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Do National Service Programs Improve Subjective Well-Being in Communities?

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Abstract

Since the creation of Volunteers in Service to America (VISTA) in 1964 and AmeriCorps in 1993, a stated goal of national service programs has been to strengthen the overall health of communities across the United States. But whether national service programs have such community effects remains an open question. Using longitudinal cross-lagged panel and change-score models from 2005 to 2013, this study explores whether communities with national service programs exhibit greater subjective well-being. We use novel measures of subjective well-being derived from tweeted expressions of emotions, engagement, and relationships in 1,347 U.S. counties. Results show that national service programs improve subjective well-being primarily by mitigating threats to well-being and communities that exhibit more engagement are better able to attract national service programs. Although limited in size, these persistent effects are robust to multiple threats to inference and provide important new evidence on how national service improves communities in the United States.

Keywords

national service; subjective well-being; AmeriCorps

In operation for a quarter century, the United States' national service program AmeriCorps seeks to foster civic engagement, build community, and provide services in vulnerable, high-need communities. Since its inception, billions of dollars have been spent to encourage national service and volunteering on the part of individual citizens (Corporation for National and Community Service [CNCS], 2018a). There is ongoing debate, however, about the utility of national service—its effects on volunteers, the organizations that host them, and the communities in which they are located. Policymakers increasingly wish to display fiscal austerity and so look for ways to evaluate the importance and effectiveness of federal programs (Johnson & Howley, 2015). And the Trump administration proposed eliminating the federal agency that oversees national service programs (Green, 2017).

National service is seen as critical to building everything from citizen engagement to nonprofit capacity to social capital (Perry & Thomson, 2004; Thomson & Perry, 1998;

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Wofford & Waldman, 1996). Concerns about America's declining social capital make policy prescriptions like national service programs particularly timely (Paxton, 1999; Putnam, 2000; Twenge, Campbell, & Carter, 2014; Weiss, Paxton, Velasco, & Ressler, 2018). But although research documents the positive benefits of services provided by AmeriCorps to the nonprofits in which members are placed and the positive impact on AmeriCorps members themselves (Finlay, Flanagan, & Wray-Lake, 2011; Grimm, Spring, & Dietz, 2007; McBride, Greenfield, Morrow-Howell, Lee, & McCrary, 2012; Perry, Thomson, Tschirhart, Mesch, & Lee, 1999; Simon & Wang, 2002), less is known about whether AmeriCorps strengthens communities more broadly.

This study theorizes and tests the association between AmeriCorps and community subjective well-being, between 2005 and 2013. We test a primary hypothesis that national service programs have meaningful consequences for the broader community in which they are located. We also assess differences across two major AmeriCorps programs, AmeriCorps State and National and AmeriCorps-VISTA. We measure subjective well-being along five dimensions— engagement, disengagement, positive emotions, negative emotions, and negative relations—using data from Twitter in 1,347 U.S. counties. We also test whether counties that introduced AmeriCorps programs at some point after 2009 saw comparatively better improvements (as an average treatment effect) in subjective well-being by 2013 than counties without programs. Finally, we explore a reciprocal relationship between AmeriCorps and community subjective well-being over time with two waves of longitudinal data, one in 2005–2009 and the other in 2010–2013. Certainly, the relation between AmeriCorps and subjective well-being may be reciprocal; AmeriCorps influences subjective well-being, but the health of a community may also influence whether the community receives an AmeriCorps program. We test this possibility with a cross-lagged panel design. These longitudinal models help assess the robustness of our main findings to various causal threats. Results suggest that AmeriCorps programs buffer against threats to subjective well-being and also highlight the reciprocal nature of AmeriCorps programming and county-level subjective well-being.

National Service Programs: What Do We Know?

In 1993, President Bill Clinton signed the National and Community Service Trust Act (NACSTA), which created a new national service initiative, AmeriCorps, now overseen by the Corporation for National and Community Service (CNCS). The act also incorporated an existing national service program under the AmeriCorps umbrella, President Johnson's 1964 antipoverty program, Volunteers in Service to America (VISTA). While President Johnson's program sought to be part of the greater War on Poverty, President Clinton's initiative was part of a broader effort to increase civic engagement within the United States and help all types of communities in need through a domestic Peace Corps–type program (CNCS, 2017a). Today, AmeriCorps is composed of three main programs—AmeriCorps State and National, VISTA, and AmeriCorps National Civilian Community Corps (NCCC). In brief, members of AmeriCorps State and National provide direct services (e.g., tutoring and meal assistance) with and through national and local non-profits and local government agencies. VISTA members provide indirect services—such as capacity building, community empowerment, and sustainability solutions—from within organizations located in high-

poverty communities (Virginia Service, 2016). For example, AmeriCorps State and National members may provide direct service through a community health clinic, while VISTA members focus on building the organization's capacity to administer more health services through its own clinical staff.

Despite differences, AmeriCorps programs are tasked with carrying out the same three main objectives: developing the leadership potential and skills of AmeriCorps participants, providing direct services, and building and strengthening communities (Brower & Berry, 2006; CNCS, 2017a). Thus, AmeriCorps programs are expected to improve society at three different levels: (a) individual, (b) organizational, and (c) communal. To achieve the aforementioned objectives, AmeriCorps uses a workforce of stipend members, primarily recent college graduates and younger adults, who receive financial compensation for their service, such as an education grant and/or a living stipend that is well below market rates (Bass, 2013; Lenkowsky, 2014; McBride, Gonzales, Morrow-Howell, & McCrary, 2011). Today, the AmeriCorps network has more than 15,000 nonprofits, schools, public agencies, and community- and faith-based groups that recruit, select, train, and manage roughly 75,000 AmeriCorps members each year (CNCS, 2018b).

Of interest to researchers, AmeriCorps leadership and partners, policymakers, and tax-payers is the progress AmeriCorps makes in meeting its three objectives. This interest has produced a growing body of literature evaluating the various ways in which national service programs generally, and AmeriCorps specifically, produce individual, organization, or community effects. The bulk of existing research, however, focuses on individuals and organizations with less attention to the potential community-level effects of national service programs.

To begin, a variety of studies measure the impact of AmeriCorps participation on corps members' lives. Higher levels of civic responsibility, voting, volunteering, employment, respect for diversity, and overall life skills such as decision making and time management are all associated with AmeriCorps participation (Aguirre International, 1996; Finlay et al., 2011; Frumkin et al., 2009; Galson, 2001; Perry, 1997; Perry & Katula, 2001; Perry & Thomson, 1997; Simon & Wang, 2002; Van Til & Gallup, 1997; Wilson, 2000 cf. Serow & Biting, 1995). The effects of increased public service motivation are not just immediate but continue over time (Ward, 2014) and affect senior members as well as young adults (Tschirhart, 1998). This body of work suggests that AmeriCorps is fulfilling its first stated objective of increasing the leadership potential and skills of AmeriCorps members and creating civically engaged citizens.

Second, nonprofit organizations benefit from national service programs. AmeriCorps is decentralized, with members serving in thousands of local organizations as well as national organizations such as Habitat for Humanity, Teach for America, and Boys and Girls Clubs. Both the organizations that receive AmeriCorps support and AmeriCorps itself keep records on the direct service provided by members and by the organization as a whole. Program-specific metrics and related studies demonstrate that direct services generally increase as a result of national service infusion, for example, the number of families served by food programs or the number of urban neighborhoods where members planted

gardens (Perry et al., 1999; Shumer & Cady, 1997; U.S. General Accounting Office, 1997). Aguirre International (1996) reports that sponsoring organizations saw expanded or improved services or developed new services as a direct result of an AmeriCorps program. AmeriCorps members also help facilitate new connections between the sponsoring organization and other community partners like universities, non-profit organizations, government agencies, and private businesses (Aguirre International, 1996; Checkoway, 1997; Varda, 2011). The exact type of organizational benefit slightly differed depending on which type of program was implemented, given that State and National are more directly service oriented and VISTA focuses on long-term capacity building (Aguirre International, 1996).

To date, the bulk of service-related research focuses on the individual level. In an analysis of 997 service-related research abstracts published from 1990 to 1999, Perry and Imperial (2001) find that only 20 studies looked at impact on sponsoring organizations. Further, for links to broader communities or "society in general," there are only 31 and seven abstracts, respectively, suggesting that research lags on the third and arguably most critical objective of the AmeriCorps program—whether national service programs are effective in building and strengthening communities. Indeed, to date "little has been done to look at the community level impacts of these programs" (Varda, 2011, p. 919). Thomson and Perry (1998) suggest that part of the reason is because, "strengthening communities presents the greatest challenge for evaluation and measuring" (p. 400). The present study seeks to fill this important research need by directly evaluating community-level outcomes.

Theorizing the Community Impacts of National Service

Despite a lack of sustained attention to the community-level effects of national service programs, several studies and theories suggest that such a relationship may exist. We begin by noting that the 1993 legislation explicitly calls for improving the community:

> It is the purpose of this Act to … renew the ethic of civic responsibility and the spirit of community … [provide] structured service opportunities with visible benefits to the participants and community … *provide tangible benefits to the communities in which national service is performed.* (NACSTA, 1993, emphasis added).

Community benefits, then, are not just a positive byproduct but an intended purpose of this federal program.

How might national service organizations like AmeriCorps build and strengthen communities? As succinctly stated by Frumkin et al. (2009, p. 395), "AmeriCorps members can benefit communities by building problem-solving capacity and by meeting concrete public needs." Building on that statement, as well as Thomson and Perry (1998), we suggest that AmeriCorps strengthens communities through three pathways: (a) through the development of individual corps members, who learn to model a service ethic to others over time; (b) through building the capacity of community-based organizations and fostering partnerships among those organizations to better meet community needs; and (c) through concrete, focused service activities within targeted, at-risk communities.

Pathway 1 alludes to theory and research suggesting that service affects members, leaving them more likely to vote, participate in volunteering efforts in the future, and be more engaged within their communities overall (Aguirre International, 1996; Finlay et al., 2011; Frumkin et al., 2009; Galson, 2001; Perry, 1997; Perry & Imperial, 1999; Perry & Thomson, 1997; Simon & Wang, 2002; Ward, 2014). Many studies focused on individual-level outcomes of AmeriCorps make a general statement that having more civically engaged individuals will enhance the quality of the overall community. The presence of AmeriCorps members in the community could build community by increasing the population of civically engaged citizens. And, as these members model civic and community-oriented behavior to other citizens, it creates multiplier effects. In short, a first pathway suggests that communities with more AmeriCorps members will be associated with greater community well-being. State and National programs often send members out in teams, while VISTA members are limited to one member per organization; therefore, State and National programs may be more effective at influencing the community through this pathway (AmeriCorps, 2017).

Of the three pathways, studies focused on community-level outcomes tend to emphasize the second—capacity building and fostering partnerships. Building organizational capacity, in this case, refers to increasing human and social capital as well as organizational resources within a given community to solve community problems or improve or maintain the well-being of that community (Chaskin, Brown, Venkatesh, & Vidal, 2001). For example, Brower and Berry (2006) examined community building and strengthening from a small number of AmeriCorps programs in Florida from 1997 to 2000. Through self-reports, they found that program staff and community partners thought AmeriCorps programs positively influenced organization capacity to strengthen the community.

Similarly, Varda (2011), looking at three organizations that hosted AmeriCorps programs, finds that these programs increased each organization's social networks within the communities. The intervention of AmeriCorps into these organizations enhanced community-level social capital by strengthening network connections to other nonprofits, universities, and businesses. These networks of organizations are able to better solve social dilemmas by pooling resources, tackling larger challenges, and fostering ties between diverse groups (Monge et al., 1998; Parker & Selsky, 2004 see also Davis & Weaver, 1998; Perry & Thompson, 2004). Varda ultimately argues (2011) that this "government agency is best suited as a collaborator within communities in the construction of social capital" (p. 897) and confirms Huntoon's (2001) argument that government intervention is one important way to generate social capital at the community-level.

Thomson and Perry (1998) also looked at how AmeriCorps programs in five communities enhance interorganizational cooperation and capacity building. They found, however, that all five communities "face[d] significant collective-action problems that undermine their long-term community-building potential" (p. 418). Findings from Thomson and Perry (1998) coupled with previous studies suggest that the viability of community-level outcomes in the absence of long-term incentives for organizations to institutionalize such partnerships may be difficult. Therefore, in order for the second pathway to yield improvements to community-level well-being, a *sustained* presence of AmeriCorps over time is needed. Given

that VISTA has a stronger stated focus on capacity building, this program may be more effective than State and National at fostering these connections.

The third pathway through which AmeriCorps should improve communities is through direct service provision, especially in at-risk, high-poverty areas (Thomson & Perry, 1998). AmeriCorps programs help provide direct services through the nonprofit organizations such as food banks, homeless shelters, schools, or hospitals. Services include help getting jobs, social support, health care, assistance to needy populations, and promotion of healthy behaviors (Guo, 2012; Salamon, 1987; Weisbrod, 1977). Stronger non-profits meet the basic needs of all community members and lead to a variety of community goods, such as "better equipped museums, private schools, more active churches, public radio stations, family service centers, hospitals, [and] clinics …" (Wolpert, 1999, p. 237). Thus, AmeriCorps programs that help nonprofits in at-risk, high-poverty areas should increase community well-being, such as VISTA.

Community Well-Being: Theorizing a Reciprocal Effect

In this project, we consider community subjective well-being as an umbrella measure of community well-being. In recent decades, scientists have attempted to quantify what a "good life" is by studying subjective well-being, a term closely related to happiness, quality of life, and life satisfaction (Diener, 2000). Apart from basic physical needs, how an individual evaluates his or her life is essential to understanding what makes life happy and fulfilling (Diener, Lucas, Oishi, & Suh, 2002).

Practitioners and politicians increasingly use subjective well-being as a barometer of individual and national health (Kahneman, Krueger, Schkade, Schwarz, & Stone, 2004; Stiglitz, Sen, & Fitoussi, 2009). National governmental projects like the Centers for Disease Control's Healthy People 2020 initiative and international bodies like the World Health Organization and the Organisation for Economic Co-Operation and Development (OECD) have made public commitments to improving subjective well-being both at home and abroad. These bodies incorporate subjective well-being questions into surveys, publish international reports on well-being, and craft mission statements for improving well-being among individuals and countries. In addition, research has established that increases in community social capital leads to improvements in well-being (Bjørnskov, 2003; J. F. Helliwell, 2003, 2006; J. F. Helliwell, Aknin, Shiplett, Huang, & Wang, 2017). Given this growing interest in subjective well-being and its connection to social capital, we view it as a useful measure for gauging community health.

An important aspect of studying subjective well-being in the context of AmeriCorps is the fact that AmeriCorps programs are not placed in communities at random. An organization (either a nonprofit or state agency) must apply to either a state commission or the federal office for an AmeriCorps placement. Thus, the pre-existing health of a community may influence the likelihood of receiving an AmeriCorps program. For example, healthier communities have more robust volunteering habits (Smith, 1994), which may sustain a larger civil sector and increase the probability of receiving an AmeriCorps program. Counties with higher levels of subjective well-being may be more likely to seek out AmeriCorps and more readily attract competitive funding. Indeed, Varda (2011) suggests

that communities may need to possess a certain threshold of cohesion to receive benefits of increased social capital and finds that community characteristics influence synergy with government agencies and programs. Highly disengaged communities may lack nonprofit organizations with the capacity (personnel or finances) to apply for or comply with the federal requirements necessary to obtain and sustain an AmeriCorps program. In short, we theorize a reciprocal relationship between community well-being and the presence of AmeriCorps programs.

Data and Method

Community Subjective Well-Being

Population estimates of subjective well-being are typically obtained by aggregating individual survey responses (e.g., the Behavioral Risk Factor Surveillance System, American Community Survey; Land, 2002; OECD, 2013). We instead follow the work of Eichstaedt and colleagues (2015) and others (Bollen, Goncalves, Ruan, & Mao, 2011; Shah et al., 2015) who measure subjective well-being based on individuals' own expressions as measured through tweets. Eichstaedt et al. (2015) collected a 10 percent sample of *all* tweets between 2009 and 2010 and identified the rates of all words tweeted in a county that reflected five dimensions of subjective well-being.[1] These data were provided through the Open Science Framework. We followed their procedures to identify rates of words tweeted in counties for the period 2012–2013. Each tweet was scanned for key words that corresponded to an established, existing language dictionary, Linguistic Inquiry and Word Count (LIWC), from psychology validated by several studies (Pennebaker, Boyd, Jordan, & Blackburn, 2015; Pennebaker et al., 2001; Tausczik & Pennebaker, 2010). Depending on key words, tweets are categorized as (a) engagement, (b) disengagement, (c) positive emotions, (d) negative emotions, and (e) negative relationships. Pennebaker and colleagues created the LIWC language dictionaries as a tool to assess mental states and psychological characteristics. They used teams of four to eight human judges to generate lists of words that conceptually match a given dictionary topic, such as "engagement," aided by standard dictionaries, Roget's Thesaurus, and "hundreds of thousands of text files from multiple studies and sources" (Pennebaker et al., 2015, p. 6). If a majority of judges could not agree on a word's appropriate fit, it was discarded. Once sets of words were generated, they were psychometrically evaluated for internal consistency. If any word was detrimental to the internal consistency for the overall category, two to eight human judges reassessed its fit. LIWC is able to consider both formal language and naturally occurring language, such as "b4" and is a widely used source of information in social and psychological research (Bail, Brown, & Mann, 2017).

Table 1 provides the top six words tweeted per dictionary in the 2009–2010 period as well as some sample tweets. The top words per dictionary give a sense of the meaning of each dictionary. For example, "interesting" and "learn" suggest engagement, and "sorry," "mad," and "pissed" represent negative emotions. Table 1 indicates that the five dictionaries have high face validity, being what a subjective observer "would expect." Given variation in

[1]These are all tweets, not including retweets, not just tweets generated by AmeriCorps members, making this a measure of *community* subjective well-being.

language use, Eichstaedt et al. (2015) assessed the validity of how a tweet was categorized by randomly selecting 200 tweets from each well-being dictionary and having two human judges evaluate whether the full content of the tweet matched how it was categorized. Overall, agreement was high between the two raters, 74.5% to 90%, while the accuracy of each tweet ranged from 55.5% to 88.5%.[2]

Since user accounts and/or individual tweets can be geotagged, these geographic locations allow construction of a measure of community subjective well-being at the county level. We total all words tweeted in each county that appear in each of the dictionaries and divide these values by the total number of words tweeted in that county to create five proportions as dependent variables. Counties needed a minimum volume of tweets, roughly 50,000, to create reliable measures. This limits the number of counties in 2009–2010 to 1,347 and 796 in 2012–2013. As a result, included counties tend to be more urban in nature, limiting generalizability to more rural counties in the United States.[3]

Why twitter? Growing evidence from social and computer science points to the promising potential of social media data for social research (Bail, 2017; DiGrazia, McKelvey, Bollen, & Rojas, 2013; Flores, 2017; Liu et al., 2017; Mislove, Lehmann, Ahn, Onnela, & Rosenquist, 2011; Schwartz & Ungar, 2015; Sutton et al., 2014; Wei, Kenneth, Huan, & Kathleen, 2015). For example, Flores (2017) used Twitter to assess individuals' subjective sentiment toward immigration after the adoption of the controversial immigration bill in Arizona, SB 1070. Bail (2017) argues that these data provide a unique insight into the naturally occurring cultural contours of communities without the influence of researchers. Stefandis, Crooks and Radzikowski (2013) argue that social media data, "conveys *ambient geospatial information*, capturing for example, people's references to locations that represent momentary social hotspots. Harvesting this ambient geospatial information provides a unique opportunity to gain valuable insight on information flow and social networking in society" (p. 2).

Although Twitter users are not representative of the U.S. population—skewing younger, more diverse, and urban than the population as a whole (Malik, Lamba, Nakos, & Pfeffer, 2015; Mislove et al., 2011), recent research using geo-tagged tweets has linked them to more traditional measures of subjective well-being and other topics with a high degree of accuracy. For example, Schwartz and colleagues (2013) used tweets from 1,293 U.S. counties to accurately predict self-reported life satisfaction scores from phone surveys, while Quercia, Ellis, Capra, and Crowcroft (2012) link tweets to the subjective well-being of larger geographic contexts. O'Connor and colleagues (2010) used Twitter data to predict consumer confidence and topics from public opinion polls, with correlations as high as .80. DiGrazia and colleagues (2013) used Twitter data tied to congressional districts to successfully predict

[2]Although a sixth dictionary for positive relations was available, Twitter users tweeted the word "love" about both objects and people (roughly one third of the total tweets within the positive relations category). In accordance with advice from the World Well-Being Project, we do not include positive relations as an outcome.

[3]To assess the validity of our Twitter-based measures, we correlated them with two traditional items: voter turnout rates and number of mentally unhealthy days (using data from Behavioral Risk Factor Surveillance Survey [BRFSS]). In 2008, voter turnout correlates with disengagement at $r = -.31$ and engagement at $r = .28$. In 2012, which is a smaller sample of counties, these two correlations change to $r = -.13$ and $r = .32$, respectively. The average number of mentally unhealthy days correlated with disengagement, negative relations, and negative emotions at .30, .25, and .15, respectively.

election outcomes in 795 competitive U.S. House of Representative races in 2010 and 2012. Similarly, a team of German researchers use the same language dictionary we do, LIWC, to accurately predict the 2009 German elections (Tumasjan, Sprenger, Sandner, & Welpe, 2010). In fact, average estimates for party vote share were off by just 1.65%. Finally, using a procedure very similar to ours, Mitchell, Frank, Harris, Dodds, and Danforth (2013) generated a measure of happiness across all 50 U.S. states and 400 cites by identifying key words in geo-tagged tweets. Their twitter-based measure of happiness had significant correlations with a wide range of traditional measures of well-being, such as gun violence, Gallup-measured well-being, and community health.

In short, Twitter and other social media data are being used to successfully assess ecological context (Ahuja, Wei, Lu, Carley, & Reddy, 2017; Lee, Wakamiya, & Sumiya, 2011; Nguyen et al., 2016; Stefanidis, Crooks, & Radzikowski, 2013; Sutton, Palen, & Shklovski, 2008), including subjective well-being. As Wei et al. (2015) state, “Social media is rapidly becoming one of the mediums of choice for understanding the cultural pulse of a region …” (p. 9).

AmeriCorps

We include two measures of AmeriCorps programming based on our theorized pathways. Using data gathered from the CNCS website, we first measure the number of AmeriCorps members in a county in a given year. More members would mean more models of a service ethic and more actors generating connections between organizations within the community. Yearly membership totals were summed over the period 2005–2010.[4] Second, we measure the sustained presence of AmeriCorps in a county as the number of years a county had at least one AmeriCorps program since previous researchers noted that a challenge to producing community benefits is maintaining newly formed networks over time.[5] We summed presence for the period 2005–2010, leading to a variable ranging from 0 to 6. For the longitudinal analyses, we considered AmeriCorps membership and presence in two periods: 2006–2009 and 2010–2013.

As noted, AmeriCorps programs are not universal in their focus area, selection process, or even federal budget allocations (CNCS, 2014, 2017; Perry et al., 1999). In addition to overall programming, we distinguish total AmeriCorps membership and presence along three programming branches: AmeriCorps State, AmeriCorps National, and AmeriCorps VISTA. Because of the unique attributes of each program and how organizations are selected, we suspect there will be differences in how the three pathways work through them.

Both AmeriCorps State and AmeriCorps National provide grants to a network of local and national nonprofit organizations and state agencies committed to using national service to address critical community needs in education, public safety, health, and the environment. Each of these organizations and agencies uses AmeriCorps funding to recruit, place, and

[4]Logged measures yielded similar results.
[5]We also tested the number of AmeriCorps programs in a county, which ranges from 0 to 356. Findings are similar; for results please contact authors.

supervise AmeriCorps members. AmeriCorps National is a nationwide, competitive grant application process that supports nonprofit organizations operating across multiple states, such as the Red Cross or Habitat for Humanity. As a result of both size and geographic requirements, only those organizations that are large and resource-rich tend to apply for and obtain AmeriCorps National grants.

In contrast, AmeriCorps State is a state-level grant application process. Each state, with the exception of South Dakota, has some form of a state commission, generally through the governor's office but possibly through an external organization (e.g., the Texas One Star Foundation). The commission oversees that state's AmeriCorps State program. AmeriCorps State commissions receive federal funding,[6] which they allocate to a variety of nonprofit organizations and government agencies that are not otherwise funded through AmeriCorps National. AmeriCorps State commissions enjoy a great deal of autonomy in how they distribute these federal funds. For example, some commissions emphasize organizations that align with a governor's policy agenda. The key difference, though, is that these applications are not subject to a national competition, which gives smaller or more targeted organizations the opportunity to receive AmeriCorps resources.

AmeriCorps VISTA was founded in 1965 to fight poverty in the United States. Since 1993, AmeriCorps VISTA has been part of the AmeriCorps family of programs. True to its beginnings, AmeriCorps VISTA continues to place members in organizations within high-poverty communities with the goal of assisting in organizational capacity building to address poverty-related issues. A separate set of federal CNCS employees assigned to each state oversees AmeriCorps VISTA. These employees play an active role in soliciting nonprofits and government agencies to apply to become AmeriCorps VISTA sponsors. VISTA members receive unique training from AmeriCorps VISTA and their placement organizations.

In addition to the three main categories, we also include smaller AmeriCorps programs such as Promise Fellows and Indian Tribes in an "other" category. These organizations have unique processes or aims that do not fit within the three main categories.[7]

Control Variables

Assessing the relation between AmeriCorps programming and community subjective well-being requires controlling for a set of factors to ensure that we account for plausible alternative explanations (Dimaggio, 2002; Easterlin, 1995; F. A. Helliwell & Putnam, 2004; Oswald & Wu, 2010). Following previous research, we use data from the 2010 American Community Survey to control for economic, demographic, and geographic county-level characteristics. To begin, researchers looking at the "economics of happiness" assess how the economic context shapes well-being beyond individual characteristics (Dolan, Peasgood,

[6] The population of each state determines the funding allocated to each state. Funding begins at US$250,000. State commissions can either use their designed funding, referred to as formula dollars, to fund an application or refer stronger applications to the federal competition, reserving formula dollars for projects that do not win the competition.

[7] Owing to data limitations, we do not include other national service programs that fall within AmeriCorps' purview, such as the National Civilian Community Corps (NCCC). Also, although not a part of AmeriCorps, the largest national service program housed within the CNCS is SeniorCorps.

& White, 2008). Unemployment rates, for instance, are an important predictor of subjective well-being (J. F. Helliwell, 2003). Likewise, we control for logged median income given that communities with greater incomes tend to demonstrate more positive subjective well-being (Diener, Suh, Lucas, & Smith, 1999). Last, the level of income inequality, measured by the Gini Coefficient, is another significant community-level predictor because highly unequal communities tend to have less social cohesion and community social capital (Diener & Diener, 1995; Diener et al., 1999; Klein, 2013).

We also include demographic controls that are linked to subjective well-being (Diener et al., 1999). Education correlates positively with subjective well-being so we include the proportion of high school graduates and college students (Argyle, 2013; Diener & Diener, 1995; Easterlin, 1995; Keyes, Shmotkin, & Ryff, 2002). Subjective well-being is also contingent on several other demographic factors. Inequality and discrimination decrease the subjective well-being of women and minorities (Argyle, 2013; Diener et al., 1999; Nolen-Hoeksema & Rusting, 2003), while studies find that people in middle age tend to exhibit lower life satisfaction compared with younger cohorts (Blanchflower & Oswald, 2004). Thus, we control for the proportion male, African American, and the median age within each county.

Finally, we control for the percentage of the county defined as “rural.” Not only do studies find that living in urban settings has negative consequences for life satisfaction (Hudson, 2006; but see Dolan et al., 2008), but we also find that AmeriCorps tends to underplace programming in rural counties. (See the appendix in online for descriptive statistics of dependent and key independent variables).

Method

We began with a series of linear regressions to gain a broad understanding of how AmeriCorps programming—number of members and the sustained presence of AmeriCorps programs over time—are associated with community subjective well-being across 1,347 counties.[8] Overall, AmeriCorps programming between 2005 and 2010, as well as the presence of National, State, VISTA, and Other programs, predicted each of five dimensions of subjective well-being in 2010, for a total of 50 analyses. Each model included all control variables in addition to state fixed effects to account for unmeasured factors influencing counties located within the same state. With multiple regressions and multiple tests, we used the Benjamini and Hochberg (1995) *p*-value adjustment with a conservative False Discovery Rate (FDR) of 0.05. The adjustment was made for each of the five dependent variables. Together, these analyses provided a comprehensive look at the association between AmeriCorps programming and multiple dimensions of subjective well-being at the community level.

Next, we considered whether introducing an AmeriCorps program as a treatment or intervention positively increased the subjective well-being of a county. In 2009, 250

8.These counties skew urban with some of the most rural counties across the American West, Great Plains, and Appalachia never receiving an AmeriCorps program and not meeting the threshold of 50,000 tweets. Overall, 88.27% of the total U.S. population in 2010 is covered within the counties included in our analysis.

counties did not have an AmeriCorps presence. Seventy-two of these received at least one AmeriCorps program between 2010 and 2013 (coded 1/0). We estimated a change-score model with AmeriCorps as a treatment predicting the change in subjective well-being between Wave 1 (2006–2009) and Wave 2 (2010–2013; Allison, 1990; Finkel, 1995; Johnson, 2005). This model helped address the threat to inference arising because AmeriCorps programming is not randomly distributed across counties. Because an AmeriCorps "treatment" is not random, the same factors that increase the likelihood of AmeriCorps programming may also increase subjective well-being in a county. By comparing counties that received the treatment with those that did not over time (and assuming that the trend in subjective well-being would be the same in treated counties in the absence of treatment and in the control group), we arrived at the average effect of the treatment (Holland, 1986).

Finally, we addressed the possibility of reciprocal effects with a cross-lagged panel design over two time periods. Our model contained cross-lagged relationships between AmeriCorps programming and two measures of subjective well-being: engagement and disengagement.[9] The presence of AmeriCorps programming between 2006 and 2009 was hypothesized to affect subjective well-being in 2013. Likewise, subjective well-being in 2010 likely affected AmeriCorps programming in 2010–2013. We also estimated stability parameters; AmeriCorps programming in 2006–2009 likely affected AmeriCorps programming in 2010–2013, and subjective well-being in 2010 likely affected subjective well-being in 2013.

We included the set of control variables as well. The errors in the equations of AmeriCorps and subjective well-being were correlated to reflect possible covariation between AmeriCorps and subjective well-being that was not captured by the cross-lagged, stability, or control effects of the model. See Figure 1 for our cross-lagged panel design.

Results

Results from our models seek to answer whether AmeriCorps programming is associated with community subjective well-being. Table 2 presents the standardized coefficients from the full model of the association between number of members and community subjective well-being, including control variables. We present only the models for total AmeriCorps members; the controls behave similarly across all analyses of AmeriCorps subcategories. The top row of Table 2 references the five dependent variables: negative relations, engagement, disengagement, positive emotions, and negative emotions.

The variable of interest, total number of AmeriCorps members, is significantly and negatively associated with two of the three negative categories—negative relations and disengagement—suggesting a buffering effect. The standardized coefficient for negative relations and disengagement are −.066 and −.106, respectively. Translated into tweets, these coefficients indicate that each additional standard deviation increase of AmeriCorps members in a county, which is 3,391 members, is associated with a 29-word reduction

9. Although the cross-lagged models we present focus on AmeriCorps presence and (dis)engagement, using AmeriCorps members and other measures of subjective well-being yield similar results.

in negative relation tweets, and a reduction in disengagement tweets by 26 words. The median county-level negative relations words tweeted was 438. The median number of disengagement words was 247. Total AmeriCorps members is also marginally significantly associated with one positive dimension of subjective well-being, engagement.

Turning to some of the control variables, as the median income and age in a county increase, the rate of negative relation tweets and disengagement tweets decreases. This pattern repeats for the percentage of high school graduates, the percentage of the county that is classified as rural, and the percentage of college students and disengagement. Unexpectedly, the coefficients for the associations between the county-level inequality and negative relations and disengagement are also negative, indicating that as the level of inequality increases, these negative subjective well-being indicators also decrease.

Some control variables also display a positive association with positive indicators. Income inequality, median income, and the proportion of high school graduates are all associated with increases in the rate of engagement words and positive emotion words. The percentage of college students is also positively associated with engagement words. Finally, an increase in the percentage of African Americans in a county is associated with declines in positive relations, engagement, and positive emotions and increases in negative relations, disengagement, and negative emotions. We do not theorize about the mechanisms behind these associations, although a better understanding of the causes could be an avenue for future research.

Table 3 presents the standardized coefficients for the AmeriCorps variable from all linear regression models. The top half of Table 3 presents the results for number of AmeriCorps members in a county while the bottom half presents them for the presence of programming over time. This table contains only the standardized coefficients of interest from each model —the coefficient for AmeriCorps. In other words, each cell represents the results of a different model. Control variables (not shown) perform similarly across all models.[10]

Table 3 shows that number of members and the presence of AmeriCorps programs from 2005–2010 are significantly associated with levels of subjective well-being. In fact, both sets of coefficients, for number of members and presence, behave almost identically. Throughout the table, we see more significant associations for reduced negative aspects of subjective well-being than increased positive aspects. A one-year increase in the presence of AmeriCorps results in a 24.7-word reduction in negative relation tweets and a reduction in disengagement tweets by 13.2 words. In particular, we see that overall AmeriCorps programming and its various subtypes tend to reduce negative relations and disengagement. For example, the top row (reproduced from Table 2) suggests that an additional AmeriCorps member of any kind is associated with lower rates of negative relations and disengagement tweets by −.066 and −.106, respectively. As a county experiences more AmeriCorps members, a buffering effect mitigates the expression of negative relationships and disengagement by all citizens. Given that AmeriCorps programs focus on “critical community needs” (Kirby, Levine, & Elrod, 2006, p. 2) and AmeriCorps

10. Please contact authors for complete set of results.

members engage in direct service provision, a finding that such programs are associated with reduced social ills is not surprising.

The next question is whether the subcategories of AmeriCorps programming have similar effects. We find a buffering association between AmeriCorps State and National and the negative dimensions of social well-being, although the effect size of AmeriCorps National tends to be slightly larger than AmeriCorps State. AmeriCorps National is also the subcategory with the most significant effects on all outcomes. Indeed, the relation between AmeriCorps National presence and disengagement is one of the strongest. A one standard deviation increase in National presence, or approximately 2 years of programming, is associated with a 0.15 standard deviation reduction in the rate of disengagement tweets. This corresponds to approximately 62.6 fewer disengagement tweets in a county (remember the median is 247). A one standard deviation increase in AmeriCorps State presence, or 2.3 years, is associated with only a 0.05 standard deviation reduction in the rate of disengagement tweets. For VISTA, a one standard deviation increase reduces disengagement by 0.085 standard deviations.

AmeriCorps National is also the only program with significant associations with all three negative aspects of social well-being. It is possible that the respective strength of AmeriCorps National in mitigating expressions of social ill-being is due to the generally larger size and scope of the organizations competing for National funding and the fully competitive nature of its selection process. Furthermore, according to information gathered from CNCS staff, nonprofits and other organizations that receive members through the national competition may be more sophisticated, have access to additional resources, or have a history of working with AmeriCorps and know how to more effectively implement their members.

The only positive coefficients on a positive relationship in Table 3 is for the presence of VISTA members and programs predicting engagement (suggesting that the marginally significant association between overall AmeriCorps programming and engagement is primarily due to AmeriCorps VISTA). A one standard deviation increase in VISTA presence, or two years of programming, is associated with a 0.086 standard deviation increase in the rate of engagement tweets.

The relationship between AmeriCorps VISTA programming and engagement may be due to VISTA's unique emphasis on capacity building in high-poverty areas. Unlike other types of AmeriCorps programming, VISTA members do not focus on direct service activities. Instead, according to their mission statement, they focus their efforts on building the organizational, administrative, and financial capacity of organizations … so it can continue to serve the needs of the community. Thomson and Perry (1998) found that by focusing on capacity building, VISTA members were able to influence the surrounding community because organizations had more resources to invest in engagement itself. These effects may be more pronounced given that VISTA organizations are located in high-poverty communities. This unique mission and role of VISTA members in nonprofits and communities appear to be better suited to produce broader sentiments of engagement within the overall community.

On the other hand, it is also possible that the increase in engagement tweets is an artifact of the AmeriCorps VISTA program itself. If VISTA members work on increasing their host organization's social media footprint as part of capacity building (e.g., tweeting about nonprofit activities), this could explain the positive association. This explanation cannot be used to explain the buffering effects found throughout our results given that buffering stems from the *absence* of negative tweets.

Longitudinal Models

One threat to inferring that AmeriCorps programming influences community subjective well-being is that counties that receive AmeriCorps programming may simply be different from those that do not receive programming. While the control variables and state fixed effects in the cross-sectional models help address this threat, longitudinal modeling allows stronger tests. Table 4 presents the results of a change score model that tests the treatment of AmeriCorps programs as an intervention. The dependent variable is the change in subjective well-being from 2010 to 2013.

Table 4 suggests that all three negative dimensions of subjective well-being are reduced when introducing an AmeriCorps program. Corresponding to the cross-sectional models, AmeriCorps appears to operate more through reducing the negative aspects of subjective well-being than through increasing its positive aspects. Counties that received an AmeriCorps program saw rates of negative relations tweets fall by 0.201 compared with those that did not receive the intervention. This translates to roughly 331 fewer negative relations words, on average. Although only marginally significant, AmeriCorps increases engagement tweets. From 2010 to 2013, counties that went from no presence of AmeriCorps programming to at *least* one increased levels of engagement and saw 61 more engagement words tweeted.

As explained earlier, another threat to inferring that AmeriCorps is associated with community subjective well-being is the possibility of reciprocal effects. Table 5 presents cross-lagged panels that model an interdependency between AmeriCorps presence and subjective well-being over two time points. Our focus is on disengagement; other results are similar.[11] The top portion of Table 5 shows significant reciprocal effects between AmeriCorps and subjective well-being. As before, years of AmeriCorps programming from 2006 to 2009 significantly predict disengagement in 2013. Thus, the first takeaway from Table 5 is the continued negative association between AmeriCorps programs and disengagement. In a longitudinal model with reciprocal effects, an increase in AmeriCorps presence remains associated with less disengagement.

However, we also see that disengagement tweets in Wave 1 significantly affect AmeriCorps programming in 2010–2013. These results suggest that disengaged communities are less likely to seek out or receive an AmeriCorps program. The standardized coefficients for both effects are quite similar: The effect of AmeriCorps presence on disengagement ($b = -.074$) is equivalent to disengagement on AmeriCorps ($b = -.074$).

[11]We assessed a range of other models including specific subprograms and members compared to presence. Results are similar to those we present here. All models are available from the authors.

The significant stability effects in both disengagement and AmeriCorps are notable. In particular, there is a moderate degree of stability over time in the presence of AmeriCorps in a county ($b = .617$). This is reasonable. In information provided by CNCS staff, applications tend to be from similar communities over time, and owing to the heavy federal regulations that go along with receiving an AmeriCorps program, past grantees are often reselected since they have proven their ability to comply.

Discussion and Conclusion

In 1993, President Bill Clinton created AmeriCorps with the goal of strengthening communities across the United States through national service. In 2009, President Barack Obama passed the Edward M. Kennedy Serve America Act. This bill sought to increase AmeriCorps members from 75,000 to 250,000 by 2017. Although this goal was not achieved, between 2009 and 2017, CNCS nevertheless oversaw its largest budget allocations as a result of this increased, bipartisan emphasis on promoting national service. With this increased funding came an even greater need to understand whether AmeriCorps programming does, in fact, improve communities across the country. Aside from evaluating national service as a worthwhile program, given declines in social capital in the United States in recent decades, it is also important to determine government interventions can be effective at improving the health of communities.

In one of the first quantitative analyses of AmeriCorps across a large number of communities, we find a connection between national service programs and greater subjective well-being in counties because AmeriCorps programs buffer against threats to subjective well-being. With their direct service and capacity building, AmeriCorps programs may be one tool to protect and restore communities. While all types of AmeriCorps programs mitigate against social ills, it is only AmeriCorps VISTA that increases engagement. By focusing on capacity building, VISTA programs may have positive effects by making an entire organization more robust in its ability to foster community bonds. While the associations we find are modest in size, they are robust to several threats to inference.

Ultimately, we do find support for the three pathways by which AmeriCorps should affect communities, alluded to by Thomson and Perry (1998)—communities: (a) through the development of individual corps members, who exhibit model civic behaviors for others to mimic; (b) by building the capacity of community organizations and fostering partnerships among them to better serve the broader community; and (c) administering concrete, focused service activities within some of the most at-risk populations. Having more members within a community, who carry with them skills and various civically oriented behaviors, is indeed associated with the reduction of negative sentiments throughout the community. Given that the effects are primarily associated with the *absence* of negative well-being tweets, these findings demonstrate that the hypothesized pathways discourage negative emotions, relations, and, in particular, being disengaged. In addition, AmeriCorps programming can increase organizational capacity in the short term, but institutionalization may require a longer-term presence of AmeriCorps. Our findings confirm that more years of an AmeriCorps presence produces greater gains for the community. Given that many nonprofit and government offices that receive AmeriCorps programs are focused

on alleviating entrenched social ills, this finding is understandable. Thus, maintaining a programmatic presence over time, rather than increasing intra-year volume, may help reduce negative dimensions of community subjective well-being. Finally, the positive association between VISTA, in both measures, and engagement suggests that particular targeting of the most at-risk communities can improve positive dimensions of well-being in addition to buffering against the negative. These results present one of the first quantitative assessments of Thomson and Perry's arguments connecting AmeriCorps and the broader community in which these programs operate.

Of relevance to AmeriCorps program officers, another key finding is that AmeriCorps programs tend to be allocated to communities with higher subjective well-being. For example, less engaged communities are less likely to receive AmeriCorps programs. Given complex application and reporting requirements, more engaged communities may have a more active civil society sector and have a larger pool of organizations able to attract AmeriCorps resources and networks to the community. This finding echoes Varda's (2011) assessment that a certain threshold of social capital among AmeriCorps recipients is necessary to maximize benefits. What this suggests then is that engaged communities may experience increasing returns as AmeriCorps programs augment dynamics already in play. By incorporating a third wave of data into the cross-lagged panels, future research will be able to better assess if these reciprocal processes continue to play out: Engaged communities receive AmeriCorps programs, which enhances subjective well-being, which again increases their capacity to sustain more AmeriCorps programs. National and state officers could attempt to redress this imbalance by paying particular attention to applications from "quiet" or atypical communities. For example, the Texas Lone Star Foundation began providing planning grant opportunities in 2015 for organizations that had never had an AmeriCorps State or National program. A program targeting communities rather than organizations would be a worth-while initiative to investigate. As evident from the intervention models, such an approach may provide dividends as counties that received the AmeriCorps intervention compared with those that did not experienced reduction in negative dimensions of subjective well-being. One challenge is that the population of the counties that are newly introduced to AmeriCorps is small, showcasing that it will take intentional practitioner decision making from programs like the Texas Lone Star Foundation.

Although this research is able to provide new insights, there are also questions that remain unanswered. Due to limitations on where Twitter data are available, these analyses lean more toward urban counties in the United States. Although the counties included encompass 88.27% of the population in the United States, it limits generalizability to more rural settings. Results from the cross-lagged panel reveal that rural counties in fact receive fewer AmeriCorps programs over time. In addition, while we are able to create an innovative measure of community well-being from Twitter, an increasingly important data source for social research (Bollen et al., 2011; Eichstaedt et al., 2015; Flores, 2017; Shah et al., 2015), it is a measure of self-expression unable to assess real-life behaviors such as voting. Although communication scholars argue there needs to be a blurring between "offline" and "online" categorizes of behavior, there are still questions about which types of behaviors can be detected from online actions (Jordan, 2009; Kim, Atkin, & Lin, 2016; Subrahmanyam, Reich, Waechter, & Espinoza, 2008; Williams, 2006). These data are unable to distinguish

between a single user who tweets a large volume of negative emotions and several users tweeting infrequently. Our high minimum threshold of tweets per county, 50,000, may make it difficult for any one user to significantly influence overall measures, but nevertheless, it is one challenge with these data. Also, Twitter is but one social media platform. Future studies may similarly assess sentiment measured from Facebook, for example, to expand on these findings given that there are important variations between Twitter and Facebook communities and types of content shared (Hughes, Rowe, Batey, & Lee, 2012).

Understanding irony, sarcasm, and humor can be challenging in text analysis (Bharti, Vachha, Pradhan, Babu, & Jena, 2016; Mohammad, 2016). Recall that we did not use one of the LIWC dictionaries, positive relations, because such a large number of users tweeted the word “love” about both objects and people. While semi-supervised machine-learning approaches are working to account for such limitations (Davidov, Tsur, & Rappoport, 2010), assessing sentiment via text analysis remains a field in progress (see Boyd & Crawford, 2012 for a discussion on the potential and limitations of Big Data).

Investigating the relationship between AmeriCorps and subjective well-being addresses the large, unanswered question of whether AmeriCorps is fulfilling its stated purpose of improving communities. From this study, it appears it does. Our findings suggest that as researchers seek to understand how various governmental programs or offices are performing, the reduction of negative outcomes may be just as consequential as the promotion of positive benefits. Furthermore, for scholars of civic engagement and volunteerism, the results offer insights into the role of state intervention and state cooperation in promoting civic participation. Public administrators can invest in and/or subsidize civically oriented entities such as nonprofits through AmeriCorps programming, investments that could yield returns in community subjective well-being.

Supplementary Material

Refer to Web version on PubMed Central for supplementary material.

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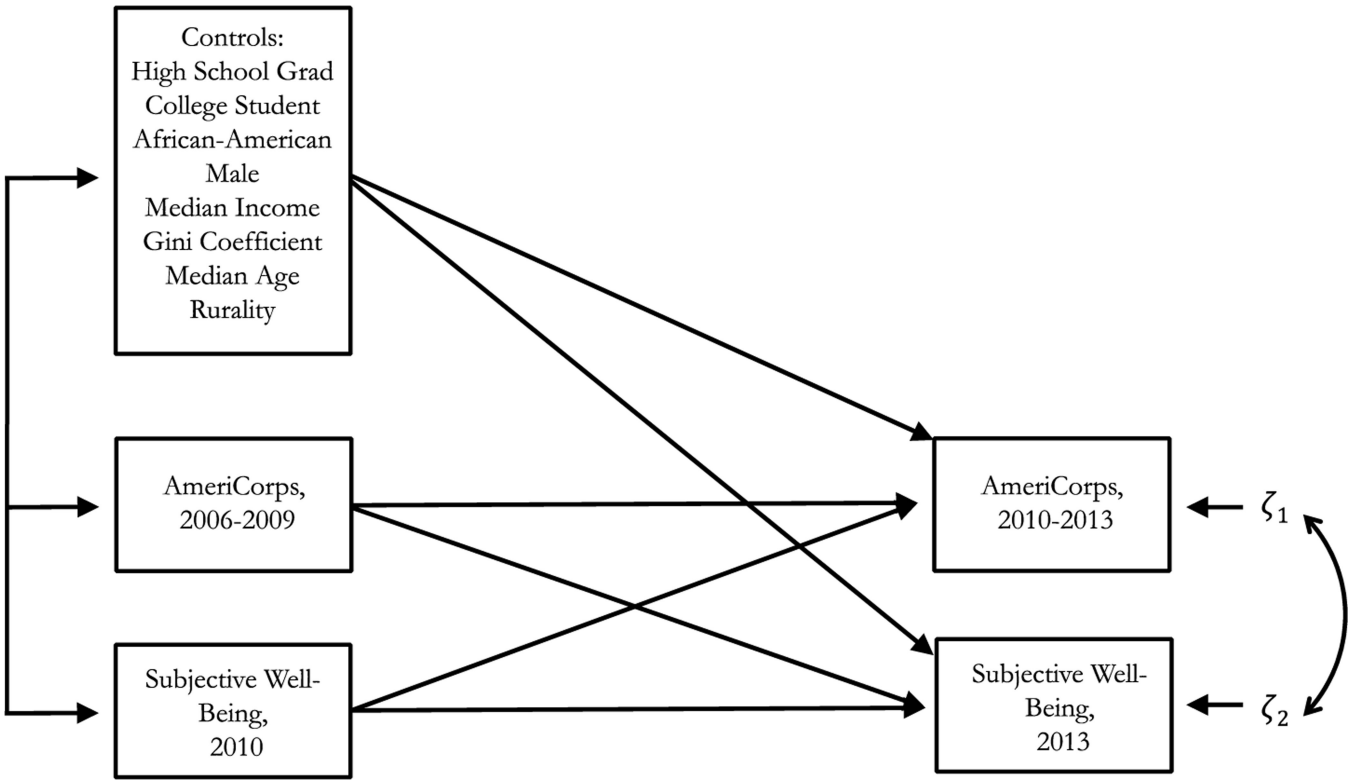

Figure 1.
Cross-lagged panel model of AmeriCorps and subjective well-being.

Table 1.

Top Tweeted Words Per Dictionary With Example Tweets.

Dictionary	Top words		Example tweets[a]
Engagement	Learn	Alive	"I'm properly ***learning*** Chinese from a babys program called Ni Hao, Kai
	Interesting	Interested	Lan! Ha,"—November 9, 2009
	Awake	Learning	
			"A weekend full of flying, crashing, chatting with flier friends (some super folks) rain winds storm … total excitement … felt so ***alive,***" September 15, 2010
Disengagement	Meh	Lazy	"Listening to the game on my phone because I can't seem to get myself out of bed to go watch. ***meh***," July 9, 2010
	Tired	Blah	
	Bored	Sleepy	
			"I'm so ***bored*** … literally nothing to do in this town," August 14, 2010
Positive Emotions	Great	Cool	"Just ate an ***amazing*** salad at the Aroma Café! Mmmmm Sooo Good!!"
	Happy	Amazing	November 12, 2009
	Awesome	Glad	
			"I am so ***happy*** right now. My dearest friends just came back from Africa with their new son!! He is so adorable! God is so good! :)," November 12 2009
Negative Emotions	Pissed	Terrible	"Didn't get to go to halloween world today … ***pissed***," October 12, 2009
	Sad	Horrible	
	Mad	Sorry	
			"Good job making me feel ***horrible***, like I'm worth nothing):," July 14, 2010
Negative Relations	Jealous	Hate	"really ***hate*** some men sometimes or maybe I just pick the crap ones lol," August 29, 2009
	Blame	Evil	
	Alone	Rude	
			"Dealing with an astounding ***rude*** and unhelpful Sprint Store employee," August 29, 2009

[a]Although tweets are public, we exclude user Twitter handles.

Table 2.

Cross-Sectional Analysis: AmeriCorps Members on Subjective Well-Being.

	Negative relations	Engagement	Disengagement	Positive emotions	Negative emotions
AmeriCorps Members, Total	−0.065*	0.047†	−0.105***	0.024	−0.026
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Unemployment Rate	0.121***	−0.078*	0.067†	−0.044	0.064
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Male	−0.016	−0.017	0.015	0.005	−0.002
	−0.001	(0.001)	(0.001)	(0.002)	(0.001)
High School Graduates	−0.073	0.123**	−0.144**	0.115*	−0.066
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
African American	0.083†	−0.196***	0.284***	−0.395***	0.083†
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
% Rural	−0.007	−0.084*	−0.089**	−0.071†	−0.047
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Gini Coefficient	−0.145***	0.145***	−0.2***	0.154***	−0.154***
	(0.000)	(0.000)	(0.000)	(0.001)	(0.000)
Median Income (logged)	−0.063	0.096**	−0.227***	0.17**	−0.006
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Median Age	−0.098*	0.001	−0.116**	−0.001	−0.09†
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
College Students	−0.003	0.088*	−0.103*	0.018	0.056
	(0.000)	(0.000)	(0.000)	(0.001)	(0.000)
Observations	1,347	1,347	1,347	1,347	1,347
R-Squared	.241	.344	.384	.298	.189

Note. Standardized coefficients are presented; all models include state fixed effects; standard errors in parentheses.

† $p < .1$.

* $p < .05$.

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** $p < .01$.

*** $p < .001$.

Table 3.

Cross-Sectional Analyses: AmeriCorps Members and Presence on Subjective Well-Being.

	Negative relations	Engagement	Disengagement	Positive emotions	Negative emotions
AmeriCorps Members, Total	−0.065*	0.047†	−0.105***	0.024	−0.026
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Subcategories					
AmeriCorps National	−0.049†	0.036	−0.089***	0.013	−0.020
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
AmeriCorps State	−0.056†	0.033	−0.078**	0.009	−0.015
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
AmeriCorps VISTA	−0.064*	0.053*	−0.102***	0.038	−0.029
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
AmeriCorps Other	−0.014	−0.018	−0.048*	−0.031	−0.027
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
AmeriCorps Presence, Total	−0.117***	0.053†	−0.081**	0.023	−0.015
	(0.000)	(0.000)	(0.003)	(0.000)	(0.000)
Subcategories					
AmeriCorps National	−0.115***	0.026	−0.151***	−0.015	−0.08*
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
AmeriCorps State	−0.083**	0.041	−0.052*	0.035	−0.013
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
AmeriCorps VISTA	−0.075*	0.084**	−0.083**	0.038	−0.015
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
AmeriCorps Other	−0.021	−0.016	−0.057*	−0.026	−0.032
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)

Note. Standardized coefficients are presented. All models control for proportion male, high school graduate, African American, college students, and rurality, unemployment rate, Gini, logged median income, median age, and state fixed effects. Standard errors in parentheses. VISTA = Volunteers in Service to America.

† $p < .1$.

* $p < .05$.

** $p < .01$.

*** $p < .001$.

Table 4.

AmeriCorps Intervention Change Score Models.

	Negative relations	Engagement	Disengagement	Positive emotions	Negative emotions
Intervention	−0.201 **	0.037 †	−0.064 *	0.001	−0.152 ***
	(0.075)	(0.020)	(0.030)	(0.088)	(0.044)
Constant	4.075 ***	0.692 ***	0.763 ***	3.812 ***	2.124 ***
	(0.040)	(0.011)	−0.016	(0.047)	(0.024)
Observations	250	250	250	250	250
R-squared	.028	.013	.018	.000	.046

Note. Standard errors in parentheses.

† $p < .1$.

* $p < .05$.

** $p < .01$.

*** $p < .001$.

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Table 5.

Two-Wave Cross-Lagged Model of Overall AmeriCorps Presence and Disengagement.

	Disengagement, 2010–2013	Overall presence of AmeriCorps, 2010–2013
Disengagement, 2006–2009	0.401***	−0.659**
	(0.028)	(0.266)
Overall Presence, 2006–2009	−0.009**	0.617***
	(0.003)	(0.032)
Unemployment	0.001†	0.001
	(0.003)	(0.025)
Male	−0.9†	0.743
	(0.51)	(4.81)
High School Graduates	−0.002	0.015
	(0.001)	(0.012)
African American	0.521***	0.209
	(0.05)	(0.47)
% Rural	0.074*	−1.84***
	(0.033)	(0.316)
Gini Coefficient	−0.782***	6.645***
	(0.206)	(1.94)
Median Income (logged)	−0.064*	0.062
	(0.031)	(0.292)
Median Age	−0.002	−0.034*
	(0.001)	(0.017)
College Students	−0.212	−1.93
	(0.189)	(1.77)
Constant	2.036***	−2.45
	(0.45)	(4.25)
Observations	796	796
R-squared	.54	.52

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Note. Standard errors in parentheses.

$^{\dagger}p < .1$.

$^{*}p < .05$.

$^{**}p < .01$.

$^{***}p < .001$.