

America Gives:
A Survey of Americans' Generosity
After September 11

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ABSTRACT

This paper describes a telephone survey (called America Gives) which asked 1,304 randomly-selected adults about their philanthropic behavior (giving of time and treasure) after the events of September 11, 2001. The questions were part of a larger national study (n = 4,200) on giving and volunteering that was being conducted at the time of the September 11 attacks. This paper provides a brief description of the study that was being conducted at the time of the terrorist attacks, the methodological considerations resulting from the immediate philanthropic response to the September 11 events, and steps that were taken to adapt the study to the changing national conditions. Next we provide descriptive results from the survey, along with multivariate analyses of the determinants of giving and volunteering in this unique situation. Finally, we provide some caveats for researchers who may want to assess household giving and volunteering, and discuss implications for nonprofit managers and policy makers.

AMERICA GIVES: A SURVEY OF AMERICANS' GENEROSITY AFTER SEPTEMBER 11

Introduction

The events of September 11, 2001 were indelibly etched into the minds of all Americans. The economic costs of the terrorist attacks were enormous—the attacks on the World Trade Center alone totaled an estimated \$33 to \$36 billion through June 2002 (Bran, Orr, & Rapaport, 2002). The emotional impact may have been even larger. Among the common emotional responses of many Americans were grief, fear, anger, sorrow, sympathy, pride in the country, and a desire to “do something positive.” To try to ameliorate these financial and emotional costs, American families, corporations, and foundations responded to the crisis by donating money, volunteer time, blood, clothing, expertise, and in-kind contributions to assist the victims and the rescue efforts.

These behaviors are not unexpected in times of disaster, according to the sociological literature. In fact, while the general public and officials may expect negative behaviors such as looting during disasters, research demonstrates that altruism and prosocial behavior is much more common and normal at such times (Fischer, 1994; Tierney, 2001). Raphael (1986) suggests that such impulses may be genetic, in that altruism is a drive that may be brought to the surface during an emergency to assist in the survival of the group or species. These impulses promote the growth and convergence of formal and informal infrastructures, such as emergency funds, to assist in the recovery efforts. In the case of the September 11 terrorist attacks, some of these funds (e.g., American Red Cross) already existed, and others, such as the September 11 Fund, were rapidly developed. The feelings of altruism were so strong in the immediate post-impact

period that individuals, businesses, and foundations contributed funds at a level unprecedented in previous disasters (Rooney, 2002). By December 31, 2001 (3 ½ months after the attacks), an estimated \$1.9 billion had been received for the relief and recovery efforts (AAFRC Trust, 2002).

As the dust began to settle six months after the attacks, the philanthropic community began to take stock of the donations made in the relief efforts. Both the New York and the Washington, DC Regional Associations of Grantmakers published reports of the philanthropic efforts in their communities to that point (Cox, 2002; Washington Regional Association of Grantmakers, 2002). Organizations in other major cities also released reports on the impact of the September 11 events on nonprofits in their communities (e.g., Donors Forum of Chicago, 2002).

At the national level, the Foundation Center kept a continuous record, posted on its website, of corporate and foundation contributions to tragedy-related causes. They also produced a number of reports providing analysis and commentary on the impact of the September 11 events (Foundation Center, 2002; Renz, 2002a, b). In addition, the Association of Fundraising Professionals published a report (2002) on a survey of nonprofit development officers regarding the impact of the 9/11 events on fundraising in charities across the country. The Ford Foundation also commissioned a study involving interviews with officials from foundations and corporations that made large donations to the relief efforts (Seessel, 2002).

The contributions of individual households are less well-documented in general, both in relation to the September 11 attacks and to other disasters. In fact, whereas emergency volunteer behavior relating to other disasters has received some previous

attention in the academic literature (e.g., Britton, 1991; Wolensky, 1979), very little attention has been paid in the past to the financial contributions of individuals in response to disasters. However, a few studies were conducted shortly after the September 11 events to document the philanthropic behavior of individual households in response to this particular tragedy.

One national survey (Schuster, et al, 2001) conducted September 14 to 19, 2001, reported that 36 percent of the adults surveyed responded to the attack on America by making donations. Another survey by the National Opinion Research Center (Smith, et al., 2001) fielded in the immediate post-impact period (September 13 to 27), found that at that time “almost half (49%) contributed to charities, 24 percent donated or tried to donate blood, and 8 percent did extra volunteer work for an organization. A full 59 percent did at least one of these actions.” These studies were conducted very soon after the tragedy, so that the percentages are smaller than those seen in later studies.

In a separate poll conducted October 5 to 8, 2001, INDEPENDENT SECTOR (2001) found that “more than half (58%) gave money to charities in response to the terrorist attacks in the four weeks just after September 11. Also, 13 percent gave blood and 11 percent gave time. Overall, 70 percent of Americans reported charitable involvement in some way.” In addition, a poll conducted by USA TODAY/CNN/Gallup on December 14-16, 2001 (Nasser, 2001) found that 64 percent of respondents reported making contributions to funds for the victims.

None of these studies attempted to measure the amounts of giving and volunteering Americans contributed after the events of September 11. However, the percentages reported in these studies generally are consistent with and help to verify the

results in our study. Taken together, these results lead us toward the emerging picture of the philanthropic behavior of Americans in the first few weeks and months following the tragedy.

Methodology

At the time of the September 11 attacks, the Center on Philanthropy was conducting a multi-pronged, national research study on individual and household philanthropy of Americans. We refer to this study as “America Gives.” This project was an extension of an earlier, smaller study done in Indiana (Rooney, Steinberg & Schervish, 2001; Steinberg, Rooney & Chin, 2002). In the America Gives study we compared and contrasted the findings from different survey techniques related to giving and volunteering behaviors. The main purpose of that study was to explore whether the length and variety of prompts made a difference in reported giving and volunteering.

The America Gives study involved five different survey “modules”, which are summarized in Table 1. Among these we replicated central design elements of surveys done in the US by Independent Sector (1999) (the Area module), and in Canada (Hall, et al., 2001) (Method module). Another module (Method-Area) utilized an enhancement of the methodology used in a survey in California, described by O’Neill & Roberts (2000). Another module replicated a survey module designed by the University of Michigan and the Center on Philanthropy for a longitudinal study, the philanthropy supplement to the Panel Study of Income Dynamics (PSID module). Finally, we asked a Very Short module (“Did you give to charity last year? If so, how much? Did you volunteer last year? If so, how much?”). Table 1 summarizes the modules by the types of prompts, the number of

questions, and use of inducements. Note that all modules included the exact same set of 16 demographic questions.

INSERT TABLE 1 ABOUT HERE

To collect our data, Walker Information, an Indianapolis-based research firm, used random digit dialing of households to obtain samples of at least 800 respondents per module, using the five surveys to measure personal philanthropy throughout the United States. Each respondent participated in only one of the modules. Table 2 shows the demographic characteristics of each module sub-sample and the total sample. We discuss briefly only those sample characteristics that are statistically significantly different from the combined or total sample. Compared to the total sample means and proportions, the Very Short Module contained significantly more Blacks (10.4% vs. 8.1% overall). The PSID had more couples (64.3% vs. 61.5% overall). The Area module had slightly fewer households with incomes in excess of \$120,000 (5.2% vs. 5.8%). The Method Module had fewer couples (58.5% vs. 61.5%), a larger percentage with incomes of \$40,000 or less (47.9% vs. 42.4% overall), a smaller percentage of high-incomes (5.1% vs. 5.8%), and a concomitant smaller percentage who itemized their deductions (45.9% vs. 49.8%). The Method-Area module did not differ from the overall sample in any significant manner.

INSERT TABLE 2 ABOUT HERE

We used \$5 pre-paid phone cards as inducements to increase response rates. Previous research (Rooney, Steinberg & Schervish, 2001) indicated that inducements were particularly effective in increasing response rates in the longest (Method-Area) module, so we gave phone cards to 75% of the respondents in that module. We also gave

phone cards to at least 10% of participants in the other modules. The number of inducements for each module is shown in Table 1.

Survey and Methodological Modifications to Accommodate the September 11 Attacks

Calling for America Gives began August 1, 2001 and thus the project was “in the field” when the terrorist attacks occurred on September 11. Due to the unusual and emotional nature of this event, we immediately suspended calling for four weeks. Because our study was partially completed, we were faced with a choice: stop the project and only use the data collected at that point, or attempt to continue the study. We quickly realized that the terrorist attacks provided a natural, though unfortunate, experiment in philanthropic behavior on a national scale. Further, we felt that the Center on Philanthropy was in a unique position to study this philanthropic behavior because we already had collected data on giving and volunteering immediately prior to the attacks. The opportunity to study personal philanthropy both before and after a significant national event was too important to forsake, despite the tragic circumstances.

Within two days of the attacks support in the form of donations from the public began pouring in. We realized that our major dependent variables (charitable giving and volunteering in the past year) would be confounded with tragedy-related giving. That is, respondents’ total reported donations and volunteer hours might be increased because of the tragedy. To accommodate this situation, we added a new variable in our dataset to indicate whether subjects were contacted before or after September 11. In addition, we added six extra questions to all modules to query philanthropic behavior specifically related to the tragedy. We were aware that by changing the nature of the surveys mid-

stream we might contaminate the results of our original study, particularly if the tragedy-related questions were added to the beginning of each module. On the other hand, we reasoned that because of the differences in length and detail and the modules, responses to the tragedy-related questions might not be complete, reliable, or have the same meaning across modules if they were appended to the end of each module. We decided to add the tragedy-related questions to the beginning of all modules. Respondents then were instructed not to include those donations and volunteer hours in the rest of their responses. We hoped this strategy would minimize the differences in reported giving after September 11 to non-September 11 causes.

We also were confronted with another possible confound to the study, because the calling for two of the modules (Very Short and Area) had already been completed prior to September 11. Calling for the other three modules had been started but was in various stages of completion. The events of September 11 were of such impact that we felt our modules might not be directly comparable. To deal with this problem we had two options: 1) contact some of the subjects again from the already-completed Very Short and Area modules, and ask about their tragedy donations separately; or 2) add more subjects to the already-completed sub-samples. Due to the difficulties involved in interviewing exactly the same people twice, we chose the second option. These extra subjects received the extra tragedy-related questions, along with the regular module questions. Table 1 indicates the number of subjects interviewed pre- and post-September 11 for each module.

A third potential confounding factor related to the new dependent variables coming from the tragedy questions (tragedy-related giving and volunteering) and the

original design of the study. We reasoned that the amount of household donations and personal volunteering related to the tragedy could increase over time. That is, the longer the time lapse between September 11 and the date on which a respondent was called, the higher his or her tragedy-related donations might be. Thus, one module sample might report significantly higher giving and volunteering than another sample, simply because they were completed at different times. Therefore it was important to begin and end the post-tragedy calling for all modules at approximately the same time. Specifically, we ended all calling before the end of November, to avoid the typical seasonal increase in giving in December.

Hypotheses and Analyses

Our first level of data analysis was descriptive. We looked at percentages of survey participants who responded to the tragedy with charitable behavior, the types of donative activity, and the amounts contributed.

Due to the nature of this study we needed to test some hypotheses about our sample before we could draw any conclusions about giving and volunteering behavior in the wake of this national tragedy. These hypotheses were as follows:

H₁: There were no significant differences between pre- and post-September 11 samples in terms of demographics.

If supported, this hypothesis would allow us to conclude that the events of September 11 did not play a significant role in determining who would be willing to respond to a telephone survey on household philanthropy. Thus, any reported differences in giving and volunteering would be attributable to other factors than differences in the pre/post subsamples. We used t-tests to analyze this hypothesis.

In addition to H₁, we developed three hypotheses to test whether we would be able to aggregate our data across modules for purposes of analysis of the tragedy-related questions. If supported, H₂ would allow us to conclude that the demographics of our module sub-samples were similar enough that we could combine them for the rest of the analyses. H₃ and H₄, if supported, would indicate that the module used along with the tragedy questions had no effect on reports of tragedy-related giving or volunteering. These hypotheses are not the main focus of this paper and therefore we present them in more detail in the Appendix.

In addition to these four hypotheses related to the design of our study, we developed several hypotheses regarding giving and volunteering behavior in the wake of the September 11 terrorist attacks.

H₅: There were significant differences in tragedy-related giving, based on demographic factors such as income, education, etc.

H₆: There were significant differences in tragedy-related volunteering, based on demographic factors.

H₇: There were significant differences in other types of charitable support (e.g., blood, food, clothing) related to the tragedy, based on demographic factors.

In particular, based on previous research in the field of philanthropy (e.g., Bennett and Kotasz, 2000; Rooney, et.al., 2001), we expected that income, education and religiosity might be significant determinants of charitable giving related to the tragedy. We expected that gender and religiosity might be significant determinants of tragedy-related volunteering (Independent Sector, 2001a; Mesch, Rooney, Chin & Steinberg, 2002) and that other types of charitable donations (food, blood, etc.) might also be determined by

demographic variables. We used multivariate (regression) methods for analyzing these three hypotheses.

The next two hypotheses relate to non-tragedy (general) giving and volunteering before and after the September 11 attacks. We were interested in investigating whether different groups changed their giving and volunteering behavior in response to the terrorist attacks.

H₈: Some groups of people changed their overall giving in response to the events of September 11.

H₉: Some groups of people changed their volunteering in response to the events of September 11.

Note that the dependent variables for these two hypotheses are different from those of the previous hypotheses (i.e., general rather than tragedy-related giving and volunteering.)

We used t-tests, regressions, and Chow tests to test these hypotheses.

Results

Descriptive analysis

Our first level of analysis was descriptive in nature. Our survey demonstrated that Americans were very generous in their response to the September 11 events. Of the people surveyed, 74.4 percent responded to the tragedy with some form of charitable behavior—giving money; giving food, clothing, blood; and/or giving volunteer hours to help the victims. Among those who responded to the tragedy by giving or volunteering, participation rates were as follows: 51.6 percent responded with only one of these types of charitable activity, 19.8 percent participated in two of them, and 3.0 percent participated in all three forms of philanthropy, as shown in Figure 1.

INSERT FIGURE 1 ABOUT HERE

Financial Donations to the Relief Efforts

Of the adults surveyed, 65.6 percent said they or their household made financial contributions to charities for the victims of the tragedy. There was a wide outpouring of support—mostly in small donations. Among contributing households, the average donation was \$133.72. The median was \$50 and 74 percent gave \$100 or less. Looking at all households in the survey (including those that did not make donations), the average contribution was \$85.41 and the median was \$25.

Other Charitable Donations

In addition to monetary support to aid the victims, Americans were generous in other types of giving. Of the adults surveyed, 27.2 percent indicated they made other donations to the relief effort, such as clothing, food and water, or blood. As shown in Table 3, people who made this type of donation were significantly more likely ($\chi^2 = 5.451, p = .021$) to donate money than people who did not donate items such as food, clothing or blood.

[INSERT TABLE 3 ABOUT HERE]

Volunteering to help the victims

Of those surveyed 8.4 percent indicated they performed voluntary service to help the victims of the tragedy. The average volunteer donated nearly 17 hours of time. The median level was 8 hours. Volunteers were significantly more likely than non-volunteers to make donations of money ($\chi^2 = 8.251, p = .004$), or other types of donations such as food, clothing or blood ($\chi^2 = 15.523, p = .000$) (see Table 3). This is consistent with

previous research (Hall, et. al, 2001; Independent Sector, 1999; Jalandoni & Hume, 2001; Steinberg, et. al., 2002), which has shown that volunteers are more likely to donate than non-volunteers. A number of economic researchers (e.g., Andreoni, Gale & Scholz, 1996; Brown & Lankford, 1992; Duncan, 1999) have studied the question of the interdependence between charitable donations of money and time, but this research focuses on annual contributions as affected by tax treatments. We are not aware of any previous studies that look at joint response of donations of time and money to some specific external event.

Analysis of Hypotheses

H₁: There were no significant differences between pre- and post-September 11 samples in terms of demographics.

Demographics of the pre- and post-Sept. 11 samples are shown in Table 4.

Comparing the two samples, the percentage of black respondents was significantly lower ($t = 2.889$, $p = .004$) and the percentage of respondents with a bachelor's degree was significantly higher ($t = -3.937$, $p = .000$) in the post-tragedy sample. Although minority households have sometimes been under-represented in surveys of household giving (e.g., Rooney, et al, 2000) we knew of no reason why the events of September 11 would have negatively affected the willingness of blacks, and positively affected the willingness of college graduates to respond to the survey. In the absence of any other explanation we concluded that these differences were an artifact of the random sample and that the two samples were similar enough in other ways to draw conclusions based on pooled data.

[INSERT TABLE 4 ABOUT HERE]

H₂, H₃ and H₄ were designed to test whether we would be able to aggregate our data across modules for purposes of analysis of the tragedy-related questions. All three hypotheses were supported. Since these hypotheses are not the main focus of this paper we present these results in the Appendix. Our next three hypotheses concerned the determinants of giving and volunteering in response to the events of September 11.

H₅: There were significant differences in tragedy-related giving, based on demographic factors such as income, education, etc.

H₆: There were significant differences in tragedy-related volunteering, based on demographic factors.

H₇: There were significant differences in other types of charitable support (e.g., blood, food, clothing) related to the tragedy, based on demographic factors.

We tested hypotheses 5, 6, and 7 in a multivariate framework applying our traditional tools (OLS, Probit, and Tobit) to the amount of giving and volunteering that was related specifically to 9-11 causes. We explain donations of time and money in regression frameworks by including a set of dummy variables for the five modules, along with the demographic variables. If there are pure module (survey or prompting) effects, they will show up as significant coefficients for the module dummy variables.

Unfortunately, the error terms in these regressions do not obey the classical assumptions that justify the exclusive use of Ordinary Least Squares (OLS) regressions. Donations cannot be negative, so the error term has a truncated distribution. In addition, giving and volunteering data appears to have a non-normal (heteroskedastic) error structure (e.g., Bradley, Holden and McClelland, 1999;

Rooney, Steinberg, and Schervish, 2001; Steinberg, Rooney, and Chin, 2002). Under these circumstances OLS is biased and inconsistent. Tobit regression models, on the other hand, do not generate negative predicted donations. Unfortunately Tobits are not robust to non-normal (heteroskedastic) errors. An additional problem with Tobit models is that they enforce a proportionality between a variable's effect on the probability of giving and the size of the donation for those who give. Another approach, a two-stage Heckman model, solves this latter problem, but is not robust to non-normality. Because there is no commonly-accepted ideal remedy for all of these problems, we conducted four different approaches (Tobit, Heckman two-stage, OLS on the full sample, and OLS on positive donors only), in the hope that a consistent picture would emerge. We also ran Probits to assess the effects of the various survey modules on the probability of donating or volunteering at all. In order to simplify the presentation here, we focus our discussion on the Tobits and Probits. A complete set of results, including the OLS and Heckman two-stage models, is available from the authors upon request.¹

Our regression models use levels rather than logarithms for the continuous variables, for several reasons. First, it significantly simplifies the interpretation of the results, which is helpful for a broad inter-disciplinary readership. Second, given the nature of the analyses, the large number of zeros (i.e., non-donors and/or non-volunteers) lends itself to using level data with Tobit analyses. Finally, many of our main variables of interest are dichotomous or multichotomous in nature, so we chose linear forms for simplicity.

¹ [Univariate \(ANOVA\) results are also available from the authors upon request.](#)

As shown in Table 5, we found that the only significant variable in explaining differences in dollars donated was earnings: middle income earners (\$40,000-\$80,000) gave \$29 (OLS and \$28 in Tobit) more than low-income earners, and high-income earners (\$80,000+) gave almost \$75 (OLS and \$55 more in Tobit) more to 9-11 causes than did low-income earners. These results are consistent with much previous research in the field of philanthropy (e.g., Bennett and Kotasz, 2000; Rooney, et.al., 2001), which shows that income is a significant determinant of charitable giving. As we might expect, given that we asked the tragedy-related giving questions at the beginning of the interview and all interviewees were given the same questions, none of the module variables were significant at traditional levels. The results for dollars given were similar when we used Tobits.

[INSERT TABLE 5 ABOUT HERE]

Our Probit results found that middle income and high-income households were respectively 26 percent and 25 percent more likely than low-income households to report making any gifts to 9-11 causes. The only other variables that attained significant levels in the Probit analysis were the age variables (age and its squared term). These suggest that the probability of making any 9-11 gifts increased slightly with each year of age but at a decreasing rate.

Turning to volunteering for 9-11-related activities, we found that respondents who had volunteered in the previous year donated significantly more hours, on average, than those who had not ($F(1,1286) = 10.377, p = .001$). Using regression analysis (see Table 6), we found that religiosity was a strong predictor of 9-11 volunteering. Those who attended religious service at least once a week were 42 percent more likely to have

volunteered for 9-11 activities than those who attended less often or did not attend religious services at all. This is consistent with previous research, which shows that religious attendance is a significant determinant of volunteering (e.g., Brown, 1999; Independent Sector, 2001a). A somewhat surprising result was that those with children in college were 19 percent more likely to volunteer than those without, but this was only weakly significant ($p = 0.099$). Another anomalous result was that the PSID module was 61 percent less likely to elicit such volunteer activities when compared to the very short module. This result seems to be driven by the relatively few who volunteered at all, so the actual distribution of volunteers across modules would matter more than in a larger sample.

[INSERT TABLE 6 ABOUT HERE]

When we looked at the number of hours volunteered for 9-11-related causes, we found there were few variables that attained significance and those that did had very small coefficients, suggesting that there were few if any consistent patterns of behavior that we could capture with traditional demographic data. Those with at least some college education volunteered almost an hour more than those with a high school degree (or less), but this was only weakly significant ($p = 0.061$). Those with children in college volunteered almost an hour more than those without, and those who attended religious services more frequently volunteered just over an hour more than those who did not. We got similar results in the Tobit, so do not explore this further.

When examining other types of giving to the tragedies (blood, food, clothing), we only asked whether or not a household had done so, which constrained our analysis to Probit regressions. As shown in Table 7, males were 6.6% less likely to donate blood,

food or clothing. Those with some college were 5.6% more likely to donate blood, food or clothing, but this was only weakly significant. Finally, those with middle incomes (\$40,000 to \$80,000) were 7.2% more likely to make this type of donation than lower income households

[INSERT TABLE 7 ABOUT HERE]

The next two hypotheses relate to non-tragedy (general) giving and volunteering before and after the September 11 attacks.

H₈: Some groups of people changed their overall giving in response to the events of September 11.

H₉: Some groups of people changed their volunteering in response to the events of September 11.

We were interested in investigating different groups changed their giving and volunteering behavior in response to the terrorist attacks. It is important to note that the dependent variables for these two hypotheses were different from those of the previous hypotheses (i.e., general rather than tragedy-related giving and volunteering.)

Knowing that the philanthropic reactions to the attack on America may vary by some of the demographic groups, we disaggregated our pre and post samples by some of the key demographic factors and tested these differences a couple of ways. First, we conducted t-tests for pre and post differences in unconditional means. Then we ran regressions that included a dichotomous variable for the respondents surveyed after 9-11, to see whether sampling before or after 9-11 affected the coefficient of mean giving (controlling for income, education, race, etc.). Finally, we compared the log-likelihood values and conducted Chow tests to see whether inclusion of the pre/post dummy

sufficed, or whether 9-11 affected all the other coefficients as well. While it would have been preferred to survey the exact same households pre and post 9-11, these regressions provide critical insights into whether or not 9-11 is associated with changes in philanthropic behaviors.

We first examined whether there were differences in the unconditional means for pre- and post-9-11 samples (see Table 8). We found that all demographic groups reported more donations after 9-11, although not all of the differences were statistically significant. Respondents who were whites, low-income (less than \$40,000 per year), high income (\$80,000 or more per year), tax itemizers, or who attended religious services at least once a week, reported significantly higher levels of donations after 9-11 than before the tragedy. Respondents with some college education (but no degree) volunteered significantly more following 9-11. There were no other statistically significant differences in the mean levels of volunteering by any of the various demographic groups.

Table 9 shows the results of the Tobit and Probit regressions, in which we examined the effect on the conditional means of being sampled before or after 9-11, for each demographic group. In this table, the Tobit estimates indicate the amount (in dollars or hours) that post-9-11 giving/volunteering by each group differed from pre-event giving/volunteering. The Probit estimates measure the increase in the probability that members of each group became donors as a result of 9-11.

Using these regression methods, we found no statistically significant differences (at $p < .05$) in reported amounts donated pre- versus post-9-11 (see Table 9). However, the events of 9-11 did increase the probability of reporting donations for several groups.

Subjects who were white or other races (but not black), low-income, itemizers, had some college experience, or attended church services at least once a week were more likely to report making a donation (at least \$1) following the events of September 11.

We also found several significant effects in estimating pre- and post-9-11 volunteering in our Probit and Tobit frameworks (Table 9). A larger number of volunteer hours were reported after 9-11 by respondents who were white, low-income, married, itemizers, had some college education, or attended religious services at least once a week. These same groups were also more likely to report volunteering at all post-9-11, along with medium income households (\$40,000-\$80,000 per year) and subjects with a college degree.

Finally, we conducted Chow tests to test whether or not the inclusion of the dichotomous variable for post-9-11 respondents improved the overall estimation of the models. For example, among low income households, we found very strong evidence for both the Tobit (chow test = 2097.8; critical value .005 = 32.8) and the Probit (chow test = 539.0; critical value .005 = 32.8) that there were differences in the pre and post giving patterns. Although the chow test scores are smaller for our volunteering analyses, we still find relatively large improvements in both the Tobit (chow = 42.3; critical value .05 = 26.29) and the Probit (chow = 37.9; critical value .05 = 26.29). These results lend additional credence to the use of pre-post subsamples among different demographic groups, thus supporting our conclusion that the pattern of giving for some groups of people was different after the events of September 11, 2001.

Summary and Conclusions

Our results show that most households (74.4 percent) responded to the September 11 attacks on America with some form of charitable behavior—giving money; giving food, clothing, blood; and/or giving volunteer hours to help the victims. Of the adults surveyed, 65.6 percent said they or their household made financial contributions to the relief efforts. Most of these donations were made fairly quickly, within the first few months following the tragedy, and most of the contributions were relatively small, particularly in comparison to foundation and corporate donations. For example, among contributing households the average gift was \$133.72 and the median was \$50. Looking at all households in the survey (including those that did not make a contribution), the mean was \$85.40 and the median was \$25.

The \$133.72 average gift found by the survey was higher than might be expected. The median gift of \$50 may be more representative of giving by most Americans in response to September 11. We hypothesize that several factors may have played a role in raising the amount of the average gift. For example, the simple random sample that was used (originally designed for the different purposes of the larger survey) over-represented certain groups of donors who tend to report higher-than-average donations on other surveys of giving. Also, respondents reported several large gifts, ranging from \$800 to \$5,000, which raised the average.

In addition, some respondents may have “over-reported” the amounts that they gave (reporting amounts higher than they actually gave), perhaps because they wanted to feel more a part of the intense emotional and patriotic outpouring of support in response to the horrific events of September 11. Some of the gifts reported may be donations respondents intended to make, but for which they had not yet actually sent a contribution

at the time of the survey. Finally, although the survey specifically asked about giving to the victims of September 11, some of the gifts reported may have been given to local organizations for other relief or non-relief causes in the spirit of responding to the tragedy. The outpouring of giving and media coverage also may have raised awareness of the need for philanthropic giving more generally.

The most important variable in determining the amount of cash donations was household income. The probability of making any 9-11 gifts increased slightly with each year of age, but at a decreasing rate. These results are consistent with the previous research on the determinants of giving in general, which shows that household income is the most important factor in decisions about charitable giving.

Turning to voluntary service, 8.4 percent of those surveyed reported volunteering to help the victims of the tragedy. The average volunteer donated nearly 17 hours of time, and the median level was 8 hours. It is not surprising that few people reported volunteering, given the difficulty of volunteering in this particular tragedy. For example, travel was restricted, volunteering on-site was discouraged early on, and the primary need was for people with very specialized skills.

A significant factor in determining volunteer service to help the tragedy victims was whether or not a person had done any volunteer work in the previous year. We also found that religiosity (that is, religious attendance at least once a week) was a strong predictor of 9-11 volunteering. This is consistent with previous literature on volunteering in general. A somewhat surprising result was that those with children in college were more likely to volunteer than those without. Few variables predicted the number of volunteer hours, suggesting that there were few if any consistent patterns of behavior that

we could capture with traditional demographic data. The particular circumstances related to the September 11 tragedy were probably so unusual that the typical patterns of volunteering behavior did not apply.

Of the adults surveyed, 27.2 percent reported making other types of donations after the tragedy, such as blood, food or water, and clothing. We found similar effects for giving blood etc. to the tragedy in the multivariate framework as we did for other types of giving: gender, income and education made small but significant differences in the probability of making such donations. Donations of this type have not received much emphasis in the research literature, so this represents a special contribution of this study.

When we examined general (non-tragedy) giving, we found that several demographic groups (subjects who were white or other races (but not black), low-income, itemizers, had some college experience, or attended church services at least once a week) were more likely to have donated at all following the attack on America. However, after controlling for income, education, etc., there was no strong evidence that any of the demographic groups studied gave significantly more money following 9-11. On the other hand, a larger number of volunteer hours were reported after 9-11 by respondents who were white, low-income, married, itemizers, had some college education, or attended religious services at least once a week. These same groups were also more likely to report volunteering at all post-9-11, along with medium income households (\$40,000-\$80,000 per year) and subjects with a college degree.

One possible shortcoming of this study is that respondents may have overstated their philanthropy after the events of September 11, in an effort to portray themselves in a more favorable, “patriotic” light. However, all Americans were affected by the terrorist

attacks and any inflation in reporting would most likely affect all groups equally. For this reason we believe that the differences that we found between groups are real ones.

Overall, our results were consistent with previous findings on the determinants of philanthropic behavior (giving and volunteering) in general. However, there were a number of variables that we were unable to measure that may have played an important role in determining individual and household action in response to this particular tragedy. For example, we did not gather any information on personal feelings of empathy, anger, security, or patriotism, or whether or not respondents had immediate family members or close friends directly affected by the attacks.

The America Gives study was unique because the Center on Philanthropy was “in the field” gathering data on individual and household philanthropy of Americans at the time of the September 11 attacks. This gave us an opportunity to study personal philanthropy both before and after a significant national event. After the September 11 attacks, many people worried that individual donations to nonprofit organizations would be negatively affected—that is, that people would donate less money to nonprofits because they had made donations related to the tragedy. Future work with this data set will focus on the question of whether 9-11 giving and volunteering crowded out non-9-11 giving and volunteering.

We have some suggestions for researchers who may want to study donative behavior in relation to this crisis or others. First, we would recommend obtaining as much information about demographics of the sample as possible, in order to further the knowledge of determinants of individual philanthropy in response to crisis. Second, we would recommend that anyone querying household giving or individual volunteering for

the month of September 2001 (and the months immediately following) specifically include questions to assess charitable behavior related to this tragedy. This would help to stimulate recall of tragedy-related donations, and provide a more accurate assessment of other types of donations without confounding the two. In addition, including this type of question will enable future researchers to obtain a longer-term picture of the potential “crowding out” effect of personal philanthropy in response to a national crisis.

Hopefully, nonprofit managers will never again face the question of how to manage during such a terrible crisis, but our results do suggest a few things for practitioners to consider in the future. First, the nature of the crisis may lead to different opportunities to fundraise and to recruit volunteers. Nonprofits must strategize as to how the crisis is affecting the national psyche and what impact it is likely to have on their subsector. Our results found different reactions to 9-11 by income, educational, and racial groups, which might inform how nonprofits proceed in the future. Second, the effects were different for giving and volunteering. Nonprofits need to have volunteer coordinators (whether paid or themselves volunteers) to take full advantage of increased interest in volunteering.

APPENDIX

H₂: There were no significant differences between module subsamples after September 11, with respect to demographics.

H₃: There were no significant differences between post-September 11 subsamples in terms of tragedy-related giving.

H₄: There were no significant differences between post-September 11 subsamples in terms of tragedy-related volunteering.

H₂, H₃ and H₄ were designed to test whether we would be able to aggregate our data across modules for purposes of analysis of the tragedy-related questions. If supported, H₂ would allow us to conclude that the demographics of our module sub-samples were similar enough that we could combine them for further analysis. H₃ and H₄, if supported, would indicate that the module used along with the tragedy questions had no effect on reports of tragedy-related giving or volunteering. This makes sense because with all modules we asked about charitable activity related to the tragedy before asking about other types of giving and volunteering, and all modules used the same set of tragedy-related questions. H₂, H₃ and H₄ were analyzed using one-way ANOVAs (t-tests).

H₂ was supported for all demographic variables (see Table 8). We concluded that the demographics of our module sub-samples were similar enough that we could combine them for purposes of analysis of the tragedy-related questions.

[INSERT TABLE 10 ABOUT HERE]

In order to test H₃ and H₄ we decided to exclude from our analyses two outliers who otherwise would have skewed the analysis. One of these was a woman who reported a donation of \$65,000 toward tragedy relief—she happened to complete the Method-Area

module. (The next-highest response was \$5,000). The other outlier was a female who volunteered 840 hours to help the victims of the tragedy (equivalent to 10 weeks of 12-hour days, 7 days a week). She completed the PSID module. (The second-highest response was 200 hours). Whether the reported values are true or not, they were so different from other responses that they would distort the results, regardless of which module was used.

As shown in Table 11, both of these hypotheses were supported. There were no significant differences between the sub-samples in terms of charitable donations of time or treasure in response to the September 11 tragedy. This held true whether we included all subjects or looked at donors only or volunteers only.

[INSERT TABLE 11 ABOUT HERE]

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TABLE 1: AMERICA GIVES MODULES

	Demographic Questions	Tragedy Questions	Very Short	PSID	Area	Method	Method-Area
Sample Size: Total	4,200	1,304	900	800	900	800	800
Pre-Sept. 11	2,896	---	800	512	800	576	208
Post-Sept. 11	1,304	1,304	100	288	100	224	592
# Questions: Total	16	6	6	46	121	170	458
Giving	---	---	4	38	42	47	454
Volunteering	---	---	2	4	79	123	4
Types of Prompts:							
Giving	---	yes/no, amt	yes/no, amt (formal only)	Prompt by subsector of contribution (formal only)	Prompt by subsector of contribution; 3 prompts for informal giving, 1 for political donations	Prompt by method of contact; 6 prompts for informal giving	Prompt by method of contact, then by subsector; 7 prompts for informal giving
Volunteering	---	yes/no, amt	yes/no, amt (formal only)	yes/no, then by 1 subsector (formal	Prompt formal vol'g by subsector,	Prompt formal & informal	yes/no, then by 1 subsector (formal

				only)	1 general prompt for informal vol'g	vol'g by method of contact	only)
Inducements:	<u>totals</u>						
None	3,202	---	805	698	805	694	200
Calling card--Total	998	---	95	102	95	106	600
Pre-Sept. 11	501	---	95	56	95	47	208
Post-Sept. 11	497	---	0	46	0	59	392

TABLE 2: -DEMOGRAPHICS OF TOTAL SAMPLE BY MODULE

	Total	Very		Method-		
	<u>Sample</u>	<u>Short</u>	<u>PSID</u>	<u>Area</u>	<u>Method</u>	<u>Area</u>
Sample size	4,200	900	800	900	800	800
Female (%)	59.3	57.6	60	61	58.8	59.3
Couples (%)	61.5	60.9	64.3 *	61.4	58.5 *	62.3
White (%)	81.1	79.4	82.3	81	81.4	81.4
Black (%)	8.1	10.4 *	7.1	7.6	7.5	7.5
Hispanic (%)	4.7	4.3	4.4	5.3	5.2	4.1
Asian (%)	2.1	2	2	2.4	1.8	2
Other Minority (%)	4.1	3.8	4.1	3.7	4.2	5
Age:						
Mean	45.3	45.23	45.34	45.43	45.47	44.78
Median	44	44	44	44	44	44
Min	18	18	18	18	18	18
Max	93	91	87	92	90	93
Education (%):						
≤ High school diploma	30.6	32.1	31.7	29	31.2	28.9
Some college	36.8	34.9	37	38.5	36.9	36.8
Bachelor's degree	18.2	18.7	17.4	16.4	18	20.4
Grad/prof school	14.4	14.3	13.8	16.1	13.9	13.9
Joint tests						
Income (%):						
\$0 - 40,000	42.4	39.6	39.2	42.6	47.9 **	42.9
\$40,000 to \$80,000	37.3	40.7	40.1	35.3	34.1	36.2

\$80,000 +	20.3	19.7	20.7	22.1	18	20.9
Total reporting income	81.2 **	82.4	80.4	78.4	81.1	83.9
Joint tests					**	
% with income > \$120,000	5.8	6.1	6.3	5.2 **	5.1 **	6.5
% who itemized deductions	49.8	52.3	50.1	52.5	45.9 **	47.4
% of itemizers with donations	78.7	78.3	79.8	77.5	80.7	77.7
% of sample with itemized gifts	34.3	36.1	35.1	35.7	31.9	32.3

* = p < .10

** = p < .05

TABLE 3: RELATIONSHIPS AMONG RESPONSES TO THE 9-11 TRAGEDY

	Total <u>Sample</u>
Post-9-11 N	1,304
Donated \$	65.6%
Donated Other Items	27.2%
Volunteered	8.4%
Total Participating in Some Way	74.4%

Relationship Between Volunteering & Giving Money

Percentage of Volunteers Who:

Made no donations of \$	21.7%
Made donations of \$	78.3%

Percentage of Nonvolunteers Who:

Made no donations of \$	35.5%
Made donations of \$	64.5%

Chi-Square 8.251***

Correlation betw. \$ & hours given 0.04

Relationship Between Volunteering & Giving Items

Percentage of Volunteers Who:

Made no donations of items	56.9%
Made donations of items	43.1%

Percentage of Nonvolunteers Who:

Made no donations of items	74.4%
Made donations of items	25.6%
Chi-Square	15.523***

Relationship Between Giving Money & Giving Items

Percentage of Item Donors Who:

Made no donations of \$	29.4%
Made donations of \$	70.6%

Percentage of Item Nondonors Who:

Made no donations of \$	36.4%
Made donations of \$	63.6%

Chi-Square	5.451**
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* = $p < .10$

** = $p < .05$

*** = $p < .001$

TABLE 4: DEMOGRAPHICS OF PRE- AND POST- 9-11 SAMPLES

	Total	Pre-	Post-	
		<u>Sept.</u>	<u>Sept.</u>	
	<u>Sample</u>	<u>11</u>	<u>11</u>	<u>t</u>
Sample size	4,200	2,896	1,304	--
Female (%)	59.3	59.7	58.4	0.841
Couples (%)	61.5	61.2	62	-0.661
Race:				
White (%)	81.1	80.3	82.8	-1.727*
Black (%)	8.1	8.9	6.2	2.889***
Hispanic (%)	4.7	4.7	4.6	0.147
Asian (%)	2.1	2	2.1	-0.144
Other Minority (%)	4.1	4.1	4.2	-0.822
Age (Mean)	45.3	45.49	44.73	1.445
Education (%):				
≤ High school diploma	30.6	31.2	29.3	1.144
Some college	36.8	37.5	35.3	1.303
				-
Bachelor's degree	18.2	16.6	21.6	3.937***
Grad/prof school	14.4	14.7	13.8	0.781

Income (%):				
\$0 - 40,000	42.4	42.4	42.3	-0.004
\$40,000 to \$80,000	37.3	37.6	36.8	0.38
\$80,000 +	20.3	20	20.9	-0.553
% with income > \$120,000	5.8	5.5	8	-1.271
% who itemized deductions	49.8	50.7	47.8	-1.6
% of itemizers with donations	78.7	78.1	80.2	0.978
# of kids at home (mean)	0.85	0.86	0.81	1.322
# of kids in college (mean)	0.12	0.11	0.13	-9.62

Note: * = p < .10

 ** = p < .05

 *** = p < .01

TABLE 5: REGRESSIONS ON TRAGEDY GIVING

Variables	TOBIT Marginal Impact ^{a,c,d,e,f,g}	PROBIT Marginal Impact ^{a,b,d,e,f}	
CONSTANT	-42.5744583	-0.558309	
PSID	-0.443457	-0.217939	
AREA	-2.62946757	-0.311153	
METHOD	19.0017063	-0.011653	
METHOD-AREA	5.30541	-0.089534	
AGE	0.51845137	0.034230	**
AGE**2	-0.006480	.333114E-03	**
MALE	2.97119	-.418499E-02	
WHITE	10.4263374	0.161609	
SOME COLLEGE	7.63094354	.696397E-02	
INCOME (40-80K)	27.5966599	*** 0.264858	***
INCOME(80+)	55.0012228	*** 0.252251	**
# of KIDS	1.81572	0.061575	
# of KIDS IN COLLEGE	8.19201436	0.047829	
SIGMA	78.9141872	***	
N	899	1043	
Adjusted R squared			
LOG LIKELIHOOD	-3794.67	-643.254	

Notes:

^a Asterisks indicate the level of statistical significance for any particular independent variable.

(*p<0.10 **p<0.05 ***p<0.01)

^b Probit marginal impacts estimate the marginal probability of donating due to changes in each variable.

^c Tobit marginal impacts estimate the change in donation amount due to changes in each variable.

^d All coefficients for categorical variables are relative to the values of the excluded category for that variable (females, minority, single, high school or less, income \$0-40K, religious attendance < once A week, Area-Method module).

^e Statistical significance is determined for the coefficients on the latent index for donations, with respect to the latent indicator variable.

^f Table with standard errors or t-scores is available on request from the authors.

^g Tobit marginal impacts are calculated at the mean of the data.

TABLE 6: REGRESSIONS ON TRAGEDY VOLUNTEERING

Variables	TOBIT		PROBIT	
	Marginal Impact ^{a,c,d,e,f,g}		Marginal Impact ^{a,b,d,e,f}	
CONSTANT	-4.0043	***	-1.96866	***
PSID	-0.8154	*	-0.613666	**
AREA	-0.29777		-0.091477	
METHOD	-0.45091		-0.364874	
METHOD-AREA	0.19587		-0.043714	
AGE	0.07565		0.037005	
AGE**2	-0.001080		-.519308E-03	*
MALE	-0.24701		-0.105876	
MARRIED	-0.13195		-0.170154	
WHITE	-0.09939		.388883E-02	
EDUCATION	0.50536	*	0.180967	
INCOME (40-80K)	-0.06584		-0.032399	
INCOME(80+)	0.22973		0.120311	
# of KIDS	-0.12795		-0.041444	
# of KIDS IN COLLEGE	0.33817	*	0.185641	*
RELIGIOUS	0.7592	***	0.420241	***
SIGMA	1.7762	***		
N	1038		1044	
Adjusted R squared				

LOG LIKELIHOOD

-535.386

-269.41

Notes:

^a Asterisks indicate the level of statistical significance for any particular independent variable.

(*p<0.10 **p<0.05 ***p<0.01)

^b Probit marginal impacts estimate the marginal probability of donating due to changes in each variable.

^c Tobit marginal impacts estimate the change in donation amount due to changes in each variable.

^d All coefficients for categorical variables are relative to the values of the excluded category for that variable (females, minority, single, high school or less, income \$0-40K, religious attendance < once a week, Area-Method module).

^e Statistical significance is determined for the coefficients on the latent index for donations, with respect to the latent indicator variable.

^f Table with standard errors or t-scores is available on request from the authors.

^g Tobit marginal impacts are calculated at the mean of the data.

TABLE 7: PROBITS ON OTHER TYPES OF TRAGEDY GIVING (BLOOD, FOOD, CLOTHING)

Variables	PROBIT	
	Marginal Impact	
CONSTANT	-0.21031	
PSID module	0.098762	
Area Module	0.086285	
Method Module	0.071452	
Method-Area Module	0.072301	
Age	0.000057019	
Age**2	-0.000041676	
Male	-0.065626	**
Married	-0.032652	
White	-0.029542	
Some college	0.056196	*
Income \$40-80K	0.07193	**
Income \$80K+	0.027433	
# of Kids	0.01221	
# of Kids in College	0.021581	
Religious	0.018107	
N	1,037	
LOG LIKELIHOOD	-590.013	

Asterisks indicate the level of statistical significance for any particular independent variable.

(*p<0.10 **p<0.05 ***p<0.01)

Probit marginal impacts estimate the marginal probability of donating due to changes in each variable.

All coefficients for categorical variables are relative to the values of the excluded category for that variable (females, minority, single, high school or less, income \$0-40K, religious attendance < once a week, Area-Method module).

Statistical significance is determined for the coefficients on the latent index for donations, with respect to the latent indicator variable.

Table with standard errors or t-scores is available on request from the authors.

TABLE 8: PRE-POST EVENT COMPARISONS OF NON-TRAGEDY GIVING AND VOLUNTEERING

Formal Giving

	N	Pre-event mean	Post-event mean	t	
White	862	1442.35	1851.53	-2.65	**
Other race	114	987.09	1240.46	-0.69	
Income < \$40K	448	530.53	801.11	-2.35	*
Income \$40-80K	389	1433.74	1571.14	-0.71	
Income > \$80K	220	2985.35	3982.68	-2.15	*
≤ High school	300	679.51	755.85	-0.56	
Some college	373	1154.62	1515.56	-1.85	
College degree	383	2213.53	2751.96	-1.80	
Itemizer	469	2089.60	2716.73	-2.59	**
Religious	433	2144.19	2884.58	-2.87	**

Volunteering

	N	Pre-event mean	Post-event mean	t	
White	857	88.61	101.08	-1.35	
Other race	113	82.42	79.01	0.12	
Married	619	88.77	103.47	-1.37	
Income < \$40K	445	76.49	92.35	-1.22	
Income \$40-80K	386	86.14	87.43	-0.12	
Income > \$80K	220	112.24	122.24	-0.49	
≤ High school	298	59.66	72.16	-0.88	
Some college	371	68.89	102.03	-1.96	*

College degree	381	133.68	111.12	0.09
Itemizer	466	97.65	114.09	-1.30
Religious	430	118.43	142.19	-1.57

Note: * = $p < .05$

** = $p < .01$

TABLE 9: PROBITS AND TOBITS ON NON-TRAGEDY GIVING AND VOLUNTEERING ^{a, b, c, d, e, f}

Formal Giving

Variables	N	Tobit Coefficient	Marginal Impact	Probit Coefficient	Marginal Impact	
White	2692	80.1066			0.032191	*
Black	271	128.635		-0.104768		
Other race	367	355.535			0.13264	*
Single never married	677	-18.2459		0.07255		
Single living with partner	119	36.0489				
Married	1946	154.468		0.164407		
Divorced	425	-203.169		0.265595		
Widowed	182	891.538				
Income < \$40K	1420	261.996			0.073331	**
Income \$40-80K	1256	-29.9429		0.019174		
Income > \$80K	679	-86.1469		0.286158		
≤ High school	978	-190.961		0.055715		

Some college	1235	199.761			0.056393	*
College degree	1142	273.776		0.262472		
Itemizer	1571	220.667		0.215078		
Religious	1452	333.825			0.047628	*
Less religious	1890	37.8771		0.164549		
Volunteering						
Variables		Tobit	Marginal		Probit	Marginal
	N	Coefficient	Impact		Coefficient	Impact
White	2674		27.441915	**		0.069727
Black	266	43.9306			0.297614	
Other race	368	86.9276			0.286261	
Single never married	675	28.9482			0.089572	
Single living with partner	119	64.3254				
Married	1935		31.274089	**		0.092857
Divorced	421	39.1358			0.087764	
Widowed	183	132.068			0.32312	
Income < \$40K	1411		34.847454	**		0.0754

Income \$40-80K	1241	46.0768			0.085562	*
Income > \$80K	681	54.9842		0.14579		
≤ High school	971	62.1296		0.125299		
Some college	1228		32.546541	**	0.171898	
College degree	1134	51.5718			0.1004	**
Itemizer	1556		30.921094	**	0.10732	**
Religious	1441		48.235458	**	0.12038	**
Less religious	1879	40.5832			0.117745	

^a Asterisks indicate the level of statistical significance for any particular independent variable.

(*p<0.05 **p<0.01)

^b This table summarizes results from many regression analyses, in which we examined, for each demographic group, the effects of the following independent variables: PSID module, Area module, Method module, Method-Area module, Age, Age squared, Male, White, Some college, Medium income, High income, number of kids, number of kids in college, and 911 dummy. (Excluded: Area-Method module, Female, Minority, High school or less, Low income.) Coefficients and marginal impacts are shown for the 911 dummy variable only, for each demographic group. Tobit and Probit coefficients are shown for nonsignificant results,

and marginal impacts are shown for significant results.

^c Probit estimates measure the increase in the probability that members of each group became donors as a result of 9-11.

^d Tobit estimates indicate the amount (in dollars or hours) that post-9-11 giving/volunteering by each group differed from pre-event giving/volunteering.

^e Table with OLS results, standard errors, and t-scores is available on request from the authors.

^f Tobit marginal impacts are calculated at the mean of the data.

TABLE 10: POST 9-11 SUB-SAMPLES: DEMOGRAPHIC DIFFERENCES BETWEEN MODULES

	Total <u>Sample</u>	Very <u>Short</u>	(IS) <u>PSID</u>	(Hall) <u>Area</u>	Method- <u>Method</u>	<u>Area</u>	<u>F</u>
Sample size	1,304	100	288	100	224	592	--
Female (%)	58.4	61	57.3	52	60.3	58.8	0.615
Couples (%)	62	70	60.6	64	59	62.1	0.989
Race:							
White (%)	82.8	78.6	86.2	81	83.9	81.7	1.033
Black (%)	6.2	4.1	4.9	7	6.4	7.1	0.594
Hispanic (%)	4.6	9.2	2.8	4	5	4.7	1.706
Asian (%)	2.1	3.1	1.8	4	1.8	1.9	0.659
Other Minority (%)	4.2	5.1	4.2	4	3.2	4.7	0.67
Age (Mean)	44.73	44.77	44.75	44.32	44.66	44.81	0.022
Education (%):							
≤ High school							
diploma	29.3	33.7	33.1	23	29.1	27.9	1.265
Some college	35.3	26.5	32.8	39	37.7	36.5	1.532
Bachelor's degree	21.6	23.5	21.6	22	20.2	21.8	0.109
Grad/prof school	13.8	16.3	12.5	16	13	13.9	0.339

Income (%):							
\$0 - 40,000	42.3	37.2	40.2	37.7	49.7	42.2	1.719
\$40,000 to \$80,000	36.8	42.3	39.3	39	30.6	36.7	0.907
\$80,000 +	20.9	20.5	20.5	23.4	19.7	21.1	0.091
% with income >							
\$120,000	8	8	6.9	5	7.1	6.1	0.288
% who itemized							
deductions	47.8	44.2	48.9	50	50.5	46.6	0.401
% of itemizers with							
donations	80.2	86.5	75.4	86.4	82.6	79.6	1.03
# of kids at home							
(mean)	0.81	0.85	0.71	0.79	0.75	0.88	1.216
# of kids in college							
(mean)	0.13	0.07	0.16	0.14	0.11	0.12	0.977

Note: * = $p < .10$

** = $p < .05$

*** = $p < .01$

TABLE 11: MODULE EFFECTS ON TRAGEDY

RESPONSE

\$ Amount Donated for Victims of 9-11

	<u>Total Sample</u>				
	<u>N</u>	<u>Mean</u>	<u>Median</u>	<u>SD</u>	<u>F</u>
Total	1,229	85.41	25.00	254.67	0.300
Very Short	93	67.49	25.00	132.30	
PSID	267	76.44	25.00	172.31	
Area	94	86.55	22.50	198.38	
Method	211	85.82	50.00	167.76	
Method-Area	564	92.27	25.00	327.78	

	<u>Donors only</u>				
	<u>N</u>	<u>Mean</u>	<u>Median</u>	<u>SD</u>	<u>F</u>
Total	785	133.72	50.00	308.41	0.288
Very Short	61	102.90	50.00	152.10	
PSID	160	127.56	90.00	207.63	
Area	53	153.51	100.00	244.77	
Method	142	127.52	50.00	191.21	
Method-Area	369	141.03	50.00	396.83	

Hours Volunteered After 9-11 Attacks

Total Sample

	<u>N</u>	<u>Mean</u>	<u>Median</u>	<u>SD</u>	<u>F</u>
Total	1,290	1.28	0.00	8.57	1.87
Very Short	98	0.52	0.00	2.20	
PSID	286	0.93	0.00	7.30	
Area	97	0.43	0.00	2.13	
Method	222	0.60	0.00	3.24	
Method-Area	587	1.97	0.00	11.37	

Volunteers only

	<u>N</u>	<u>Mean</u>	<u>Median</u>	<u>SD</u>	<u>F</u>
Total	98	16.84	8.00	26.67	1.06
Very Short	8	6.38	4.00	4.93	
PSID	10	26.50	16.00	30.54	
Area	6	7.00	7.50	5.62	
Method	12	11.08	5.00	9.17	
Method-Area	62	18.69	8.00	30.39	

Note: * = $p < .10$

 ** = $p < .05$

 *** = $p < .01$

Figure 1: Individuals' Responses to the Tragedy

