

# Can Government Intervention Increase Volunteers and Donations? Analyzing the Influence of VISTA With a Matched Design

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## Abstract

The United States has long relied on private organizations to provide public services to poor communities. However, while the federal government's support of the civic sector through grants and contracts is well studied, little research investigates how it subsidizes voluntary organizations through national service programs, such as Volunteers in Service to America (VISTA). In this article, we assess whether nonprofits that receive VISTA members show higher levels of donations and volunteers than matched nonprofits that did not receive VISTA members in the years following the Great Recession. We find that nonprofits that participated in the VISTA program had higher numbers of volunteers 2 years after participation, suggesting that national service was effective at supporting local organizations and building local civic infrastructure during an economic recovery. We also follow VISTA receiving organizations from 2010 to 2016 in a longitudinal design, finding a robust relationship of VISTA service and volunteering. These findings suggest VISTA is a resource for organizations and invite further research on the relationship between national service and anti-poverty work.

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**Keywords**

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In the United States, the government relies heavily on private, voluntary, non-profit organizations, in addition to its own agencies, to deliver publicly financed services such as social and health services (Salamon, 1987). Nonprofits provide job training, education, child care, social support, housing, health care, disaster relief, and so on—delivering services to underserved populations (Allard & Small, 2013; Berrone et al., 2016; Marquis et al., 2013; Salamon, 1987; Weisbrod, 1988/1991). This partnership between government and the nonprofit sector forms the backbone of the human service delivery system in the United States, generally, and is a vital bulwark against poverty, specifically (Polson, 2017; Powell & Steinberg, 2006). Anti-poverty nonprofits both directly influence the well-being of disadvantaged communities and provide an important avenue for Americans to engage, volunteer, and donate to their communities (Brooks, 2005; Day, 2000; Havens et al., 2006; Polson, 2017). From the latter 1990s until 2008, the number of anti-poverty nonprofits grew by nearly 60% and came to comprise roughly a third of total nonprofits (Wing et al., 2008). However, following the Great Recession, arguably a period in which this sector becomes even more vital, donations dropped over 13% (Giving USA, 2018; Meer et al., 2017). This raises an important question: How can these nonprofits attract the resources, for example, donations and volunteers, necessary to conduct their anti-poverty work, especially following recessionary periods? Moreover, what role does government intervention play, given that this sector is the backbone of federal anti-poverty work?

There are multiple ways researchers have evaluated the role of the government in supporting the nonprofit sector, such as analyzing tax structures and incentives (e.g., Reich, 2010), or understanding the role of government contracts and grants (e.g., Andreoni & Payne, 2003; de Wit & Bekkers, 2017; Jilke et al., 2019). However, there is another, less studied, option: the subsidization of employment through AmeriCorps VISTA. VISTA, or Volunteers in Service to America, is designed to help nonprofits build capacity by placing national service members into nonprofits to improve their functioning. Modeled after the Peace Corps, Lyndon Johnson created VISTA, an anti-poverty national service program, in 1964 as part of his War on Poverty. Unlike the subsequent and related national service program AmeriCorps, VISTA members do not engage in direct service provision. Instead, they are tasked with building a nonprofit's capacity by increasing volunteers, raising funds, and other activities. Furthermore, VISTA is intended to reduce inequality by prioritizing nonprofits working in high-poverty areas, which often have fewer

donations and volunteers (Joassart-Marcelli & Wolch, 2003; Peck, 2008) and where civic infrastructure may be lacking. In 2017, more than 8,000 members served through VISTA, primarily working in anti-poverty fields like human services, education, community improvement, and youth development (Corporation for National and Community Service [CNCS], 2017).

In this article, we test whether nonprofits that receive a VISTA intervention following the Great Recession, between 2010 and 2014, show higher levels of donations and volunteers 2 years later. In other words, does this program help nonprofit organizations following a recessionary period by helping them attract the necessary resources to conduct their work? We make use of newly released data on nonprofits from the U.S. Internal Revenue Service (IRS) and couple it with data on VISTA placements from the CNCS. Nonprofit selection into VISTA programs is a threat to inference, so we match organizations that did receive VISTA service members with organizations that did not receive VISTA service members using coarsened exact matching (CEM; Iacus et al., 2012). We find that nonprofits that receive VISTA national service members for the first time show higher levels of both volunteers and donations 2 years later than matched nonprofits that did not receive VISTA members. Furthermore, receipt of VISTA is associated with change in the number of volunteers over the period. We then follow the trajectories of VISTA receiving nonprofits, assessing donations and volunteers from 2010 to 2016 in a time-series, cross-sectional design. Results from these models indicate a significant relationship between VISTA placements and contemporaneous volunteer capacity in organizations across the 6-year period.

Taken together, these findings suggest VISTA is capable of improving internal capacity at nonprofit organizations via volunteering, contributing to our understanding of how civic infrastructure grows in poor communities. The findings demonstrate how government intervention following a recessionary period can boost donations of time and money—perhaps helping high-poverty communities better navigate challenging times. This research also invites future work on the relationship between national service programs and community organizations, which has received little attention in previous research on social policy or in nonprofit studies.

## **Theoretical Background**

### *Importance of Donations of Time and Money for Anti-Poverty Nonprofits*

In addition to directly engaging in service provision, the U.S. government relies heavily on the nonprofit sector to carry out important services

necessary to combat poverty (Joassart-Marcelli & Wolch, 2003). Services include job training, education, child care, social support, housing, health care, youth development, and human services more broadly (Berrone et al., 2016; Marquis et al., 2013; Salamon, 1987; Weisbrod, 1988/1991). Aside from directly providing resources, nonprofits also mobilize collective action, advocate for underprivileged populations, and work to protect basic civil rights (Marwell, 2004; McCarthy & Castelli, 2002). In this dual role of service providers and advocates, nonprofits are central actors within the *civic infrastructure* of communities, “the network that exists among local groups such as community development corporations (CDCs), foundations, nonprofits, local governments, public housing authorities, businesses, and voluntary associations,” which collectively work to combat poverty (Lang & Hornburg, 1998, p. 5). Communities with more robust civic infrastructures have been found to have lower levels of crime (Sharkey et al., 2017), better health outcomes (Kawachi et al., 1999; Velasco et al., 2019), and lower levels of income inequality (Berrone et al., 2016).

However, the government is increasingly moving away from the public–nonprofit partnership model that undergirded social service provision in the United States since the 1960s. Government agencies at the local, state, and federal level are cutting funding, leaving nonprofits to find alternative sources of revenue (Pettijohn et al., 2013), and making support from individual donors ever more important. Furthermore, nonprofits rely heavily on volunteers to provide unpaid labor that helps their missions. This raises an important question about how nonprofits, generally, and anti-poverty organizations, specifically, can attract the necessary labor and capital to fulfill these third-sector duties.

Americans supported the work of nonprofits by donating US\$410 billion to charitable organizations in 2017, of which 70% came from individual contributions (Giving USA, 2018). Donations are important to nonprofits because, unlike other revenue sources, “individual giving can provide a critical margin of unrestricted revenues. Shrinking contributions can seriously set back capacity building” (Boris et al., 2010, p. 18). Donations allow nonprofits to diversify their revenue streams, connect donors who may champion the cause beyond their donation, and symbolically signal public support of the nonprofit. Thus, although the proportion of revenue tied to individual contributions varies significantly across nonprofits, it is nonetheless clear that private donations are a critical lifeline for the sector in general to carry out its society-benefiting work (Lecy & Van Slyke, 2013; Paxton et al., 2020).

Likewise, roughly a quarter of the U.S. population formally volunteers their time to a nonprofit organization every year (National Center for Charitable Statistics, 2020). The unpaid labor of volunteers is valued at

US\$167 billion per year and is equivalent to nine million additional full-time employees for nonprofits (CNCS, 2018). Certainly, both volunteers and donations represent a vital component of nonprofit mission and implementation. Nonprofits use volunteers and donations to fuel their work and funnel resources through to programs to address a wide range of social problems.

During recessionary periods, however, donations of time and money decrease (Giving USA, 2018; Meer et al., 2017). During the Great Recession, for example, contributions to human services organizations, a key segment of anti-poverty organizations, fell by 13% (Boris et al., 2010). Although the contraction in giving and volunteering during recessionary periods is understandable, it is unfortunate because “gifts of time and money constitute important resources for nonprofit organizations during economic recessions when demand for services increases” (Choi & DiNitto, 2012, p. 116). Given the importance of anti-poverty organizations to the social welfare infrastructure in the United States and the fact that recessionary periods deplete two key resources needed to carry out this work, what role does government intervention play within this sector to buttress these trends?

### *Government Intervention and Its Consequence*

The U.S. federal government has long helped nonprofits obtain funding and volunteers as part of its national strategy for using civic infrastructure to distribute social services and fight poverty (Salamon, 1987). The federal government has taken part in the support and institutionalization of the nonprofit sector since the New Deal era (Clemens & Guthrie, 2010), recognizing that nonprofit organizations both combat poverty and other social ailments and need substantial resources to undertake this work. Over the last several decades, the federal government has implemented a number of new partnership programs to intervene and support the work of this sector. In 2012, for example, the government entered into 350,000 grant or contract relationships with 56,000 nonprofits (Pettijohn et al., 2013). Today, nonprofit organizations deliver a majority of state-funded direct services (Hodgkinson & Weitzman, 1986; Katz, 1996; Salamon, 1996; Smith & Lipsky, 1993/1994).

As public–nonprofit partnerships abound within the United States, so too have the ways the government permeates and shapes nonprofits and, ultimately, social services (de Grauw et al., 2013; Frasure & Jones-Correa, 2010; Salamon, 1987; Smith & Lipsky, 1993/1994). Some programs directly provide grants to nonprofits. Others outsource the direct provision of social welfare services through contracting like Meals-on-Wheels. Another route has been to invest in national service by placing members directly into nonprofits to help administer services (AmeriCorps) and build capacity (VISTA).

Government grants and service programs are particularly important for nonprofits in low-income neighborhoods, where civic infrastructure tends to be poor (Sampson, 2012), as organizations in these communities often do not themselves have the necessary resources to carry out their work (Joassart-Marcelli & Wolch, 2003; Salamon, 1989, 1996). Nonprofits working with poor communities are less able to collect donations or adopt a fee-for-service model—making the importance of government contracts and investment that much more acute (Wolpert, 1993). Relatedly, due to the lack of resources within these communities, there is evidence that nonprofits do not locate in poorer neighborhoods (Joassart-Marcelli & Wolch, 2003; Peck, 2008). This lack of nonprofits compounds existing issues because it not only means less services for those most in need but also less civic participation like volunteering, which is already lower in poor neighborhoods due to lack of time and other stressors from poverty (Benenson & Stagg, 2016; Toppe et al., 2002; Verba et al., 1995/2002).

What effect does government intervention via grants and contracts have on donations of time and money? An extensive literature, often referred to as the “crowding out/crowding in,” seeks to understand how obtaining government resources influences private contributions to nonprofits. The typical argument is that “increasing government contributions, financed through taxes, are associated with reducing charitable donations from private donors” (de Wit & Bekkers, 2017, p. 302). However, reviews of this literature suggest there is not clear evidence that “crowding out” is indeed happening (Tinkelman, 2010). In fact, de Wit and Bekkers, through a meta-analysis, find more support for “crowding in”—nonprofits receiving government assistance were more likely to have higher levels of private contributions. This finding is encouraging as revenue diversification is associated with organizational stability over time (Carroll & Stater, 2009). Public–private partnership models through contracts and grants may thus be helpful for nonprofits as it increases their ability to perform important work and spurs donations and individual giving.

Although government intervention through grants and contracts is one option, it is not the only one. Another route for the federal government is the direct subsidization of employment in nonprofits to improve internal capacity for fundraising, attracting volunteers, and services and benefits. This is the model the federal government employs through the VISTA program (Frumkin & Jastrzab, 2010). Through this program, as elaborated below, the federal government seeks to disrupt the reproduction of inequality in high-poverty communities. But are these interventions successful at fulfilling their stated purpose? Although the effects of government grants are well researched,

surprisingly little is known about whether VISTA is indeed helping anti-poverty nonprofits acquire donations of both time and money.

### *Understanding VISTA*

VISTA was implemented as part of President Johnson's War on Poverty in 1964 (Frumkin & Jastrzab, 2010). The specific aim of the program is to encourage Americans to participate in community service with an aim toward eliminating poverty. To do this, VISTA members serve 40 hr a week over the course of 1 year in either a nonprofit or local government agency working to alleviate poverty within a community. Members receive a living allowance to cover basic expenses, health insurance, and, at the end of service, can receive either a US\$5,000 education award or US\$1,800 cash stipend (CNCS, 2020). In 1993, VISTA was incorporated under the CNCS as an AmeriCorps program.

Unlike other national service programs, VISTA members are specifically tasked to improve the capacity of the organization rather than to perform direct service provision like tutoring. Such activities include "developing outreach and marketing campaigns, building a social media presence, creating a program database, writing grants, managing a program in its first year, and recruiting volunteers" (CNCS, 2020). For example, in a VISTA position posted on the CNCS website, a job description for an Asset-Based Community Development Coordinator read, "The goal is to build capacity in the United Way of Abilene by the VISTA assessing and developing volunteer management systems." This example, and others like it, provides a clear pathway for evaluating VISTA: Was this nonprofit able to enhance volunteers after receipt of VISTA?

Although VISTA has been tasked to fight poverty since the 1960s, surprisingly little academic research has focused on the impact of this program. Most research focuses on the members themselves, such as who is more inclined to participate in such a program and the long-term impacts of participation on later-life civic participation (Frumkin & Jastrzab, 2010; Gerstein et al., 2004). In one study, Velasco and colleagues (2019) look at community-level impacts of AmeriCorps programs, including VISTA. They find that VISTA is associated with enhancing community subjective well-being. There is no evaluation, however, of whether VISTA members are improving the capacity of nonprofits to conduct their poverty-eliminating work.

The VISTA program has been targeted for consolidation by the current administration, making an assessment of VISTA particularly relevant (Green, 2017). A lack of attention to VISTA is surprising because a large body of research is dedicated to the evaluation of other government programs to understand their effectiveness and, ultimately, their worthiness to receive

taxpayer dollars. For example, the Supplemental Nutrition Assistance Program (Rosenbaum, 2013; Shaefer & Edin, 2013), the Medicaid Expansion under the Patient Protection and Affordable Care Act (Gutierrez, 2018), and Meals-on-Wheels (Coulston et al., 1996) have been evaluated to understand their effects on those living with low incomes and facing health care and food insecurities. In a similar manner, we ask the following about VISTA: Does VISTA influence the internal capacity of nonprofits in performing anti-poverty work?

### *VISTA and Selection*

Although we expect that the injection of VISTA into a nonprofit should influence a nonprofit's capacity by increasing fundraising or volunteers, there is the possibility that only a particular type of nonprofit is able to get access to VISTA members. And, the qualities that lead to acquisition of a VISTA member may also correlate with having more donations and volunteers. For example, public administrators often use performance-based contracts based on nonprofit program evaluation to ensure that those they are selecting have demonstrated success (Frumkin, 2001; Martin, 2004). At the same time, these contracts are not all evidence-based, as subjective metrics such as "reputation" of the nonprofit are also influential in determining who gets selected (Van Slyke, 2007).

Being able to apply for and comply with a federal program also speaks to the internal bureaucratic capacity and professionalization of a nonprofit (Ashley & Van Slyke, 2012; Suárez, 2011)—qualities shown to enhance donations (Betzler & Gmür, 2016). Moreover, financial performance measures and the subjective reputation of a nonprofit influence donations (Grant & Potoski, 2015; Mews & Boenigk, 2013; Yan & Sloan, 2016). Therefore, there is the possibility that nonprofits that are granted a VISTA program are those with already high internal capacity. In short, selection issues loom large. Being selected to receive a VISTA program speaks to nonprofit characteristics that are known to be associated with donations and volunteers. This selection must be accounted for, and matching is the strategy we adopt to address problems of selection in our sample.

## **Data and Methods**

### *Dependent Variables: Volunteers and Donations*

We evaluate our hypotheses about whether VISTA members improve capacity at nonprofit organizations by using data on volunteering and donations

available from Forms 990 e-filed with the IRS. The Form 990 is an annual return required by the IRS for most nonprofit organizations and is the main source of information on nonprofit finances, volunteers, governance, staff, expenditures, and other matters. Any tax-exempt organization can choose to file a full Form 990, but tax-exempt organizations must file a Form 990 only if they have more than US\$200,000 in gross receipts, a Form 990-EZ if they have gross receipts less than US\$200,000, or a Form 990-N if they have US\$50,000 in gross receipts.

Our data come from Forms 990 collected through the IRS e-filer database posted at Amazon Web Services. The new IRS e-filer data release provides complete 990 financial information for all e-filing nonprofits (about 60%–65% of all 990 and 990-EZ filers) from 2010 to the present (IRS, 2016). When the IRS posted the data online beginning in 2016, it only included a small sample of filings in 2008 and 2009 following the most recent update to the Form 990. This means that analysis of trends, including volunteering and donations, cannot begin until 2010. Our data were collected from Amazon Web Services in April 2018 and include records on tens of thousands of e-filing nonprofit 501(c)3 organizations between 2010 and 2016.

We construct measures of volunteers and donations from multiple items in the Form 990. To measure volunteers, we used the total number of volunteers reported by nonprofits on Part I Line 6 of the Form 990. The form asks nonprofits to “Enter the number of volunteers, full-time and part-time, including volunteer members of the organization’s governing body, who provided volunteer services to the organization during the reporting year.” The IRS provides the following guidance to organizations on how to determine this number: “Make a reasonable estimate of the number of persons that did any type and amount of volunteer work for your organization during the tax year, not including your employees who may have done volunteer work in their spare time.” Organizations have the option, but are not required, to provide further clarity in how they define volunteer in Schedule O.<sup>1</sup> We winsorized volunteers at the 99th percentile because investigation of the highest reported numbers of volunteers revealed some irregularities. For example, the American Heart Association appears to count anyone as a volunteer who watched a video about cardiopulmonary resuscitation (CPR) on their website. Once winsorized, volunteers were then logged. With all logged variables, values of 1 were added prior to logging the variable.

To measure donations, we aggregated four revenue sources from the Form 990: membership dues (Part VIII 1B), contributions from fundraisers (Part VIII 1C), noncash contributions (Part VIII 1G), and other contributions that exclude government grants, federated campaigns, and revenue from related organizations (Part VIII 1F), dropping the few (~40) observations that were

negative on any of these components. The dependent variable is the total dollar value of the four lines added together.<sup>2</sup> For each of these revenue sources, the nonprofit reports the portion for which the donor does not receive full retail value. For example, the amount of membership dues above any estimate of a payment for a good or service would be recorded as a donation. Noncash gifts of stock or cars are often sold immediately by the nonprofit upon receipt and nonprofits report the value of any noncash contributions. Due to a skewed distribution, donations were winsorized at the 99th percentile and then logged.

### *Independent Variable: VISTA*

Data on VISTA member placements were obtained from the CNCS, the federal agency that oversees VISTA.<sup>3</sup> The CNCS data contain records of VISTA service terms: placements of individual service members at nonprofit organizations. The data are administrative and were compiled from internal CNCS records of all VISTA member placements. CNCS provided information on service term, an ID for the individual who was placed at the nonprofit, the location of service and dates of service, employer identification number (EIN) for the organization at which they were placed, and in some cases information on the kind of work provided by VISTA members. Individual VISTA members could appear multiple times in the data set if they volunteered for multiple service terms, either at the same organization or multiple organizations, although only about a quarter of VISTA members serving full-year terms undertake multiple terms. The average length of a service term is around 365 days. The data consist of all VISTA service terms that occurred between 2003 and 2019, at a total of 2,685 organizations.

Of those organizations, we were able to identify 1,539 who e-filed Forms 990 between 2010 and 2016. Table 1 reports the distribution of operational field for these nonprofits using the National Taxonomy of Exempt Entities (NTEE). The NTEE, used by the IRS, groups nonprofits into categories as classified by their purpose, type, or major function, such as arts, education, or health. Table 1 shows that the bulk of VISTA receiving nonprofits tend to work in fields closely related to anti-poverty work, such as human services, education, housing and shelter, and community capacity building.

CNCS contracts VISTA members with nonprofit “Sponsoring Organizations” around the United States. VISTA Sponsoring Organizations come in two types: (a) “intermediaries,” who disperse VISTA members across multiple service-based organizations serving a particular geographic region or mission; and (b) “single sites,” nonprofit service and advocacy

**Table 1.** NTEE Code Distribution Among All VISTA Receiving Organizations 2010–2016.

NTEE	Frequency	%
Human services	335	21.76
Education	220	14.29
Community improvement and capacity building	161	10.46
Housing and shelter	157	10.2
Philanthropy	136	8.84
Youth development	109	7.08
Health care	54	3.51
Crime and legal related	51	3.31
Food and nutrition	50	3.25
Employment	46	2.99
Other	220	14.29
<i>N</i> = 1,539		

Note. NTEE = National Taxonomy of Exempt Entities.

organizations that hire VISTA members for service at their own organization. We filtered out all Sponsoring Organizations that appeared to be intermediaries rather than single-site organizations because organizations could not be confirmed and linked to nonprofit volunteers and donations.

First, a multistep procedure was used to identify VISTA terms at single-site organizations. VISTA terms at common, nationally federated organizations were excluded. These included the United Way, Goodwill, Catholic Charities, Young Men’s Christian Association, Habitat for Humanity, Boys and Girls Club, Big Brothers Big Sisters, Communities in Schools, St. Vincent de Paul Society, and Girl Scouts. Second, based on a website search, we removed VISTA terms at organizations that mentioned “partner agencies,” being an association or committee, or having multiple offices or locations that were in different states. Third, because the CNCS reports that the standard number of VISTA members received for a single organization in a year is two, we removed all service terms at organizations that reported to have more than 30 VISTA members over the 2010s (more than three a year). Finally, we removed VISTA terms at organizations that appeared to be colleges or hospitals.<sup>4</sup> This left us with 542 unique organizations that received VISTA and appeared to be single-site organizations that could be matched to records between 2010 and 2016. Our procedure for separating single-site organizations from intermediaries was undertaken in consultation with officers at CNCS.

We measure the presence of VISTA members at nonprofit organizations in two complementary ways. First, we create an indicator variable for whether or not a VISTA member was present at a sponsoring organization in a given year (*VISTA PRESENT*). Second, because nonprofits received different numbers of VISTA members in a given year and because organizations could receive overlapping terms of service, we used the dates provided on VISTA term records to construct a continuous measure of the number of days of VISTA service received by each organization in a given year (*VISTA DAYS*). *VISTA DAYS* provides a direct measure of the time contributed to nonprofit organizations by all service members to the organization in any year. *VISTA DAYS* can theoretically range from a single day of service from a VISTA member who was present on one day, to more than a thousand days of service at an organization from multiple VISTA members in a single year. *VISTA DAYS* was logged to better match the functional form of the *VISTA DAYS* distribution.

In short, we have information on volunteering, donations, and the financial characteristics of nonprofit organizations in the period 2010 to 2016, of which 542 were receiving VISTA members. The core of our analysis is linking the two measures of VISTA to volunteering and donations. Both measures are useful, as *VISTA PRESENT* measures the associated impact of a VISTA member at an organization compared with an organization that reported no VISTA member present, whereas *VISTA DAYS* offers a continuous measure of the contributions of additional days of VISTA.

## Method

In our main analysis, we use linear regression to model the relationship between the placement of VISTA members in an organization and volunteering and donations at an organization 2 years later.<sup>5</sup> We implement this analysis in a matched design employing CEM. This main analysis assesses whether VISTA is important for later capacity building outcomes. We then use a time-series, cross-sectional design to model the contemporaneous relationship of VISTA to nonprofit capacity across the time period 2010–2016 among all organizations that received VISTA. The time-series, cross-sectional models complement the results produced by linear regression and matching and also consider how the trajectories of donations and volunteers relate to the contemporaneous influence of VISTA placements over time.

Linear regression in the main analysis could produce misleading results if conducted on the full sample of nonprofit organizations we are able to observe. This is because VISTA receiving organizations might differ systematically from other nonprofit organizations in terms of their ability to fundraise and attract volunteers as they have already shown capacity when

applying to the VISTA program. If VISTA service members do build capacity for obtaining volunteers and donations, we could see a spurious relationship between VISTA service terms and capacity outcomes when the organizations that receive VISTA service terms are more effective at applying for and obtaining resources in general.

Over the past two decades, matching methods have become a popular technique to handle such confounding problems in the social sciences (Caliendo & Kopeinig, 2008; Gangl, 2010). As Iacus et al. (2012) explain, matching is not a method of estimation but a way to preprocess a data set using the principles of causal inference so that conclusions reached about the role of a variable from the matched data set are less model-dependent than when based on a full data set. Focal independent variables are conceptualized as “treatments” as in experimental studies, with a treatment group that receives the treatment and a control group that does not. In matching, all observations are removed that have no close matches between pretreatment covariates related to both treatment and the outcome in both the treated and control group.

While there are many popular techniques for matching, including the use of propensity scores and Mahalanobis distance metrics, we match organizations that receive VISTA service members with organizations that did not receive VISTA service members using CEM (Iacus et al., 2012). CEM is a nonparametric technique for preprocessing data that accounts for confounding by matching on the full distribution of values within confounding factors but, unlike propensity score matching, does not require balance checking or a reduction of the dimensionality of confounding variables. Unlike exact matching, however, CEM uses “bins” for continuous variables created by the researcher that reflect realistic differences in levels of the variable to create exact matches. We constructed a unique data set from our full database of nonprofit organizations to apply CEM while maintaining standard assumptions used in matching analyses. We match only organizations that received their first ever VISTA service members (incident organizations) to diminish the influence of previous years of VISTA service.

We would ideally match nonprofits in a single year with the greatest number of incident organizations to eliminate heterogeneity across time and evaluate outcomes 2 years later. In each year between 2003 and 2019, however, the VISTA program only contracted with roughly 150 organizations that never previously participated in the program. This makes the set of potential matches in a single year very small, especially as many of these nonprofits cannot be reliably determined to be single-site nonprofits. Thus, we evaluate all nonprofits that received VISTA for the first time between 2010 and 2014, matching them with organizations in their year that never participated in the

VISTA program. We then can evaluate outcomes among these organizations 2 years later, comparing them with a set of organizations that never participated in the VISTA program.

To do this, we created a “treatment” choice set of the nonprofits that received VISTA for the first time and had e-filed Forms 990 in the year that they received VISTA and 2 years after they received VISTA. Nonprofits may continue to receive VISTA members after the first year of participation, making our estimates conservative estimates of the effect of an entire VISTA project.<sup>6</sup> We then created a “control” choice set of non-VISTA receiving nonprofits for every year between 2010 and 2014 who also had Forms 990 in a given year and 2 years after that year. These decisions provided 156 unique nonprofits that participated in the VISTA program for the first time between 2010 and 2014, and 107,687 other nonprofits that could be considered as possible matches in a year between 2010 and 2014.<sup>7</sup>

We then matched our 156 nonprofits that received VISTA to other nonprofits based on both the year they first participated in the VISTA program and factors that likely influence both the likelihood that an organization participates in VISTA and the organization’s ability to fundraise and attract volunteers. These factors include both their reported volunteers and donations in the year they participated in VISTA, as well as end-of-year net assets, total number of employees, government grants, program service revenue, field of service, and a measure for the length of mission statement reported in the Form 990. We utilized the reported level of volunteering and donations for organizations in the year of VISTA participation because nonprofits may apply to the VISTA program to obtain workers to manage their volunteer and donations outreach. Matching on the prior level of a dependent variable is also a standard practice in matched designs to better infer causal effect of the treatment (Gerber & Green, 2012).

Other factors were chosen because they logically reflect aspects of organizational size, professionalization, and government relationship related to participation in the VISTA program. End-of-year net assets and total number of employees acknowledge that larger and wealthier organizations are more likely to have both the knowledge and capacity to apply for the VISTA program and will also be more likely to receive donations of time and money. Field of service is selected because the CNCS prioritizes VISTA placements for anti-poverty and philanthropic work, and nonprofits in some fields tend to rely more on donations of time and money than others. Government grants is selected as organizations that have a prior relationship with public administration may be more likely to apply for the VISTA program, and also provide programing that relies more heavily on individual donors and volunteers. Program service revenue is selected for the opposite reason, as organizations

that rely on fees for services models of provision may be less likely to apply for VISTA and also less likely to rely on donors or volunteers. We match on the length of mission statements reported on the Form 990 because larger mission statements are a reflection of the professionalization of an organization, which relates to their capacity both to apply for national service programs and seek out donors and volunteers.

Our specification creates 93,652 strata in which VISTA receiving and non-VISTA receiving organizations in our data set are exactly matched on the basis of all confounders. After the matching, we drop all strata that do not have at least one VISTA receiving and non-VISTA receiving organization.

These matching decisions result in sample of 1,196 single-site nonprofits. Eighty of these nonprofits are organizations that participated in the VISTA program for the first time between 2010 and 2014. The remaining nonprofits are organizations that never participated in the VISTA program and that were exactly identical on all confounders to at least one of the nonprofits that participated in the VISTA program. This includes year, meaning that the controlled nonprofit is observed in the same year as the treated nonprofit it is matched to. After preprocessing the data through this procedure, ordinary least squares (OLS) regression models can be used to understand the relationship of VISTA member presence to donations and volunteering. All other organizational characteristics are taken from the year of participation alongside the measures for VISTA member presence.<sup>8</sup>

## Models

In our main analysis, we use regression models to understand the relationship between the capacity building efforts of VISTA members and nonprofits' volunteers and donations. We use a 2-year lag to evaluate this relationship, observing the influence of VISTA on nonprofit donations and volunteering 2 years after VISTA service was completed. We include three models: (a) regressions of the relationship with VISTA PRESENT, (b) regressions of the relationship to VISTA DAYS, and (c) models of VISTA Days that include the lagged dependent variable of the year they participated in the program. While the regressions without lagged variables give us a sense of the overall relationship between VISTA presence and later volunteers and donations, the inclusion of lagged variable models allow an assessment of VISTA members and changes in donations and volunteering over the 2-year period.

We control for the following variables in our models to address alternative explanations for donations and volunteering and reduce the bias of our estimate. These variables largely come from the "crowding in/crowding out" literature on estimating financial donations cited previously. This line of

research demonstrates that donors are cognizant of and responsive to the financial stewardship of an organization, wanting assurance their donations will be put to good use. The 990 e-filer release is the first-time information on volunteers is available across a wide range of nonprofits for investigation; we thus do not have prior research to draw on for alternative, nonprofit-level explanations. For volunteers, Nesbit and colleagues (2018) theorize several organizational characteristics that should influence volunteer involvement, including financial resources, the number of paid staff, government contracts, and reliance on commercial income. Volunteers, and donations, may also be associated with a nonprofit's level of professionalization. Betzler and Gmür (2016) find that nonprofits that professionalize their fundraising strategies, in part by investing in fundraising capacities and incorporating advice from fundraising experts, are better able to attract donations. Finally, we include time trends in our models to address the influence of the Great Recession. Donations decline during economic downturns irrespective of the presence of VISTA. Each model contains a variable for years since the formal end of the recession (2009), acknowledging recovery and accounting for heterogeneity across time.

Therefore, we control for (a) "PRICE": a measure of donation price measured by total expenses divided by expenses on programs, logged; (b) "ASSETS": the end-of-year reported net assets, logged; (c) "EMPLOYEES": the total number of reported employees, winsorized; (d) "FUNDRAISING": fundraising expenses reported by the nonprofit, winsorized and logged; (e) "PROGRAM SERVICE REVENUE": the amount of revenue earned from fees for services or commercial activities, winsorized and logged; (f) "GOVERNMENT GRANTS": the reported funding from government entities, winsorized and logged; (g) "AGE": the number of years since the organization received tax-exempt status; and (h) "YEARS SINCE RECESSION": the number of years between the end of the recession in 2009 and the time in which we observe the nonprofit. We also control for (i) "FIELD": the institutional field in which a nonprofit operates to account for different levels of volunteers and donations across fields of activity. We distinguish these fields that commonly receive VISTA members, "Public Social Benefit (Philanthropy)," "Education," and "Human Services," from other nonprofits.

In our secondary analysis, we use cross-sectional time series with organization and year fixed effects on the sample of nonprofits that received VISTA members between 2010 and 2016. This technique allows us to account for unmeasured heterogeneity while assessing how the trajectories of volunteers and donations within organizations are related to contemporaneous VISTA presence. Two-way fixed effects account for both unmeasured heterogeneity across time and unmeasured heterogeneity across organizations. Fixed effects

allow the model to measure within-organization variation on key time-varying variables of interest, such as VISTA placements, although they also prevent the model from assessing time-invariant features of organizations that might relate to capacity outcomes, such as organizational field. The models account for heteroskedasticity and the violation of the independence of errors assumptions through the use of panel-corrected standard errors (Beck & Katz, 1995).

## Results

The nonprofits in our matched set of 1,196 organizations varied substantively in terms of distinguishing features such as size, field, and geographic location. Nonprofits were located in all 50 U.S. states, but the most common locations were the geographically populous states of New York, California, Pennsylvania, Massachusetts, and Texas. The average nonprofit that participated in the VISTA program in our sample received a mean of 295.4 days of VISTA service during its first year of VISTA participation, which is roughly equivalent to obtaining a single VISTA member for 10 months. The maximum number of VISTA DAYS received by a nonprofit was 836, which indicates that three VISTA members were placed simultaneously at an organization.

Table 2 reports the covariates in our sample, both overall and among those that did receive VISTA members in the sample. For CEM, these summary statistics are not expected to be identical between the nonprofits that participated in the VISTA program and the overall population. CEM uses the full distribution of confounding variables to create exact matches between the treatment group and control group. It does not use measures of central tendency, as would be the case in propensity score methods. The measures of central tendency may differ in covariates that were used as confounders as a result, even when the distribution of confounders between VISTA receiving and non-VISTA receiving organizations on all theoretically relevant confounders is completely overlapping.

Table 2 indicates that the nonprofits in our sample tend to be smaller organizations working in anti-poverty fields. The bulk of nonprofits were Human Services nonprofits with a median of five paid staff. Nonprofits that participated in the VISTA program did tend to be slightly better resourced on average and had closer relationships to the government. For instance, VISTA receiving nonprofits tended to receive an average of 13.3 in Logged Donations (US\$595,532 in original scale) compared with 10.8 among organizations that did not participate in the program (US\$184,417), whereas nonprofits that participated in VISTA tended to have an average of 8.74 in

**Table 2.** Descriptive Statistics of Matched Sample.

Sample	VISTA present	Overall
	(N = 80)	(N = 1,196)
Donation price		
<i>M</i> ( <i>SD</i> )	1.23 (0.276)	1.45 (2.99)
Median [Min, Max]	1.19 [1.00, 3.16]	1.16 [1.00, 79.1]
End-of-year assets (logged)		
<i>M</i> ( <i>SD</i> )	14.2 (1.93)	13.7 (2.46)
Median [Min, Max]	14.5 [7.06, 18.5]	13.5 [0, 19.8]
No. of employees		
<i>M</i> ( <i>SD</i> )	115 (198)	143 (361)
Median [Min, Max]	30.0 [0, 1,220]	5.00 [0, 1,880]
Total functional expenditures (logged)		
<i>M</i> ( <i>SD</i> )	8.69 (5.12)	5.96 (5.72)
Median [Min, Max]	11.0 [0, 14.4]	8.09 [0, 14.4]
Program service revenue (logged)		
<i>M</i> ( <i>SD</i> )	9.78 (5.75)	9.02 (6.47)
Median [Min, Max]	11.9 [0, 17.8]	11.4 [0, 18.8]
Government grants (logged)		
<i>M</i> ( <i>SD</i> )	8.74 (6.94)	3.52 (6.07)
Median [Min, Max]	12.5 [0, 16.4]	0 [0, 16.4]
Organization age		
<i>M</i> ( <i>SD</i> )	25.0 (17.9)	25.0 (19.3)
Median [Min, Max]	20.5 [0, 75.0]	20.0 [0, 93.0]
Field		
Other	11.2%	10.3%
Education	11.2%	12.8%
Human services	68.8%	72.7%
Public social benefit	8.8%	4.2%
Volunteers (logged)		
<i>M</i> ( <i>SD</i> )	4.11 (2.49)	3.06 (2.21)
Median [Min, Max]	4.38 [0, 8.16]	3.26 [0, 8.16]
Donations (logged)		
<i>M</i> ( <i>SD</i> )	13.0 (2.65)	10.8 (4.76)
Median [Min, Max]	13.3 [0, 16.8]	12.2 [0, 16.8]

Note. VISTA = Volunteers in Service to America.

Logged Government Support and nonprofits not in the program had an average of 3.52.

Is participation in the VISTA program related to capacity building? OLS regression models for the relationship between VISTA members and later

evidence of capacity building—volunteers and donations—are reported below. Table 3 reports regression results for the relationship between VISTA member presence and volunteering 2 years later. As mentioned before, tables include models with and without lagged outcome variables to compare overall influence and change.

VISTA member presence appears to be significantly and substantially related to nonprofits' later ability to attract volunteers beyond the infrastructure already present in an organization. According to Model 1, an organization had 71% more volunteers 2 years later if they participated in the VISTA program. In terms of logged days served, reported in Model 2, this equates to a 1% increase in volunteers for every 10% increase in the number of days of VISTA member service among participating organizations. Model 3 introduces the lagged variable for volunteering. The introduction of 2010 levels of volunteering in Model 3 changes the interpretation of the analysis. In Model 3, we describe the difference between a nonprofit's change in volunteers between the 2 years and the expected change given their previous level of volunteering. The relationship of VISTA to later volunteering persists here. A 50% increase in the number of VISTA Days received by an organization in the first year they participated in the VISTA program was associated with a 2.5% increase in volunteers 2 years later given their prior level of volunteering.

In terms of alternative explanations, both fundraising and program service revenue is related to greater volunteering 2 years later, if modestly. There are also differences in levels of volunteering across fields of service. In Model 3, Public Social Benefit organizations, which include organizations focused on civil rights causes, appear to have higher levels of volunteering than other organizations. Human services and Education, meanwhile, do not differ significantly. We find no evidence of a time trend in years since the Great Recession in volunteers.

Table 4 reports regression results for the relationship between VISTA member presence and donations received by the organization 2 years later. Unlike results for volunteering, the relationship between the presence of VISTA members at nonprofit organizations and donations is not robust to the introduction of lagged donations. Nonprofits with VISTA members had 3 times as many ( $\exp[1.189]$ ) donations 2 years later compared to nonprofits without VISTA service (Model 1), but the effect is not statistically significant when previous levels of donations are included. Thus, participation in the VISTA program is not related to an increase in donations 2 years after enrollment in the VISTA program after accounting for the level of donation reciprocity in the year a nonprofit began the program. It is important to note that this analysis includes all VISTA service terms regardless of the task performed by VISTA members. The lack of an effect on change in donations

**Table 3.** OLS Models of 2-Year Lagged Volunteers on VISTA Member Presence From 2010 to 2016.

Model	(1)	(2)	(3)
VISTA present	0.534* (0.231)		
VISTA days		0.108* (0.042)	0.062* (0.026)
Lagged volunteers			0.775*** (0.018)
Price	-0.012 (0.019)	-0.012 (0.019)	-0.005 (0.011)
Assets	-0.007 (0.032)	-0.007 (0.032)	-0.012 (0.020)
Employees	-0.002*** (0.0002)	-0.002*** (0.0002)	-0.0001 (0.0002)
Fundraising	0.149*** (0.012)	0.149*** (0.012)	0.031*** (0.008)
Program service revenues	0.025* (0.012)	0.025* (0.012)	0.017* (0.007)
Government grants	0.041*** (0.011)	0.040*** (0.011)	0.002 (0.007)
Age	0.016*** (0.004)	0.016*** (0.004)	0.002 (0.002)
Years since recession	-0.097 (0.068)	-0.098 (0.068)	-0.015 (0.042)
Field			
<i>Other (base category)</i>			
Education	0.679* (0.306)	0.683* (0.306)	0.092 (0.188)
Human services	0.295 (0.209)	0.299 (0.209)	0.180 (0.128)
Public social benefit	1.704*** (0.333)	1.707*** (0.333)	0.444* (0.206)
Constant	1.753*** (0.396)	1.752*** (0.396)	0.474† (0.245)
Observations	1,196	1,196	1,196
R <sup>2</sup>	.234	.235	.712
Adjusted R <sup>2</sup>	.226	.227	.708
Residual SE	1.896 (df = 1,183)	1.895 (df = 1,183)	1.164 (df = 1,182)
F-statistic	30.094*** (df = 12; 1,183)	30.231*** (df = 12; 1,183)	224.244*** (df = 13; 1,182)

Note. OLS = ordinary least squares; VISTA = Volunteers in Service to America.

†p < .1. \*p < .05. \*\*p < .01. \*\*\*p < .001.

**Table 4.** OLS Models of 2-Year Lagged Donations on VISTA Member Presence From 2010 to 2016.

Model	(1)	(2)	(3)
VISTA present	1.189** (0.435)		
VISTA days		0.202* (0.079)	0.061 (0.049)
Lagged donations			0.791*** (0.018)
Price	-0.002 (0.035)	-0.002 (0.035)	0.013 (0.022)
Assets	0.287*** (0.060)	0.287*** (0.060)	0.041 (0.038)
Employees	0.0003 (0.0005)	0.0003 (0.0005)	0.0003 (0.0003)
Fundraising	0.346*** (0.022)	0.346*** (0.022)	0.070*** (0.015)
Program service revenues	-0.185*** (0.022)	-0.185*** (0.022)	-0.021 (0.014)
Government grants	0.046* (0.021)	0.046* (0.021)	0.002 (0.013)
Age	0.021** (0.007)	0.021** (0.007)	0.003 (0.004)
Years since recession	0.021 (0.128)	0.022 (0.128)	-0.080 (0.079)
Field			
<i>Other (base category)</i>			
Education	0.020 (0.575)	0.016 (0.576)	0.014 (0.356)
Human services	-1.473*** (0.393)	-1.479*** (0.393)	-0.066 (0.246)
Public social benefit	-0.113 (0.626)	-0.108 (0.627)	0.254 (0.388)
Constant	6.736*** (0.745)	6.728*** (0.745)	1.626*** (0.476)
Observations	1,196	1,196	1,196
R <sup>2</sup>	.426	.426	.780
Adjusted R <sup>2</sup>	.420	.420	.778
Residual SE	3.565 (df = 1,183)	3.566 (df = 1,183)	2.208 (df = 1,182)
F-statistic	73.232*** (df = 12; 1,183)	73.098*** (df = 12; 1,183)	322.336*** (df = 13; 1,182)

Note. OLS = ordinary least squares; VISTA = Volunteers in Service to America.  
 †p < .1. \*p < .05. \*\*p < .01. \*\*\*p < .001.

could be due to a weak relationship of VISTA service terms to fundraising but could also be because we do not select on VISTA terms devoted to fundraising.

As was the case for volunteering, the explicit fundraising efforts of nonprofit organizations is important for obtaining donations. The amount of program service revenue is negatively related to donations, potentially because it depresses a nonprofit's reliance on donors, although this effect disappears after accounting for levels of prior donations. The money received by an organization in government grants is positively related to their ability to obtain donations per prior research on the "crowding in" of donations (Heutel, 2014), although again, prior donations eliminate the significant effect. It is interesting to note that number of employees and age of an organization are not significantly related to changes in donations, suggesting that donations are less dependent on institutionalization beyond explicit fundraising efforts. Finally, we again find no evidence of a time trend in years since the Great Recession in donations. In neither case did the time passed since the end of the recession appear to be significantly related to overall levels of resource acquisition.

### *Time-Series Cross-Sectional Models*

We have shown that the presence of VISTA members at nonprofits is associated with higher levels of volunteers but not donations 2 years later compared to nonprofits with no VISTAs. However, nonprofits could receive VISTA members in multiple years as a result of repeated applications to the federal program. What is the relationship of continuous VISTA participation to capacity building in organizations over time?

Results for volunteering and donations in the time-series, cross-sectional models are reported in Table 5. Model 1 of Table 5 demonstrates that VISTA presence does tend to have a significant association with rates of volunteering among organizations that ever receive VISTA. The log-log coefficient indicates that volunteering rises 1% after a 50% increase in service days among organizations that receive VISTA, which is not insubstantial considering that nonprofits are expected to receive roughly 365 days of VISTA service in a given year and could receive up to 5,667 days of service within our sample. As would be expected from the inclusion of 2-way fixed effects, a number of characteristics associated with volunteering in the matched cross-sectional design are not significant here. This includes fundraising and program services, which were important in the matched design. Here, only government grants are significantly and meaningfully related to volunteering.

**Table 5.** Cross-Sectional Time Series With Two-Way Fixed Effects of Volunteers and Donations on VISTA Days, 2010–2016.

Model	(1)	(2)
	Volunteers	Donations
VISTA days	0.034** (0.011)	0.003 (0.011)
Price	0.002 (0.006)	0.013** (0.004)
Assets	0.039 (0.035)	0.292*** (0.036)
Employees	0.001* (0.001)	-0.001* (0.001)
Fundraising	0.025 (0.016)	0.029† (0.017)
Program service revenue	0.015 (0.015)	-0.049** (0.016)
Government grants	0.026* (0.012)	0.002 (0.012)
Observations	2,732	2,732
R <sup>2</sup>	.0191	.0469
No. of organizations	542	542

Note. VISTA = Volunteers in Service to America.

†p < .1. \*p < .05. \*\*p < .01. \*\*\*p < .001.

Model 2 of Table 5 reports results for donations. VISTA service has no significant relationship to donations in the time-series, cross-sectional context. However, it is important to note that unlike in the lagged analysis, this failure to reach significance may occur because efforts to improve donations may not be reported in the same year because of donor and filing cycles. Across the time period, assets tend to be the strongest positive predictor of donations in a given year while fundraising efforts approach but do not reach the threshold of statistical significance. Program service revenue continues to negatively predict donations, whereas the sign for employees has flipped based on the inclusion of fixed effects, although the effect size is marginal.

### Conclusion

Today’s public–nonprofit partnership emerged from the privatization of social services and the devolution of decision-making to local jurisdictions

that began in the 1980s (Marwell, 2004; Salamon, 1996). Many nonprofits continue to rely on government support, especially in resource poor communities. But with the devolution of government has also come the stagnation of federal funding, which is both increasingly insufficient to match the demand for services and highly competitive to receive (Garrow, 2014; Levine, 2016; Marwell, 2004). Evaluation of government programs has also become routine in a period when pressures for fiscal austerity mean cutbacks in social programs are always possible.

In this article, we analyze whether VISTA, a program that has been targeted for consolidation, increases the capacity of nonprofits. Given the timing of analysis, the investigation also assesses how national service programs following a recessionary period can help nonprofits through periods of diminishing volunteers and donations. We predict both volunteering and donations with the presence and amount of VISTA service. We used CEM to strengthen inference about the lagged relationship of VISTA service to donations and volunteering among nonprofits 2 years after the presence of VISTA. We then follow up our analysis with a longitudinal assessment of donations and volunteering among all organizations that received VISTA that we are able to track. Our analysis suggests that VISTA members are effective at generating programs at nonprofits that produce greater numbers of volunteers in following years but not donations. Donations are significant as a main effect compared with non-VISTA nonprofits. But compared with nonprofits that did receive prior donations, evidence for donations was not robust to the inclusion of a lagged dependent variable that assessed change in donations. Results from the time-series cross-sectional models support similar conclusions.

These findings are a novel contribution to an emerging literature on the role played by national service programs in communities and research on the effects of government intervention. Prior research on VISTA largely focuses on the relationship between VISTA service and later-life trajectories among VISTA members. Work in the “crowding in/crowding out” literature, meanwhile, has focused on financial interventions. By moving beyond grants and contracts to evaluate government intervention in the direct subsidization of employment, this study provides a novel look at the means through which federal programs can shape civic infrastructure in poor communities by spurring nonprofit capacity. Also, although imperfect, this study builds on an emerging methodological literature in causal inference on strategies of matching when using longitudinal data and multiple years of potential treatment (Haviland et al., 2008).

These findings are particularly relevant when we consider the economic period spanned by the study. From 2010 to 2014, the United States was emerging from the Great Recession. While nonprofits generally lost

donations and volunteers during this period (Giving USA, 2018; Meer et al., 2017), our findings suggest that government intervention may have played a role to buttress such trends. This is important because demands for anti-poverty services only increase during and following recessions (Choi & DiNitto, 2012). The relationship between VISTA and volunteering also suggests that VISTA indirectly contributes to civic infrastructure in poor communities, which is in turn associated with collective efficacy and pro-social behavior (Sampson, 2012; Sharkey et al., 2017). In other words, we find that national service has a “crowding-in” effect in donations of time to nonprofit organizations. In the current recession created by the COVID-19 pandemic, our findings suggest that the government could increase national service to assist anti-poverty work.

In addition to effectiveness, public programs are also assessed for efficiency (e.g., Belfield & Voices for National Service, 2013). VISTA has a direct budget of US\$99 million and an estimated social cost of US\$191 million (Belfield & Voices for National Service, 2013). What do our results suggest about the value of VISTA? Although VISTA itself estimates that a VISTA project, on average, generates US\$140,000 per year in cash or in-kind donations to a sponsoring organization (Education Northwest, 2012), we do not find that VISTA members produce significant changes in donations over a 2-year period. But VISTA members do increase volunteers. What is the estimated value of these increases? Using a range of estimates for hours volunteered and the value of a volunteer hour, we can estimate that VISTA produces between US\$97 and US\$343 million dollars to nonprofits through increases in volunteers each year.<sup>9</sup> We do not extrapolate beyond our results to estimate other outcomes of VISTA capacity building for nonprofits, such as the development of community partnerships, or any cumulative community-level outcomes of the work of VISTA members.

A number of limitations must be kept in mind. First, there may be some measurement error in the volunteering item on the Form 990. This does not bias the estimate of VISTA’s impact, but standard errors will be larger, making our conclusions about VISTA’s impact on volunteering conservative. Second, both the matching analysis and the time-series analysis are unbalanced and only able to observe organizations that survive within the sample, that is, not those that fold in later years or whose resources decline to a point where they are no longer required to file with the IRS. These analyses are thus better understood as describing trajectories across organizations that survive rather than among all nonprofits. This analysis has also not been able to take advantage of all the years that VISTA has operated, as digitized volunteering and donations measures are not available from the IRS prior to 2010. And, while we have made a number of careful decisions to isolate service

providing organizations that received VISTA from other organizations that received and distributed VISTA members to other sites, the possibility remains that a few intermediary organizations could remain in our sample due to the lack of a decisive filter.

Finally, given that most nonprofits participate in the VISTA program for a spell of consecutive years, it was not viable to remove organizations from our choice set who received VISTA between their first year and the year in which we evaluated them. We have argued that this should not be theoretically related to our measure of the outcome, for 2 years should be the first time that the capacity building efforts of VISTA members would bear fruit that would then be recorded. Nonetheless, it is possible that later VISTA participation could influence the results, in which case our VISTA PRESENT is better considered a conservative measure of the influence of VISTA participation over the time period. Improving the match between VISTA service terms as reported by CNCS and nonprofits is an important problem for future research.

A number of research agendas could expand upon the analyses presented here. A key question for policy makers considering the VISTA program is not only whether VISTA members help nonprofits, but whether VISTA members help nonprofits help communities. Researchers should carefully consider how national service programs shape communities beyond this initial analysis, expanding on related work of how civic infrastructure is related to crime, feelings of collective efficacy, and inequalities (Berrone et al., 2016; Sampson, 2012; Sharkey et al., 2017; Velasco et al., 2019). One possible avenue is to consider how VISTA members create linkages among nonprofits. An existing literature has argued that civic infrastructure is most robust when different kinds of organizations work together to combine service and advocacy (Small et al., 2008). Roughly a quarter of service volunteers serve multiple nonprofits over the course of multiple service terms, creating expertise and capacity building networks that span organizations. VISTA members, as well as volunteers from other social service programs, could constitute important linkages between organizations within and across communities (Esparza & Jeon, 2013; Paxton & Ressler, 2018; Vidovich & Currie, 2012). Analysis of these webs of service could contribute to important work on nonprofit collaborations.

In sum, our analyses show that government intervention through national service is important to nonprofit capacity building. Through the VISTA program, anti-poverty nonprofits are able to get more volunteers and build their capacity to find more volunteers in the future. Volunteering is a critical resource for the development of local civic infrastructure in neighborhoods, and by building local programs, VISTA may play a critical role in expanding poverty-fighting work.

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## Notes

1. Comparisons of volunteering levels across NTEE (National Taxonomy of Exempt Entities) fields and subfields broadly suggest face validity in the measure, with subfields expected to use higher number of volunteers indeed reporting higher numbers on the 990 (analyses available from the authors upon request). Still, the volunteer item on Forms 990 is not directly audited and numbers of volunteers may not be uniformly reported across the sector. If there is measurement error in the volunteers variable, then our significance tests related to the impact of the VISTA program on volunteering may be conservative. This is because measurement error in the dependent variable adds an additional term to the error in the equation. Thus, the coefficients will remain consistently estimated, but significance testing may be more conservative.
2. Although we recognize the importance of these sources of revenues, we do not include contributions obtained through federated campaigns (Part VIII Line 1a) as these are received indirectly from federated funders such as the United Way. We cannot distinguish the donor-directed portion of these contributions from other factors. Neither do we include contributions from related organizations (Part VIII Line 1d) as related organizations include a diverse group of supporting, supported, and employee organizations that do not reflect individual donations as we try to measure.
3. Data on Volunteers in Service to America (VISTA) placements were provided to the researchers by the Corporation for National and Community Service (CNCS).
4. We also made a number of other selection decisions when choosing which VISTA service terms to attribute to organizations captured in our Forms 990 data set. Records of VISTA “summer terms” were deleted from the CNCS record because these VISTA members are not charged with the same capacity building

responsibilities as full-year term members. All VISTA service terms whose organizations could not be matched to Form 990 data were deleted from the CNCS data set by default.

5. We expect 2 years to be the minimum time that the effect of VISTA would be revealed in administrative records (due to the delay between program creation and program activation and reporting).
6. Although most VISTA members commit to only a year of service, some stay a second year and the average length of an organization's participation in a VISTA "project" is 2 or 3 years according to CNCS (Education Northwest, 2012). Thus, it is unlikely that a nonprofit will participate in VISTA only in the initial incident year. Thus, one should view our estimates as conservative. The cumulative effect of an entire VISTA project could be higher than our estimates of the effect of the initial intervention.
7. To match across a consistent level of VISTA presence, all organizations that received more VISTA Days than two standard deviations of VISTA days above the median were removed from our potential matching set.
8. An alternative strategy is to ignore VISTA placements prior to 2010 and evaluate organizations that appear to have participated in VISTA for the first time in the 2010s. This increases the sample size of potentially incident organizations to 133. However, this design makes the estimated influence of an organization's first year of participation in the VISTA program more difficult to interpret. We conducted this analysis, and the main results are the same and are available from the authors.
9. According to CNCS (2017), in 2017, the VISTA program mobilized 900,000 volunteers at an average of 9 to 14 hr of service. According to the Independent Sector (2020), the value of a volunteer hour is US\$27.20, and we use this as an upper bound. Alternatively, a lower bound would be the average minimum wage across U.S. states—approximately US\$12.

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