aware of their sense of alienation or detachment but are also able to give expression to these attitudes, there is the structuralist view. According to this view, some groups and individuals in society are, by virtue of

their position in that society, deemed to be alienated (regardless of whether they personally experience such alienation). Galtung (1978) uses the terms *center* and *periphery* to describe the degree of attachment of various groups and individuals to the central political and social institutions of society. In the United States, race and socioeconomic status (SES) are two key indicators of structural alienation, with minority groups and the economically disadvantaged occupying a more peripheral or marginal position. Levels of political participation have been interpreted as manifestations of these structural inequalities in society. Higher levels of alienation (Abramson, 1983; Herring, House, & Mero, 1991) and lower levels of political participation (Bennett & Bennett, 1986) have been found among racial and ethnic minority groups in the United States. The positive relationship between SES and participation has been demonstrated in a number of studies (see, e.g., Conway, 1991; Milbrath & Goel, 1977; Wolfinger & Rosenstone, 1980).

Like race and class, age has sometimes been posited as a structural variable leading to disengagement. Early theories of the disengagement of the elderly (Cumming, 1961; Gergen & Back, 1966) have received little empirical support (see Glenn, 1969; Glenn & Grimes, 1968), although Abramson (1983) reported evidence of political efficacy declining with age. However, a counterhypothesis is that the elderly have a greater sense of civic duty and are more likely to perceive government as legitimate. Thus, lower levels of political participation observed among the elderly may be attributable to encroaching infirmities, overrepresentation of women and traditional gender roles, and the likelihood that older cohorts have less education and lower SES rather than higher levels of attitudinal alienation (see Bennett & Bennett, 1986; Rosenstone & Hansen, 1993).

Finally, there may also be behavioral indicators of attachment. As noted above, levels of participation in national politics (e.g., voting) may reflect varying degrees of attachment to the polity. But alienation and disengagement are also believed to be associated with reduced social activity (Rosenstone & Hansen, 1993). Those who are less integrated into the community (as evidenced by participation in community activities) may not only exhibit reduced levels of civic obligation but may also be less exposed to social sanctions or pressure from

that community to participate in activities deemed important for the social good.

ATTITUDES TOWARD THE CENSUS AND CONCERNS ABOUT CONFIDENTIALITY AND PRIVACY

Following the logic of the “funnel of causality” laid out in *The American Voter* (Campbell, Converse, Stokes, & Miller, 1960), we expected that attitudes specific to the census would be stronger predictors of returning the census form than the more general indicators of the person’s relationship to the polity discussed above. Thus, we expected that individuals who considered the census important for policy and program decisions would be more inclined to mail back their census form than those who considered it unimportant, and those who were more knowledgeable about what the census is used for would be more likely to return their form than those less knowledgeable. This approach is analogous to models of voting behavior that include more proximate factors such as interest in the election and candidates, closeness of the race, and so on that may mediate the more diffuse attitudes toward the polity (e.g., Chen, 1992; Nownes, 1992; Southwell, 1985).

Another hypothesis prominently discussed after the disappointing mail return rate to the 1990 census was that of increased public concern about privacy and confidentiality issues (Fay, Bates, & Moore, 1991; Kulka, Holt, Carter, & Dowd, 1991). Although this may not be an issue in other forms of participation, the risks of disclosing personal information in the census may not be negligible. Fay et al. (1991) demonstrated that concern about the Census Bureau’s assurance of confidentiality had not increased between 1980 and 1990, but among those who distrusted the Census Bureau’s assurance of confidentiality, self-reported census returns were appreciably lower in 1990 than they had been in 1980. Singer, Mathiowetz, and Couper (1993) found that both general concerns about personal privacy and more specific concerns (distrust) about the Census Bureau’s assurance of confidentiality predicted census mail returns, over and above a series of demographic characteristics.

CONSTRAINTS ON RESPONSE

Regardless of motivation to complete the census form, a variety of factors may constrain the ability or capacity to do so. These can be grouped into two sets of factors: those related to time pressures or competing demands and those related to access or capacity. We discuss each of these sets of factors in turn.

COMPETING DEMANDS AND/OR BURDEN

Factors associated with the lifestyles of households may constrain their willingness to devote time or effort to completion of the census form. Increasing time pressures and opportunity costs of participation are popular hypotheses for the decline in civic, social, and political participation, although the empirical support for these arguments has been mixed (see Putnam, 1995b; Schor, 1991; Uslaner, 1995).

There are opportunity costs or burdens associated with completing the census form. These costs are affected both by the time available to household members for such activities and by the effort required to complete the form. Simply put, the census form should take longer to complete for larger households and for households containing unrelated individuals, and households consisting entirely of working adults should have less time available for completing the form. Furthermore, about one in every six households received the census "long form" containing additional questions. The Census Bureau estimates that completion of the short form would take 14 minutes on average, compared to an average of 45 minutes per household for the long form, an appreciable increase in burden.

In addition to the opportunity costs, there are also factors that affect the attention given to the census form within a household. Unlike other acts of civic obligation (such as voting or paying taxes), the responsibility for completing the census form is more diffuse: It is the household rather than the individual that is responsible for complying. The concept of a household is not clear for many people (see Gerber & Bates, 1994). Thus, variations in mail-handling behaviors among households may differentially affect the likelihood of the census form

being attended to (see Mathiowetz, Couper, & Singer, 1994). Furthermore, mail-handling behavior varies by household structure, with households consisting of unrelated individuals less likely to open mail right away, more likely to let it pile up, and less likely to return the census form than households consisting of related individuals only (see Couper, Mathiowetz, & Singer, 1995).

CAPACITY AND ACCESS

Literacy is a necessary requirement for completing the census form, yet the question of literacy is rarely mentioned in the literature on mail surveys (see, e.g., Dillman, 1991). A recent survey of adult literacy in the United States presents a bleak picture of respondents' abilities to comprehend and respond to written forms or questionnaires. The National Adult Literacy Survey (NALS) found that 21% to 23% of U.S. adults (or some 40 to 44 million adults) performed at the lowest of five levels of literacy (Kirsch, Jungeblut, Jenkins, & Kostad, 1993, p. xiv).

The concern about literacy is heightened when considering the decennial census form. Lessler and Holt (1987) use the notion of forms literacy to emphasize the complexity of the decennial census form (see also Christoffersen, 1987; Rothwell, 1985). In addition to problems understanding specific words or phrases, those low on forms literacy had difficulty understanding the structure of the form.

Education is a common variable in studies of political participation and is often used as a proxy for political knowledge and/or interest. Here, we use education more specifically as a proxy for literacy, for example, as a factor constraining or facilitating the ability to comprehend and complete the census form.

The final constraint we consider is the issue of access. For a household to complete the census form, the household must have received it. Rather than using a self-report measure of nonreceipt of the form (because of its susceptibility to post hoc justifications for nonreturn), we note that mail delivery problems appeared to be associated with certain types of address (see, e.g., Childers, 1993). We believe that multiunit structures and rural addresses produced more

mail delivery problems for the decennial census than addresses consisting of a street name and house number (see also Fay et al., 1991; Steffey & Bradburn, 1994). Thus, households with "standard" addresses (street name and house number) are more likely to have received the census form and thus more likely to have completed and returned the form.

SUMMARY AND HYPOTHESES

Based on the discussion above, we formulated the following hypotheses about the relationship of various classes of variables to each other and to the prediction of census mail return.

Hypothesis 1. We expect the more diffuse measures of attitudinal attachment to the polity to affect census return primarily through their effect on more proximal measures, such as attitudes toward the census and concerns about privacy and confidentiality, and to have only small direct effects. That is, we expect a significant effect of attitudinal measures of attachment to the polity on attitudes toward the census and on concerns about privacy and confidentiality, and we expect a significant effect of the latter variables on census return; but we expect only a small and perhaps nonsignificant direct effect from attitudinal measures of attachment on return.

Hypothesis 2. We expect the structural indicators of attachment/alienation—race and class—to have both direct and indirect effects on census return. As with the measures of attitudinal attachment, the indirect effects are expected to be manifest through the more proximal measures of attitudes toward the census. However, we also expect direct effects of the structural indicators on census return because (a) such alienation may not be expressed in terms of attitudinal attachment, and (b) we may not have measured all attitudinal expressions of structural alienation.

Hypothesis 3. We expect a curvilinear relationship between age and census return: The youngest should be least likely to return the form, because they have the lowest levels of attachment to the polity; the oldest should also be less likely to return the form, because of constrained capacity (see below); the highest levels of return should be manifest by the group between the ages of 30 and 65.

Hypothesis 4. We expect that capacity has an independent effect constraining census return, and it may also interact with the motivational

variables. Regardless of motivation, the person must be able to read the form and have the time to complete it. But, depending on motivation, obstacles to completing the form may loom large or small; conversely, depending on obstacles, either a little or a large amount of motivation may be required. The long census form increases the burden of the task, and we include it here as one of the "obstacles" to completing the form.

DATA COLLECTION, INDICATORS, AND METHODS

The data we use in this article are from the Survey of Census Participation (SCP), a nationwide survey conducted for the Census Bureau by the National Opinion Research Center (NORC) to explore reasons for the low mail return rate in the 1990 census (see Fay et al., 1991; Kulka et al., 1991). The sample was a national probability sample of 2,760 households. Data collection took place between June and August 1990. Face-to-face interviews were conducted with the person in the household identified as having the most to do with the census form or the mail in general. Completed questionnaires were obtained for 2,478 respondents for an overall response rate of 89.8%. Data from the SCP were linked to decennial census information to obtain the actual mail response status (for further details see Singer et al., 1993). Among the 2,478 responding households, an exact match to decennial records was made for 97.6%. After various exclusions (whole-household movers and those not targeted for mail completion), we are left with 2,183 eligible sample households for analysis. Those who failed to return their form by mail are classified as nonrespondents, even though information for such households may have been obtained through later follow-up by enumerators. The estimated mail return rate for the SCP households remaining in the sample is 76.1%, very close to the 74.1% return rate estimated for the U.S. population as a whole from the decennial census files.¹

A number of variables were created from items in the SCP for the analyses reported here. These variables are described in greater detail in the Appendix. On the basis of factor analysis, and consistent with previous research, two separate measures of alienation were created: a three-item "trust in government" measure ($\alpha = .65$) and a

three-item "political efficacy measure" ($\alpha = .65$). In each case, a high score indicates a positive attitude toward the polity. The eight-item confidentiality ($\alpha = .73$) and privacy ($\alpha = .56$) indexes used in the Singer et al. (1993) analysis of these data were included here as well. An index measuring attitudes toward the census was created from a set of eight items, with a high score indicating a positive attitude. Similarly, a knowledge-of-the-census index was created from four items, with a high score indicating greater knowledge. The remaining variables are dummy variables or simple indexes created from single-item measures. These measures were developed over a process of refinement in which alternative conceptualizations and functional forms were tested.

For many of the concepts discussed above, we do not have direct measures and must rely on indirect or proxy indicators. For example, in the absence of detailed measures of mail receipt and handling behavior, we use two proxy measures: the log transformation of the average number of pieces of mail received per day (to account for the positively skewed distribution) and a report on whether mail is typically looked at right away or allowed to pile up.

Ideally, we would want a series of measures on the time available to household members to deal with tasks such as completion of the census form. However, again we have to rely on indirect indicators of lifestyle differences that may affect burden or time constraints. For example, households in which all adults are working may have less time available for extraneous activities such as the census form, as may persons in households with children younger than the age of 18. However, a counterargument regarding children is that their presence leads to closer relationships with the broader community and increased levels of participation. There is some evidence for this in terms of survey response rates (see Couper & Groves, 1996). Accordingly, we use work status of adults and presence of children as indicators of available time.

We do not have measures of respondent literacy available to us in this survey. However, education may serve as a useful proxy. Results of NALS (Kirsch et al., 1993, p. xiv) reveal that of those who perform at the lowest level of literacy, 62% have less than a high school education. Furthermore, half of this lowest literacy group are older than 65 years of age, and 25% are immigrants. We would assume that

many of the latter group are non-English speakers. Thus, we include a measure of English as the primary language as another indicator of literacy.

The dependent variable—mail return to the 1990 census—is based on actual rather than self-reported return. The models presented in this article were estimated using logistic regression. The data are appropriately weighted to reflect unequal probabilities of selection. Tests of statistical significance and standard error estimates are based on Taylor Series approximation, reflecting the complexity of the sample design. The models were estimated using SUDAAN (Shah, Barnwell, Hunt, & LaVange, 1993).

RESULTS

We explored the effect of each of the sets of predictors identified earlier on census mail return, singly and in combination. For the sake of parsimony, we include only the full model in Table 1, and briefly mention relevant results of other analyses.

The model includes attitudinal, structural, and behavioral indicators of attachment to the polity; proximal motivational measures; indicators of access and capacity; and measures of competing demands and burden.

ATTITUDINAL ATTACHMENT TO POLITY

As postulated in Hypothesis 1, we expected the more diffuse measures of attitudinal attachment to polity—in our data set, trust in government and political efficacy—to affect census return primarily through their effects on more proximal measures, such as attitudes toward the census and concerns about privacy and confidentiality. That is, (a) we expected the more diffuse measures of attachment to be significantly related to the more proximal measures, and (b) we expected the latter to have significant effects on census return. However, (c) we expected only weak relationships between the more diffuse measures and census return when the proximal measures were also included in the equation.

The results generally supported predictions (a) and (b). In accordance with prediction (c), neither of the more diffuse measures (trust

TABLE 1
Combined Model of Various Factors on Census Mail Return:
Multivariate Logistic Regression

<i>Predictors</i>	<i>Coefficient</i>	<i>T Value</i>	<i>Odds Ratios</i>
Intercept	-1.41*	-2.51	0.24
Relationship to polity			
Good government	0.0024	0.03	1.00
Political efficacy	-0.011	-0.15	0.99
Black non-Hispanic	-0.75***	-4.34	0.47
Hispanic	-0.16	-0.68	0.85
Family income	0.079	1.37	1.08
Age ≤ 30	-0.50***	-4.04	0.61
Age ≥ 61	1.02***	5.38	2.77
Participation in community activities	0.40***	3.70	1.49
Census-related attitudes			
Privacy	-0.023	-0.74	0.98
Confidentiality	-0.14**	-3.23	0.87
Attitudes toward census	0.057	1.62	1.06
Knowledge of census	0.11	1.40	1.12
Competing demands/burden			
Look at mail	0.36*	2.40	1.43
Log (volume of mail received)	0.25	1.33	1.28
All adults working	0.19	1.49	1.21
Presence of children	-0.11	-0.75	0.90
Single-person household	0.43	1.93	1.54
Related household	0.72***	3.85	2.05
Census long form	-0.23	-1.57	0.79
Access/capacity			
Standard address	0.23	1.69	1.26
English speaking	0.45	1.54	1.57
Education > high school	0.053	0.36	1.05
Model chi-square	355.61***		
<i>df</i>	22		

NOTE: Unstandardized coefficients are reported. The dependent variable is census mail return (1 = yes, 0 = no). Unweighted count of cases = 2,179.

* $p < .05$. ** $p < .01$. *** $p < .001$.

in government and political efficacy) retains a significant effect on census return in the presence of the proximal measures. However, among the proximal measures, only concern about confidentiality

significantly affects the likelihood of returning the census form in the full model shown in Table 1.

STRUCTURAL INDICATORS OF ATTACHMENT AND ALIENATION

Hypothesis 2 predicts that measures of race and class, indicators of structural (rather than attitudinal) relationship to the polity, would show both direct and indirect effects on census return. That is, we expected these structural indicators of attachment to be related to (a) census return and (b) the attitudinal measures of attachment. In addition, (c) we expected the relationship between the structural indicators of attachment and census return to be reduced (but not eliminated) when the attitudinal measures are also entered into the equation.

In both bivariate and multivariate analyses, we found support for prediction (a). We also found, in accordance with prediction (b), that Blacks have significantly higher ($p < .01$) concerns about privacy and confidentiality than those respondents classified as "other" (a category dominated by White non-Hispanics), although there is no apparent effect of Hispanic status on either privacy or confidentiality. Although race/ethnicity does not appear to be related to attitudes toward the census, both Blacks and Hispanics have lower levels ($p < .01$) of knowledge about the census than do other respondents. Income is significantly related to all four more proximal measures of census-related attitudes, being negatively associated with privacy and confidentiality concerns and positively associated with attitudes toward and knowledge about the census. However, (e) is not supported by the data.

In the full model shown in Table 1, only race continues to have a significant effect. The odds of returning the form among Blacks are about half those for non-Hispanic Whites.

Participation in community activities, which we conceptualize as a behavioral indicator of attachment to the polity, likewise predicts census return even in the presence of attitudinal and structural indicators of attachment.

EFFECTS OF AGE

Hypothesis 3 postulates a positive relationship between age (a structural variable) and diffuse as well as proximal measures of

attachment to polity and a negative relationship between age and capacity. As a result of these relationships between age and a variety of intervening variables, we expected a curvilinear relationship between age and census return.

In fact, we found no significant associations between age and trust in government or political efficacy and mixed results for the bivariate relationships between age and the more proximal measures of census knowledge and attitudes. We did find some support for the reduced capacity hypothesis, with older persons having significantly lower levels of education. However, counter to Hypothesis 3, we found a monotonic positive relationship of age with census mail return. This relationship persists when controlling for measures of attachment and measures of capacity. Those older than 60 years of age are significantly more likely to return their census forms, whereas those younger than age 31 are less likely to do so, relative to the middle age group (the omitted category). The odds of returning the census form among people older than 60 are more than two and a half times those for people between 31 and 60 years of age. A variety of interaction effects between age and the attachment and capacity measures were fitted, but these yielded no meaningful effects.

CAPACITY AND COMPETING DEMANDS

Our operationalization of capacity includes measures of ability (English competency, education) and access (the likelihood of the form having been delivered). We expected some or all of these measures to be significantly related to the probability of returning the census form.

Although having a standard address (as opposed to a box number, rural route, apartment number, etc.), use of English as the respondent's primary language, and education all have significant positive effects on census mail return in bivariate models, none of these remain significant when other variables are controlled.

Indicators of competing demands include related versus unrelated households, number of people in the household, presence of children in the household, volume and handling of mail, and having received the long rather than the short form. We found that those who attend to their mail right away (as opposed to letting it pile up) were more likely to

return the form, and this variable remains significant in the full model shown in Table 1. The volume of mail received, however, does not predict census return in the full model, nor do any of the remaining indicators of competing demands, with one exception: Related households return their census forms at a significantly higher rate than households containing unrelated individuals. Such households have twice the odds of returning the census form than households containing unrelated persons. Finally, although the coefficient for census long form is in the expected direction, it does not reach statistical significance. This suggests that return of the census form is based primarily on factors other than the perceived burden of the form. However, in a 1992 census test, Dillman, Sinclair, and Clark (1993) found that reducing the number of questions on the census form significantly increased mail return rates.

Hypothesis 4 implies a set of interactions between indicators of motivation and capacity/competing demands. We tested a number of these interactions (e.g., between education and census attitudes, and knowledge), but did not find significant effects.

DISCUSSION AND CONCLUSIONS

We began with the general hypothesis that mail response to the 1990 census could be likened to other forms of civic and political participation. Like them, we expected it to be subject to motivational as well as constraining factors. Among motivating factors, we hypothesized that general attachment to the polity, mediated by specific attitudes toward the Census Bureau, would be a significant predictor of response.

We found that attitudinal measures of general attachment to the polity did indeed appear to be mediated by more specific attitudes toward the Census Bureau, but some structural indicators of attachment—that is, race and age—were not mediated in this fashion. We interpret the latter finding as an indication that the kind of “attachment” signified by these variables may not be well measured by any of the attitudinal variables included in this study. In fact, race and age remained significant predictors of census return even in the model including the constraining/facilitating variables.

Most of the variables we hypothesized as constraining response were significant predictors of census return in bivariate models. In such models, most indicators of competing demands (such as the presence of children) and of access or capacity (such as the ability to speak English) exerted their predicted effect on census mail return. However, when the motivational variables are included in the equation, only two variables indicating access or competing demands—whether the household looks at mail right away and whether all members of the household are related—continue to have a significant effect on response. The finding concerning related households is intriguing, suggesting as it does that reduced obligation or diffuse responsibility is an important predictor of census participation.

Our findings suggest that participation in the U.S. census, like participation in politics, reflects a more fundamental relationship between the individual and the polity. If we are correct, declining participation in the census, rather than reflecting only a set of causes peculiar to the census, reflects in addition a secular decline in the sense of attachment and sense of civic duty toward the society at large. These feelings, furthermore, appear to be heightened in certain subgroups defined by race and age. Such a development requires attention to the proximal causes of the decline—for example, factors that increasingly constrain or reduce the time available for participation—but it also argues for attention to the more fundamental question of how to forestall, and possibly reverse, the increasing alienation of large groups of citizens from the central institutions of their society.

APPENDIX

Variables Used in Models

Dependent variable: Census mail return

This variable is based on Census Bureau records rather than self-reports of mail return.

1 = Returned census form by mail

0 = Did not return form by mail

Trust in government

Q30. In your opinion, how much do you think we can trust the government in Washington to do what is right—just about always, most of the time, some of the time, or almost never?

Q32c. Government agencies usually try to do what is best for the people. (Agree/Disagree)

Q32e. Most people who go into public office want to help others. (Agree/Disagree)
Each item was recoded such that a 0 represented a low degree of trust and a value of 1 a high degree of trust. Scale scores range from 0 to 3.

Political efficacy

Q32a. These days a person doesn't really know whom he can count on. (Agree/Disagree)

Q32b. People like me don't have a say about what the government does. (Agree/Disagree)

Q32d. I don't think public officials care much what people like me think. (Agree/Disagree)

Each item was recoded such that a 0 represented a low degree of efficacy and a value of 1 a high degree of efficacy. Scale scores range from 0 to 3.

Participation in community activities

Q82. Are you involved with any groups or organizations which are active in this community—such as a church or other religious organizations, a social club, union, PTA, a neighborhood organization, or some other community group? (1 = Yes, 0 = No)

Privacy index

Q29g. The census is an invasion of privacy. (Agree/Disagree)

Q34. Do you think the government bothers you too much with requests for information? (Yes/No)

Q39. Do you ever feel your privacy is being violated by:

A. Banks and credit card companies when they ask about finances? (Yes/No)

B. Neighbors who gossip about you and you family? (Yes/No)

C. The government when it collects tax returns? (Yes/No)

D. The government when it takes the census? (Yes/No)

E. Computers that store a lot of information about you? (Yes/No)

F. The people who ask questions on public opinion surveys? (Yes/No)

Each item was recoded such that a 0 represented the response indicating no concern and a value of 1 indicated the response that expressed concern.

Confidentiality index

Q15d. Do the police and the FBI use the census to keep track of troublemakers? (Yes/No)

Q15f. How about to locate illegal aliens? Is the census used for that? (Yes/No)

Q16. After the Census Bureau collects the information about you, can anyone outside the Census Bureau look at it? (Yes/No)

Q29c. The Census Bureau's promise of confidentiality can be trusted. (Agree/Disagree)

Q29h. People's answers to the census cannot be used against them. (Agree/Disagree)

Each item was recoded such that a 0 represented the response indicating no concern and a value of 1 indicated the response that expressed concern.

(continued)

APPENDIX Continued

Attitudes toward census

- Q29. Next I'm going to read you some opinions about the census. As I read each one, please tell me whether you agree or disagree with the opinion.
- A. Census information is used to help all of the people in the United States.
 - B. Most people answer the census only because the law says they have to.
 - D. Most people wouldn't care if they weren't counted in the census.
 - E. The census is very important to the country.
 - F. Only politicians and businessmen benefit from the census.
 - I. Filling out the census form is a patriotic thing to do.
 - K. It's in everyone's best interest to cooperate with the census.
 - L. The census helps people in my community.

Each item was recoded such that a 0 represented the response indicating a negative attitude and a value of 1 indicated a positive attitude. Scale scores range from 0 to 8.

Knowledge of the census

- Q15. People have different ideas about what the census is used for, and I'm going to read you some of them. As I read each one, please tell me whether you think the census is used for that purpose.
- A. To find areas of the country that need government help?
 - B. Is the census used to decide how many representatives each state will have in Congress?
 - C. Is it used to see what changes have taken place in the United States?
 - E. Is the census used to help businesses and governments plan for the future?

Correct responses were recoded to 1 and incorrect to 0. Scale scores range from 0 to 4.

Race/ethnicity

Coded as three dummy variables based on questions of race and Hispanic origin
 Hispanic: 1 = Hispanic origin (regardless of race), 0 = other
 Black: 1 = Black, non-Hispanic; 0 = other
 (omitted category is all other)

Primary language

English: 1 = primary language is English, 0 = all other

Age

Use two dummy variables to reflect curvilinear hypothesis

Age \leq 30: Age of respondent is less than or equal to 30

Age \geq 61: Age of the respondent is greater than or equal to 61

(omitted category: those age 31 to 60)

Family income

Six-category measure of family income. Missing data was imputed using average income among nonmissing households in the segment.

Education

Education > high school: Dummy variable, where 1 = greater than high school education, 0 = other. Missing data was imputed using average education among nonmissing households in the segment.

Look at mail

1 = look at mail right away, 0 = let mail pile up

Log (volume of mail received)

Log of the average number of pieces of mail received per day plus one.

All adults working

1 = all adults in household work, 0 = at least one adult not working (at home)

Presence of children

1 = one or more children younger than 18 in household, 0 = no children younger than 18.

Household composition

Two dummy variables:

Single person household: 1 = single-person household, 0 = other

Related household: 1 = all members of household related, 0 = other
(omitted category is one or more persons in a household in which not all members are related)

Standard address

1 = address has street name and house number, 0 = all other (post office box, rural route, apartment number, etc.)

Census long form

1 = household mailed census long form, 0 = mailed short form

NOTE

1. This differs from the 65% return rate cited earlier because the latter is based on all households, whereas the 74% is based on households targeted for mail return.

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