

Dynamics of American giving:

Descriptive evidence

Patrick M. Rooney^{a,b}, Mark Ottoni-Wilhelm^{a,b}, Xiaoyun Wang^a, and Xiao Han^{a,b}

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Corresponding author: Xiaoyun Wang (wang361@iu.edu).

Co-authors: Patrick Rooney (rooney@iupui.edu), Mark Ottoni-Wilhelm (mowilhel@iupui.edu),
Xiao Han (hanxia@iupui.edu).

^a Indiana University Lilly Family School of Philanthropy, 301 University Blvd, Indianapolis, IN 46202

^b Department of Economics, IUPUI, 425 University Boulevard, Cavanaugh Hall, Room 516, Indianapolis, IN 46202

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Abstract

Most knowledge about giving comes from static, point-in-time research. This paper presents evidence that American giving is strongly dynamic over time. First, among people who ever give to charitable organizations, the majority do not give year-in/year-out to one specific charitable purpose, but change their giving over time. Second, standard interpretations of extant cross-sectional stylized facts about giving—summary statistics and regression coefficients—mislead about the dynamics. These results imply the need to shift conceptual thinking, research questions, and fundraising approaches from the static to the dynamic.

1. Introduction

There is an extensive literature on charitable giving, and nearly all of it is based on static, point-in-time analysis. In cross-sectional analyses of annual giving in the United States, it is typical to find that between 50 and 60 percent of Americans give to charitable organizations, and that among these the average given is around \$1,200 (IU Lilly Family School of Philanthropy, various years). There are analyses of giving in other countries, similar in that fractions who give and average amounts given are estimated from cross-sectional data (Wiepking & Handy, 2015). There also are numerous studies describing regression relationships between amounts given and a large set of socio-economic variables, for example income, education, and marital status (reviewed by Bekkers & Wiepking, 2011); Wiepking & Bekkers, 2012). Regression studies from many countries can be found in Wiepking and Handy (2015). Nearly all of this literature is based on cross-sectional analysis.^{1,2}

However, interpretation of results based on cross-sectional analyses can be misleading if giving is strongly dynamic over time. For example, it is easy to read a cross-sectional result that 58 percent of Americans give, and interpret that as the same 58 percent of Americans who year-in/year-out give to charitable organizations—that America is split into two groups: 58 percent “always-donors” and 42 percent “never-donors”. That interpretation is accurate only to the extent

¹ Cross-sectional data have been extensively used since the earliest work on to charitable giving over 50 years ago (Dickinson, 1962; Morgan, 1961; Schwartz, 1970; Roistacher & Morgan, 1974) and continuing to the present (Brown & Ferris, 2007; Einolf, 2011; James & Sharpe, 2007; Mesch, Rooney, Steinberg, & Denton, 2006; Wiepking & Handy, 2015). Important American cross-sectional surveys of giving include the *National Study of Philanthropy* (1974) and the series *Giving and Volunteering in the United States*, starting with Hodgkinson & Weitzman (1988). Wilhelm (2007) reviews these and other cross-sectional studies of giving.

There is an extensive experimental literature investigating interventions intended to increase giving. This work includes lab experiments (e.g., Eckel & Grossman, 1996), field experiments (e.g., List & Lucking-Reiley, 2002), survey experiments (e.g., Bekkers, 2015), and hypothetical policy experiments (e.g., Scharf & Smith, 2015). For reviews see Andreoni and Payne (2013) and Vesterlund (2016). Almost all of this work investigates point-in-time interventions, although there are a few important exceptions (e.g., Falk, 2007; Meier, 2007; Meer, 2017; Donkers, van Diepen, & Franses, 2017).

² The statistics discussed in this paragraph (between 50 and 60 percent give, and among these the average given is around \$1,200) do not include giving to religious congregations.

that giving is not dynamic over time. Conversely, if giving is strongly dynamic, such interpretations of cross-sectional results are misleading.

Yet there is little evidence that describes the dynamics of giving. Despite scarce evidence about giving dynamics, theoretical considerations to be discussed in Section 2, empirical findings from other social science research areas (e.g., Duncan, Hill, & Hoffman, 1988), and three previous studies of giving across two or three years (Ottoni-Wilhelm, 2010; Wu & Brown; 2010; de Wit & Bekkers, 2015) all suggest that there could be important dynamics in long-term giving behavior. Bekkers and Wiepking's (2007) observation still stands: "Dynamic analyses of donation patterns over time are clearly needed."

This paper describes the dynamics in the United States of giving to charitable organizations over an eight-year time period. We also analyze the dynamics of giving to religious congregations. We use biennial panel data that describe the giving of over 6,000 Americans in the even number years 2000-2014. The findings indicate that American giving is strongly dynamic. Among people who give to charitable organizations, a more than six-out-of-ten majority give every other year or less often to a (any) specific charitable purpose such as basic needs, education, etc. Giving to each of the specific purposes is even more dynamic; for example, among those who give to basic needs organizations, eight-out-of-ten give every other year or less.

The second finding is that cross-sectional results are not useful for understanding giving dynamics. For instance, among "non-donors", so-identified in a particular cross-section, a large majority (nearly two-thirds) are in fact donors, just not in that particular year. Furthermore, regression descriptions of the relationships between giving and socio-economic variables,

estimated using cross-sectional data, do not apply uniformly to donors who seldom give, who give from time-to-time, and who give year-in/year-out.

The third finding is that giving to religious congregations is also dynamic. A large minority who give to congregations, just a little less than half, give every other year or less.

These findings are significant because they are the first comprehensive measurement of giving dynamics in the United States. They imply the need to shift the conceptual framework used to think about giving: giving is dynamic, not static. Finally, the findings are significant because they suggest a new imperative for both secondary data and experimental researchers, and for practitioners, to focus on giving dynamics over time.

2. Theory and literature review

Only if the people who give in one year also give in every year, year-in/year-out—and their counterparts who do not give in a year also do not give in other years—then would a cross-sectional analysis of giving in a calendar year paint an accurate picture of dynamic giving behavior across time. However, there are many theoretical reasons to expect that a static analysis does not accurately tell us about giving dynamics. First, it is well-known that the majority of people give only in response to a request (Bekkers & Wiepking, 2011). Hence, year-to-year variation in whether people are asked to give will translate into year-to-year variation in whether people do give. Relatedly, many people seek to “avoid the ask” (DellaVigna, List, & Malmendier, 2012; Andreoni, Tractman, & Rao, 2017). This implies further time-variation in giving. Second, there is evidence that requests arriving when time is pressed lead to lower donation rates (Knowles & Servátka, 2015): how much time-pressure a person is experiencing when requests arrive could lead to variations in giving. Third, there is evidence that separation in time between the decision/pledge to give and the actual payment of the gift leads to a

substantial amount of not following through (Fosgaard & Soetevent, 2018; also see Andreoni & Serra-Garcia, 2016). Initial intentions to give not brought to fruition could easily lead to time-variation in giving. Finally, important determinants of giving, such as income and other family circumstances, are not static but change across time. Using the *Panel Study of Income Dynamics (PSID)* Duncan et al. (1984) were “the first to reveal a startling high level of dynamism, mobility, but also instability and turbulence, among American families” (Moffitt & Zhang, 2018). Einolf (2018), using the *PSID’s Philanthropy Panel Study (PPS)*, found evidence that children’s age-based transitions affect parents’ giving.

There are empirical reasons from previous research suggesting that giving may be dynamic enough so that interpretations from cross-sectional results are misleading. First, there are precedents of exactly that kind of finding in other social science research. For example, the percentage of people receiving welfare assistance had been calculated from a new cross-section each year—at roughly eight percent—and the percentage did not change much year-to-year. This led to the interpretation that all people receiving welfare were “welfare dependent”. Using *PSID* data Coe (1981) demonstrated that interpretation to be wrong: a surprisingly high 25 percent of Americans received welfare assistance at least once over a ten-year period, but a three-quarter majority of those received it for five or fewer years out of ten. A strong dynamic in welfare use was the reality, but the misinterpretation of cross-sectional results had caused researchers and policy-makers to overlook reality.³

Second, although giving dynamics have not been extensively analyzed, there are previous indications that there may be strong long-term dynamics in giving. Summary statistics reported in Ottoni-Wilhelm’s (2010) study of denominational affiliation and giving to basic needs

³ See Ellwood (1986) and Duncan, Hill, and Hoffman (1988) for further evidence. These findings had significant influence on the 1996 welfare reform.

organizations can be used to calculate that a large majority of Americans who gave at least once to a basic needs organization in a three-year period did not give in all three years. Wu and Brown (2010) reported a similar result for giving to education. However, Dutch data from a two-year period suggest that giving to health, international, and congregations is less dynamic (de Wit & Bekkers, 2015).

This paper's contribution is to provide a comprehensive measurement of giving dynamics over time. By comprehensive we mean two things: thorough in the dimension of purposes to which Americans give, and long enough across the dimension of time (eight years) to allow clear distinctions between people who never give, who seldom give, who give from time-to-time, and who give frequently.

3. Data and methods

The data are from the eight biennial waves of the *PSID* 2001-2015 interview years that measure giving in the previous calendar years 2000-2014 (Survey Research Center, 2017).

Giving is measured to nine charitable purposes, each purpose queried separately: helping people with basic needs, combined purpose appeals (like the United Way), health, education, youth/family services, neighborhoods/community, arts/cultural, environmental, and international. Giving to all of these purposes, aggregated together, we refer to as giving to "charitable organizations". Giving for religious purposes and spiritual development is measured with a question about giving to churches, synagogues, mosques, and TV/radio ministries; we refer to

this as giving to “congregations” and analyze it separately.^{4,5} There are two strengths that make the *PSID* well-suited for the analysis. First, it provides high-quality measurement of giving (Wilhelm 2006, 2007). Second, because the *PSID* interviews the same people across time, it permits investigation of the dynamics of American giving.

We use the three sub-samples within the *PSID*: the nationally-representative sub-sample, the low-income over-sample, and the 1997 immigrant refresher sample. High year-to-year re-interview response rates (around 95 percent; McGonagle et al., 2012), including as new sample the family units created by adult children who move out from their family-of-origin, and an annual re-contact effort for non-response families, have allowed the *PSID* to remain nationally-representative despite attrition (Fitzgerald, Gottschalk, & Moffitt, 1998; Schoeni et al., 2013). The *PSID* provides weights that adjust for unequal selection probabilities that initially brought families into the *PSID* through one of the three sub-samples, and for differential attrition (Schoeni et al., 2013). Our results use the weights.

The *PSID*'s unit of analysis for measuring giving and income is the family. The *PSID* “family unit” is defined to be people living together and sharing economic resources; therefore a married couple, a single person living with no others, a single parent living with her/his children, and a cohabiting couple are all examples of *PSID* family units. However, membership in a family unit can, and often does, change across time, as people marry/partner/separate, and adult

⁴ Separate analysis of giving to religious congregations is warranted because important cross-sectional stylized facts about giving are different for congregations compared to charitable organizations: the percentages who give (15 percentage points lower for congregations), the average amounts given per donor (two times larger), and the associations with income (half as strong), education (six-tenths as strong), and family structure (married couples give much larger amounts than do single women to congregations, but not to charitable organizations); see Brown et al. (2015). As will be seen below, the dynamics of giving to congregations, compared to charitable organizations, differ as well.

⁵ At the end of the questionnaire, the *PSID* has a mop-up question (open-ended responses) that measures giving not already reported. We map the open-ended responses back into one of the nine charitable purposes, or to congregations.

children move out to create new family units. Therefore we build the panel sample for analysis by following individuals—heads of family units and their spouse/partners—back through time. The size of the panel sample for analysis is 6,425 individuals.

For an individual to be included in the panel sample, we required them to be the head or spouse/partner of a responding family unit in all eight of the interview years. This requirement naturally excludes very young adults (who moved from their family-of-origin to create their own family unit), as well as the very old (whose declining health led to them being unable to continue responding to the interviews).⁶ To check the degree to which requiring response in all eight waves may have introduced non-representativeness, Table 1 compares statistics describing giving in 2006 among those in the panel sample with giving in 2006 among the people in that year's cross-section sample (i.e., all who responded to the *PSID* in the 2007 interview year). To be clear: the table compares two different samples (panel versus cross-section) but the statistics being compared describe calendar year 2006 variables only. The comparison indicates some differences between the panel sample and the cross-section, but those differences are small. For example, the percentages who gave to at least one charitable organization (any of the nine purposes) in 2006 was 61 in the panel sample versus 58 in the cross-section sample. Among people who donated, the average amounts were nearly identical: \$1,278 and \$1,236 (all amounts are in 2014 dollars). Likewise, the percentages of the two samples who gave, and the average amounts given, to basic needs, combined purposes, health, and education were similar. Forty-

⁶ For example, for a Millennial adult to be included s/he would have had to create her/his own family unit by 2001, when the oldest Millennials were only 20 years old. Because there were so few Millennial adults who had formed their own family units by 2001 we excluded the few who had ($N = 53$). At the other end of life, 1,617 adults in the study died since 2001, and other older adults entered institutional living arrangements and were no longer interviewed.

eight percent of the panel sample gave to congregations, nearly identical to the 45 percent from the cross-section sample; the respective amounts given were close: \$2,578 and \$2,476.

Although the giving statistics match closely between the panel and the cross-section samples, there are a few indications that the panel is a little more “stable” than the cross-section. The individuals in the panel sample are more likely to members of the Baby Boom (51 versus 43 percent). Members of the Baby Boom are in the middle of their life course (ages 36 through 68) when income is higher compared to younger and older adulthood. In line with this, income in the panel sample is six percent higher on average. A slightly larger fraction in the panel sample are married (55 versus 52 percent) and corresponding lower fractions are cohabiting couples or single men. These indications of more stability in the panel sample imply that the description of giving dynamics we provide may be a lower bound. The rest of Table 1 indicates the panel and cross-section samples have very similar education and race characteristics.

4. Results

Study 1 describes the dynamics of giving to all nine charitable purposes aggregated together, and also for four specific charitable purposes: basic needs, combined appeals, health, and education. Study 2 presents evidence that these giving dynamics cannot be described by single-year, point-in-time cross-sectional estimates. Study 3 describes the dynamics of giving to congregations.

Study 1: Dynamics of giving to charitable organizations

1.1 All charitable organizations and any specific purpose

Result 1. Among people who give to charitable organizations across time, a large minority—a little more than four-out-of-ten—give every other year or less often.

Table 2 presents the dynamics of giving in the eight-year panel. Each row is a different charitable purpose. For example, column 1, row 1 shows that 87 percent of Americans gave at least once over the eight calendar years to at least one of the nine charitable purposes. That the 87 percent is much higher than the 61 percent in Table 1 column 1 is the first indication of the strength of giving dynamics: the 26 percentage point difference indicates that many people gave in at least one of the eight years, but not in 2006. Column 2 shows that 13 percent did not give to any charitable organization in any of the eight years.

Columns 3-5 show the distribution of people by how often they gave: seldom (gave in one or two years out of eight; so every fourth year or less) from time-to-time (gave in three, four, or five years; roughly every other year), and frequent (gave in six, seven, or eight years; three out of four years or more often). Fifteen percent gave seldom and 22 percent gave from time-to-time. Hence, 37 percent of Americans gave every other year or less. As a fraction of the 87 percent who gave at least once during the eight-year period, the 37 percent is a little more than four-out-of-ten. Therefore, a large minority of those who ever give, give every other year or less often. This is a measure of the strength of giving dynamics.

Result 2. Among people who give to charitable organizations across time, more than six-out-of-ten give every other year or less often to a (any) specific charitable purpose.

Result 1 underestimates the strength of giving dynamics because among the people who gave frequently to any charitable organization—the 50 percent in column 5—are those who did not give frequently to a specific charitable purpose. Table 3 demonstrates this by investigating the heterogeneity among the people within that 50 percent (after this discussion we will return to the rest of Table 2). Table 3 Panel 1 column 1 indicates that .34 of the 50 percent did not give

frequently to any one specific purpose, but rather changed their giving between purposes. In other words, they gave every other year or less to any one specific purpose.

This is 17 percent ($.34 \times .50$) of all Americans. Adding this to the 37 percent from Table 2 who gave every other year or less often (to any purpose) yields the result that 54 percent of Americans gave every other year or less to a specific charitable purpose. As a fraction of those who ever give, that is more than a six-out-of-ten majority ($.54/.87$), indicating a strong dynamic in American giving.

Result 3. One-third of Americans give year-in/year-out to a (any) specific charitable purpose.

An alternative way to describe the strength of giving dynamics is to flip the question and present statistics about the lack of year-to-year dynamic change, i.e., year-in/year-out giving to a specific charitable purpose. From Table 3 we know that $1 - .34 = .66$ of the 50 percent year-in/year-out givers, gave year-in/year-out to one (or more) specific purposes. Hence, one-third ($.66 \times .50$) gave year-in/year-out to a (any) specific purpose. Among those who ever gave, that is somewhat less than four-out-of-ten ($.33/.87$).

1.2 Each specific charitable purpose

Result 4. Among people who give to a specific charitable purpose across time, a large majority—eight-out-of-ten—give every other year or less often to that purpose.

To investigate the strength of giving dynamics for each of the separate purposes, we now return to Table 2 rows 2-5. Row 2 shows that 74 percent of Americans gave to basic needs organizations in at least one out of the eight years, including 28 percent who seldom gave and 30 percent who gave from time-to-time. Hence, 58 percent of Americans gave to basic needs every

other year or less, a nearly eight-out-of-ten majority of those who ever gave (.58/.74). This is a very strong giving dynamic.

Row 3 indicates an identically strong giving dynamic for combined purposes: 69 percent ever gave, 30 and 24 percent gave seldom and time-to-time respectively, implying that a nearly eight-out-of-ten majority of those who ever gave, gave every other year or less often. Likewise for health/medical research purposes: row 4 indicates that a little more than eight-out-of-ten of those who ever gave, gave every other year or less often (.50/.61). Likewise for education: eight-out-of-ten of those who ever gave, gave every other year or less often (.37/.46). The main difference across basic needs, combined, health, and education purposes is not the dynamics of giving, but rather the percentages of people who ever gave: 74, 69, 61, and 46 percent respectively.⁷

Result 5. Few Americans give year-in/year-out to two or more charitable purposes.

Strong dynamics in giving to specific purposes are also seen in Table 3 Panel 1, which describes the dynamics by flipping the question, as done for Result 3 above, to present statistics about the lack of dynamic change. For instance, column 2 indicates that .32 (of the 50 percent who gave frequently to any charitable organization) gave frequently to exactly one purpose—that is 16 percent of Americans. Columns 3-7 present the same statistic for people who gave frequently to exactly two, three, four, five, and six-plus purposes. Not surprisingly, the fractions in each of these categories are decreasing: .18 (again, of the 50 percent who gave frequently to

⁷ Appendix A contains a description of the giving dynamics for the five other purposes. For each purpose, among people who ever gave to that purpose, more than eight-out-of-ten gave every other year or less often to that purpose. In other words, the dynamics over time are stronger than for basic needs, combined, health, and education.

The dynamics of giving to congregations are presented in Table 2, and in Table 4, but we defer discussion of these dynamics until Study 3.

any charitable organization) gave frequently to exactly two purposes, .08 gave frequently to exactly three purposes, and the rest of the row, .08 in total, gave frequently to four or more purposes. Adding columns 3-7 together indicates that 17 percent of Americans (.34 x .50) gave frequently to two or more charitable purposes. Eight percent (.16 x .50) gave frequently to three or more. As fractions of those who ever gave, that is two-out-of-ten and less than one-out-of-ten (i.e., .17/.87 and .08/.87).

Panel 2 indicates the percentages, of the people in each column, who gave frequently to the purpose designated in the rows. For example, among those who gave frequently to exactly one purpose (column 2), rows 1-4 indicate that for 32 percent that one purpose was basic needs, for 36 percent it was combined purposes, for 16 percent it was health, and for seven percent it was education. In other words, for two-thirds of the people who gave frequently to (exactly) one purpose, that one purpose was either basic needs or combined purposes.⁸

Reading across row 1, Panel 2 shows that for people in the respective columns—i.e., for those who gave to an increasingly large number of charitable purposes—an increasing fraction gave frequently to basic needs. For instance, for all of the people who gave frequently to five or more purposes, one of those purposes was basic needs (columns 6 and 7). Row 2 likewise shows the increasing fractions for whom one of the purposes frequently given to was combined. Rows 3 and 4 show the increasing fractions for whom health and education (respectively) are one of the purposes frequently given to.

1.3 Average amounts given

Result 6. Americans whose giving has a strong dynamic (i.e., those who give every other year or less often) do not give larger amounts, on average, in the years they do give.

⁸ In column 2 the percentages who gave frequently to one of the four purposes adds to 91. The remaining nine percent gave frequently to one of the other five purposes (see Appendix A).

Results 1-5 indicate strong giving dynamics in yes/no decisions to give. However, the interpretation of these dynamics would be very different if, for instance, the people who gave from time-to-time gave larger amounts (albeit less often) than do the “less dynamic” donors who gave frequently. In this case, it might be that the amounts given over the entire eight-year period are similar, but it is just the timing of the delivery of those amounts to organizations that differs.

There is strong evidence that this is not happening. For example, the 15 percent who gave seldom to aggregate charitable purposes (Table 2) gave an average of \$435 in the years in which they gave (i.e., including in the average only the years in which people gave more than zero). The 22 percent who gave from time-to-time gave an annual average of \$577 in the years they gave. In both cases the average amounts given were much less than the \$1,504 annual average among those who frequently gave.⁹

Discussion of Study 1

There is much evidence of strong dynamics in giving to charitable organizations. Although 87 percent of Americans give at least once in an eight-year period, four-out-of-ten of these donors do not give year-in/year-out, and a six-out-of-ten majority do not give year-in/year-out to any one of the nine specific charitable purposes. The dynamics are even stronger in the giving to each specific purpose, and are not counter-balanced by larger amounts given by seldom and time-to-time donors in the years in which they give.

That there are strong dynamics in giving likely has implications for extant cross-sectional evidence about giving. When we look at a cross-section of giving, we now know we are looking at a mix of seldom, time-to-time, and frequent givers. But does the fact that any cross-section

⁹ A similar pattern obtains with each of the separate charitable purposes (see Appendix B). Investigation of the dynamics in terms of year-to-year change in the amounts given requires a more advanced estimation approach; we leave this for future work.

previously analyzed occurred within an on-going behavioral dynamic require re-interpretation of the received stylized facts based on cross-sectional analyses? Study 2 takes up this question.

Study 2: Cross-sectional estimates and the dynamics of giving

2.1 “Non-donors” and “donors” as identified in a cross-section

Result 7. Among people identified as “non-donors” in a cross-section, a large majority—nearly two-thirds—give to charitable organizations across time, but just did not donate in that particular year.

Table 4 takes the panel sample and splits it into two groups based on whether or not a donation was made in 2006: Panel 1 focuses on people who did not give to the respective row-purposes in 2006 and Panel 2 focuses on the complementary set of people who gave to that row-purpose in 2006. For example, 39 percent did not give to any charitable organization in 2006 (Panel 1, column 1, row 1a), implying obviously that 61 percent gave (Panel 2, column 1, row 1a). Of course, the split of the sample is different depending upon which row-purpose is being considered, for example: 65 percent did not give to a basic needs organization in 2006 (Panel 1, row 1b), implying that 35 percent gave (Panel 2, row 1b). In this way, Table 4 column 1 produces typical cross-sectional statistics about giving incidence. The innovation in Table 4 is that the sample contains information about the dynamics of giving behavior (columns 2-5), information that is not available in cross-sectional surveys.

For instance, the focus in Panel 1 row 1a on the 39 percent who would be identified as “non-donors” in a typical cross-section indicates that 32 percent of them gave every fourth year or less (column 3) and 24 percent gave roughly every other year. Indeed, just under ten percent were frequent givers (column 5). In total, 65 percent—nearly two-thirds—of the people identified as “non-donors” in the cross-section, gave to charitable organizations, just not in the

calendar year captured by the cross-section. Another way to say this: people identified as “non-donors” in a cross-section are more than twice as likely to give (in some other year) than they are to never donate.

Result 8. Among people identified as “non-donors” to a specific charitable purpose in a cross-section, large fractions—in some cases majorities—give to that purpose across time, but just did not donate in that particular year.

The specific purposes are examined in rows 1b-e. Examining the 65 percent identified from the cross-section as “non-donors” to basic needs indicates that a six-out-of-ten majority gave to a basic needs organizations at least once during the eight-year period. The distribution across seldom–time-to-time–frequent dynamic behaviors was 34–22–4. For “non-donors” to combined purposes, so identified from the cross-section, just over half gave to combined purposes (the distribution of dynamics was 35–17–3). For cross-sectional “non-donors” to health and education, sizable minorities (nearly half and one-third, respectively) gave (the distribution of dynamics were 31–15–2 and 24–8–1).

Result 9. Among people identified as “donors” to charitable organizations in a cross-section, one-quarter give every other year or less often.

Panel 2 row 1a focuses on people identified as “donors” to (any) charitable organization in 2006—61 percent of Americans. A non-negligible minority gave every other year or less often: 26 percent (columns 3 and 4). The flip-side of this result is that the people categorized as “donors” in a cross-sectional analysis are disproportionately frequent givers (75 percent). The ratio of seldom plus time-to-time givers to frequent donors is one to three.

Result 10. Among people identified as “donors” to a specific charitable purpose in a cross-section, a large minority—roughly four-out-of-ten—are time-to-time givers to that purpose. A roughly equal-sized minority are frequent givers.

Panel 2 row 1b indicates that the people identified as “donors” to basic needs organizations in the cross-section (35 percent of Americans) had a distribution of dynamics 16–44–40. That is, 44 percent gave from time-to-time basic needs and a nearly equivalent 40 percent gave frequently. Qualitatively similar distributions are seen for the other purposes in rows 1c-d. In each case, among people donating in the cross-section, the distributions of dynamics are roughly 20–40–40 percent. That is, among donors to these purposes, a roughly equal four-out-of-ten give from time-to-time and frequently. Six-out-of-ten do not give year-in/year-out (seldom plus time-to-time).

2.2 Cross-sectional regressions between amounts given and socio-economic characteristics

Result 11. Regression coefficients between amounts given to charitable organizations and socio-economic characteristics, estimated in a cross-section, do not apply uniformly to the three groups whose dynamic giving behavior is seldom, time-to-time, and frequent.

Table 5 column 1 presents a typical cross-section regression in which the dependent variable is the logarithm of the amount given in 2006 to the nine purposes aggregated together. The regression includes “non-donors” in 2006 (we added \$10 to each person’s giving before taking the log); we now know that two-thirds of these “non-donors” are people who gave in other years (Result 7). The independent variables are socio-economic characteristics measured in 2006.¹⁰

¹⁰ To be clear: we are presenting evidence from regressions where the dependent variable is aggregate giving to charitable organizations. We defer to future work regressions where dependent variables are giving to specific charitable purposes.

The column 1 estimates indicate that amounts given are strongly associated with income, education, and family structure. The income elasticity is .514: a ten percent increase in income is associated with a 5.14 percent increase in giving. College education is associated with nearly three-fold larger amounts given ($e^{1.142} = 3.13$). Married couples and single women give much larger amounts ($e^{.640} = 1.9$ and $e^{.502} = 1.65$ times, respectively) than cohabiting couples. Results like these are standard, and have appeared numerous times previously in the literature (Bekkers & Wiepking, 2011; Wiepking & Bekkers, 2012).

The innovation in Table 5 is that the panel sample contains information about dynamics, which columns 2-4 use to split the sample into seldom, time-to-time, and frequent givers. The same specification from column 1 is re-estimated for each group. Column 2 shows that none of the socio-economic characteristics are associated with the 2006 amount given among the people who seldom gave.

Column 3 presents the estimates for people who gave from time-to-time. The income elasticity is .166, only one-third of the magnitude of the .514 elasticity from column 1. College education is associated with larger amounts given, but not nearly as large as column 1 would suggest: a little more than one-and-a-half times larger ($e^{.525} = 1.69$), not three times larger. Similarly, married couples and single women give larger amounts than cohabiting couples, but these differences are not nearly as large as column 1 would suggest. Moreover, there is no longer evidence that married couples/single women give more than single men.

Column 4 presents the estimates for people who gave frequently. The income elasticity is .545, fairly close to the .514 elasticity from column 1. This is the only coefficient in Table 5 in which the column 1 “standard” cross-section estimate is a reasonable approximation of the coefficient in one of the dynamic groups. College education is associated with larger amounts

given ($e^{.435} = 1.55$), but again not nearly as large as column 1 would suggest and similar in magnitude as it is among people who give from time-to-time. Differences across family structures are much smaller in magnitude than in column 1.

Discussion of Study 2

Study 1 established that there are strong dynamics in giving to charitable organizations. Study 2 establishes that cross-sectional descriptive statistics about giving—specifically, describing people as “non-donors” or “donors”—are not useful for describing the dynamics of giving. Furthermore, regression coefficients describing relationships between giving and socio-economic variables in a cross-section do not apply uniformly to people who seldom give, who give from time-to-time, and who give frequently. Cross-sectional descriptive statistics and regression coefficients form a large part of received stylized facts about giving. To the extent that those stylized facts have been assumed to describe the giving of Americans as unchanging year-to-year, they have been misleading. These results have important implications for researchers and practitioners, to be discussed in Section 5.

Study 3: Dynamics of giving to religious congregations

Result 12. There is a strong dynamic in giving to religious congregations:

- (1) Among people who give to congregations across time there is a near equal split: just under half give every other year or less often.*
- (2) The people whose giving has a strong dynamic—i.e., those who give less frequently—do not give larger amounts, on average, in the years they do give.*
- (3) Among people identified as “non-donors” to congregations in a cross-section, almost half give to congregations across time, but just did not donate in that year.*
- (4) Among people identified as “donors” to congregations in a cross-section, a non-negligible minority—one-quarter—give every other year or less often.*
- (5) Regression coefficients describing the relationship between amounts given to congregations and socio-economic characteristics, estimated in a cross-section, do not apply uniformly to the three groups whose dynamic giving behavior is seldom, time-to-time, and frequent.*

Returning to Table 2, row 6 indicates that in at least one out of eight years, 72 percent of Americans gave to a religious congregation or a TV/radio ministry—that is, they made donations specifically for religious purposes or spiritual development. Eighteen percent gave seldom and another 17 percent gave from time-to-time, implying that 35 percent gave every other year or less often—just under half of the people who gave (.35/.72). People who gave seldom or time-to-time gave on average \$566 or \$976 (respectively; including only the years in which they gave more than zero). This is much smaller than the \$2,970 average among people who gave frequently.

Table 4 Panel 1 row 2 indicates that among the 52 percent of Americans who would be identified as “non-donors” to congregations in the 2006 cross-section, 27 percent gave seldom, 14 percent gave time-to-time, and four percent gave frequently—combined these imply that almost half (.45) of the cross-sectional “non-donors” gave to congregations in other years. Panel 2 row 2 indicates that 48 percent are identified as “donors” to congregations in 2006. About one-fourth (.26 in columns 3-4) of these gave every other year or less often, and nearly three-quarters gave frequently.

Appendix C presents cross-sectional regression results for congregations that parallel Table 5. The results are similar to those for charitable organizations in that almost all regression coefficients, estimated in the cross-section, do not apply to the different dynamic groups. That said, the specifics are different. For instance, the cross-sectional income elasticity (.285, *s.e.* = .038) is not a reasonable approximation to the income elasticity among frequent givers (.180, *s.e.* = .054), which in turn is not larger than the elasticity among time-to-time givers (.204, *s.e.* = .117).

Discussion of Study 3

The dynamics of giving to religious congregations are neither like the dynamics of giving to aggregate charitable organizations, nor like the dynamics of giving to one of the specific charitable purposes. The distribution of dynamics (none, seldom, time-to-time, frequent) in giving to congregations is 28–18–17–38, and for giving to aggregate charitable organizations it is 13–15–22–50. The difference between the two is that for congregations more people never give, and fewer people give frequently.

However, compared to specific charitable purposes—like basic needs or combined purposes—fewer people give seldom and time-to-time to congregations: for basic needs and combined purposes the distribution is 28–30 and 30–24, respectively, and for congregations it is 18–17. And many more people give frequently to congregations: for basic needs and combined purposes it is 17 and 15 percent, but for congregations it is more than twice that: 38 percent. In short, the dynamics of giving to congregations are strong, but perhaps not surprisingly, not as strong as the dynamics of giving to basic needs, combined purposes, health, or education.

Among cross-sectional “non-donors” to congregations the distribution of dynamics is 55–27–14–4. This is not similar to aggregate charitable organizations (35–32–24–9): the difference is that many more people (20 percentage points) never give to congregations, and the percentages in the time-to-time and frequent groups are much smaller. The distribution of dynamics among the cross-sectional “non-donors” to congregations is similar to that among cross-sectional “non-donors” to some purposes (e.g., health), though not others.

Among cross-sectional “donors” to congregations the distribution of dynamics (6–20–74) is similar to that of aggregate charitable organizations (5–21–75), but not similar to specific purposes (20–40–40).

5. General discussion

The overwhelming majority—87 percent—of Americans give to charitable organizations (all nine purposes aggregated together) across time (in at least one year out of an eight-year time period). However among those who give, four-out-of-ten give every other year or less often, and a majority—six-out-of-ten—give every other year or less to a specific charitable purpose such as basic needs or health, etc. Among donors who ever give to a specific charitable purpose, a large majority—eight-out-of-ten—give every other year or less often. Those who give every other year or less do not counter-balance their lower frequency of giving by giving larger amounts in the years they give. Hence, American giving is strongly dynamic.

Traditional cross-sectional analyses do not describe these dynamics. A two-thirds majority of “non-donors” to charitable organizations in a cross-section give to charitable organizations in other years, and one-quarter of “donors” do not give year-in/year-out. As for the specific charitable purposes: majorities of cross-sectional “non-donors” to basic needs and combined purposes, and sizable minorities of “non-donors” to health and education, in fact give to those respective purposes in other years. Among cross-sectional “donors” to these specific purposes, six-out-of-ten do not give year-in/year-out. Regression coefficients describing the relationship between amounts given to charitable organizations and socio-economic characteristics, estimated in cross-section, do not apply uniformly to people who give seldom, from time-to-time, and frequently. To the extent that such cross-sectional summary statistics and regression coefficients have been interpreted, even implicitly, as descriptions of people who donate year-in/year-out—relative to each other and/or relative to people who are thought to be “non-donors” (on the basis of their not having donated in that cross-section year)—the cross-sectional results are misleading. Similar results apply to giving to religious congregations.

The evidence indicates that there are strong dynamics in American giving, but there are some qualifications to be kept in mind while thinking about the results. First, there are several reasons to believe that the present results understate giving dynamics: (a) the sample of people in the eight-year panel is somewhat more “stable” than would be a random cross-section; (b) the definition of “frequent” givers we used included giving in six or seven years (out of eight), not necessarily every year; (c) some people (albeit likely not many) among those who did not give in any of the eight years may give in future years; and (d) the evidence about a specific charitable purpose is not necessarily evidence about a specific charitable organization. Reason (d) implies that although the present results can be used for policy analysis (e.g., to analyze the giving of Americans to help people with basic necessities), they are a lower bound to the dynamics practitioners in specific organizations should expect to experience.¹¹ Second, the Great Recession may suggest the present results overstate dynamics compared to what would be seen in non-recessionary periods. Whether the recession caused a structural change in American giving dynamics is an important question for future research. Finally, we have described the dynamics in terms of whether or not people gave, and how frequently they gave across time, but not in terms of amounts donated. Although as stated above we found that lower frequencies of giving were not counter-balanced by larger amounts, analysis of the dynamics in the amounts is another important topic for future research.

The results are significant for several reasons. First, the results imply the need for a conceptual shift in how we think about American giving: a shift from the static to the dynamic. Although America is much more of a nation of givers to charitable organizations than previously

¹¹ To our knowledge there are no statistics describing multi-year giving dynamics to specific organizations. Short-term, two-year statistics indicate that, depending on the purpose, between five and six out-of-ten donors in one year do not give in the next to the same organization (Levis et al., 2016, 2017).

thought—the 87 percent is much larger than the 50-to-60 percent typically found in American cross-sections—this larger number of givers is almost entirely due to people who give every other year or less often. In other words, America also is more of a nation of seldom and time-to-time givers than previously realized, especially to specific charitable purposes.

Second, that such large percentages give every other year or less often suggests a new imperative for research focused on time. For example, an important research question now arises: What determines whether someone becomes a time-to-time giver versus a frequent giver? To our knowledge there is no previous research on this question. Other important questions naturally follow: Why does an otherwise frequent giver “switch-off” for a year? Why does an otherwise seldom giver—for whom most years come and go without giving—switch-on one year and give? We are suggesting that research effort needs to be shifted away from static questions—such as, “What socio-economic characteristics are associated with the amount a person gives at a single point in time?”—and toward questions about how often a person gives across time.¹²

Third, this time-based research imperative is not only for secondary data analysis, but also for experiments. Experimental work that investigates interventions to increase giving is an active research area (see the reviews by Andreoni & Payne, 2013; Vesterlund, 2016). Most of this work uses static experimental designs. Consequently, it is not known if any of the experimental interventions found to have been successful in static situations would lead to a transformation in the dynamics. Indeed, the few designs that have followed participants over a time period that extends longer than the initial experimental session tend to find that the initial success from the static perspective was entirely reversed (e.g., Meier, 2007) or substantially

¹² Einolf’s (2018) work on how parents’ giving changes as their children age, for example giving to education, youth/family services, and religious congregations switching-off when the last child leaves the house, is an example of the kind of research that is needed.

reduced (e.g., Knowles & Servátka, 2015). Furthermore, Andreoni and Serra-Garcia (2016) provide evidence of heterogeneity in how people use time to alter their giving, with some behaving consistently across time, some wanting to renege in the future on pledges made today, and some seeking a way to avoid the temptation to give today. In short, the present results of strong dynamics externally validate the need for an experimental research program on giving that is focused on time.

Finally, the results have implications for practitioners. For those interested in increasing the percentage of income Americans give above the “stubborn two percent”, a cross-sectional static perspective has constrained thinking to two approaches: (a) encourage people already donating to give larger amounts and (b) encourage non-donors to start giving. However, a dynamic perspective suggests both approaches are unlikely to succeed. If in the two approaches “donor” is interpreted to mean “every year donor”, and “non-donor” is interpreted to mean “never donor”, success is unlikely because (a) frequent donors are already giving large amounts (on average) and (b) the 13 percent of Americans who “never” donate were so-identified because they did not give in any one out of eight years, making it unlikely that they will “switch-on” in the future.

A dynamic perspective also suggests that approaches (a) and (b) ask the wrong question. That is because the two approaches are based on a static view of giving, but the static “every year donor versus never donor” dichotomy is misleading: the majority—more than six-out-of-ten—of Americans who are giving to charitable organizations across time give every other year or less often to a specific charitable purpose. Furthermore, people identified as “non-donors” in a cross-section are twice as likely to give in some other year, than they are to never give.

What are better questions? A dynamic perspective suggests the importance of asking questions based on time. How can time-to-time givers be encouraged to give more often, closer to every year than to every other year? Similar questions apply to seldom givers, as well as to frequent donors who give less than every year, although the answers likely will be different. The importance of focusing on how often people give rises upon realizing that, although an overwhelming majority of Americans give to charitable organizations at some point in time, only one-third give year-in/year-out to a specific charitable purpose.¹³

6. Conclusion

Measuring giving by more than 6,000 people across eight years, we present evidence that American giving is strongly dynamic over time. That giving is strongly dynamic implies the need to shift the conceptual framework with which we think about giving from the static to the dynamic. This conceptual shift suggests a new imperative for both secondary data and experimental research to focus on time. The importance of time also suggests a shift in what is counted as “successful” fundraising to put more emphasis on increasing the frequency across time with which people give.

¹³ There is a downside caution to keep in mind. Even if encouragement to give more frequently is successful from the perspective of practitioners, to the extent that success is based on the use of social pressure it may have adverse effects from the perspective of donors. See DellaVigna et al. (2012), Andreoni et al. (2017), and Andreoni and Payne (2013) for evidence of, and discussion about, social pressure.

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Table 1. Comparing the panel sample to a cross-section sample using summary statistics from 2006.

	Sample	
	Panel	Cross-section
<u>2006 calendar year variables</u>		
Giving to:		
Charitable organizations in 2006		
Aggregate ^a		
Fraction	.61	.58
Amount among donors	\$1,278 (3,097)	\$1,236 (2,956)
Basic needs in 2006		
Fraction	.35	.33
Amount among donors	\$651 (1,222)	\$619 (1,169)
Combined funds in 2006		
Fraction	.31	.28
Amount among donors	\$685 (1,864)	\$669 (1,828)
Health in 2006		
Fraction	.26	.25
Amount among donors	\$366 (1,017)	\$361 (970)
Education in 2006		
Fraction	.18	.16
Amount among donors	\$607 (2,834)	\$607 (2,589)
Congregations in 2006		
Fraction	.48	.45
Amount among donors	\$2,578 (4,108)	\$2,476 (4,497)
Birth cohort		
Generation X	.26	.31
Baby boom	.51	.43
Greatest/Silent	.22	.26
Income in 2006	\$93,197 (107,378)	\$87,821 (113,685)

Family structure		
Married	.55	.52
Cohabiting	.02	.03
Single woman	.29	.28
Single man	.14	.16
Education		
College	.30	.29
Some college	.25	.24
High school	.31	.32
Less than high school	.15	.15
African-American	.14	.13
White	.76	.76
Other	.10	.10
Sample size	6,425	11,237

Notes: The sample in column 1 is the eight-year panel sample, but the summary statistics in the column are based on that sample's 2006 calendar year variables; recall those variables were collected in the *PSID*'s 2007 interview year. The sample in column 2 is the cross-section sample containing all the family units responding to the *PSID*'s 2007 interview, and the summary statistics are based on that sample's 2006 calendar year variables.

The table shows that selecting individuals who were interviewed in all eight years of the panel sample (hence followed across the 15 years 2001-2015—the interviews are biennial) produces a sample with characteristics roughly similar to the cross-section sample obtained from the 2007 interview year. The differences are that the panel sample has more individuals from the Baby Boom, six percent higher income, and is somewhat more likely to be married. The panel sample is the analysis sample for the paper. The statistics are weighted with the *PSID* core family weights. Standard deviations are in parentheses (clustered by family unit).

^a All nine charitable purposes aggregated together: basic needs, combined purposes, health, education, youth/family services, neighborhoods/community, arts/cultural, environmental, and international.

Table 2. Dynamics of giving across eight years by purpose.

	Gave in at least one out of the eight years	None (0 years)	Seldom (1-2 years)	Time-to-time (3-5 years)	Frequent (6-8 years)
	(1)	(2)	(3)	(4)	(5)
Charitable organizations					
Aggregate ^a	.87	.13	.15	.22	.50
Basic needs	.74	.25	.28	.30	.17
Combined purposes	.69	.31	.30	.24	.15
Health	.61	.38	.27	.23	.12
Education	.46	.54	.24	.13	.08
Congregations	.72	.28	.18	.17	.38

Notes: The table describes the fractions who give, to the purpose indicated in the row, in the eight even-numbered years between 2000-2014. Across a row, columns 1 and 2 may not add to 1.00 because of rounding (likewise, columns 3-5 may not add to column 1). The estimates are weighted. The unweighted sample size is $N = 6,425$.

^a All nine charitable purposes aggregated together: basic needs, combined purposes, health, education, youth/family services, neighborhoods/community, arts/cultural, environmental, and international.

Table 3. People who gave frequently to any charitable organization: Fraction who gave frequently to a specific charitable purpose.

	Number of specific charitable purposes given to frequently						
	None	One	Two	Three	Four	Five	Six to nine

Panel 1. Distribution of people (who gave frequently to any charitable organization) across the number of specific purposes frequently given to.

Fraction ^a	.34	.32	.18	.08	.04	.02	.02
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Panel 2. Fractions of donors in each column who gave to the specific charitable purpose indicated in the row.

Basic needs	0	.32	.58	.73	.82	1.00	1.00
Combined purposes	0	.36	.49	.53	.66	.49	.77
Health	0	.16	.40	.63	.65	.81	.96
Education	0	.07	.23	.54	.69	.88	.86
Observations (unweighted)	1,066	959	480	226	103	54	44

Notes: The sample in the table is the 50 percent of people who gave frequently to any charitable organization from Table 2, row 1 column 5 (unweighted $N = 2,932$). Panel 1 shows the distribution of these donors by frequent giving to the number of charitable purposes specified in the column heading. For example, the .34 means that 34 percent (of the 50 percent who gave frequently) gave frequently to no single charitable purpose. Thirty-two percent gave to exactly one specific purpose. Panel 2 shows, within each column, the fraction of donors in that column who gave frequently to the charitable purpose indicated in the row. The estimates are weighted.

^a The fractions in this row do not add to 1.00 because of rounding (fractions in other rows and columns are not supposed to add to 1.00).

Table 4. Dynamics of giving across eight years by people identified as “non-donor” /“donor” in the 2006 cross-section.

	Fraction	Distribution of dynamic behavior among the people in column (1)			
		None (0 years)	Seldom (1-2 years)	Time-to-time (3-5 years)	Frequent (6-8 years)
	(1)	(2)	(3)	(4)	(5)
Panel 1. People not donating in 2006, to the respective purposes indicated in the rows.					
1. Charitable organizations					
a. Aggregate ^a	.39	.35	.32	.24	.09
b. Basic needs	.65	.40	.34	.22	.04
c. Combined purposes	.69	.45	.35	.17	.03
d. Health	.74	.52	.31	.15	.02
e. Education	.82	.67	.24	.08	.01
2. Congregations	.52	.55	.27	.14	.04
Panel 2. People donating in 2006, to the respective purposes indicated in the rows.					
1. Charitable organizations					
a. Aggregate ^a	.61	0	.05	.21	.75
b. Basic needs	.35	0	.16	.44	.40
c. Combined purposes	.31	0	.18	.40	.42
d. Health	.26	0	.19	.43	.37
e. Education	.18	0	.23	.36	.41
2. Congregations	.48	0	.06	.20	.74

Notes: Each row in Panel 1 contains only those people who did not give to that row-purpose in 2006. The corresponding row in Panel 2 contains the other people—i.e., the people who gave to that row-purpose in 2006. For example, 39 percent did not give to charitable organizations in 2006 (Panel 1, row 1a, column 1), implying that 61 percent gave (Panel 2, row 1a, column 1). Rows 1b in Panels 1 and 2 re-split the sample, this time according to whether people did not give, or gave, to basic needs organizations. Rows 1c, d, and e present three more re-splits of the sample according to did not give/gave to the respective row-purposes in 2006. Rows 2 in Panels 1 and 2 do the same for congregations. The estimates are weighted.

^a All nine charitable purposes aggregated together: basic needs, combined purposes, health, education, youth/family services, neighborhoods/community, arts/cultural, environmental, and international.

Table 5. Charitable organizations: Cross-sectional regressions of log amounts given on socio-economic characteristics in different dynamic groups.

Socio-economic characteristics	Panel sample (all individuals) (1)	Seldom donors (1-2 years) (2)	Time-to- time donors (3-5 years) (3)	Frequent donors (6-8 years) (4)
1. Log(income)	.514*** (.059)	.005 (.102)	.166* (.094)	.545*** (.100)
2. College or beyond	1.142*** (.082)	-.193 (.146)	.525*** (.189)	.435*** (.083)
3. Family structure (Omitted: Cohabiting)				
a. Married	.640*** (.168)	.102 (.266)	.363 (.315)	-.127 (.212)
b. Single women	.502*** (.180)	.000 (.290)	.240 (.341)	-.154 (.227)
c. Single men	.147 (.202)	-.193 (.331)	.526 (.411)	.0582 (.254)
Observations	6,425	1,099	1,454	2,932
R-squared	.268	.017	.030	.132

Notes: The dependent variable is the logarithm of giving in 2006 to charitable organizations (nine purposes, aggregated), plus \$10. Adding \$10 permits calculating the logarithm for people who did not donate in 2006 (hence the marginal effects capture the decision to give and the amount given). The independent variables are measured in 2006; they include, in addition to the variables shown, race and age. Column 1 uses the full sample ($N = 6,425$). Column 2 uses only those people who seldom gave to charitable organizations during the eight years. Columns 3 and 4 are people who gave from time-to-time and frequently. The regressions are estimated with weighted least-squares. Standard errors (in parentheses) are clustered at the family level. Significance levels are * $p \leq .10$, ** $p \leq .05$, *** $p \leq .01$.