

# Trusting What You Know: Information, Knowledge, and Confidence in Social Security

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*Can public trust in government be increased by expanding knowledge of the activities government already performs? This study takes advantage of a naturally occurring experiment—the distribution of personal statements by the Social Security Administration—to examine the impact of increased domain-specific information on the public’s knowledge and confidence. Analysis of a large Gallup survey of attitudes toward Social Security finds that recipients of personal Social Security Statements gained more knowledge of, and confidence in, Social Security than nonrecipients after controlling for individual differences. These results suggest that citizens’ evaluations of government institutions echo, in part, the quality and quantity of information distributed to them. The implication for future research on political trust and confidence is to confirm the importance of expanding analysis from global to specific objects of evaluation.*

Trust in government is often identified as essential for citizen compliance to the basic political order (Barber 1983; Miller 1974a, 1974b), generating support for political leaders to expand taxation, spending, and authority (Chanley, Rudolph, and Rahn 2000; Hetherington and Nugent 1998), encouraging political participation (Abramson 1983, 195) and social trust (Brehm and Rahn 1997), and creating approval for the president and Congress (Citrin 1974; Hetherington 1998) and for incumbent candidates and government officials (Hetherington 1999). Political trust in the United States remains at lower levels than in the 1960s,<sup>1</sup> and a cottage industry has developed to restore the public’s trust (e.g., Nye, Zelikow, and KingNorris 1999; Nye, Zelikow, and King 1997) through efforts designed to improve the operation and performance of specific government institutions and programs and to reduce waste and corruption (Chanley, Rudolph, and Rahn 2000; Hetherington 1998).

Some observers have questioned, however, whether improving government performance can reverse distrust of government. Surveys have shown

that fluctuations in political trust do not vary across government institutions with quite different performance records (Bok 1997; McClosky and Zaller 1984; Orren 1997), leading observers to conclude that public trust and government performance are not closely related (McAllister 1999). Instead, they attribute the sharp drop in political trust and the fluctuations within this trend both to enduring perceptions of a threatening and wasteful government and to media attention to a limited set of notable scandals and failures such as the Vietnam War and Watergate whose effects were generalized to “government in Washington” rather than to specific agencies or programs (Orren 1997, 87–99).

Recent discussions of the causes of political distrust have reflected well-known and longstanding critiques of citizen competence (e.g., Campbell et al. 1960; Schumpeter 1950). In *Why People Don’t Trust Government*, Derek Bok suggests that government is not “doing a bad job” but that “many people are in error about the facts” and are not “well enough informed to make reliable judgments about the government’s performance” (1997, 56). Others point to the

<sup>1</sup>Although Americans’ trust in government soared after the September 11, 2001, terrorists’ attacks on the World Trade Center in New York City and the Pentagon in Washington, D.C., it had lost half the gain by January 21–24, 2002, according to a CBS/*New York Times* poll (Langer 2002). Our description of the public’s low regard for government performance as “political distrust” follows the practice by many scholars. We later modify this description and define the problem in terms of citizen confidence in institutional performance.

“stunning disparity between actual and perceived performance” (Orren 1997, 90), to Americans’ tendency to be “very critical of government [activities] . . . [that] they are not very knowledgeable about” (Blendon et al. 1997, 215), and to the “contradiction between subjective opinion and objective performance” (Nye and Zelikow 1997, 257). The common theme is that political distrust results not from weak government performance but from weak citizen performance in acquiring accurate information and competently processing it. The implicit assumption is that a better informed public would be more trusting of government.

This critique of citizen competence raises a fundamental question: can increased information about government performance boost citizen knowledge and increase trust? Of course, increased information could back-fire and expose the limitations of government, thus *decreasing* political trust. Indeed, some research already suggests that more knowledge feeds higher expectations and eventually greater disappointment with how Congress makes policy (e.g. Hibbing and Theiss-Morse 1995, 2002; Kimball and Patterson 1997).<sup>2</sup> Still other research finds no relationship between political knowledge and trust (Delli Carpini and Keeter 1996, 144–45).

Critiques of the public’s competence to evaluate government raise several important issues. First, while research has shown that variations in political information and knowledge explain much of the heterogeneity in political attitudes and participation (Delli Carpini and Keeter 1996; Zaller 1992), there has been little or no empirical examination of the impact of information and knowledge on political trust. Does factual information from expert sources about the performance of specific government institutions and programs increase, decrease, or have no influence on the public’s knowledge of and confidence in them? Second, the acquisition and processing of information is costly, and, yet, we know little about the conditions under which information might be used and affect political trust. What individual traits affect the propensity of individuals to use new information and alter their knowledge and trust levels?

In investigating these questions, we depart from the common research design by studying the public’s evaluation of a specific government institution and of a single program. Our approach avoids the past

tendency to focus on global evaluations of “the government,” which relied on the American National Election Studies (ANES) series on “trust [in] *the government in Washington*” (emphasis added; Citrin 1974; Miller 1974; but cf. Levi and Stoker, 2000, 491–99). This global definition of the object of judgment (“the government”) is prone to obscure distinctions among different government programs and institutions engaged in their own unique activities, outputs, and relations with clients (Delli Carpini and Keeter 1996; Gilens 2001).

There is some unsystematic evidence of a link between the public’s evaluation of, and confidence in, specific government units when detailed information about the performance of those bodies is presented to the public, such as with the Department of Energy’s handling of hazardous waste facilities and nuclear energy plants (Flynn et al. 1992; Goldstein, Goldstein, and Schorr 1992; Shapiro 1987). Yet we need more systematic evidence about how domain-specific evaluations of government performance are related to the public’s confidence in specific government institutions and programs.

We address these questions by examining the Social Security Administration’s (SSA) mailing to all eligible Americans of a personal Statement detailing their past contributions and projected future benefits. The impact of these mailings is estimated using data from a Gallup survey of 4,020 adults that was conducted from November 1999 to January 2000 while the statements were being mailed out. Social Security offers a testing ground for studying domain-specific information and its effects on knowledge and public confidence. A sustained body of survey data on Americans’ “confiden[ce] . . . in the future of the Social Security system” (e.g., Cook and Jacobs 2002; Cook, Barabas, and Page 2002) makes it possible to move from overly general judgments of “the government” toward studying the public’s evaluations of a particular government program and use of institution-specific criteria of evaluation—namely, the reliability of SSA to pay benefits.

The next section discusses existing research on political information, knowledge, and confidence in order to specify a set of theoretical expectations. The second section lays out our research plan based on the unique confluence of SSA’s mailings and the Gallup survey. The third and fourth sections analyze our findings that SSA’s distribution of domain-specific information improved knowledge and confidence in Social Security after controlling for individual differences in motivation, cognitive capacity, and social location.

<sup>2</sup>The research by Hibbing and Theiss-Morse (2002) and others use a general political knowledge index rather than knowledge about the specific institution that the public is evaluating. In this paper we examine the impact on confidence of institution-specific knowledge.

## An Integrated Framework of Information and Individual Traits on Knowledge and Confidence

Explaining the connection of information to the public's knowledge and confidence requires an integrated framework that accounts for both differences across individuals in their dispositions and skills and the extent to which factually relevant information is communicated to them (Chong 2000). Three personal traits can affect learning about government institutions. First, individuals differ in their *motivation* to invest the necessary time and effort to processing information, expanding their knowledge, and incorporating this into their evaluations of government institutions. Motivation is higher when a government issue is personally important to an individual (Campbell 2003; Craig 1996). In the Social Security context, this means individuals living with a current recipient or approaching retirement age are prone to perceive the program as offering a tangible benefit, which may increase their confidence both directly by demonstrating its concrete benefits and indirectly by prodding them to learn about it.

Second, individuals differ in their *cognitive capacity* to understand new information. A longer formal education equips individuals with a storehouse of basic facts and instills in them cognitive skills and strategies for efficiently incorporating new information (Nadeau, Niemi, and Amato 1995; Nie, Junn, and Stehlik-Barry 1996).

Third, *social location* creates differential opportunities for individuals to acquire information and develop confidence in government institutions. Males and higher income individuals usually know more about politics and policy (Bennett 1995; Nadeau, Niemi, and Amato 1995; Verba, Burns, and Schlozman 1997); women may have less confidence in Social Security owing to their greater dependence on it and therefore sensitivity to criticisms of the program and its exclusion of care-giving years from calculations of benefits (Dunn 1999; President's Commission to Strengthen Social Security 2001). Race may also play a role owing to past experiences with government, but it is difficult to predict the direction of such impact. The federal government's promotion of civil rights and the full inclusion of farm workers and domestic workers in the 1955 Social Security Amendments may generate stronger confidence among African Americans than whites; but the opposite could also result from the belated inclusion of African Americans into Social Security

and concerns about lower payouts to African Americans due to their shorter lifespans on average (Blendon et al. 1997, 207–08; Cook and Barrett 1992; King 1997; Lieberman 1998).

Independent of individual traits, decisions to collect and process information and to judge government institutions might also be affected by the information government officials and political actors distribute. In the best case scenario, information that is factual and detailed in cataloguing regulatory protections and benefits should improve knowledge and confidence in government institutions. For example, the four compact pages of the Social Security Statement provide clear, factual, nonpartisan, and personally relevant information about Social Security rather than warnings of imminent collapse or glowing reports about successes. The first and last pages describe without jargon the operations of the program including its benefits, financing, and future; the front page assures readers that the program “will . . . be there when you retire” based on its solid financing for the next four decades, though the Statement also acknowledge that “[w]e’ll need to resolve long-range financial issues.” The middle two pages estimate the individual’s own benefits, disability payment, and survivors insurance and provide a full record of the individual’s earnings and contributions to Social Security. This part of the Statement presents tangible assets in a form familiar to Americans with a savings account or a traditional annuity plan.

There are two possible alternatives to accounts that link information to increased trust (Bok 1997; Gordon and Segura 1997; Kahn and Kenney 1997; Orren 1997). In the one, individuals with higher levels of education and income develop lower levels of confidence because they interpret information as raising questions about SSA’s promise that benefits will “be there when you retire” or as demonstrating that the program is a “bad deal” for them owing to their relatively higher taxes and relatively lower benefit levels (Jacobs and Shapiro 1998). According to a second alternative account, information that is contradictory may have offsetting effects that blunt its influence on trust. For instance, reassuring statements from SSA that benefits will “be there when you retire” may be offset by sober warnings that there is a “need to resolve long-range financial issues” (Abramson 1983, 232; Delli Carpini and Keeter 1996).

While each of these alternative accounts is possible, we hypothesize that the Social Security Administration’s dissemination of information will enhance citizens’ knowledge of Social Security and boost their confidence in the program. But we are not prepared to hypothesize about whether the

information will affect all citizens in similar ways or whether it will have differential impacts on those with more education, income, and motivation. We will explore these subgroup relationships in detail.

## Data and Methods

On October 1, 1999, SSA began mailing annual Statements of Social Security benefits to all eligible Americans three months before their birthdays. The Statement had just started to be mailed out as Gallup went into the field in November 1999; the result was that only a fraction of respondents had received a Statement by survey time. The joint timing of SSA's Gallup survey and its mailing of personal Statements creates a natural experiment that allows us to analyze the impact of the Statement by comparing those who were mailed it before the survey against those who were mailed it after the survey. The analysis is restricted to people between 25 and 65 ( $N = 2,458$ ) because they alone were eligible for the Statement.<sup>3</sup>

### Measurement

Following the broad tradition of survey research on institutional confidence (such as the separate branches of government), Gallup asked: "How confident are you that Social Security retirement benefits will be there for you when you retire? Not confident at all, only a little confident, somewhat confident, or very confident?" The measure is coded 1 to 4. Our knowledge measure combines 16 separate items regarding Social Security's benefits, taxation, and administration and is limited to questions specifically discussed in the personal Statement distributed by SSA in 1999–2000. All the knowledge items concern Social Security, and they vary in difficulty, discrimination, and response categories in order to minimize acquiescence bias (Delli Carpini and Keeter 1996; Zaller 1992, 337). Four common question formats were used (Bennett 1995; Converse 1964; Gordon and Segura 1997; Zaller 1992). Five asked respondents whether they agreed or disagreed with a factual statement such as whether Social Security provides benefits to retirees or families of workers who die. The second format involved four items that posed a forced choice between two alternatives (e.g., whether the youngest age one can retire and collect full Social

Security retirement benefits is fixed or will rise in the future). The third format included two true or false items about the rising percentage of older Americans and the relationship between Americans living longer and long-term Social Security financial projections. The fourth format involved five open-ended questions on such topics as the types of benefits that Social Security pays for and the youngest age someone can retire today and start receiving *full* Social Security benefits. We use all 16 items to construct the latent knowledge variable. Only 26 respondents, about 1%, answered all 16 items correctly; 17% scored 13 or higher; and only one respondent missed all 16 items. The mean score was 10.19, with a standard deviation of 2.55. Thus, most respondents knew a fair amount about Social Security, as shown in previous research (Delli Carpini and Keeter 1996; Jacobs and Shapiro 1998).

The Gallup survey also provides measures of two sets of potential influences on Social Security knowledge and confidence—whether SSA's personal Statement had been received and items about individual motivation, cognitive ability, and social location. Individual motivation is measured by whether any household member received Social Security or whether the respondent was over age 55 (but not receiving Social Security benefits).<sup>4</sup> Together, these accounted for 20% of the sample and generated a score ranging from 0 to 2. The highest level of completed education was the indicator of cognitive capacity; respondents' open-ended answers to the education query were coded into five categories, with higher scores representing advanced degrees. Advantaged social location was measured by classifying total annual household income into six categories, with 1 designating less than \$20,000 and 6 signifying \$100,000 or more. We used dichotomous codes for gender (male was coded 1) and race (white was coded 1).<sup>5</sup>

The personal Social Security Statement is measured as "*Statement Mailed*" and "*Statement Received*." The former is measured as the birth month of respondents. Respondents born in January and February (16% of the sample) were mailed the Statements before the survey took place, while respondents born from April 1 through December 31 were not. (Respondents born in March were omitted because they fell within the month when the survey

<sup>3</sup>The total  $N$  for the survey is 4020; it declined to 2,458 respondents after excluding current recipients of Social Security or individuals less than 25 years of age or greater than 65 years of age. The number of respondents declined further to 1855 for model 1 and 1814 for model 2 after excluding respondents who refused to answer particular questions (e.g., income).

<sup>4</sup>In the gerontological literature on retirement, age 55 is generally considered the beginning point at which many individuals begin to seriously consider retirement and to be more aware of the age at which they will be eligible for benefits.

<sup>5</sup>See the appendix for a fuller description of the variables.

was in the field.) One (1) represents respondents to whom the Statement was mailed and 0 those to whom it should not have been mailed. We assume that birth months are randomly distributed across the population of entitled Americans, and therefore there should be no systematic relation between this variable and other social location variables.

“Statement Received” assesses whether respondents *reported* receiving a personal Social Security statement when asked: “Have you received a written Statement (Social Security Statement) from the Social Security Administration in the last year that shows how much you have contributed to Social Security, and how much you can expect to receive in benefits?” This was scored dichotomously, with 1 representing receipt. The 27% who reported receiving the Statements is more than would be expected from their birth month alone (16%). Some of those who reported receiving a Statement may have requested one before SSA mailed them; others may have read a Statement sent to their partner or an acquaintance (rather than their own).<sup>6</sup>

We use both measures for the distribution of the Social Security Statement to examine two distinct analytic “treatments” (Shadish, Cook, and Campbell 2002). *Model 1* uses the “Statement Mailed” measure to analyze the “Intent to Treat” (i.e., the impact of the initial condition, the mailed Statement). *Model 2* uses the “Statement Receipt” measure (along with the “Statement Mailed” measure) to estimate the “Treatment on Treated” impact; this examined the effect on those who reported receiving the mailing.

<sup>6</sup>Similar to the fact that some respondents reported receiving a Social Security Statement who should not have been mailed one based on the birth month mailing method, a small percentage of respondents who said they had not received a Social Security Statement *should* have received a Statement based on the SSA’s birth month of distributing the Statements (7%). These may be citizens who move frequently or threw the Statement away, thinking it was junk mail, or simply forgot getting it. If the study design had been an experiment in the laboratory with perfectly controlled random assignment to the experimental and control groups, no study participant would have reported not getting a Statement if the experiment assigned them one. However, this study took advantage of what was basically a naturally occurring experiment in the field owing to distribution of SSA’s Statements, and therefore some slippage occurred. There is no easy way to correct for these discrepancies with the statistical model, because they are measurement errors inherent to natural experiments. The empirical evidence reveals that those who are more educated, better off, and more motivated are more likely to say they received the statement. As a way to control for this potential source of error in the “statement received” measure, we estimate the second model including both variables and the interaction terms. We acknowledge that this model specification is not a fundamental solution for the measurement error, but at least we can trace the sources of it and control for it in the model.

Including both measures in the *same* analysis allows us to assess the effects of both the government agency’s effort to disseminate the information and the effects of actually receiving (or remembering) it.

By incorporating the two measures in Model 2, we can fully explore the theoretical paths through which the government’s effort influences citizens’ knowledge and confidence and the ways that individuals’ social demographic backgrounds, motivations, and cognitive skills interact with the government’s effort. In particular, we expect that “Statement Mailed” will influence “Statement Received,” that “Statement Received” will improve knowledge of Social Security, and that this enhanced knowledge will in turn increase confidence in Social Security. These paths are consistent with our expectation that SSA’s effort to disseminate information contributes to improvement in citizens’ knowledge of Social Security and subsequently increased confidence in Social Security. In addition, we will examine the extent to which individual differences in socioeconomic status, motivation, and education level will moderate the influence of information in building knowledge about government and trust in its future performance.

We use structural equation modeling (SEM) and, specifically, LISREL, to specify and test a path model of the direct and indirect influences from mailing out the Social Security Statements to increased confidence in Social Security (Bollen 1989; Byrne 1998; Pedhazur 1982). Ordinary least square (OLS) estimation can provide an incomplete and even biased picture of complex interdependencies, making SEM better suited to our main purpose of examining how “Statement Mailed,” “Statement Received,” and “Knowledge” are causally related to each other and to Confidence in the future of Social Security.<sup>7</sup> We use LISREL and a Weighted Least Squares (WLS) estimation method because our data are a mixture of continuous and ordinal variables.<sup>8</sup> In a second set of analyses, we use

<sup>7</sup>One of the benefits of SEM models is that we can take into account the correlated error in survey items. As Green (1988) points out, correlated error will occur when questions share the same format and response options and when the placement of questions in a survey instrument is close to each other. Although different types of survey items were used in the Gallup survey, there is still a possibility that correlated error could arise. To correct for correlated response error, the covariance among the error terms for the correlated items was freed. See footnote 9 for the details of the operationalization of the covariance among the items for the latent variable “Knowledge.”

<sup>8</sup>Because we have ordinal categorical variables, we use polychoric correlation matrix for input and weighted least squares (WLS) estimation. Using WLS estimation and polychoric matrix is appropriate given the noncontinuous nature of our variables and the nonnormal distributions of some of variables (Joreskog and Sorbom 1996).

Maximum Likelihood estimation to test for interactions and potential bias in using WLS (Aiken and West 1991; Joreskog and Yang 1996).

Our analyses proceed in two parts. The first investigates how the direct measure of SSA's information distribution ("Statement Mailed") relates to Knowledge and Confidence in Social Security. The second uses both "Statement Mailed" and SSA's information distribution ("Statement Received") where the selection process into "Statement Received" is not perfectly known and thereby potentially open to selection bias. In each section, we test the effects of information against the potent influences of individual traits.

## The Effects of Mailing Personal Social Security Statements

Table 1 and Figure 1 present the LISREL analysis results;<sup>9</sup> the fit of the data to the hypothesized models are generally good based on multiple indicators.<sup>10</sup> We estimate the model assuming that all the causal relationships are recursive—i.e., the causal direction from the independent to the dependent variables is one way. Table 1 presents both standardized and unstandardized coefficients for the direct effects of

<sup>9</sup>We treat the variables Income, Race, Gender, Education, Personal Importance, Statement Mailed, and Statement Received as observed variables. Thus, there is no need to make assumptions about measurement error. For the latent variable—Confidence—we assumed no measurement error (i.e. the measurement error was set to zero) and used a single indicator. For the latent variable "knowledge," we used 16 items to construct the variable. In this variable, the measurement error was taken into account by allowing co-variation between items. To achieve this we freed some elements of the measurement error matrix (i.e., theta-epsilon matrix). In deciding which items would be freed, we examined the modification indices for the theta-epsilon matrix. If the modification indexes are greater than 10, we freed the covariance for the items. We acknowledge that this rule of thumb is a rough way to deal with the measurement errors, but it is better than assuming no measurement errors with a number of knowledge items; past research (e.g., Gilens 1995; Green 1988) has shown that measurement error needs to be taken into account. In model 1 we freed 29 covariance matrixes and 27 in model 2.

<sup>10</sup>For Model 1, the Standardized Root mean Square Residual (SRMR) is .075, which is smaller than the cutoff of .08, and the Root Mean Square Error of Approximation (RMSEA) is 0.034, which is smaller than the cutoff of .06 (Bentler and Dudgeon 1996; Hu and Bentler 1999). Similarly, for Model 2, we have .056 for SRMR and .017 for RMSEA, and they are below the cut points. These criteria of goodness of fit provide support that our model is a reasonable reflection of the observed data. The fit indexes for Model 2 which does not include the interaction terms (SRMR = .075 RMSEA = .034) show a poorer fit than the current model.

individual-level variables on knowledge and confidence, the indirect effects of individual-level variables on confidence through knowledge, and the total effect of both the direct and indirect effects.<sup>11</sup> For simplicity of presentation, Figure 1 displays only standardized coefficients for the statistically significant paths although as noted we estimated all paths from the individual level variables to "Statement Mailed," to knowledge, and to confidence and they are shown in Table 1.

## Relationship between Statement Mailed and Individual Traits.

We begin our analysis by using the most stringent measure of SSA's distribution of information in Model 1—the mailing of Statements to individuals with January or February birth months as compared to those who were mailed later. The first step examines how "Statement Mailed" is related to social location (i.e., income, race, gender), cognitive capacity (i.e., education), and motivation (the personal importance of Social Security due to age and receipt of benefits). As expected, the coefficients are small and not statistically significant, supporting the expectation that "Statement Mailed" is a product of date of birth and not systematically related to income, race, gender, education, and motivation.<sup>12</sup>

**Impact of Individual Traits on Knowledge.** Table 1 ("Direct Effects" Panel, Column 1) and Figure 1 show that all the variables measuring individual traits have significant direct influences on Knowledge. Better educated individuals know more about Social Security ( $b = .27$ ), as do individuals with higher incomes ( $b = .18$ ), men rather than women ( $b = .07$ ), whites more than nonwhites ( $b = .27$ ) and those who have a stake in Social Security because they are approaching retirement or living with a Social Security recipient ( $b = .24$ ). These results are

<sup>11</sup>We also estimated alternative models, which excluded insignificant paths. Those results are not shown here but produced almost the same findings. This applies to the estimation of Model 2.

<sup>12</sup>We used commonly adopted rules to test whether our models satisfy the "necessary condition" for identification. According to Bollen (1988, 328), t-rule is a principle way to test the necessary condition. If the number of free and unconstrained parameters is smaller than  $1/2(p+q)(p+q+1)$ , the model is necessarily identified. The  $p$  and  $q$  are the numbers of observed variables for  $X$  variables and  $Y$  variables. In our model 1, there are 5  $X$  variables and 18  $Y$  variables. At the same time, we have 73 parameters to estimate with the information. Model 1 satisfies the t-rule since 73 is less than 276 ( $1/2 \cdot 23 \cdot 24$ ). According to the same logic, model 2 satisfies the t-rule since there are 103 free parameters and 6  $X$  variables and 21  $Y$  variables.

TABLE 1 Direct, Indirect and Total Effects of the Variables for Model 1

Independent variables	Statement Mailed		Knowledge		Confidence	
	$\beta$ (std. err)	b	$\beta$ (std. err)	b	$\beta$ (std. err)	b
<b>Direct effects</b>						
<b>A. Social Location</b>						
Income	.06 (.04)	.06	.17 (.03)***	.18	.04 (.03)	.04
Race (white=1, nonwhite=0)	-.10 (.05)	-.10	.26 (.03)***	.27	-.12 (.04)**	-.12
Gender (male=1, female=0)	-.04 (.04)	-.04	.06 (.03)**	.07	.13 (.03)***	.13
<b>B. Cognitive Capacity</b>						
Education	-.02 (.04)	-.02	.26 (.02)***	.27	-.02 (.03)	.02
<b>C. Motivation</b>						
Personal importance	-.08 (.05)	-.08	.23 (.03)***	.24	.40 (.03)***	.40
<b>D. Information distribution</b>						
Statement Mailed	—	—	.05 (.03)	.05	.09 (.03)**	.09
<b>E. Information</b>						
Knowledge	—	—	—	—	.27 (.03)***	.26
<b>Indirect effects</b>						
<b>A. Social Location</b>						
Income	—	—	.00 (.00)	.00	.05 (.01)***	.05
Race (white=1, nonwhite=0)	—	—	.00 (.00)	-.01	.06 (.01)***	.06
Gender (male=1, female=0)	—	—	.00 (.00)	.00	.01 (.01)	.01
<b>B. Cognitive Capacity</b>						
Education	—	—	.00 (.00)	.00	.07 (.01)***	.07
<b>C. Motivation</b>						
Personal importance	—	—	.00 (.00)	.00	.05 (.01)***	.05
<b>D. Information distribution</b>						
Statement Mailed	—	—	—	—	.01 (.01)	.01
<b>Total effects</b>						
<b>A. Social Location</b>						
Income	.06 (.04)	.06	.17 (.03)***	.17	.09 (.03)***	.09
Race (white=1, nonwhite=0)	-.10 (.05)	-.10	.25 (.03)***	.25	-.06 (.04)	-.06
Gender (male=1, female=0)	-.04 (.04)	-.04	.06 (.03)*	.06	.14 (.03)***	.14
<b>B. Cognitive Capacity</b>						
Education	-.02 (.04)	-.02	.26 (.02)***	.26	.09 (.03)***	.09
<b>C. Motivation</b>						
Personal importance	-.08 (.05)	-.08	.22 (.03)***	.22	.45 (.03)***	.45
<b>D. Information distribution</b>						
Statement Mailed	—	—	.05 (.03)	.05	.10 (.04)**	.10
<b>E. Information</b>						
Knowledge	—	—	—	—	.27 (.03)***	.27

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

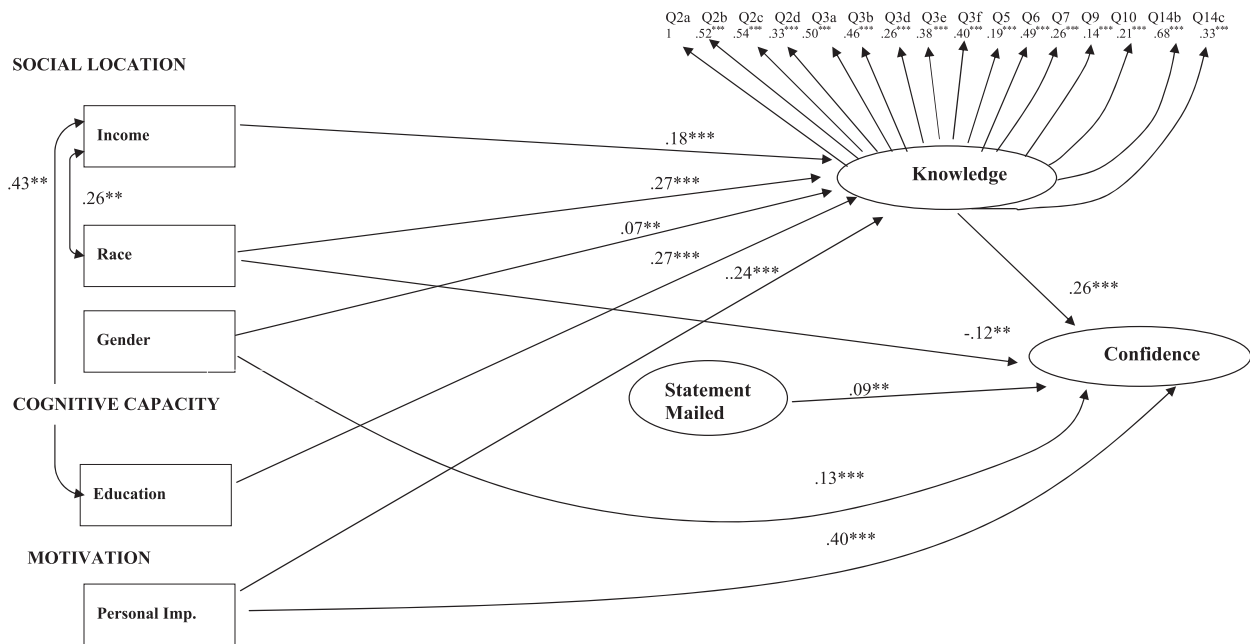
The unstandardized ( $\beta$ ) and standardized (b) coefficients are presented. The estimation has been conducted by using LISREL 8.5 df = 203; Chi-Square = 634.63; AGFI = .98; SRMR = .075; RMSEA = .034

consistent with previous research and our expectations: individuals who are better skilled, more motivated, and enjoy privileged social positions learn more about programs and politics (Delli Carpini and Keeter 1996).

**Impact of Individual Traits on Confidence.** In terms of the direct effects of individual traits on Confidence ("Direct Effects" Panel, Column 2), personal importance has the strongest influence ( $b = .40$ ).

Individuals who witness a family member receiving tangible benefits or are about to receive benefits themselves are more likely to believe that program benefits will also exist for them in the future. As anticipated, men are more likely to have confidence than women ( $b = .13$ ), perhaps reflecting women's trepidation about Social Security's dependability and fairness. Education is not directly linked to Confidence, corroborating Abramson's (1983) warning

FIGURE 1 The Impact of Mailing the Social Security Statement on Knowledge and Confidence



\*\*\*p < .001; \*\*p < .01; \*p < .05

Note: The figure shows the path analysis using LISREL. Standardized coefficients are presented. Adjusted Goodness of Fit Index (AGFI) = .98; Chi-Square = 634.63; df = 203; Standardized Root Mean Square Residual (SRMR) = .075; RMSEA = .034 Race is coded white = 1, nonwhite = 0. Gender is coded male = 1, female = 0.

against presuming an “education-enhancement” effect. While individuals with high cognitive capacity may be better equipped than others to improve their knowledge, this does not necessarily lead to greater confidence in institutional performance. Education only has an influence indirectly, by equipping individuals to improve their Knowledge of Social Security (b = .07) (“Indirect Effects” Panel, Column 3). In a similar way, income leads to higher Confidence not directly but rather through expanding Knowledge (b = .05).

In a finding that may help to resolve a current puzzle, race is related to confidence, with nonwhites being more confident than whites (b = -.12). This may reflect Social Security’s inclusive racial history (see Lieberman 1998).

### The Impact of Mailing Social Security Statements on Confidence

The second set of substantive findings offers support for our core argument: straight-forward, factual, and personally relevant information increases confidence in specific government programs once a broad array of individual traits are controlled. Table 1 and Figure 1 show that SSA’s mailing of Statements had a direct effect on Confidence in the future of Social Security

(b = .09 [Table 1, “Direct Effects” Panel, Column 3]). However, it does not have a statistically significant impact on Knowledge.

Consistent with the arguments of Bok, Orren, and other proponents of the information-enhancement account, knowledge has a significant effect on Confidence (b = .26 [Table 1, “Direct Effect” Panel, Column 3]): the more people know about Social Security taxes, benefits, and operations, the more confident they are about the program’s future. Of particular importance is that Table 1 shows that the total impact of “Statement Mailed” on Confidence is .10 (p < .01) (“Total Effects” Panel, Column 3). In other words, use of the stringent “Statement Mailed” independent variable leads to a modest increase in confidence in Social Security. Simply mailing information about the program enhances confidence in it even among individuals with different individual traits.

### The Effects of Government Mailing and Public Recollection of Statement Receipt

Model 2 includes “Statement Received” and “Statement Mailed” in the same model in order to



investigate the independent effect of actually receiving the Statement and whether and how SSA's effort of sending the statement affects citizens' knowledge and confidence. It also examines the statistical interaction of individual traits and Statement Received on Knowledge and Confidence. Does receiving the Social Security Statement have a stronger impact among highly educated than less-educated individuals, as would occur if highly educated individuals are especially apt to pay attention to the Statement and learn from it? We ask a similar question about those who are more motivated and have higher incomes. Are they more inclined to learn the new information and then take greater advantage of it?

### Individual Traits and Information Distribution

Table 2 and Figure 2 show that memory of a personal Statement from SSA is largely the product of actually having been mailed one. The relationship between "Statement Mailed" and "Statement Received" is statistically significant and very strong ( $b = .65$ ). This means that individuals sent the Statement by SSA are highly likely to report they received it, though there is some inevitable slippage owing, for instance, to such things as moving, discarding the envelope before opening it, being too busy to read it, and imperfect recollection. By contrast, income, education, and personal importance have substantially weaker influences on the respondents' recollection of receiving the Statement ( $b = .09, .08, \text{ and } .12$ , respectively). Race and gender have no significant relationship with "Statement Received."

**The Impacts of Individual Traits on Knowledge and Confidence.** The influence of individual traits on Knowledge and Confidence generally parallels the previous analyses in Figure 1 and Table 1 that did not include "Statement Received." With the exception of gender, the variables for social location, cognitive capacity, and personal importance continue to exert the positive effects on Knowledge found for "Statement Mailed" (Model 1). In terms of direct effect on Confidence, race, gender, and personal importance remain as the only individual traits that are statistically significant, while education continues to improve knowledge without directly raising confidence.

### The Impact of Information on Knowledge

Adding "Statement Received" in Model 2 produces a statistically significant direct path from government

information distribution to Knowledge (see Figure 2). Specifically, "Statement Received" has a positive direct effect on Knowledge ( $b = .18$ ;  $p < .05$  [Table 2, "Direct Effects" Panel, Column 5]). Indeed, adding "Statement Received" generally produced stronger results. As Table 2 shows, the *total* effect of "Statement Received" on Knowledge is stronger than for "Statement Mailed":  $b = .17$   $p < .05$ . This implies that although sending the statement has a small but not statistically significant impact on boosting knowledge, actually receiving the Statement improves knowledge even more and provides additional evidence of the cognitive impact of receiving and absorbing SSA's information about retirement benefits (Gilens 2001).

### Impact of Information on Confidence

One of the most important results in Figure 2 and Table 2 is that SSA's distribution of information exerts an indirect impact on Confidence through Knowledge. The inclusion of both Statement Mailed and Statement Received clarifies the *effects* of the cognitive processing of information. Specifically, receiving their Social Security Statements helps individuals gain new knowledge about Social Security and this increased knowledge then generates more confidence in the viability of Social Security ( $b = .35$ ) (Table 2, "Total Effects" Panel, Column 6). It seems, then, that actual receipt of the Statement indirectly makes a difference in increasing the confidence of Americans by improving their understanding of the program.

### Interactions of Individual Traits and Statement Receipt on Knowledge, and Confidence

Analyzing the interactions of new information and specific individual traits is critical for sorting out whether the impact of the Social Security statement reported above is largely limited to advantaged groups. None of the substantively important statistical interactions with Statement Mailed or Received reach conventional levels of statistical significance. For instance, Table 2 shows that the interaction of Statement Receipt and education produces a positive (but unreliable) effect on Knowledge and an only marginal effect on Confidence at the .10 level. Statistical interactions between Statement Receipt and income and personal importance are also not statistically significant.

TABLE 2 Direct, Indirect and Total Effects of the Variables for Model 2

Independent variables	Statement Rec.		Educ. * Statement Rec.		Income * Statement Rec		Pers imp * Stmt Rec.		Knowledge		Confidence	
	$\beta$ (std. err)	b	$\beta$ (std. err)	b	$\beta$ (std. err)	b	$\beta$ (std. err)	b	$\beta$ (std. err)	b	$\beta$ (std. err)	b
<b>Direct Effects</b>												
<b>A. Social Location</b>												
income	.06 (.03)***	.09	-.01 (.03)	-.02	-.18 (.06)**	-.14	.01 (.02)	.02	.03 (.01)**	.13	.01 (.04)	.01
race (white = 1, nonwhite = 0)	.07 (.06)	.07	.04 (.05)	.03	-.16 (.09)	-.08	-.06 (.04)	-.06	.15 (.03)***	.38	-.28 (.10)**	-.20
gender (male=1, female=0)	.03 (.04)	.03	-.03 (.04)	-.02	.04 (.06)	.02	.00 (.03)	.00	.02 (.02)	.05	.19 (.05)***	.14
<b>B. Cognitive Capacity</b>												
education	.09 (.05)**	.08	-.26 (.06)***	-.18	.01 (.07)	.01	-.04 (.03)	.01	.14 (.02)***	.31	-.05 (.07)	-.03
<b>C. Motivation</b>												
personal importance	.13 (.06)**	.12	-.08 (.05)	-.06	-.04 (.08)	-.02	-.25 (.08)**	-.24	.14 (.03)***	.33	.57 (.08)***	.36
<b>D. Information distribution</b>												
statement Mailed	.65 (.04)***	.65	-.13 (.10)	-.10	-.27 (.16)	-.14	-.09 (.08)	-.09	-.01 (.03)	-.02	-.04 (.10)	-.03
statement Received			.15 (.10)	.12	.41 (.15)***	.21	.01 (.07)	.01	.07 (.03)*	.18	.10 (.10)	.07
<b>E. Interaction</b>												
educ.* statement received									.01 (.01)	.05	.06 (.04)	.06
income * statement received									-.01 (.01)	-.07	.03 (.02)	.04
personal imp. * statement received									.01 (.02)	.01	.08 (.05)	.05
<b>F. Information</b>												
knowledge											1.27 (.30)***	.35
<b>Indirect Effects</b>												
<b>A. Social Location</b>												
income			.01 (.01)	.01	.03 (.02)	.02	.00 (.00)	.00	.01 (.00)	.03	.05 (.02)**	.06
race (white = 1, nonwhite = 0)			.01 (.01)	.01	.03 (.03)	.01	.00 (.01)	.00	.01 (.00)	.02	.20 (.06)***	.14
gender (male = 1, female = 0)			.00 (.01)	.00	.01 (.02)	.01	.00 (.00)	.00	.00 (.00)	.00	.03 (.02)	.02
<b>B. Cognitive Capacity</b>												
education			.01 (.01)	.01	.04 (.02)	.02	.00 (.01)	.00	.00 (.01)	.01	.17 (.05)***	.11
<b>C. Motivation</b>												
personal importance			.02 (.01)	.01	.05 (.03)	.02	.00 (.01)	.00	.01 (.01)	.02	.18 (.05)***	.12
<b>D. Information distribution</b>												
statement Mailed			.10 (.06)	.08	.26 (.10)**	.14	.01 (.05)	.01	.05 (.02)*	.12	.11 (.07)	.08
statement Received									.00 (.00)	-.01	.11 (.04)*	.08
<b>E. Interaction</b>												
educ.* statement received											.02 (.01)	.02
income * statement received											-.02 (.01)	-.03
personal imp. * statement received											.02 (.02)	.01

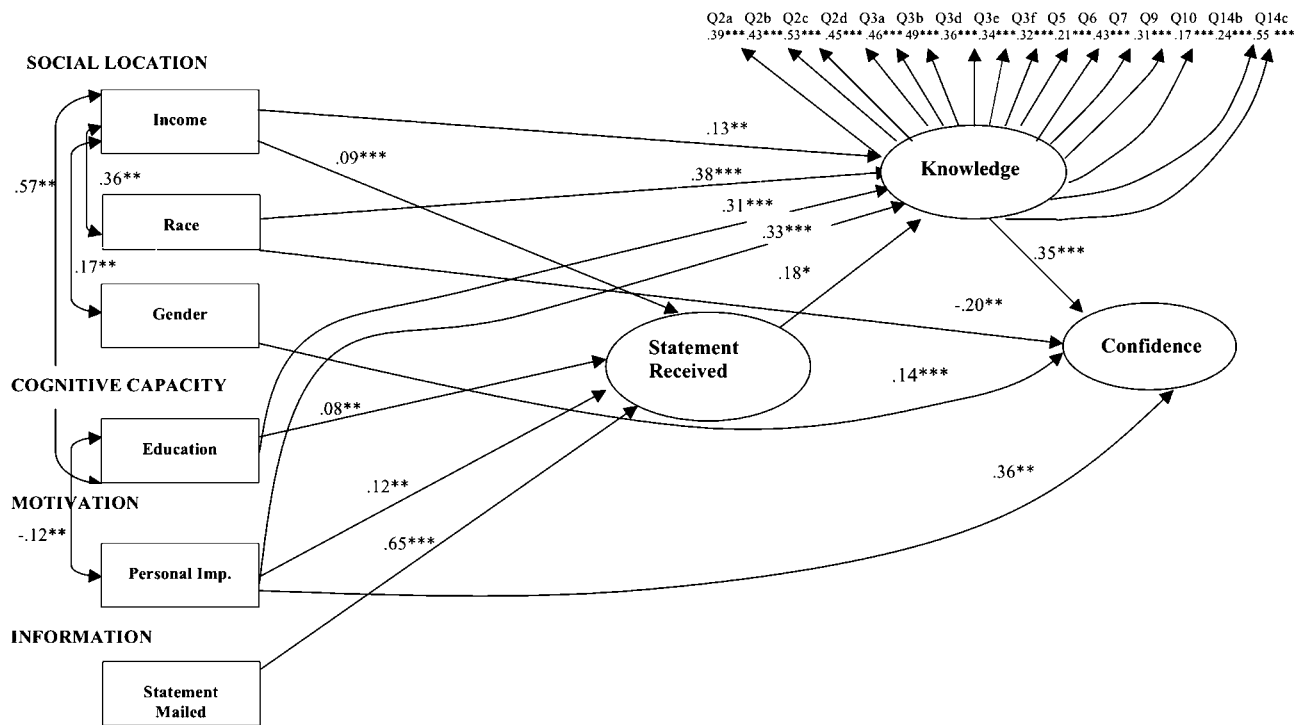
TABLE 2 (Continued)

Independent variables	Statement Rec.		Educ. * Statement Rec.		Income * Statement Rec.		Pers imp * Stmt Rec.		Knowledge		Confidence	
	$\beta$ (std. err)	b	$\beta$ (std. err)	b	$\beta$ (std. err)	b	$\beta$ (std. err)	b	$\beta$ (std. err)	b	$\beta$ (std. err)	b
<b>Total Effects</b>												
<b>A. Social Location</b>												
income	.06 (.03)*	.09	-.01 (.03)	-.01	-.16 (.05)**	-.12	.02 (.02)	.02	.04 (.01)***	.15	.07 (.03)	.07
race (white = 1, nonwhite = 0)	.07 (.06)	.07	.05 (.05)	.04	-.13 (.08)	-.07	-.06 (.04)	-.06	.15 (.03)***	.40	-.08 (.07)	-.06
gender (male = 1, female = 0)	.03 (.04)	.03	-.03 (.04)	-.02	.05 (.06)	.03	.00 (.03)	.00	.02 (.02)	.06	.22 (.05)***	.16
<b>B. Cognitive Capacity</b>												
education	.09 (.04)*	.08	-.25 (.06)***	-.17	.03 (.06)	.01	-.04 (.03)	-.04	.14 (.02)***	.31	.12 (.05)*	.07
<b>C. Motivation</b>												
personal importance	.13 (.05)*	.12	-.06 (.05)	-.04	.01 (.08)	.00	-.25 (.08)**	-.24	.15 (.02)***	.35	.76 (.06)***	.48
<b>D. Information distribution</b>												
statement Mailed	.65 (.04)***	.65	-.03 (.05)	-.02	-.01 (.09)	.00	-.08 (.05)	-.09	.04 (.02)	.10	.06 (.06)	.05
statement Received			.15 (.10)	.12	.41 (.15)**	.21	.01 (.07)	.01	.07 (.03)*	.17	.21 (.09)*	.15
<b>E. Interaction</b>												
educ.* statement received									.01 (.01)	.05	.08 (.03)*	.07
income * statement received									-.01 (.01)	-.07	.01 (.02)	.01
personal imp. * statement received									.01 (.02)	.01	.08 (.05)	.06
<b>F. Information</b>												
knowledge											1.27 (30)**	.35

\*\*\*:  $p < .001$ ; \*\*:  $p < .01$ ; \*:  $p < .05$

The unstandardized ( $\beta$ ) and standardized (b) coefficients are presented. The estimation has been conducted by using LISREL 8.5.  $df = 275$ ; S.B Chi-square = 426.39; AGFI = .98; RMSEA = .017; SRMR = .056

FIGURE 2 The Impact of Both Mailing and Receiving the Social Security Statement on Knowledge and Confidence



\*\*\*p < .001; \*\*p < .01; \*p < .05

Note: The figure shows the structural equation model (SEM) estimation results, using LISREL. Race is coded white = 1, nonwhite = 0. Gender is coded male = 1, female = 0. Adjusted Goodness of Fit Index (AGFI) = .87; S.B. Chi-Square = 426.39; df = 275; Standardized Root Mean Square Residual (SRMR) = .056; RMSEA = .017.

But most impressive is the continuing independent direct impact of Statement Receipt on Knowledge and its indirect effects on Confidence through Knowledge after the introduction of interactions of Statement Receipt and individual traits. These notable results imply that the effects of mailing and sending the Social Security Statement had general effects on Americans and were not limited to certain subgroups.

### Discussion and Conclusion

Our analysis has implications for research on confidence and for discussions on how to improve civic life in America. It confirms the importance of shifting research on political trust and confidence away from global objects of evaluation like “the government” and towards judgments about specific institutions and their performance (Gilens 2001; Levi and Stoker 2000). Three contributions merit attention.

First, our findings modify earlier research on the reasoning capacity of the mass public. Previous

research largely accepted that the public’s level of information was minimal and instead emphasized the rational processes that citizens use to process the limited information they do possess (Bartels 1996, 1997; Page and Shapiro 1992; Popkin 1991). Our results raise questions, however, about the immutability of minimal levels of citizen information and offer qualified evidence that policy information can be boosted when the public is provided with clear, useful, and personally relevant factual information from credible sources. Borrowing on V.O. Key’s famous aphorism, the public’s level of policy knowledge echoes the quality and quantity of information with which they are provided. A related implication is to underscore the feedback effects of specific government programs (Campbell 2003; Mettler 2002; Mettler and Soss 2003).

Second, our findings show that information distribution can improve confidence. In line with previous studies on confidence, we find that social status, cognitive ability, and self motivation enhance citizens’ confidence. However, unlike previous

pessimistic studies about the relationship between knowledge and confidence (e.g., Delli Carpini and Keeter 1996; Hibbing and Theiss-Morse 1995, 2002; Kimball and Patterson 1997), we found that sending out objective information can boost citizens' knowledge about Social Security programs across individuals with disparate traits and in turn improve their confidence in the program. This gives credence to Bok and others' argument that citizens' lack of knowledge contributes to the lower level of confidence in government in general and reveals a concrete direction through which to enhance citizen confidence in government.

Third, our study illustrates an approach to studying citizen trust in government that moves away from focusing on a global object of evaluation to examining a specific object of evaluation. Asking citizens whether or not they trust "the government in Washington" depends on their abstract or impressionistic judgments of government. By contrast, studying citizen evaluation on a *specific* government institution makes it possible to investigate the effect of knowledge about concrete programs on the evaluation of that institution's ability to deliver on its mission (Page and Jacobs 2009). Although we have not addressed the question how domain-specific evaluation is connected to *global* evaluation, we think such an examination would be a useful next step.

Findings that support the information-enhancement account have practical implications for American civic life. Evidence that the public's confidence in government may, in part, be related to its knowledge underscores the value of providing fact-rich, clear, and personally relevant information (Bok 1997; Jacobs, Cook, and Delli Carpini 2009). Our results provide conditional support for government initiatives like SSA's Statements to increase knowledge and confidence toward government programs. Although our analysis shows the effects of social location, cognitive capacity, and, especially, personal motivation, it also demonstrates that government distribution of factual information can have independent effects on confidence.

A particular challenge for government institutions is to encourage citizens to read and retain the information sent to them. As our findings suggest, sending out well-presented information has a direct impact on confidence but this effect is stronger when citizens actually read the materials and remember them.

Foundations, schools, and other organizations have fueled a burgeoning movement to improve civic engagement and boost policy knowledge and con-

fidence. Less explored has been how government itself can help. Decisions by government officials about the amount, kind, and delivery vehicle for the distribution of information may have a measurable impact on public knowledge and confidence in government. Major government programs should carefully review the nature of the information they distribute because it has consequential (even if modest) impacts on citizens. Although an Athenian conclave of learned citizenry is not attainable, government institutions may be able to measurably improve the level of policy information and boost the public's evaluation of its programs.

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## Appendix

### Data

This survey was supported by the Social Security Administration as an effort to monitor what the public knows about Social Security. The Gallup Organization conducted the survey for the Social Security Administration first between October and November 1998 and second between November 1999 and January 2000. For the analysis in this paper, the second survey is used. The total number of respondents in the second survey was 4,020 adults. Four hundred adult respondents were randomly sampled in 10 major regions (Boston, New York, Philadelphia, Atlanta, Chicago, Dallas, Kansas City, Denver, San Francisco, and Seattle). To represent the nation at large, Gallup then applied weights. We conducted our analyses with and without weights. Finding no differences in the results, we report our finding without the use of weights.

Because the focus of this paper is on the effect of the Social Security Statements, we limited our analysis to those respondents targeted for the statements (i.e., those who are not already receiving Social Security). Therefore, we excluded respondents aged under 25,

aged 65 and over, and any respondents under 65 who are getting benefits. The resulting N was 2458.

The statistical packages used in this analysis is LISREL 8.5.

## Dependent Variable

**Confidence in Social Security.** Q4: "How confident are you that Social Security retirement benefits will be there for you when you retire?" (Not confident at all, Only a little confident, Somewhat confident, Very confident). (Min = 1 Max = 4 Mean = 2.20 Std. Dev = 1.01 N = 2408)

## Independent Variables

**Knowledge.** Q2, Q3(ABDEF), Q5,6,7,9,10,14(B,C)

Q2: What types of benefits do you think the Social Security taxes that come out of your pay check are for? [This is an open-ended question which allows the respondent seven responses. The score for these seven responses were calculated by adding the number of correct answers. Thus each correct response was treated as an individual question. The correct answers are 6 (disability benefits), 10 (retirement benefits), and 12 (survivor benefits).]

Q3A: Social Security provides retirement benefits (agree or disagree).

Q3B: Social Security provides benefits to the families of workers who die (agree or disagree).

Q3D: Social Security pays benefits to workers who become disabled (agree or disagree).

Q3E: Social Security benefits play a major role in keeping many senior citizens out of poverty (agree or disagree).

Q3F: Social Security is paid for by a tax placed on both workers and employers (agree or disagree).

Q5: What do you think is the youngest age someone can retire today, and start receiving FULL Social Security retirement benefits? If you don't know just say so (open ended question).

Q6: Is the youngest age you can retire and collect FULL Social Security retirement benefits fixed or will it rise in the future?

Q7: Can a person retire early and still receive some Social Security retirement benefits?

Q9: Do all people who receive Social Security retirement benefits receive the same amount, or does it depend on how much people earned when they were working?

Q10: Were Social Security retirement benefits, by themselves, designed to provide enough money for retired people to live on?

Q14 B: People on Social Security are living longer, so they cost the program more money.

Q14 C: The percentage of older Americans will about double between now and the year 2032.

Cronbach Alpha is .61 for these items.

(Min = 0 Max = 16 Mean = 10.199 Std. Dv = 2.553 N = 2458)

**Personal Importance.** For this variable, two items (Q D3, and D5) were added.

D3: Is anyone else in your household currently receiving any Social Security benefits?

D5: What is your age? Age is recorded by 1 = 56 or over and 0 = under age 56.

(Min = 0 Max = 2 Mean = .2297 Std. Dv = .4771 N = 2451)

**Statement Received.** Q24: Have you received a written statement (the Social Security Statement) from the Social Security Administration in the last year that shows how much you have contributed to Social Security and how much you can expect to receive in benefits?

(Min = 0 Max = 1 Mean = .2883 Std. Dv = .4531 N = 2397)

**Statement Mailed.** QD11a: In what month were you born? This variable has been modified as a dichotomous variable. Respondents who were born in January and February were coded as 1 and those who were born in other months 0. But the respondents who were born in March were excluded in order to make the variable cleaner because people born in March were in the ambiguous situation with some having received the statement and others not having receiving it.

(Min = 0 Max = 1 Mean = .154 Std. Dv = .361 N = 2269)

**Education.** Originally it ranged from 1 = less than high school graduate to 6 = postgraduate work/degree. People who chose "trade/technical/vocational training" were assigned to "some college" category. Thus, the variable ranges from 1 to 5.

(Min = 1 Max = 5 Mean = 3.136 Std. Dv = 1.14 N = 2452)

**Race.** This variable was coded 1 for white and 0 for nonwhite.

(Minimum = 0 Maximum = 1 Mean = .8855 Std. Dv = .3185 N = 2245)

**Income.** It ranges from 1 = Less than \$20,000 to 6 = \$100,000 or more.

(Minimum = 1 Maximum = 6 Mean = 3.366 Std. Dv = 1.549 N = 2222)

**Gender.** Male was coded as 1 and female 0.  
(Minimum = 0    Maximum = 1    Mean = .4365  
Std. Dv = .4961 N = 2458)

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