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ARE MILLENNIALS REALLY SO SELFISH? PRELIMINARY EVIDENCE FROM
THE PHILANTHROPY PANEL STUDY

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ABSTRACT

We use panel data on charitable donations to analyze how the philanthropic behavior of the Millennials (born between 1981 and 1996) compares to that of earlier generations. On the basis of a multivariate analysis with a rich set of economic and demographic variables, we find that conditional on making a gift, one cannot reject the hypothesis that the Millennials donate more than members of earlier generations. However, Millennials are somewhat less likely to make any donations at all than their generational predecessors. Our findings suggest a more nuanced view of the Millennials' prosocial behavior than is suggested in popular accounts.

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An online appendix is available at <http://www.nber.org/data-appendix/w25813>

Are Millennials Really So Selfish?

Preliminary Evidence from the Philanthropy Panel Study

With regard to prosocial behavior, members of the millennial generation—people born between 1981 and 1996—have a bad reputation. The titles of opinion pieces such as “Millennials: The Me Me Me Generation”, “Millennials are Entitled, Narcissistic, and Lazy”, and “Millennials See Themselves as Greedy, Self-absorbed, and Wasteful” evidence the prevalence of negative attitudes regarding this generation (Stein, 2013; Cleary, 2017; The Guardian Magazine, 2015). Writers in the popular press have asserted that “what Millennials are most famous for besides narcissism is its effect: entitlement” (Stein, 2013, p. 1), and that with regards to their tipping habits “Millennials are cheapskates compared to other generations” (Jagannathan, 2018, p. 1). According to survey data, 71 percent of Americans think of Millennials as “selfish” (Gillespie, 2014).

In addition, some academic research supports of the view that Millennials are selfish. Some psychologists, for example, argue that standard personality tests indicate that individuals who were in college between 2000 and 2006 exhibit less empathy than earlier cohorts (Konrath, *et al.* 2011). Other personality tests suggest that students in these cohorts are more narcissistic than their predecessors (Twenge, *et al.* 2008).

However, there is contention regarding these claims, with some media writers claiming that Millennials are generous. For example, popular press headlines assert that: “Millennials are Actually More Generous than Anybody Realizes” (Schulte, 2015) and that “Millennials are the Most Generous and Most Careful when Donating to Charity” (Calderwood, 2017). In addition, there is far from consensus in the psychology literature that the Millennials are particularly narcissistic. For example, Arnett, Trzesniewski and Donnellan (2013) challenge this characterization, arguing *inter alia*, most of the data sets used to measure narcissism are

problematic because they rely on highly unrepresentative samples (students at residential colleges (p. 17).

These opposing claims raise an interesting question: are Millennials truly particularly deficient in prosocial behavior? We address this question by examining how members of the Millennial generation compare to members of other generations with regard to an important and observable type of prosocial behavior, contributing to charities. While charitable giving is not the only form of prosocial behavior (for example, volunteering is another well-studied form, e.g., *Chambre and Netting, 2016*), charitable giving is one of the most studied forms of prosocial behavior and is our focus in this analysis. Specifically, we analyze panel data over the period 2001 to 2015 to estimate intergenerational differences in charitable giving.

As discussed below, we show that on the basis of raw means, members of the millennial generation indeed appear to be less generous than previous generations. However, once we take into account differences in age, income, wealth and other variables, a somewhat more complex story emerges. We find that conditional on making a gift, the Millennials donate more than members of earlier generations. However, Millennials are somewhat less likely to make any donations at all than their generational predecessors.

Note that our documentation of a negative correlation in the data between membership in the Millennial generation and the likelihood of making a gift does not establish the cause of this behavior. There are a number of possibilities. For example, *Oesterle, Johnson, and Mortimer (2004, p. 1128)* observe that assuming adult responsibilities, such as starting a full-time job or starting a family, leads to an uptick in prosocial behavior. To the extent that Millennials are taking on such responsibilities later than preceding generations, this difference in life course might be the cause of their relatively low donations. Alternatively, the formative experiences

shared by members of a generation (such as the Millennials coming of age during the Great Recession) might have lasting effects on their charitable behavior. In any case, our findings suggest a more nuanced view of the Millennials' prosocial behavior than is suggested in popular accounts.

Previous Literature

There is an extensive empirical literature on the determinants of households' donative behavior; Andreoni (2013) and Bekkers and Wiepking (2007) provide comprehensive surveys. Variables such as income (Andreoni and Scholtz, 1988), wealth (Banks and Tanner, 1999), education (Apinumahakul and Devlin, 2004), age (Meer and Rosen, 2013), marital status (Andreoni and Scholz, 1998), number of children (Hoge and Yang, 1994), race (Apinumahakul and Devlin, 2004), employment status (Yao, 2015) and religion (Bekkers and Schuyt, 2005) generally play important roles in statistical models of charitable giving.

Turning now to the possible impact of an individual's birth cohort on his or her giving, the social science literature on generational theory provides useful insights. The reasonable premise is that members of a generation have certain formative experiences in common (like wars and economic crises), and these common experiences shape their subsequent attitudes and behavior (Rooney, *et al.*, 2018). In the context of donative behavior, the notion that early life experiences have a substantial impact on lifetime giving is buttressed by empirical studies that show that giving when young can become a habit that lasts throughout life (Rosen and Sims (2011) and Meer (2013)).

The related literatures on life course development and emerging adulthood are also pertinent. As noted by Arnett (1997, p. 69), the theory of emerging adulthood serves "as a framework for recognizing that the transition to adulthood [is] now long enough that it

constitute[s] not merely a transition but a separate period of the life course.” In earlier generations, the transition to adulthood was marked by the achievement of certain milestones, such as “finishing education, entering the labor force, marriage and parenthood” (p. 69). However, members of younger generations now take longer to settle into long-term employment and personal relationships, and in their early twenties do not consider themselves to be fully adult (p. 70). Coté (2009, p. 297) places the age at which younger generations now resolve their adult identities even later, in the late twenties, but the basic idea is the same—younger generations are taking longer to think of themselves as adults.

To the extent that self-identification as an adult is associated with empathy, involvement with other people, and a desire to help others, it would seem plausible that members of a recent generation like the Millennials would be less generous than their predecessors, who assumed adult identities earlier. In the same way, to the extent that an elongated transition to adulthood is associated with greater narcissism and egotism, one would expect charitable donations to fall, other things being the same.

Evidence supporting this unfavorable view of the Millennials is presented by Twenge (2013) in a literature review provocatively entitled, “The Evidence for Generation Me and Against Generation We.” On the basis of the results from five data sets that measure the prevalence of narcissism among younger generations and their predecessors, she states that a generational increase in narcissism has taken place over time. She also reports research indicating that younger generations have overly positive self-views, noting, for example, that among recent high school graduates, the proportion that expects to attain a professional degree is twice as high as it was in 1976, although the percentage that actually attained such a degree is about the same. Twenge’s conclusion is that “the overwhelming majority of the evidence shows

that more recent generations of young people have more positive self-views, endorse more narcissistic personality traits, and are more self-focused. This is consistent with the ‘Generation Me’ view” (p. 12). Ertas (2016) supports Twenge’s conclusion that the Millennials are relatively narcissistic, finding that Millennials have lower levels of participation in volunteer activity than their older counterparts (Ertas, 2016).

However, Arnett, Trzesniewski and Donnellan (2013) challenge this characterization of the literature. They argue, *inter alia*, that four out of the five data sets used by Twenge to measure narcissism are problematic because they rely on highly unrepresentative samples (students at residential colleges) (p. 17). They also cite an analysis based upon a nationally representative survey of high school seniors from 1976 to 2006, which found no meaningful changes in egotism or a variety of other psychological traits over that period (p. 18). Stewart and Bernhardt (2010) also provide evidence contradicting the narcissistic-Millennial narrative. In an analysis of levels of narcissism, self-assuredness, impulse control and academic achievement among university students, they conclude that individuals who were young adults between 2004 and 2008 scored significantly higher than individuals who were young adults before 1990 in their levels of narcissism.

These competing research claims regarding psychological traits of the Millennials raise the question of whether there are observable differences in prosocial behavior between them and their predecessors, and in particular, their donations to charity. Not much research has focused on generational differences in giving behavior. Indeed, Midlarsky, Kahana and Belser (2015, p. 429) have noted that the analysis of inter-cohort differences is one of the areas in the study of prosocial behavior deserving of most attention. Presumably, the dearth of research is due in part to the fact that most econometric studies of this topic rely on single cross sections of data.

Because all individuals of a given age also belong to the same cohort, it is impossible to distinguish between cohort and age effects in a single cross section. While a few statistical studies of donative behavior have used panel data or repeated cross sections, their focus has been on topics other than generational differences, such as the impact of the federal income tax on charitable donations (Auten, Sieg, and Clotfelter, 2002).

An important exception is the work of Rooney, Wang and Ottoni-Wilhelm (2018) (hereinafter RWO). Building upon earlier work by Ottoni-Wilhelm, Tempel and Rooney (2007), they employ two different data sets to compare the average giving of people of the same age who are members of different generations. For example, using data from the 1973 National Study of Philanthropy, they compute average giving of individuals born between 1928 and 1937 (whom they group together into a composite of the Greatest and Silent generations) when they were between 36 and 60 years of age. They then use data from the 2001 to 2013 waves of the Panel Study of Income Dynamics to calculate average giving for the Baby Boomers (born between 1951 and 1965) when they were in the same range of ages. RWO observe that in order for the comparison to be meaningful, one must take into account that the price level and real incomes were different for the two cohorts. They therefore multiply the figure for the Greatest/Silent Generation by a factor that reflects the increase in inflation and real incomes between 1973 and 2012. They follow an analogous procedure to make pairwise comparisons between other generations as well.

Following conventional practice in the literature, RWO distinguish between giving to secular and religious organizations. For secular giving, they find that on average, Millennials and members of Gen X (born between 1965 and 1980) give less than their Silent/Greatest generation counterparts. On the other hand, the Baby Boomers give about as much as the Silent/Greatest

generation. For religious giving, members of the Silent/Greatest generation give more than individuals in the Baby Boomer, Gen X and Millennial cohorts.

RWO's findings are interesting and important, but while their method has the advantage of transparency, it is subject to a number of limitations. In particular, it implicitly assumes that the only variables that need to be taken into account to make meaningful intergenerational comparisons are age and income.¹ However, other variables that are relevant for donative behavior, including family structure, religious beliefs, employment status, the macroeconomic environment, and so on. To the extent that such variables are correlated with generational differences, failure to include them in the model will lead to estimates of the impact of generational differences that suffer from omitted variable bias. Hence, a multivariable approach is required to isolate the independent effect of generational differences on giving.

Data

Our goal is to estimate how amounts given to charity and the probability of making any gift at all differ by generation, other things being the same. A data set well-suited for this purpose is the *Center on Philanthropy Panel Study* (PPS). The PPS, an extract from the *Panel Study of Income Dynamics*, contains a rich set of household economic and demographic variables, as well as detailed information about charitable giving (Wilhelm, 2007). As Wilhelm (2007) notes, even though the PPS does not over-sample high-income individuals, it offers better data on the high-end of the distribution than other recent surveys of charitable giving. It provides information on about 14,849 households for every other year, from 2001 to 2015 – 67,227 observations in total across the eight waves. Not all households are present in all waves of the data. Some households exit, for example, due to mortality, and new ones take their

¹ In an online appendix, RWO also take wealth differences into account.

places. Each wave of the data contains information from the year that precedes it; for example, the 2001 wave provides data from the year 2000. We lost some observations—about seven percent of the sample—due to missing or anomalous data on one or more variables. The PPS provides sample weights, which we use in all our computations.

There is, of course, some arbitrariness in assigning birth years to the various generational cohorts. Following the Pew Research Center (2018) we adopt the following convention: Greatest Generation (before 1927), Silent Generation (1928 to 1945), Baby Boom (1946 to 1964), Gen X (1965 to 1980), and Millennials (1981 to 1996). In order to assess the sensitivity of our substantive results to these conventions for defining generations, we experimented with several other dating schemes, and found that reasonable changes in the definitions had no impact.

The dating scheme highlights a potentially important issue—the age ranges of certain of the generations are very far apart. For example, the average age of the members of the Greatest Generation in our data is 83, while the oldest Millennial is only 33. In effect, then, if we estimate a model that compares the donative behavior of the Millennials to that of the older generations, we are making comparisons far outside the range of our data. In order to address this issue, we take a tack similar to that suggested by Knittel and Murphy (2019) in their analysis of the vehicle purchase habits of the Millennials, and include in our analysis sample only the three most recent generations, the Millennials, Gen X, and the Baby Boomers. This left us with 56,464 observations.

The variable definitions and summary statistics for the entire sample are in Table 1; Table 2 shows the summary statistics by generation. In Table 1, the “omitted category” for each set of dichotomous variables is the reference category in our regressions. A quick glance at the top of Table 2 affirms the popular view: on average, the Millennials do indeed give less than older

generations. Their mean giving is only \$364, compared to say, \$1,679 for the Baby Boomers (all monetary figures are in year 2000 dollars, using the CPI to adjust for inflation). However, looking at the other variables in the table suggests that a simple comparison of means is probably not meaningful. Incomes and ages are different (as emphasized by Rooney, Wang and Ottoni-Wilhelm (2018)), but wealth², family structure, religious affiliation, and other variables differ as well. Our approach, described below, incorporates a richer set of variables that can potentially affect donative behavior. The impact of such variables on donative behavior is of independent interest, but it is also important to determine whether their inclusion has a substantial impact on our estimates of generational differences.

Empirical Strategy

Our goal is to estimate the impact of generational differences on individuals' charitable behavior during a given year, while taking into account the impacts of age and contemporaneous events ("time effects"), *inter alia*. As is well known, estimating such a model presents a fundamental identification problem because age, birth cohort and time effects are not independent—given an individual's birth year and age, the current year is fully determined. Because of this perfect multicollinearity, the impacts of all three variables cannot be identified simply by including them in the same regression equation. The conventional identification strategy is to make assumptions on functional form that break the perfect multicollinearity. (See, for example, Vaisey and Lizardo (2015, p. 4).) We make two such assumptions. First, we assume that the impact of birth year on charitable behavior is the same for every member of a given generation. This allows us to include as regressors a small number of generational dichotomous variables, each taking a value of one if an individual is a member of a given

² In the online appendix to their paper, RWO provide the results of regression analyses that include wealth.

generation, and zero otherwise. This is a natural assumption because our major goal is to evaluate claims that members of different generations behave in systematically different ways.

Second, we assume that the impact of age can be characterized by a polynomial, which in effect constrains members of all generations to follow the same age-giving profile. Virtually all empirical studies of charitable giving behavior explicitly or implicitly make this assumption (Bekkers and Wiepking (2011)), and it is plausible in our case given that the oldest generations are excluded from the analysis sample.

Previous research such as Meer, Miller and Wulfsberg (2017) has documented that the impacts of a given variable on the amount of a charitable donation and the probability of making any donation need not be the same. Hence, we explore the effect of generational differences upon amounts given and the probability of making a gift without constraining the estimated coefficients to be the same. Specifically, we first use the sample of observations that include nonzero contributions to charity to estimate an ordinary least squares regression of the logarithm of the amount given on a set of conventional explanatory variables as well as indicator variables for the various generations.³ Such an equation is said to yield “conditional” estimates of the effects of the covariates on the amount given because inclusion in the model is conditional on the amount of giving being positive.

We next use all the observations in the sample to estimate a regression in which the outcome variable is a zero if the individual made no donation at all and a one if he or she did. The right hand side variables are the same as those in the model for the amount given, but in this case, the coefficients on the generational variables measure differences in the probability of

³ An alternative statistical model is some nonlinear technique such as Tobit. While each approach has advantages and disadvantages, we follow Angrist and Pischke (2009, p. 94), who observe that ordinary least squares provides the best linear approximation to the conditional expectations function, and hence, in a context like ours, is the appropriate estimator.

making a gift, other things being the same. Standard errors are robust and clustered by individual. All our computations use the analytical weights provided in the PPS, although the results are largely the same regardless of whether or not the weights are used. All the models include state effects. In addition, to account for differences in the macroeconomic environment across time, each model includes time effects.

Results

At the outset, we estimated models that included separate indicator variables for the members of Gen X and the Boomers. However, we were unable to reject the hypothesis that the coefficients for these two generations were the same. (The p-values in the models for conditional giving and the probability of making a gift were 0.923, and 0.422, respectively.) Hence, we combined them into a single generation. In each regression, then, there is a single indicator for the Millennial generation, and the associated coefficient is the estimated differential in the outcome variable between the Millennials and the combined Gen X-Boomer generations.

The results are reported in Table 3. In column (1), we begin by estimating a model for the log of the amount of donations that includes only the Millennial indicator (as well as time and state effects). The coefficient, reflecting the summary statistics described above, is large. Conditional on making a gift, the Millennials donate 0.925 log points less than members of the Gen X/ Baby Boomer generation. The key question is what happens to these estimates when we take into account a standard set of economic and demographic variables. The answer is revealed in column (2). The coefficients change dramatically. Conditional on making a gift, the Millennials donate a statistically significant 0.16 log points *more*. A glance at the coefficients on the other variables in column (2) indicates that they are generally in line with results from previous studies. In particular, other things being the same, giving increases with income, wealth,

years of education, and number of children. Individuals who are married donate more than those who are not, employed individuals give more than those who are not, individuals who report themselves as being in good health give more than those who do not, and people who profess membership in a religious group donate more than people who do not. The mere fact that an individual identifies with some religion does not tell us about his or her religiosity, which might be measured, for example, by the frequency of attendance at religious services. (See, for example, Putnam and Campbell (2010) and Bielefeld et al. (2005).) However, the PPS contains such data in only one cross-section and, therefore, cannot be included in our analysis.

We next turn to the probability of making any gift at all, again beginning with a model with only the Millennial indicator and time and state effects. The results, recorded in column (3), are as expected given the summary statistics in Table 2. Millennials are substantially less likely to give than their generational predecessors, with a difference of about 27 percentage points. When we take into account other variables, the coefficient on the Millennials indicator remains statistically significant, but it is much smaller in magnitude than in column (3)—about negative 3 percentage points.

Taken together, the results in Table 3 suggest a somewhat nuanced picture of the generosity of the Millennials relative to their predecessors. Controlling for differences in their ages, incomes, wealth, and so on, conditional on making a gift, the Millennials donate more than their predecessors do. However, they are less likely to make any gifts at all, even after taking into account the other determinants of giving. Viewed through the lens of the literature on emerging adulthood, this result is only partially consistent with the findings of researchers like Twenge (2013), who have argued that the elongation of the transition to adulthood that is characteristic of recent generations is associated with increased egotism and lack of empathy.

As noted above, Rooney, Wang and Ottoni-Wilhelm (2018) focus only on age, income and wealth as covariates in their analysis of intergenerational differences. An interesting question is whether inclusion of an array of demographic and economic variables affects inferences regarding generational differences. To investigate this issue, we simply re-estimate the models in columns (2) and (4) of Table 3 including age, income and wealth and time effects, but not the other right hand side variables in the table. In results not detailed here, we find that the coefficients on the generational variables are little affected—not accounting for the various demographic variables is inconsequential.⁴ Another distinction between our setup and RWO's is that our model includes time effects, while RWO's statistical analysis does not account for changes in the macroeconomic environment in a systematic way. Here the effects on the estimated generational differentials are substantial. When we estimate the model for the conditional amount of giving (column (2)) without time effects, the coefficient on the Millennials variable falls from 0.156 (s.e. = 0.06) to 0.007 (s.e. = 0.057). For the probability of making a gift at all (column (4)), the coefficient falls from -0.032 (s.e. = 0.02) to -0.103 (s.e. = 0.014). In short, failure to include time effects leads one to understate the extent of the Millennials' prosocial behavior relative to the previous generations.

Religious versus Secular Giving

An issue of interest is whether our analysis of total giving masks significant generational differences in giving to religious versus secular organizations. To explore this matter, we estimate the models of Table 3 separately for religious and secular giving. The results are reported in Table 4. Columns (1) and (2) refer to the conditional log of amounts given and the

⁴ For example, the coefficient on the Millennials variable for the conditional log of giving is 0.089 (s.e. = 0.07) which is statistically indistinguishable from the coefficient in Table 3, Column 2. The coefficient on the Millennials variable for the probability of giving is -0.030 (s.e. = 0.02) and that is, likewise, statistically indistinct from the corresponding estimate in Table 3, Column 4.

probability of making any gift, respectively, to religious organizations. Columns (3) and (4) provide the corresponding information for secular organizations. The coefficients on the other variables are omitted for brevity; we report them in the online appendix.

With respect to (conditional) religious giving (columns (1) and (2)), the point estimates indicate that the Millennials donate more (0.164 log points) than earlier generations, and the probability that they donate is slightly higher (0.023 percentage points). While suggesting that the Millennials give relatively more to religious causes, one must note that these effects are estimated imprecisely. With respect to secular donations (columns (3) and (4)), the Millennials give more (0.099 log points) conditional on making a gift, but are less likely (by 2.9 percentage points) to make a gift at all. (The first coefficient is insignificant and the second is significant at the 5 percent level.) Taking these findings together, it seems fair to say that the differentials we estimate for total giving are not masking large differences in secular versus religious giving.

Conclusion

The popular press is replete with “hot takes” accusing the members of the Millennial generation (born between 1981 and 1996) of being more selfish than their predecessors. The purpose of this paper is to document whether or not such generational differences are actually present in the data. Specifically, we have used panel data on charitable donations to analyze how the philanthropic behavior of the Millennial generation compares to that of earlier generations. We find that conditional on making a gift and taking into account differences in a rich set of economic and demographic variables, Millennials give substantially more than members of earlier generations. However, Millennials are somewhat less likely than their generational predecessors to make any donations at all. Our results, then, do not offer strong support to either side of the ongoing debate in the psychology literature on whether the Millennials are

particularly narcissistic.

Now, any number of causal mechanisms could be behind these findings. For example, it could be the case, as Billari and Liefbroer (2010) suggest, that the transition to adulthood is coming later in the life cycle for recent generations. If so, then the correlations we document could be due to differences with respect to when individuals assume adult responsibilities. Alternatively, generational theory focuses our attention on differences in formative experiences across generations. Here one notes that the Millennials came of age during the Great Recession, which could have affected their attitudes toward philanthropy.

Of course, the Millennial generation is still relatively young—the oldest members in our sample are 33. As time moves on, it will be possible to make more definitive statements about their donative behavior. Moreover, as noted above, while donations to charity are certainly important, they are not the only expression of prosocial behavior. As more data on activities such as volunteer work, membership in fraternal organizations, and so on become available, it will be possible to make a more complete assessment of claims that the Millennials are particularly selfish.

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Table 1[†]
Variable Definitions and Summary Statistics

Variable	Description	Mean	Standard Deviation
<i>Giving</i>			
TotalGiving	Total giving (2000 dollars)	1007	2869
LogTotal Giving	Log of total giving	3.745	3.371
TotalGivingCond	Total giving (2000 dollars) conditional on giving	1736	3595
LogTotalGivingCond	Log of conditional total giving	6.452	1.456
ReligiousGiving	Amount given to religious charities	584.9	2005
LogReligiousGiving	Log of amount given to religious charities	2.252	3.181
ReligiousGivingCond	Amount given to religious charities conditional on giving to religious charities	1662	3104
LogReligiousGivingCond	Log of conditional amount given to religious charities	6.399	1.494
SecularGiving	Amount given to secular charities	422.5	1654
LogSecularGiving	Log of amount given to secular charities	2.840	3.042
SecularGivingCond	Amount given to secular charities conditional on giving to secular charities	860.6	2280
LogSecularGivingCond	Log of conditional amount given to religious charities	5.784	1.352
Didgive	1 if any donation given in year	0.5801	0.4935
<i>Age, Family, and Health</i>			
Age	Age of head of household (herein, HOH)	42.72	12.11
age ²	Age of HOH squared	1971	1043
age ³	Age of HOH cubed	96730	72177
Numkid	Number of children in the family unit aged less than 18	0.7279	1.101
Married	1 if HOH married	0.4756	0.4994
Health	1 if HOH self-reports health status as good, very good, or excellent	0.8586	0.3483
Female	1 if HOH female	0.2757	0.4469
Working	1 if HOH is employed	0.8071	0.3945

Race

not_black_hispanic	Omitted: 1 if HOH not African-American or Hispanic	0.7280	0.4449
afr_amer	1 if HOH African-American	0.1676	0.3735
Hispan	1 if HOH Hispanic	0.0916	0.2885

Education

Nohighschool	Omitted: 1 if highest level of education is less than a high school degree (years of education < 12)	0.1323	0.3389
Highschool	1 if highest level of education is a high school degree (years of education = 12)	0.2798	0.4489
College	1 if highest level of education is some amount of college (years of education = 12 – 16)	0.4472	0.4972
Postgrad	1 if any postgraduate education (years of education = 17)	0.1271	0.3331

Religion

atheist_agnostic	Omitted: 1 if HOH atheist or agnostic	0.1953	0.3965
Catholic	1 if HOH Catholic	0.2347	0.4237
Jewish	1 if HOH Jewish	0.0262	0.1596
Protestant	1 if HOH Protestant	0.5163	0.4997
other_religion	1 if HOH has some other religious affiliation	0.0275	0.1636

Financial Characteristics

Income	Income (2000 dollars)	61579	94081
income ²	Income squared (\$ Trillion)	0.1264	0.2621
Wealth	Wealth including property value	203093	917452
wealth ²	Wealth squared (\$ Trillion)	0.8829	25.55

†Source: *The Center on Philanthropy Panel Study 2001-2015*. For a detailed description, see Ottoni-Wilhelm, Mark O., Eleanor Brown, Patrick M. Rooney, and Richard Steinberg (2015). The data set includes information for every other year from 2001 to 2015. All calculations are done using the sample weights provided in the data set.

Table 2[†]
Summary Statistics by Generation

Variable	Boomer		Gen X		Millennials	
	Mean	SD	Mean	SD	Mean	SD
<i>Giving</i>						
TotalGiving	1679	4313	895	2390	364	1484
LogTotalGiving	4.582	3.443	3.560	3.354	2.083	2.945
TotalGivingCond	2070	4153	1302	2467	758	1636
LogTotalGivingCond	6.675	1.439	6.205	1.397	5.624	1.376
ReligiousGiving	975.1	2970	509.4	1737	222.3	1234
LogReligiousGiving	2.915	3.479	1.992	3.059	1.005	2.337
ReligiousGivingCond	1107	2768	621	1689	308	1122
LogReligiousGivingCond	3.877	3.429	2.863	3.221	1.968	2.839
SecularGiving	703.3	2528	385	1444	141.9	642.5
LogSecularGiving	3.516	3.202	2.688	3.032	1.555	2.534
SecularGivingCond	833	2505	461	1195	244	704
LogSecularGivingCond	4.632	2.776	3.937	2.792	3.153	2.694
Didgive	0.6681	0.4708	0.556	0.4968	0.3522	0.4776
<i>Age, Family, and Health</i>						
Age	52.51	7.291	35.46	6.114	26.02	3.718
age ²	2810	769.2	1295	436.8	691.1	195.6
age ³	153176	62159	48574	24178	18710	7888
Numkid	0.5042	0.9274	1.131	1.2705	0.5756	0.9873
Married	0.5423	0.4982	0.4919	0.4999	0.2215	0.4153
Health	0.8167	0.3868	0.8988	0.3015	0.9123	0.2828
Female	0.2715	0.4447	0.2436	0.4293	0.3536	0.4781
Working	0.7737	0.4184	0.8600	0.3469	0.8133	0.3896
<i>Race</i>						
not_black_hispanic	0.7575	0.4285	0.7098	0.4538	0.6792	0.4668

afr_amer	0.1532	0.3602	0.1646	0.3708	0.2117	0.4085
Hispan	0.0778	0.2679	0.1047	0.3062	0.1096	0.3124
<i>Education</i>						
Nohighschool	0.1337	0.3403	0.1287	0.3349	0.1361	0.3429
Highschool	0.2920	0.4547	0.2654	0.4415	0.2654	0.4416
College	0.4231	0.4940	0.4686	0.4990	0.4936	0.4999
Postgrad	0.1406	0.3477	0.1110	0.3142	0.1017	0.3023
<i>Religion</i>						
atheist_agnostic	0.1449	0.3520	0.2239	0.4168	0.2973	0.4571
Catholic	0.2574	0.4372	0.2229	0.4162	0.1814	0.3853
Jewish	0.0267	0.1614	0.0239	0.1528	0.0328	0.1783
Protestant	0.5464	0.4978	0.5039	0.4999	0.4448	0.4969
other_religion	0.0243	0.1541	0.0251	0.1566	0.0435	0.2040
<i>Financial Characteristics</i>						
Income	85685	141455	71396	72727	43143	47657
income ² (\$ T)	0.1880	0.3543	0.0065	0.3076	0.0021	0.0380
Wealth	391021	1464533	130706	565636	31948	217599
wealth ² (\$ T)	1.514	34.57	0.1744	3.212	0.0272	1.123

†Source: *The Center on Philanthropy Panel Study 2001-2015*. For a detailed description, see Ottoni-Wilhelm, Mark O., Eleanor Brown, Patrick M. Rooney, and Richard Steinberg (2015). All calculations are done using the sample weights provided in the data set. Variables are defined in Table 1.

Table 3[†]**Basic Results: Conditional Log of Total Giving and Probability of Giving**

Variables	Conditional Log of Giving		Probability of Giving	
	(1)	(2)	(3)	(4)
Millennials	-0.925*** (0.05)	0.156** (0.06)	-0.271*** (0.01)	-0.032** (0.02)
Age		0.118*** (0.04)		0.046*** (0.01)
age ²		-0.002 (1.01*10 ⁻³)		-9.70*10 ⁻⁴ *** (2.42*10 ⁻⁴)
age ³		1.02*10 ⁻⁵ (7.66*10 ⁻⁶)		7.35*10 ⁻⁶ *** (1.87*10 ⁻⁶)
Numkid		0.069*** (0.01)		-0.003 (3.28*10 ⁻³)
Married		0.482*** (0.05)		0.201*** (0.01)
Health		0.188*** (0.05)		0.061*** (0.01)
Female		-0.058 (0.05)		0.082*** (0.01)
Working		0.109*** (0.04)		0.086*** (0.01)
afr_amer		-0.019 (0.05)		-0.096*** (0.01)
Hispan		-0.184*** (0.06)		-0.077*** (0.02)
Highschool		0.215*** (0.06)		0.117*** (0.01)
College		0.627*** (0.06)		0.272*** (0.01)
Postgrad		0.777*** (0.07)		0.337*** (0.02)
Catholic		0.096 (0.05)		0.051*** (0.01)
Jewish		0.413*** (0.09)		0.053** (0.03)

Variables	Conditional Log of Giving		Probability of Giving	
	(1)	(2)	(3)	(4)
Protestant		0.484*** (0.05)		0.083*** (0.01)
other_religion		0.229** (0.10)		0.020 (0.02)
Income		0.004*** (3.98*10 ⁻⁴)		0.001*** (9.85*10 ⁻⁵)
income ²		-0.947*** (0.19)		-0.240*** (0.03)
Wealth		2.30*10 ⁻⁴ *** (2.94*10 ⁻⁵)		2.24*10 ⁻⁵ *** (6.76*10 ⁻⁶)
wealth ²		-0.005*** (9.30*10 ⁻⁵)		0.001*** (2.48*10 ⁻⁴)
Observations	29,851	28,176	56,464	52,898
R-squared	0.054	0.292	0.060	0.258

*** p<0.01, ** p<0.05,

†All equations include state and time effects. Estimation is by ordinary least squares; standard errors (clustered at the individual level) are in parentheses

Table 4[†]
Secular and Religious Giving

Comparison	Log Religious (1)	Did Give Religious (2)	Log Secular (3)	Did Give Secular (4)
Millennials	0.164 (0.10)	0.023 (0.01)	0.099 (0.06)	-0.029** (0.01)

*** p<0.01, ** p<0.05,

[†] The figures in this table show the estimated coefficients on the Millennial indicator variable when the models from Tables 3 are estimated separately for religious and secular giving. Column (1) refers to the amount given to religious organizations, conditional on the amount being positive, and column (3) refers to the amount given to secular organizations, conditional on the amount being positive. Columns (2) and (4) refer to the probability of making a gift to religious and secular organizations, respectively. The coefficients on the other variables are omitted for brevity. Estimation is by ordinary least squares; standard errors (clustered at the individual level) are in parentheses.