

# Declines in Trust in Others and Confidence in Institutions Among American Adults and Late Adolescents, 1972–2012

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## Abstract

Between 1972 and 2012, Americans became significantly less trusting of each other and less confident and trusting in large institutions, such as the news media, business, religious organizations, the medical establishment, Congress, and the presidency. Levels of trust and confidence, key indicators of social capital, reached all-time or near-all-time lows in 2012 in the nationally representative General Social Survey of adults (1972–2012;  $N = 37,493$ ) and the nationally representative Monitoring the Future survey of 12th graders (1976–2012;  $N = 101,633$ ). Hierarchical modeling analyses separating the effects of time period, generation, and age show that this decline in social capital is primarily a time-period effect. Confidence in institutions is also influenced by generation, with Baby Boomers lowest. Trust was lowest when income inequality was high, and confidence in institutions was lowest when poverty rates were high. The prediction of a sustained revival in social capital after 2001 seems to have been premature.

## Keywords

sociocultural factors, values, trust, generational differences, change over time

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Trust is crucial to social and societal functioning. At the individual level, trust leads to effective and smoothly functioning relationships. For example, a recent large meta-analysis found that trust is a key precursor to cooperation, particularly in high-conflict situations (Balliet & Van Lange, 2013). Here, we define trust in others as a belief in the reliability, honesty, or ability of individuals, and we define trust in institutions (also called confidence in institutions) as a belief in the reliability, honesty, or ability of institutions. Both are aspects of social capital, often defined as cooperative relationships among citizens (Brehm & Rahn, 1997) or features of social organization that allow cooperation for mutual benefit (Putnam, 1995). Social capital is particularly important in a democratic society, as it allows individuals to work with each other as well as with institutions (Fukuyama, 1995). Perhaps as a result, individuals and groups with higher social capital enjoy several benefits, including better health (Barefoot et al., 1998; Wilkinson & Pickett, 2006).

Given the importance of trust, the goal of the present research was twofold. First, we wanted to determine

whether trust—operationalized both as trust in individuals and confidence in societal institutions—is waning. Second, if change were evident, we wanted to understand some of the reasons behind the trend. This includes the structure of changes in trust (e.g., effects of time period, generation,<sup>1</sup> and age) and possible correlates such as economic and social conditions (e.g., unemployment, income inequality, poverty rates).

## Trust and Social Capital

The idea of social capital is based on physical capital—physical elements such as computers, machines, and equipment that lead to economic production. Similarly, human capital is understood as the skills and attributes of people that contribute to production (Becker, 1964).

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Social capital, which builds on this idea, is defined by the assumption that social relations facilitate not only economic production, but also a cohesive society in which people work together (Bourdieu, 1983). Overall, the social structure of a group functions as a resource for individuals. Coleman (1988) offers the example of wholesale diamond merchants, who “hand over to another merchant a bag of stones for the latter to examine in private at his leisure” (p. S98). Without the social capital of trust, the efficiency of the marketplace would be hindered. Social capital thus consists of two crucial, correlated elements: associations between individuals and trust (Paxton, 1999; Rosenberg, 1956).

Several factors influence trust. At the group level, countries and states with greater income inequality have lower levels of trust (Pickett & Wilkinson, 2010; Uslaner, 2002), most likely because income inequality causes distrust (Rothstein & Uslaner, 2005). Poor economic conditions might weaken both trust in others and confidence in large institutions (Greenfield, 2009). Lower trust is linked to lower likelihood of religious affiliation, lower socioeconomic status, and greater support for the suppression of groups deviating from cultural norms (Rosenberg, 1956; Rotter, 1967). At the group level, ethnic diversity in the population may reduce trust (Putnam, 2007).

Considerable debate has surrounded the question of trends in social capital in the United States. Putnam and colleagues have documented a pervasive decline in social capital through the late 1990s (Putnam, 1995, 2000; Pharr, Putnam, & Dalton, 2000). In contrast, Paxton (1999) concluded that there was no systematic decline in confidence in institutions from 1975 to 1994. Similarly, Ladd (1996) titled an article “The Data Just Don’t Show Erosion of America’s Social Capital,” citing increases in some aspects of social capital, such as contacting public officials. Sander and Putnam (2010) have contended that the decline reversed after 2001, particularly among Millennials (the generation born after 1980), on the basis of a few survey items on interest in politics and the theory that the events of September 11, 2001, would lead to more social capital. However, only one researcher has examined trends in confidence in institutions since the 1990s, and he simply presented the percentage results for each survey item, with no latent variable testing or composite variables, no confidence intervals or statistical significance testing, and no effect sizes (O’Neill, 2009). In addition, in none of these studies was an attempt made to separate the influences of time period, generation, and age on confidence in large institutions.

In the specific case of trust in others, several studies found a decline through the 1990s (Paxton, 1999; Pharr et al., 2000; Rahn & Transue, 1998), and another study found that generational shifts were primarily responsible

for this decline (Schwadel & Stout, 2012). However, this latter study examined only single-item questionnaires, a potential challenge to reliability. In addition, no studies have examined the latent variables that underlie the trust and confidence items.

Finally, no studies to our knowledge have examined confidence in institutions in the annual, nationally representative Monitoring the Future (MtF) survey of 12th graders (Johnston, Bachman, & O’Malley, 2013). MtF provides a view of generational and time-period changes based on large samples of young respondents every year.

## The Present Research

In the current study, we assessed levels of trust—specifically, trust in individuals and confidence in institutions—in the United States over the past 40 years in two large, nationally representative surveys of Americans: the General Social Survey (GSS) of adults (1972–2012;  $N$  for these items = 37,493) and the MtF survey of 12th graders (1976–2012;  $N$  for these items = 101,633). Both include 3 items measuring trust in other people and 12 items on confidence in large institutions, such as Congress, the presidency, religious organizations, the medical establishment, the news media, and the military. In an open-ended interview question asking respondents how they interpreted the GSS items on confidence in institutions, “the overall favorite choice was that confidence in the people running institutions means trusting them” (Smith, 1981, p. 169).

Another important question relates to the mechanism behind any changes. That is, have trust in others and confidence in institutions changed because people of all ages and generations changed at the same time (a time-period effect) or because new generations enter the survey and older generations exit (a generation, or cohort, effect; Yang, 2008)? The changing age of individuals may also underlie changes in trust (an age effect). Most researchers contend that declines in social capital are due to generation, or cohort, effects (Brehm & Rahn, 1997; Putnam, 1995, 2000; Robinson & Jackson, 2001), but this is an open question.

We separated the effects of time period, generation, and age using a novel method employing hierarchical-linear-modeling (HLM) techniques (Yang, 2008; Yang & Land, 2006). Because each of these variables is a function of the other two, they cannot all be entered in a standard regression equation, so special statistical techniques must be employed to tease apart the influence of each.

In addition, we used a latent-factor approach rather than an item-level approach. Specifically, we modeled factors according to item response theory (IRT) to verify that the items tapped the same underlying constructs (i.e., trust in others, confidence in institutions). IRT is

useful for obtaining an estimate of variables that avoids conclusions confounded by item-specific idiosyncrasies.

Finally, we examined correlations between trust and social indicators—such as income inequality, poverty rate, unemployment rate, and crime rate—and population characteristics, such as education level and racial composition. We aimed to demonstrate which social factors covary with trust. In other words, under what social conditions is trust high, and under what conditions is it low?

## Method

### **General Social Survey**

The GSS has assessed a nationally representative sample of adult Americans (ages 18 and over) since 1972; the data file is publicly available online (Smith, Marsden, Hout, & Kim, 2013). The GSS asked three questions on trusting other individuals. The first question was “Generally speaking, would you say that most people can be trusted or that you can’t be too careful in dealing with people?” The response choices were “most people can be trusted,” “it depends,” and “can’t be too careful.” The second question was “Would you say that most of the time people try to be helpful, or that they are mostly just looking out for themselves?” The response choices for this item were “try to be helpful,” “it depends,” and “just looking out for themselves.” The third question was “Do you think most people would try to take advantage of you if they got a chance or would they try to be fair?” Respondents could choose from among “would try to be fair,” “it depends,” and “would try to take advantage of you.” For all three items, we coded “it depends” as the middle response (2); the distrusting response was coded as 1, and the trusting response was coded as 3.

The items on confidence in institutions entered the survey in 1973. The section asks, “Would you say you have a great deal of confidence, only some confidence, or hardly any confidence” in the following institutions in the United States: “major companies,” “organized religion,” “education,” “executive branch of the federal government,” “organized labor,” “press,” “medicine,” “TV,” “U.S. Supreme Court,” “scientific community,” “Congress,” “military,” and “banks and financial institutions” (the last was asked only after 1977, so we excluded it from the composite). Response choices were “hardly any confidence at all,” “only some confidence,” or “a great deal of confidence.” We excluded “don’t know” and “refused” responses. We excluded the Black oversamples in 1982 and 1987 to make the samples nationally representative in all years. GSS analyses are sometimes weighted by the number of adults in the household, but we found that the results for trust and confidence were nearly identical with and without the weights.

### **Monitoring the Future**

MtF has surveyed a nationally representative sample of U.S. high school seniors (12th graders) every April since 1976 (Johnston et al., 2013). We obtained the yearly MtF data files online and merged them. All students responded to the same core items, and a subsample responded to each of six forms. Form 1 of the MtF has three items on trust that are virtually identical to those on the GSS. The wording of the questions is exactly the same, but the middle response choice is “don’t know, undecided” instead of “it depends.”

For confidence in institutions, Form 3 has a section that asks respondents to rate “how good or bad a job you feel each of the following organizations is doing for the country as a whole”: “large corporations,” “major labor unions,” “the nation’s colleges and universities,” “the nation’s public schools,” “churches and religious organizations,” “the national news media (TV, magazines, news services),” “the President and his administration,” “Congress – that is, the U.S. Senate and House of Representatives,” “the U.S. Supreme Court,” “all of the courts and the justice system in general,” “the police and other law enforcement agencies,” and “the U.S. military.”

Response choices were “very poor,” “poor,” “fair,” “good,” “very good,” and “no opinion.” For the primary analyses, we excluded “no opinion” responses, treating them as missing. In secondary analyses, we examined the percentage of students who chose “no opinion” as another indicator of civic disengagement. These secondary analyses excluded data from 1993, 1999, 2000, and 2001, when “no opinion” responses were not separated from missing data.

We calculated mean trust and confidence for the GSS and MtF over time and, as an initial step, examined trust and confidence over time within age groups and birth-year groups for both individual items and 3-item (trust) and 12-item (confidence) composites (see Tables S1 and S2 in the Supplemental Material available online).

### **Data-analysis plan**

We performed latent variable analyses to confirm that the 3 trust items and 12 confidence items in each data set were tapping the same underlying constructs. Specifically, we used the IRT graded response model (Samejima, 1969) commonly used to estimate latent factors from surveys using Likert-type scales (see Zickar, 1998). Essentially, this IRT model allows for the estimation of a continuous, quantitative variable that underlies responses to a set of items. The graded response model controls for differences in both the extremity of items (i.e., how difficult it is to endorse particular items) and weights items according to how well each item taps the latent construct. The result is a “purified” estimate of the underlying factor that

would normally be represented by the sum or average of items. The fit of the IRT model to each data set for each set of items was evaluated using the  $\chi^2/df$  ratio, which compares expected response-option endorsement rates to observed endorsement rates. Model fit is considered acceptable if the value is below 3. As is customary, the  $\chi^2/df$  ratio was adjusted for  $N = 3,000$  (see Chernyshenko, Stark, Chan, Drasgow, & Williams, 2001; Drasgow, Levine, Tsien, Williams, & Mead, 1995) to avoid biased results due to the extremely large sample sizes of the GSS and MtF surveys.

We then moved on to separating the effects of time period, generation, and age through a series of HLM analyses on the GSS data (these were not done for the MtF data, as the MtF samples people of the same age; thus, time period and generation cannot be separated). The cross-classified HLM model accounts for the inherent nesting in cross-sectional data involving persons of different ages, nested within different birth cohorts, nested within the year the survey was conducted. Using the IRT-based estimate of the dependent variable,  $Y$  (i.e., trust and confidence in institutions in separate analyses), for every person,  $i$ , in each birth cohort,  $j$ , for every survey year,  $k$ , we developed a model that predicted the outcome variable from age:

$$Y_{ijk} = \beta_{0,jk} + \beta_{1,jk}(\text{age}) + \beta_{1,jk}(\text{age}^2) + \beta_{1,jk}(\text{age}^3)$$

This model incorporates quadratic and cubic effects of age, denoted by  $\text{age}^2$  and  $\text{age}^3$ , respectively. To separate the effects of age on the outcome variable from the effects of birth-year cohort membership and the year the survey was conducted, we created a Level 2 model to find the unexplained variance in  $Y$  that is systematically attributable to birth cohort and survey year. The Level 2 model is stated as follows:

$$\beta_{0,jk} = \pi_0 + t_{00j} + c_{00k}$$

$$\beta_{1,jk} = \pi_1 + t_{10j} + c_{10k}$$

$$\beta_{2,jk} = \pi_2 + t_{20j} + c_{20k}$$

$$\beta_{3,jk} = \pi_3 + t_{30j} + c_{30k}$$

The Level 2 model treats each regression coefficient as an outcome variable.  $\beta_{0,jk}$  is the mean of  $Y$  across birth cohorts and survey years at the average age, and this mean is partitioned into “rows” and “columns.” More specifically, the deviations from the mean  $\beta_{0,jk}$  are taken across the rows, represented by  $t_{00j}$ , to estimate the effects

for each birth cohort. For estimating the effects of survey year, deviations away from  $\beta_{0,jk}$  are taken across the columns represented by  $c_{00k}$ . Considerable effects for slopes, such as  $\beta_{1,jk}$ , would suggest that the linear slope of age in the Level 1 model would differ by survey year or birth cohort. The sizes of the row and column effects are then evaluated by the size of the variance component,  $\sigma^2$ ; one for each  $t$  and  $c$  coefficient in the Level 2 model.<sup>1</sup>

## Social indicators

We obtained seven United States social indicators for each year from publicly available sources: employment rate (100 – the unemployment rate), change in gross domestic product, change in the Dow Jones Industrial Average, the violent-crime rate, the Gini index of income inequality (a higher Gini index indicates a more unequal distribution of income in the country), the poverty rate for adults (the percentage of the population ages 18 to 64 below the poverty level), and the child poverty rate (the percentage under 18 below the poverty level). In addition, we examined three demographic variables from the nationally representative GSS sample (mean education level, the percentage of non-White respondents, and the percentage of respondents not born in the United States—the last a measure of immigrant status). We matched these indicators by year with the HLM survey-year coefficients (thus they were concurrent and not lagged).

## Results

### Latent variable analyses

The GSS data set generally fit the graded response model well. None of the three items on trust in others were above the  $\chi^2/df$  ratio cutoff of 3; they ranged from 0.003 to 0.04, with a mean of 0.02 ( $SD = 0.02$ ). For the 12 items on confidence in institutions,  $\chi^2/df$  ratios ranged from 0.15 to 1.62; all items had  $\chi^2/df$  ratios less than 3, with a mean of 0.68 ( $SD = 0.44$ ).

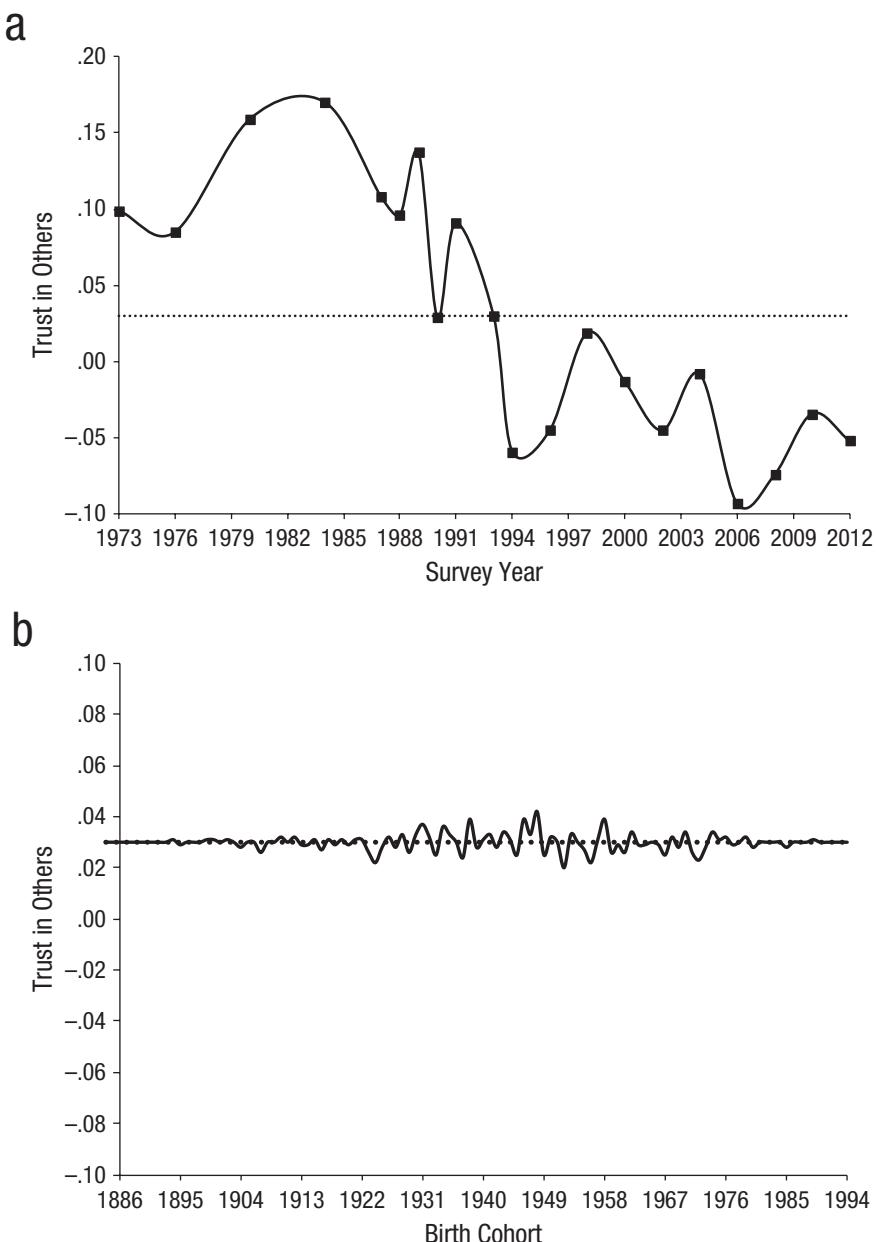
In the MtF data set, the model fit for the 3 items on trust in others was good, with no  $\chi^2/df$  ratios larger than 3 (range = 0.14–0.52,  $M = 0.35$ ,  $SD = 0.19$ ). The 12 items on confidence in institutions also showed no  $\chi^2/df$  ratios larger than 3 (range = 0.07–0.77,  $M = 0.28$ ,  $SD = 0.21$ ). Thus, in each case, the items appear to draw from an underlying latent variable.

### Trust in others

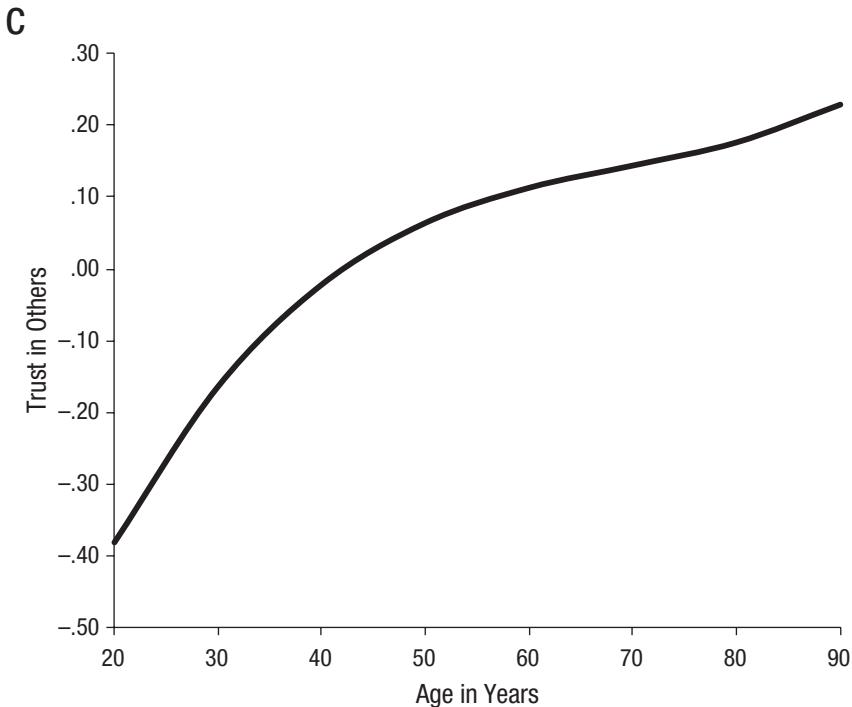
Trust in others declined markedly among American adults and 12th graders between the 1970s and 2012 (see Table S1, which displays descriptive results, inferential statistics, and effect sizes, as well as comparisons over time across

age groups and birth-cohort groups). Trust in others among adults was nearly at its lowest point in 2012 (tying with 2006 and 2008; see Fig. 1b). For example, in 1972–1974, 46% of adult Americans agreed that “most people can be trusted.” By the 2010 to 2012 surveys, this sunk to 33% (a 28% decrease). In 1972–1974, 51% agreed “you can’t be too careful in dealing with people,” which rose to 62% in 2010–2012 (a 22% increase). Replicating the pattern of change among adults, trust was at an all-time low in 2012 among 12th graders. For example, 32% of 12th graders in 1976–1978 agreed that “most people can be trusted,” but this figure sunk to 18% in 2010–2012 (a 44% decrease).

Time period appears to be behind the decline in trust in others. In the cross-classified HLM analyses of the GSS sample, we first analyzed incremental gains in model fit by adding linear, quadratic, and cubic effects to the model. With effects for generation and age accounted for, trust in others declined fairly steadily between the 1970s and 2012 (see Fig. 1a). No discernable effects appeared for generation (see Fig. 1b). Trust showed a cubic relationship with age, increasing sharply from age 18 to age 50 years and then plateauing; trust then increased slightly in the years over 70 (see Fig. 1c). Although trust at the mean age (i.e., the intercepts) varied by survey year, the slopes



(continued)



**Fig. 1.** Mean estimate for trust in others as a function of (a) time period (survey year), (b) generation (birth cohort), and (c) age. Data were obtained from the U.S. General Social Survey (Smith, Marsden, Hout, & Kim, 2013), and trust in others was estimated using a graded response model. The dotted line in (a) and (b) reflects the grand mean level of trust in others.

of the age trajectory did not vary much by time period, as indicated by their relatively small variance components (see Table 1). This finding is consistent with similar work using cross-classified models (e.g., Yang, 2008).

### Confidence in institutions

Confidence in institutions reached an all-time low in 2012 in both the adult and 12th-grade samples. The trends over time replicated across both samples, with high

confidence in the late 1980s and early 2000s and low confidence in the early 1990s and late 2000s to early 2010s (see Figs. 2a and 3). In 1972–1974, only 16% of American adults had “hardly any” confidence in the press, which jumped to 45% in 2010–2012 (nearly triple, or a 181% increase). Only 18% of Americans had “hardly any” confidence in Congress in 1972–1974, which more than doubled to 46% in 2010–2012 (a 156% increase). Fifty-seven percent had “a great deal” of confidence in medicine in 1972–1974, which sunk to 40% in 2010–2012 (a 30% decrease). The exception to the general trend was confidence in the military, which instead increased in both samples (see Table S2).

As recently as 2000–2002, 54% of 12th graders felt that large corporations were doing a “good” or “very good” job, but this number declined to 33% in 2010–2012 (a 39% decrease). Thirty-four percent believed that colleges and universities were doing a “very good” job in 2000–2002, compared with only 25% in 2010–2012 (a 26% decrease). In 2000–2002, 49% believed that Congress was doing a “good” or “very good” job; that number was cut in half, to 22%, 2010–2012 (a 55% decrease). Only 24% of 12th graders thought the news media was doing a “very poor” or “poor” job between 2000 and 2002; between 2010 and 2012, however, that figure jumped to 32% (a 33% increase).

**Table 1.** Results of the Level 1 Regression Model With Age as a Predictor of Trust in Others and Confidence in Institutions

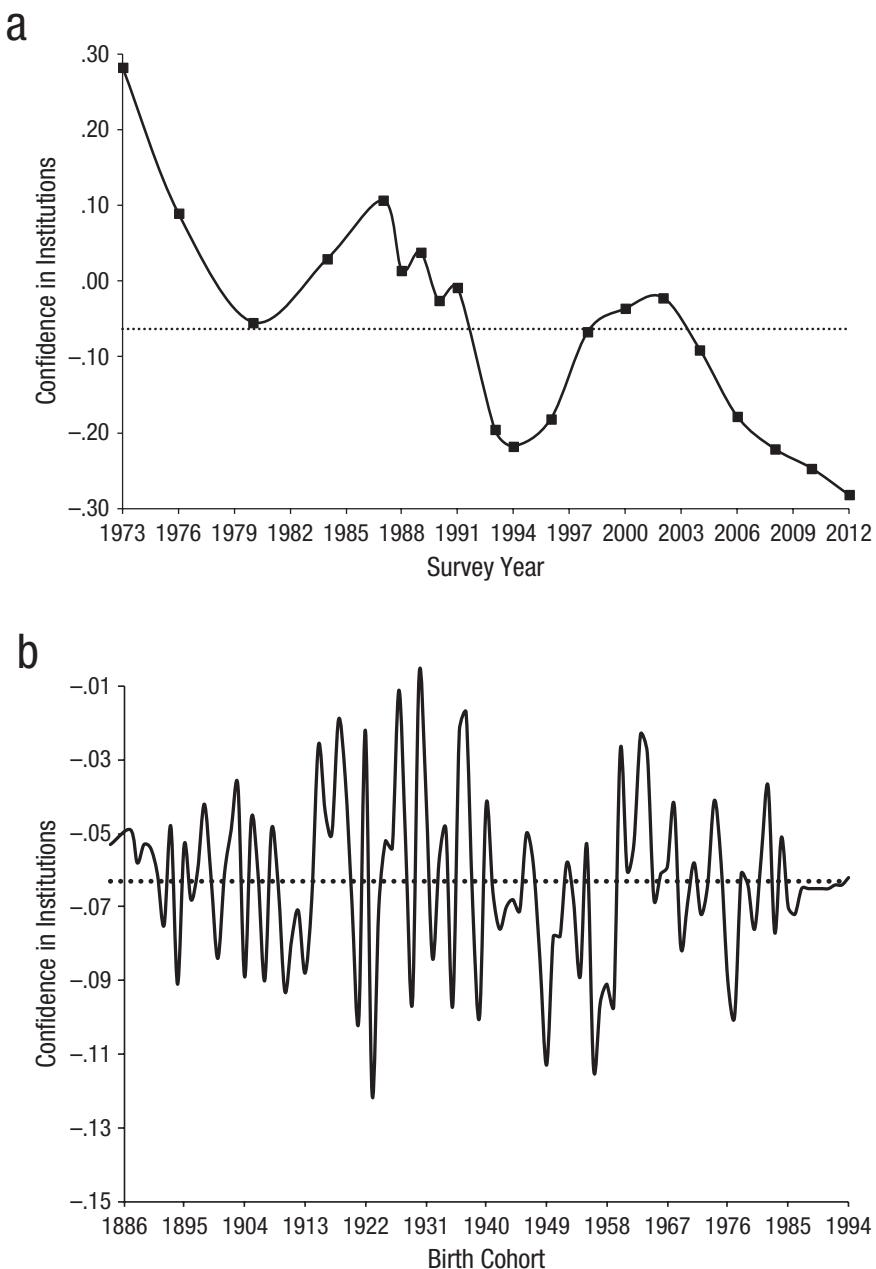
Outcome and fixed effect	Coefficient	95% confidence interval
Trust in others		
$b_{0jk}$ (intercept)	0.033	[-0.010, 0.075]
$b_{1jk}$ (slope of age)	0.143	[0.108, 0.178]
$b_{2jk}$ (slope of age <sup>2</sup> )	-0.069	[-0.087, -0.051]
$b_{3jk}$ (slope of age <sup>3</sup> )	0.017	[0.004, 0.030]
Confidence in institutions		
$b_{0jk}$ (intercept)	-0.063	[-0.076, -0.051]
$b_{1jk}$ (slope of age)	-0.028	[-0.071, 0.014]
$b_{2jk}$ (slope of age <sup>2</sup> )	0.106	[0.081, 0.131]
$b_{3jk}$ (slope of age <sup>3</sup> )	-0.024	[-0.038, -0.010]

We also examined the percentage of students who chose “no opinion” on the confidence questions as another indicator of civic disengagement and lack of social capital. Between the 1970s and the 2010s, high school students were steadily more likely to have “no opinion” about society’s large institutions. Averaged across all 12 items, only 12% of 12th graders had no opinion between 1976 and 1979, but this number jumped to 22% between 2010 and 2012, an 83% increase. The increase was particularly large for having no opinion about unions (14% to 30%), the news media (4% to 14%),

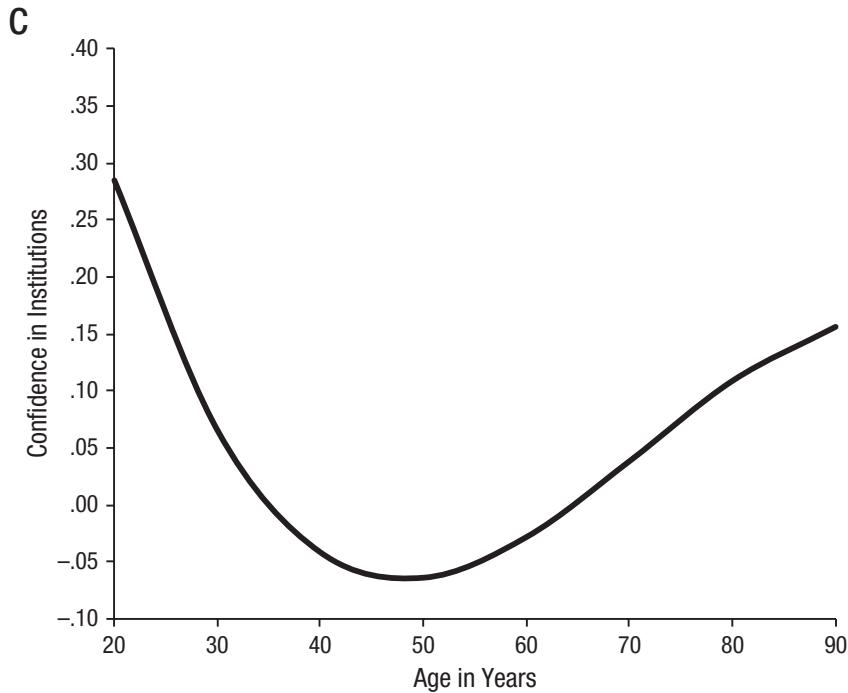
and the police (5% to 15%). Survey year was also the strongest predictor for confidence in institutions (see Fig. 2a and Table 2).

However, some generational differences also appeared, with the Silent generation (born 1925–1945) expressing the highest confidence in institutions, Baby Boomers (born 1946–1964) the lowest, and Generation X (GenX; born 1965–1981) and Millennials (1982–1999) slightly higher than Baby Boomers (see Fig. 2b).

As for age effects, confidence in institutions declined markedly from early to middle adulthood, reaching a low



(continued)



**Fig. 2.** Mean estimate for confidence in institutions as a function of (a) time period (survey year), (b) generation (birth cohort), and (c) age. Data were obtained from the U.S. General Social Survey (Smith, Marsden, Hout, & Kim, 2013), and confidence in institutions was estimated using a graded response model. The dotted line in (a) and (b) reflects the grand mean level of confidence in institutions.

at around age 50; it then rose again, but did not achieve the levels seen in early adulthood (see Fig. 2c). As with trust in others, the slopes of the age trajectory showed little variability with time period.

### Correlates of change

We next matched the HLM time-period coefficients for trust and confidence in the GSS by year with social indicators and population characteristics (see Table 3). We examined both the bivariate correlation between trust or confidence and the indicators and the partial correlation controlled by year (to eliminate the variance predicted by the passage of time). With year controlled, greater income inequality (as measured by the Gini index) predicted lower trust in others, and higher poverty, more violent crime, and an improving stock market predicted lower confidence in institutions.

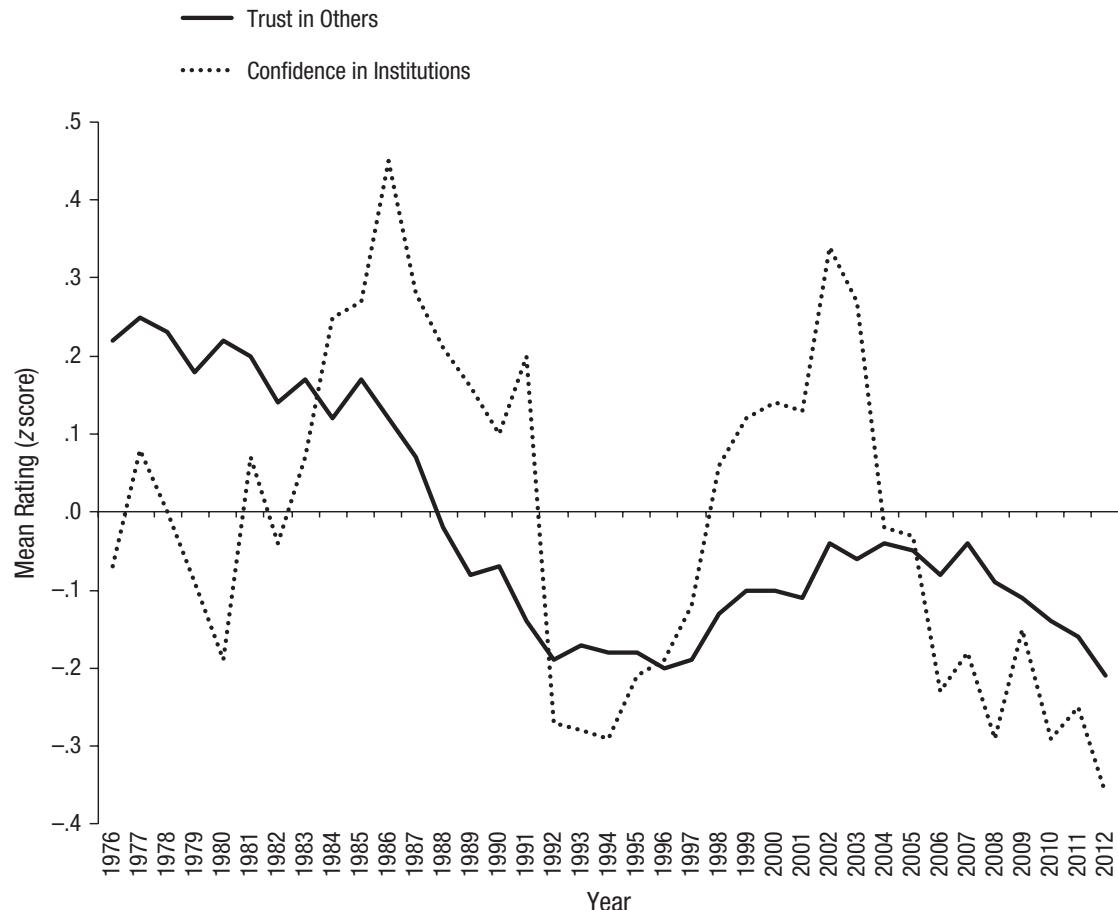
Without year controlled, improvement in the gross domestic product and lower poverty predicted higher trust and confidence. A more educated population, more non-Whites, and more immigrants in the GSS sample predicted lower trust and confidence, but for the most part, these effects were not significant after year was controlled.

### Discussion

Trust in others and confidence in institutions, two key indicators of social capital, reached historic lows among Americans in 2012 in two nationally representative surveys that have been administered since the 1970s. Social capital was lower in recent years than during the Watergate scandal of the early 1970s; the Iran hostage crisis and “national malaise” of the late 1970s and early 1980s; the height of the crime wave in the early 1990s; the Clinton impeachment of the late 1990s; the September 11, 2001, terrorist attacks; and the financial crisis and recession of the late 2000s.

Hierarchical models controlling simultaneously for the effects of time period, generation, and age revealed that the decline in social capital is primarily due to time period. Trust is declining over time in Americans of all ages and generations. Generational effects are weaker, with Boomers expressing the lowest confidence in institutions and GenXers and Millennials hovering near the average.

The prediction that a “post-9/11 generation”—the Millennials, born after 1982—would bring a new revival of social capital (Sander & Putnam, 2010) is not supported by these data. Both trust in others and confidence in institutions reached all-time lows among high school seniors in 2012; thus, Millennials were lower in social



**Fig. 3.** Mean trust in others and confidence in institutions ( $z$  scored) as a function of survey year. Data were obtained from the Monitoring the Future survey of U.S. 12th graders (Johnston, Bachman, & O’Malley, 2013).

capital than Boomers or GenXers were at the same age. The GSS analyses suggest that this trend is primarily due to time period.

These declines in social capital may be linked to economic conditions. Rising income inequality predicts

lower trust over time, and poverty rates predict lower confidence in institutions. As other research and theory predicts, social capital wanes when more citizens are struggling economically and the gap between the rich and poor widens (e.g., Pickett & Wilkinson, 2010; Uslaner,

**Table 2.** Variance Components for the Effect of Survey Year on Level 1 Regression Coefficients

Outcome and verbal description of random effect	Relevant coefficient	Variance component
Trust in others		
Influence of survey year on trust at the average age (45.72 years)	$c_{00k} (b_{0jk})$	0.008
Influence of survey year on rate of increase in trust early in life	$c_{10k} (b_{1jk})$	0.003
Influence of survey year on the slowing of increases in trust in midlife	$c_{20k} (b_{2jk})$	< 0.001
Influence of survey year on the increase in trust late in life	$c_{30k} (b_{3jk})$	< 0.001
Confidence in institutions		
Influence of survey year on confidence at the average age (45.72 years)	$c_{00k} (b_{0jk})$	0.021
Influence of survey year on rate of decrease in confidence early in life	$c_{10k} (b_{1jk})$	0.004
Influence of survey year on rate of increase in confidence in midlife	$c_{20k} (b_{2jk})$	0.001
Influence of survey year on the slowing of increases in confidence late in life	$c_{30k} (b_{3jk})$	< 0.001

Note: Variance components reflect the size of the influence of survey year at Level 2 on the coefficients of the Level 1 model relating age to the outcome variables. See the Data-Analysis Plan section for detailed specifications of the hierarchical linear model.

**Table 3.** Correlations Between Estimates of Trust in Others and Confidence in Institutions and Social and Population Variables, Weighted by Sample Size

Indicator	Trust in others	Trust in others (controlling for survey year)	Confidence in institutions	Confidence in institutions (controlling for survey year)
Social indicators				
Employment rate (100 – unemployment rate)	-.21 [-.57, .22]	-.32 [-.65, .11]	.17 [-.26, .54]	.33 [-.10, .65]
Gross domestic product change	.72 [.44, .87] <sup>a</sup>	.01 [-.40, .42]	.73 [.46, .88] <sup>a</sup>	.04 [-.38, .44]
Dow Jones Industrial Average change	.10 [-.33, .49]	.15 [-.28, .53]	-.24 [-.59, .19]	-.45 [-.73, -.05] <sup>a</sup>
Violent-crime rate	.14 [-.29, .52]	.11 [-.32, .50]	-.18 [-.55, .25]	-.44 [-.72, -.03] <sup>a</sup>
Gini index of income inequality	-.87 [-.94, -.71] <sup>a</sup>	-.59 [-.81, -.24] <sup>a</sup>	-.77 [-.90, -.53] <sup>a</sup>	.17 [-.26, .54]
Poverty rate	-.46 [-.73, -.06] <sup>a</sup>	.35 [-.07, .67]	-.82 [-.92, -.62] <sup>a</sup>	-.56 [-.79, -.19] <sup>a</sup>
Child poverty rate	-.14 [-.52, .29]	.40 [-.01, .70]	-.62 [-.82, -.28] <sup>a</sup>	-.51 [-.76, -.12] <sup>a</sup>
Population characteristics				
Education level	-.79 [-.91, -.56] <sup>a</sup>	-.09 [-.48, .33]	-.81 [-.92, -.60] <sup>a</sup>	-.17 [-.54, .26]
Percentage of non-White respondents	-.79 [-.91, -.56] <sup>a</sup>	-.18 [-.55, .25]	-.63 [-.83, -.30] <sup>a</sup>	.64 [.31, .83] <sup>a</sup>
Percentage of immigrant respondents	-.75 [-.89, -.49] <sup>a</sup>	-.29 [-.63, .14]	-.62 [-.82, -.28] <sup>a</sup>	.12 [-.31, .51]

Note: Estimates of trust and confidence were taken from the hierarchical linear model for the General Social Survey (Smith, Marsden, Hout, & Kim, 2013) data. Values in parentheses are 95% confidence intervals.  $n = 23$  (the number of years).

<sup>a</sup>These confidence intervals do not include zero.

2002). Crime, a classic indicator of low social capital, also predicts lower confidence in institutions.

The decline of social capital is a profoundly negative trend for a democracy, a system of government predicated on the few representing the interests of the many. These results suggest that Americans are increasingly less likely to trust others, both on an individual level and as a collective. The trend is not limited to distrust in government; the declines also appear in Americans' confidence in institutions unconnected to the government, such as medicine, religion, the news media, and TV.

This decline in confidence is consistent with the lower concern for others and civic engagement found among Millennials (Twenge, Campbell, & Freeman, 2012) and with the higher individualism among both individuals and the culture in recent years (Gentile, Twenge, & Campbell, 2010; Greenfield, 2013). For example, recent generations are more likely to view themselves more positively, believing they are above average in their abilities (Twenge, Campbell, & Gentile, 2012). It is plausible that as individual Americans put more faith in themselves, they put less faith in powerful others. For example, Americans now have less confidence in medicine, despite considerable advances in the treatment of many illnesses. Perhaps Americans are less likely to believe that doctors and nurses know much more than they do themselves.

The decline in trust does not entirely fit with previous research, however, as studies often find that residents of individualistic cultures are *more* trusting, especially of strangers, compared with residents of collectivist cultures

(Gheorghiu, Vignoles, & Smith, 2009). Future research should explore whether individualistic attitudes are positively correlated with trust in others in samples of individuals. Overall, these findings may be culture-specific, as cultures vary widely in trust (Balliet & Van Lange, 2013), with the United States more trusting than other countries, and immigrants adjusting their level of trust to their new culture (Dinesen, 2012).

Although the GSS is not a longitudinal study and thus is not ideal for assessing developmental trends, it does survey a large sample of many ages over time. Thus it can provide a view of age effects separated from survey-year and cohort effects. These analyses show opposing patterns for trust in others and confidence in institutions: Trust in other people increases with age, and confidence in large institutions declines with age. Apparently, young adults begin with less trust in other individuals and more trust in institutions, but with life experience begin to trust others more and large institutions less. This may be due to age differences in experiences with social interactions and social learning; overall, prosocial behavior increases with age (Van Lange, De Bruin, Otten, & Joireman, 1997).

In summary, trust in others and confidence in large institutions have reached historic lows during the 2010s in the United States. This decline is primarily due to time period, with Americans of all generations losing trust, and appears in samples as young as 17- and 18-year-old high school students. Although social capital briefly revived in the years after 2001, it has retreated again in an America characterized by a deep sense of mistrust.

## Author Contributions

J. M. Twenge and W. K. Campbell developed the study concept. J. M. Twenge and N. T. Carter analyzed the data. J. M. Twenge and W. K. Campbell drafted the manuscript, and N. T. Carter provided critical revisions. All authors approved the final version of the manuscript.

## Declaration of Conflicting Interests

The authors declared that they had no conflicts of interest with respect to their authorship or the publication of this article.

## Supplemental Material

Additional supporting information can be found at <http://pss.sagepub.com/content/by-supplemental-data>

## Open Practices

For the General Social Survey, all data and materials can be found at <http://www3.norc.org/GSS+Website/Download/> and <http://www3.norc.org/GSS+Website/Documentation/>, respectively. For the Monitoring the Future Survey, all data and materials can be found at <http://www.icpsr.umich.edu/icpsrweb/ICPSR/series/35/studies?archive=ICPSR> and <http://www.monitoringthefuture.org/pubs.html#refvols>, respectively. The Open Practices Disclosure for this article can be found at <http://pss.sagepub.com/content/by-supplemental-data>.

## Notes

1. The term *generation* usually refers to people born in a certain span of years, and *birth cohort* refers to those born in a certain year. We primarily rely on the term *generation*, as it is more commonly understood, but use *birth cohort* when referring to specific birth years. Similarly, we primarily rely on the term *time period*, as it is most commonly used in the literature on the topic (e.g., Schaie, 1965; Yang, 2008); here, it is interchangeable with survey year (the year respondents completed the survey).
2. Because of well-known problems with the estimation of confidence intervals in this type of analysis, we do not present them for the variance components.

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