

**Fostering Meaning, Purpose, and Enduring Commitments to Community Service in
College: A Multidimensional Conceptual Model**

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Abstract

Using longitudinal data collected as part of the 2004/09 Beginning Postsecondary Students Longitudinal Study, this study employed structural equation modeling to examine how multiple dimensions of college students' service participation shape life goals oriented toward meaning, purpose, and citizenship and subsequent service engagement. The findings suggest that life goals and subsequent service participation are a function of students' citizenship predispositions, the intensity and context of service involvement, and, importantly, the benefits that students derive from their service participation. Becoming a more compassionate and socially-aware person as a result of service work is positively linked to committing oneself to a meaningful life marked by helping others, civic engagement, and service.

Fostering Meaning, Purpose, and Enduring Commitments to Community Service in College: A Multidimensional Conceptual Model

The mission of higher education has historically included educating students for lives of public service and civic engagement (American Council on Education, 1949; Cohen, 1998). To the extent that sheer numbers of volunteering students are indicative of success in achieving higher education's service mission, recent studies of the rates at which college students volunteer suggest that the number of students performing service in their communities is on the rise (Sax, 2004), growing as much as 20% from 2002 to 2005 (Dote, Cramer, Dietz, & Grimm, 2006). Indeed, reported rates of community service participation for college students range from 30% to over 70% (Griffith, 2010; Handy et al., 2009; Haski-Leventhal et al., 2008; Misa, Anderson, & Yamamura, 2005). Although rates of service participation as a whole have risen over time, panel studies of the trajectories of service participation from high school through the post-college years reveal that individuals become less involved in community service with each educational transition (Vogelgesang & Astin, 2005). Given the tendency for civic values and behaviors to weaken after college, it is imperative that we understand how to foster enduring commitments to citizenship during and after the college years so as to maintain the integrity of higher education's public service mission.

Using longitudinal data collected as part of the 2004/09 Beginning Postsecondary Students Longitudinal Study, this study examines how multiple dimensions of college students' service participation—the intensity and type of service, the motivation to serve, and the benefits of serving—shape life goals oriented toward meaning, purpose, and engaged citizenship and subsequent service engagement. To provide a context and rationale for the study, the following review of the literature considers three essential questions: What predicts participation in

community service? What are the short- and long-term effects of community service work? How do the motivations underlying service work shape subsequent experiences and outcomes?

Literature Review

Regarding the first question (why do individuals participate in community service work?), a number of research studies have identified the personal and contextual factors that predict volunteering. The literature consistently shows that prior community service participation predicts future service participation. Participation in service in high school predicts service participation in college and young adulthood (Berger & Milem, 2002; Hart, Donnelly, Youniss, & Atkins, 2007; Planty, Bozick, & Regnier, 2006; Winniford, Carpenter, & Grider, 1995), and participation in the first year of college predicts participation later in college (Griffith, 2010; Griffith & Hunt-White, 2007) as well as after college (Fenzel & Peyrot, 2005; Misa et al., 2005).

Women and students with greater educational and socio-economic capital generally volunteer more often than do men and those with fewer educational and socio-economical resources (Cruce & Moore, 2007; Dote et al., 2006; Griffith & Hunt-White, 2007; Handy et al., 2009; Hu, 2008; Planty et al., 2006). Reiterating the point that student background characteristics play a role in service participation, human, social, and cultural forms of capital are known to influence the *type* of service work toward which an individual student gravitates (Griffith, 2009). Nonetheless, the pattern of relationships between student traits and service is not unequivocally clear. Studies of race and ethnicity, for instance, show conflicting evidence with respect to how this dimension of identity affects service participation (Cruce & Moore, 2007; Dote et al., 2006; Gonzalez, 2008; Griffith & Hunt-White, 2007; Jones & Hill, 2003).

Attitudes and values also play a role in inclinations to perform and continue service work (Marks & Jones, 2004; Ozorak, 2003; Vogelgesang & Astin, 2005). Students who are socially

responsible, optimistic, religious, and non-materialistic exhibit sustained participation in community service from high school to college (Marks & Jones, 2004), and students who feel connected to their communities and who perceive serious community needs tend to volunteer (Hellman, Hoppes, & Ellison, 2006). Seider (2007) argued that a predisposition toward an ethic of care is a necessary but not sufficient precursor to participation in service work; the other essential ingredient is a catalyzing academic experience that alters students' worldviews and propels them to serve.

Other research similarly contends that context matters: educational environments and experiences influence decisions to participate in service. In short, students who live on campus; belong to Greek letter organizations; and major in education, social science, or biological science volunteer at higher rates than students not exposed to these environments and experiences (Cruce & Moore, 2007; Haski-Leventhal et al., 2008; Jones & Hill, 2003; Planty et al., 2006). Among types of institutions, students who attend private four-year institutions have the highest rates of service participation (Griffith & Hunt-White, 2007), whereas students attending large, urban institutions volunteer less often by comparison (Cruce & Moore, 2007). Furthermore, student culture and normative beliefs (Jones & Hill, 2003; Okun & Sloane, 2002) and the visibility of service opportunities (Jones & Hill, 2003) have also been shown to influence service participation. Finally, as might be expected, students who enroll in a service-learning course are more likely to participate in service (Griffith & Hunt-White, 2007; Parker-Gwin & Mabry, 1998).

In addition to the personal and environmental factors that promote volunteering, student engagement has a relationship with service participation. For example, involvement in extracurricular activities during high school has been shown to predict later community service

participation (Hart et al., 2007; Planty et al., 2006). Likewise, social engagement in college (Hu, 2008), involvement in college activities (Johnson, 2004), and leadership in college (Misa et al., 2005) are all positively related to civic engagement (including community service) after college. However, competing demands and time pressure may have a negative effect on students' service participation, as perceptions about the time required to volunteer may be a disincentive to serve (Okun & Sloane, 2002).

The second major question addressed in the research literature concerns the short- and long-term effects of service work. On the whole, the outcomes of service participation are numerous and include citizenship development/civic engagement (Astin & Sax, 1998; Astin, Sax, & Avalos, 1999; Astin, Vogelgesang, Ikeda, & Yee, 2000; Einfeld & Collins, 2008; Nokes, Nickitas, Keida, & Neville, 2005; Sax, 2004; Taylor & Trepanier-Street, 2007), academic achievement (Astin & Sax, 1998), multicultural competence (Einfeld & Collins, 2008; Taylor & Trepanier-Street, 2007), social consciousness and responsibility (Einfeld & Collins, 2008; Hirschinger-Blank & Markowitz, 2006; Jones & Abes, 2003, 2004; Taylor & Trepanier-Street, 2007), identity development (Jones & Abes, 2004), positive self-concept (Berger & Milem, 2002), formation of interpersonal relationships and personal growth (Hirschinger-Blank & Markowitz, 2006), and even physical and mental health (Wilson, 2000). Additional outcomes of service participation include positive civic behaviors (Bringle & Steinberg, 2010) such as socially responsible leadership development (Dugan & Komives, 2010), voting (Hart et al., 2007; Jones & Hill, 2003), and participation in cultural and political organizations after college graduation (Johnson, 2004). Astin and Sax (1998) noted that positive outcomes were evident regardless of the type of service performed, and stronger effects were observed when more time

was devoted to service. In addition, the citizenship values associated with volunteering generally hinge on opportunities to *reflect* on the service experience (Astin, et al., 2000).

Using structural equation modeling to identify complex path relationships among service work dimensions and outcomes, Reinders and Youniss (2006) found that service involving direct interactions with people led high school students to feel they had made a contribution, which subsequently enhanced their self-awareness. In turn, self-awareness prompted students to help strangers, which consequently strengthened the likelihood of their future civic engagement. The work of Reinders and Youniss (2006) illustrated that the relationship between service and outcomes is anything but simple cause-and-effect.

A third key thread of the research literature on community service participation seeks to illuminate the motivations that underlie volunteering. In the psychological literature on service work motivations, researchers have distinguished between internal motivations (e.g., volunteering that stems from altruistic values and aspirations to learn, understand, and grow as a person) and external motivations (e.g., volunteering for the purposes of advancing one's career and responding to requirements or social pressures), arguing that "acts of volunteerism that appear to be quite similar on the surface may reflect markedly different underlying motivational processes" (Clary et al., 1998, p. 1517).

College students involved in community service often identify altruistic reasons as their primary motivation for becoming and staying involved in service (Handy et al., 2009; Winniford et al., 1995), and students who serve for altruistic reasons tend to stay involved in service longer than students who have egoistical motivations for service (Winniford, Carpenter, & Grider, 1997). Social obligation also motivates students to serve, especially students whose parents value service (Winniford et al., 1995). By and large, the influence of parents and family members

(Griffith, 2010; Winniford et al., 1995), peers (Jones and Hill, 2003), as well as teachers and religious leaders (Winniford et al., 1995) may play a role in motivating students to serve.

The extent to which volunteering functions as an exercise that is internally as opposed to extrinsically driven influences not only the initiation of helping behavior, but also the *maintenance* of helping behavior (Clary et al., 1998). For instance, Clary and Orenstein (1991) found that helpers whose motivations were focused on the benefits to others as opposed to themselves were more likely to fulfill their service commitments. Some studies that examine the effects of mandatory community service work send a similar message: Requiring students to perform service reinforces external motives and may hinder continued commitment to service and the formation of a volunteer role identity (Marks & Jones, 2004; Stukas, Snyder, & Clary, 1999). Even so, others argue that requiring service is not wholly detrimental in that mandated initiatives may predict future service (Griffith, 2010; Handy et al., 2009; Planty et al., 2006) and intent to serve (Parker-Gwin & Mabry, 1998), or recruit students to service work who might not otherwise participate (Reinders & Youniss, 2006).

The nuanced effects of required versus voluntary service add further layers of complexity. For example, Griffith (2010) and Planty et al. (2006) found that while students who participate in any form of service—required or voluntary—are more likely to serve in the future than students with no prior service at all, future participation rates are higher for those who had served voluntarily. Stukas et al. (1999) found that the effects of required service on future intent to participate are moderated by students' perceptions of internal versus external behavioral control. That is, students who feel they have choices regarding their service participation, even if service is required of them, are more likely to serve in the future than students who feel they have little control over their required service.

Employing a dual conceptual lens that incorporated the functionalist perspective advanced by Clary et al. (1998) and role identity theory, Finkelstein (2009) considered how volunteer motives relate to developing a volunteer self-concept. She concluded that intrinsic motivation was associated with prosocial personality traits, internal motives for volunteering, and a volunteer role identity. By contrast, extrinsic motivation was linked to external volunteer motives, but exhibited no connection to prosocial traits or volunteer self-concept. In other words, the motivations for volunteering not only influence volunteering behavior but also have significant implications for the transformative potential of service work in the areas of attitudes, values, and self-perceptions (Finkelstein, 2009; Ozorak, 2003). Internally motivated individuals can be expected to reap the transformative benefits and outcomes of the service experience more so than externally motivated individuals.

In summary, engagement in community service during the college years is predicated on personal and contextual factors and can serve as a means to instill in students the values essential to their participation as compassionate citizens in a diverse society. However, mere involvement in service work does not ensure that students will internalize the values that educators intend for them to adopt. Other factors may be at work, all of which have potential implications for students' developmental outcomes: The nature and context in which the service takes place, student motivations to participate in service, and the internal and external benefits that students accrue in the process of serving all ultimately influence their values and subsequent participation. With a few exceptions, existing research lacks a multidimensional approach to exploring the relationships among the various elements of students' service work and the outcomes that result from it. To remedy the limitations in the existing knowledge base, this study proposes a conceptual model (see Figure 1) to address the following question: Accounting for life goals at

entry to college, how do multiple dimensions of college students' service participation—the intensity and type of service, the motivation to serve, and the benefits of serving—shape life goals oriented toward meaning, purpose, and engaged citizenship and subsequent service involvement?

Conceptual Model

The proposed *Enduring Community Service Engagement Model* (see Figure 1) takes into account many of the dimensions identified in the literature as shaping service participation and outcomes. The focus of the model is the intensity of service (hours per month devoted to service work) performed in 2009, which reflects an individual's service behavior six years after college entry. Also of interest is an intermediate outcome, life goals oriented toward meaning, purpose, and citizenship in 2006. Below we describe the components of the model and hypothesized relationships (additional detail regarding the variables is provided in the methods section).

Given that personal attitudes and values provide the impetus to serve (Marks & Jones, 2004; Ozorak, 2003; Vogelgesang & Astin, 2005), citizenship orientation in the first year of college (i.e., importance attributed to being a leader in the community and influencing the political structure) is expected to relate to the intensity of service involvement, motivations to serve (i.e., required versus voluntary service), the type of service performed, the benefits of service, and life goals oriented toward meaning, purpose, and citizenship in the third year of college.

In addition to personal characteristics, contextual factors bear an important relationship to service participation and outcomes (Cruce & Moore, 2007; Griffith & Hunt-White, 2007; Haski-Leventhal et al., 2008; Jones & Hill, 2003; Okun & Sloane, 2002; Parker-Gwin & Mabry, 1998; Planty et al., 2006). In the conceptual model, the contextual factors reflect the immediate service

experience—the type of service, the required versus voluntary nature of the service performed, and the intensity of service work—and are expected to relate to the benefits students experience as a result of their service participation. Specifically, we expect the intensity of service to exhibit a stronger relationship with consciousness and compassion benefits (i.e., developing social consciousness and a compassionate outlook as a result of service work) than with vocational clarity and advancement benefits (i.e., determining and advancing career goals as a result of service work). Moreover, we expect that types of service involving direct engagement with people (i.e., mentoring, tutoring, and other work with kids; helping individuals and communities in need) will have stronger connections with consciousness/compassion benefits than service to institutions or organizations (i.e., helping religious organizations and engaging in fundraising efforts).

Given the relevance of motivational factors in shaping service participation and outcomes (Clary & Orenstein, 1991; Clary et al., 1998; Finkelstein, 2009; Griffith, 2010; Handy et al., 2009; Marks & Jones, 2004; Ozorak, 2003; Parker-Gwin & Mabry, 1998; Planty et al., 2006; Reinders & Youniss, 2006; Stukas et al., 1999; Winniford et al., 1995, 1997), the model illustrates our hypothesis that extrinsic reasons for service work (i.e., performing required service) are related to the benefits accrued from service participation. In particular, we expect extrinsic reasons for service work to exhibit a stronger relationship with vocational clarity/advancement benefits than with consciousness/compassion benefits. In turn, the model projects that the positive relationship between consciousness/compassion benefits and life goals in year three will be stronger than the relationship between vocational clarity/advancement benefits and life goals. Finally, we expect the intensity of service in 2004/06 and life goals in 2006 to directly influence the intensity of service in 2009, again reiterating the impact of past

behaviors (Berger & Milem, 2002; Fenzel & Peyrot, 2005; Griffith, 2010; Griffith & Hunt-White, 2007; Hart et al., 2007; Misa et al., 2005; Planty et al., 2006; Winniford et al., 1995) and attitudes and values (Marks & Jones, 2004; Ozorak, 2003; Vogelgesang & Astin, 2005) on service engagement.¹

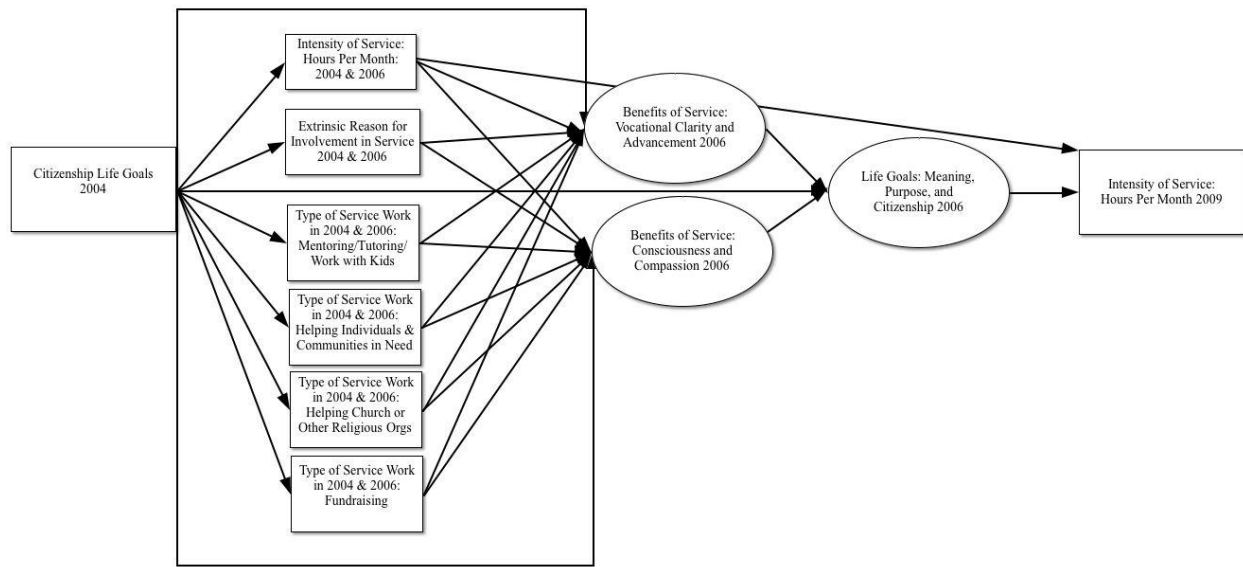


Figure 1. *Enduring Community Service Engagement Model*

Methodology

The study was based on the 2004/09 Beginning Postsecondary Students Longitudinal Study (BPS:04/09) conducted by the U.S. Department of Education through the National Center for Education Statistics. The BPS:04/09 respondent sample consists of approximately 16,700 students who entered college between July 1, 2003 and June 30, 2004. BPS focuses solely on students who are enrolled in postsecondary education for the first time (i.e., first-time beginners or FTBs). As such, eligibility for BPS is not based on age-related criteria (such as high school

¹ Demographic variables (gender, race/ethnicity, and income) and institutional type (public, private-religious, private-non-sectarian) were included in an initial conceptual model per evidence that individual and institutional characteristics predict service behavior (Cruce & Moore, 2007; Dote et al., 2006; Gonzalez, 2008; Griffith, 2009; Griffith & Hunt-White, 2007; Handy et al., 2009; Hu, 2008; Jones & Hill, 2003; Planty et al., 2006), but these bore no relationship to the dependent variable, intensity of service in 2009, and were omitted from the final model. Fit indices for the model that included demographic and institutional variables are provided in the results section.

graduation year), but is instead determined by a student's first postsecondary enrollment date. In other words, BPS includes both traditional and non-traditional students from diverse backgrounds.

First-time beginner students were interviewed by telephone or in person in conjunction with the National Postsecondary Student Aid Study (NPSAS:04) in 2004, the BPS:04/06 in 2006, and the BPS:04/09 in 2009. The BPS is a rich source of data on student demographic characteristics, persistence in higher education, degree completion, employment transitions, and life goals. Because the BPS study is attuned to students' postsecondary trajectories, it provides a valuable longitudinal perspective on how the college experience influences key outcomes of interest to educators and policymakers. Of the available national postsecondary data files generated by the U.S. Department of Education, the BPS:04/09 is a particularly useful resource for examining college students' service work. The dataset contains variables that address not only whether students participated in service, but the amount of time they devoted to it, the type of service work they completed, their reasons for becoming involved in service, and the benefits of their service participation.

The sample for the study included approximately 4,470 students who responded affirmatively to the following question in 2004 and 2006: "Did you perform any community service or volunteer work during the past year? Please exclude charitable donations (such as food, clothing, money, etc.), paid community service, and court-ordered service." Because the study involved examining how various dimensions of community service or volunteer work influenced life goals over time, the sample necessarily excluded students who did not perform volunteer or community service work.

The majority of the sample of community service participants was female (61%) and White (70.3%). African Americans comprised 10.1% of the sample, followed by Hispanic/Latino individuals (9.6%), Asians (5.4%), and Native Americans/Alaska Natives (0.5%). Just over 1% of the sample identified as “other” and 3% identified as multiracial. The socio-economic status of respondents was fairly diverse, with 16.8% in the low income quartile, 21.7% in the low-middle income quartile, 26.7% in high-middle income quartile, and 34.8% in the high income quartile.

The data were weighted to adjust for non-response in the BPS:04/09 data collection. In light of the fact that the BPS:04/09 sample is a subset of the BPS:04/06 sample and, in turn, the BPS:04/06 sample is a subset of the NPSAS:04 sample, the panel weight for BPS:04/09 was derived from the weights created in conjunction with BPS:04/06 and NPSAS:04. Further detail on the procedure for deriving weights can be found in Radford, Berkner, Wheelless, Shepherd, and Hunt-White (2010). Weighting data can pose problems for accurately determining statistical significance, and creates the risk of Type I errors (assuming an effect is statistically significant when it is not). To overcome this problem, weights were “normalized” by multiplying the BPS:04/09 panel weight by the ratio of the unweighted sample n to the weighted sample n . When applied, the normalized weight maintains the original sample size, thus minimizing the risk of Type I errors that come with an inflated sample size.

Variables

The measures represented in the Enduring Community Service Engagement Model include three latent constructs (see Table 1) and eight observed variables (see Table 2) that together reflect key dimensions of community service work identified in the literature. The outcome of interest, with a range of 0 to 30 hours per month on average, is the intensity of

service work six years after college entry. The intermediate outcome, *Life Goals Oriented Toward Meaning, Purpose, and Citizenship (2006)*, is a latent construct comprised of four variables that reflect personal goals that students could indicate in 2006 as being “very important” to them: Being a leader in the community, helping others, influencing the political structure, and finding meaning and a sense of purpose in life. Two of the items in the Life Goals latent construct—being a leader in the community and influencing the political structure—were asked of students in 2004 and summed to create the observed composite variable, *Citizenship Life Goals (2004)*, intended to control for student propensities toward citizenship at the outset of college.

The *intensity of volunteer work* performed during college is an observed variable measured in 2004 and again in 2006 and reflects the average hours of service per month (0 to 50 hours) across both academic years. Another observed variable, *Extrinsic Reason for Volunteering* (2 items), measures the extent to which students volunteered as a result of a class or program requirement. A score of “0” reflects no required service in either 2004 or 2006, “1” represents required service in one of the years (2004 or 2006), and “2” reflects required service in both 2004 and 2006. Four observed variables, measured in 2004 and 2006, reflect the *type of service* in which students participated: *Tutoring, Mentoring, or Other Work with Kids* (4 items); *Helping Communities and People in Need* (6 items); *Service to Church or Other Religious Organizations* (2 items); and *Fundraising* (2 items). Scores on each of the four “type” variables were derived by summing scores on the individual items within each composite.

The final two latent constructs in the conceptual model represent the benefits that students may accrue in conjunction with their service participation. *Vocational Clarity and Advancement* includes “external” benefits that enhance students’ educational and career pursuits

in the areas of career and academic major choice, resume building, and skill expansion. By contrast, “internal” benefits associated with *Consciousness and Compassion* are gains that include learning how to apply knowledge, skills, and/or interests to real world issues; increasing awareness of social issues; and becoming a more compassionate person.

As Table 1 evidences, the fit indices derived from confirmatory factor analyses are within acceptable ranges for the life goals (2006) and benefits of service latent constructs. Likewise, factor loadings for items in each construct are consistently above 0.40. The means, standard deviations, minimum and maximum values, and items comprising the measure for all observed variables are shown in Table 2.

Several additional variables were included in an initial analysis—gender, race/ethnicity, income level, and institutional type—all of which have been shown to influence community service behaviors. However, as described in the results, these variables were not statistically significant predictors in the model and were subsequently removed.

Table 1						
<i>Fit Indices for Latent Constructs</i>						
Latent Construct	Factor Loading	χ^2 (df, <i>p</i>)	CFI	TLI	RMSEA (confidence interval)	α
Life Goals Oriented toward Meaning, Purpose, and Citizenship (2006)		44.373 (<10, 0.000)	0.951	0.853	0.069 (0.052,0.087)	0.51
Being a community leader	0.729					
Helping others	0.664					
Influencing the political structure	0.608					
Finding a sense of meaning and purpose	0.552					
Benefits of Service Two-Factor Solution		14.048 (10, 0.081)	0.999	0.997	0.013 (0.000,0.024)	
Vocational Clarity and Advancement Benefits						0.62
Expanded skills	0.747					
Helped with career choice	0.496					
Added to resume	0.472					
Clarified choice of major	0.456					
Consciousness and Compassion Benefits						0.60
Learned to apply skills to real issues	0.692					
Became more compassionate person	0.450					
Increased awareness of social issues	0.428					

	Mean	S.D.	Min	Max
Life Goals Oriented Toward Citizenship (2004)	0.80	0.76	0.00	<10.0
Being a leader in the community				
Influencing the political structure				
Intensity of Volunteer Work (average hours per month in 2004 and 2006)	10.55	9.94	0.00	50.00
Extrinsic Reasons for Volunteering	0.31	0.53	0.00	<10.0
Community service 2003-04: Required or part of program				
Reason for Volunteering 2006: Class requirement				
Tutoring, Mentoring, or Other Work with Kids	1.16	1.07	0.00	<10.0
Community service type in 2003-04: Tutoring/mentoring				
Community service type in 2003-04: Other work with kids				
Community service type in 2005-06: Tutoring/mentoring				
Community service type in 2005-06: Other work with kids				
Helping Communities and People in Need	1.20	1.12	0.00	10.00
Community service type in 2003-04: Homeless shelter/soup kitchen				
Community service type in 2003-04: Hospital/nursing home				
Community service type in 2003-04: Neighborhood improvement				
Community service type in 2005-06: Homeless shelter/soup kitchen				
Community service type in 2005-06: Hospital/nursing home				
Community service type in 2005-06: Neighborhood improvement				
Service to Church or Other Religious Organizations	0.75	0.79	0.00	<10.0
Community service type in 2003-04: Service to church/other religious				
Community service type in 2005-06: Service to church/other religious				
Fundraising	0.47	0.64	0.00	<10.0
Community service type in 2003-04: Fundraising				
Community service type in 2005-06: Fundraising				
Intensity of Volunteer Work (average hours per month in 2009)	5.10	8.46	0.00	30.00

Analytic Techniques

Structural equation modeling (SEM) with Mplus 6 was used to test the relationships among the latent constructs and observed variables in the model. SEM employs principles similar to multivariate regression, but is particularly useful for examining path relationships among latent constructs. The fit of the three latent constructs was assessed using confirmatory factor analysis (as discussed above). Then, the structural model was constructed and assessed on the basis of fit indices and path estimates (Hu & Bentler, 1999; Schumacker & Lomax, 1996). Many of the items included in the observed and latent variables were dichotomous, and Mplus 6 was the statistical package of choice because it has the capacity to specify and account for

categorical data. Moreover, given the potential relatedness of the *type* and *intensity* variables (measured in 2004 and 2006), we modeled correlations among these variables (not shown in Figure 1). Lastly, error terms were associated with each endogenous variable in the model.

Chi-square (X^2) was used to evaluate the degree to which the covariance structure of the estimated model approximated the observed covariance matrix. Non-significant chi-square values indicate optimal fit (Schumacker & Lomax, 1996). However, other fit indices must be considered given the sensitivity of chi-square to large sample sizes. The Comparative Fit Index (CFI), which reflects the percent of covariation in the data that can be reproduced by the given model, and the Tucker-Lewis Index (TLI), which reflects the proportion by which the estimated model improves fit compared to the null model, were used to supplement the chi-square test. CFI and TLI values above 0.90 are generally acceptable, but they should ideally be 0.95 or higher (Hu & Bentler, 1999). Finally, the root mean square error of approximation (RMSEA) was used as an indication of model-data fit. RMSEA, a measure of error, represents average *lack* of fit per degree of freedom and should be 0.06 or less (Hu & Bentler, 1999).

Results

The final structural model demonstrated adequate fit in that most indices were within suggested ranges (Hu & Bentler, 1999; Schumacker & Lomax, 1996). Although the chi-square estimate was statistically significant (554.331, $df = 120$, $p < .000$), indicating poor fit, CFI was 0.935, TLI was .904, and the root mean square error of approximation (RMSEA) was 0.029 (with a confidence interval of 0.027,0.032). Most structural paths in the Enduring Community Service Engagement Model were statistically significant ($p < .05$) and generally reflected the

hypothesized relationships articulated earlier. Figure 2 displays the standardized estimates for all paths in the model.²

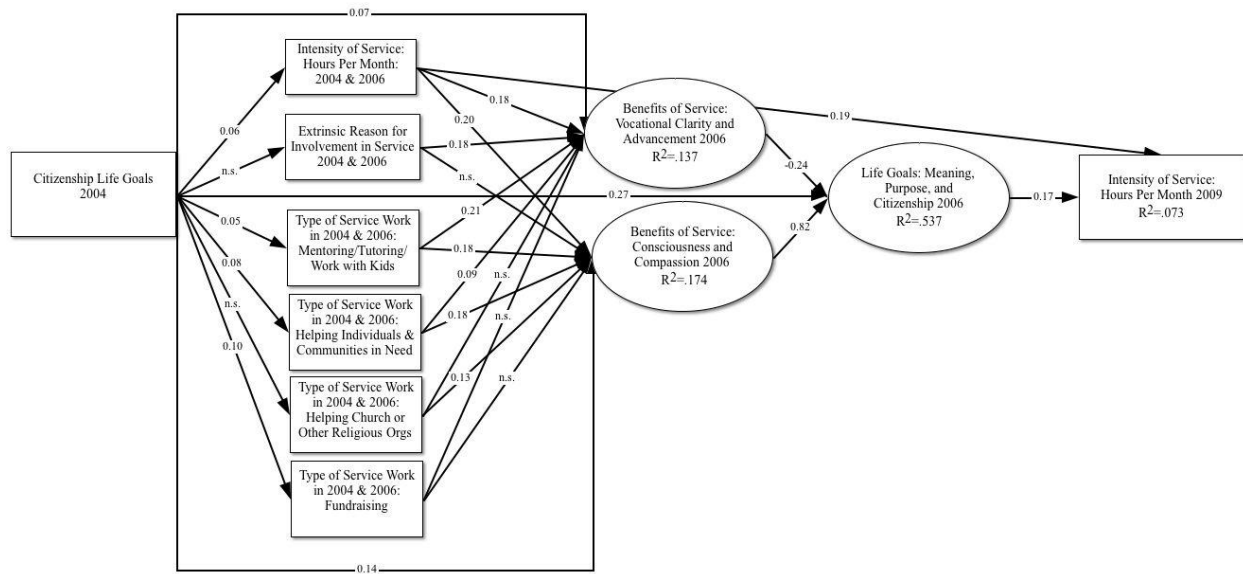


Figure 2. *Enduring Community Service Engagement Model with Estimates*

As expected, students with an orientation toward citizenship as they began college were inclined to perform volunteer work in various contexts (especially in contexts involving children, people and communities in need, and fundraising) and to devote more time to service work than the average student in 2003-04/2005-06. However, citizenship commitments at college entry were not related to performing volunteer work on behalf of religious organizations or engaging in required service work. Confirming the consistency of students' values over time, there was a robust connection between students' citizenship commitment as they began college and their life goals in 2006. Finally, citizenship life goals at entry to college were positively related to both categories of benefits (vocational clarity and advancement benefits and consciousness and

² An initial model including demographic and institutional characteristics yielded poorer fit indices than the final model: Chi-square=965.015, $df=250$, $p < .000$; CFI=0.896; TLI=0.870; RMSEA=0.025 (0.023,0.027). Moreover, none of the characteristics—gender, race, income level, or institutional type—were significant predictors of the intensity of service in 2009.

compassion benefits). In other words, students with existing citizenship values perceive an array of advantages stemming from their volunteer work.

The intensity of service, extrinsic reasons for service (i.e., engaging in required service), and the type of service performed in 2003-04/2005-06 were related to the benefits accrued from service participation. Counter to our expectations, the intensity of service participation exhibited an equally strong relationship with consciousness/compassion benefits and vocational clarity/advancement benefits. Intensity of service work, in short, fostered a variety of benefits among service participants. However, aligning with our hypothesis, engaging in required service was related to vocational clarity/advancement benefits but not to consciousness/compassion benefits. In essence, the benefits of required service are limited to students' academic and career pursuits.

Another example of the relationship between service contexts and benefits has to do with the type of volunteer work performed. Whereas service involving mentoring, tutoring, and other work with kids and helping people and communities in need facilitated both vocational and compassion benefits, service to religious organizations related only to consciousness and compassion benefits. Perhaps service to religious organizations entails a uniquely spiritual component that encourages students to internalize the experience in a way that transforms their outlook on the world and relationship to others. By contrast, fundraising efforts were not related to either type of benefit, indicating that service work involving helping and relating to others more directly may be imperative for the positive outcomes of service to materialize in students' lives.

One finding is especially worthy of note given its policy implications. The benefits of service showed important distinctions in their relationships to life goals oriented toward

meaning, purpose, and citizenship three years after college entry. Acquiring vocational benefits from service work was *negatively* associated with life goals, whereas becoming more compassionate and socially aware related *positively* to such goals. In short, ensuring that students develop as compassionate citizens in the course of their service participation is critical to simultaneously enhancing their commitment to leadership, helping others, and finding meaning and purpose in life.

Lastly, after controlling for the intensity of service work in 2003-04 and 2005-06, life goals oriented toward meaning, purpose, and citizenship (2006) related positively to the intensity of service work six years after college entry. College experiences with service and the influence of those experiences on students' commitments are predictive of later service participation. However, the R^2 for intensity of service in 2009 was quite low (.073), indicating that just 7% of the variance in 2009 service work could be explained by the model. Clearly, other factors not reflected in the model may play a role in determining service patterns toward the end of and after college.

Discussion

This study extends the existing knowledge base by investigating the relationships among multiple dimensions of the service work experience and values and subsequent behaviors related to service. Four key relationships illustrated by the Enduring Community Service Engagement Model are noteworthy. First, the citizenship commitments that students express at the beginning of college shape their propensity for service work during college and are closely tied to their commitments to meaning, purpose, and citizenship two years later. In other words, the development of a citizenship orientation does not hinge singularly on postsecondary service experiences; students come to college with predispositions to service and citizenship. These

predispositions may stem from any number of factors—values communicated by parents, teachers, and community or religious leaders; powerful encounters with volunteer work in childhood and adolescence; or perhaps individual challenges and hardship that bring about empathic sensitivities to the difficulties of others. What we can glean from this finding is that student predispositions have long-term ramifications for humanitarian behaviors and values; thus, instilling citizenship values at a young age is vitally important.

The second key finding is that the amount of time devoted to service work is only one of the factors associated with producing compassionate citizens. Contextual qualities of the service experience also play a critical role. Service contexts that engage students in tutoring, mentoring, and other work with children; with people and communities in need; and with religious organizations exhibit a more robust connection to compassion and consciousness service outcomes than service work involving fundraising. Perhaps observing firsthand the challenges and even suffering of others—or, in the case of service to religious organizations, the humanitarian values that underlie service work—has revelatory power that cannot be matched by service experiences like fundraising that are only indirectly related to core values and the people served. Moreover, extrinsic reasons for engaging in service work (i.e., because of a class or program requirement) encourage vocational clarity and advancement but not compassion and consciousness. Paralleling the findings of others who have explored the motivational factors associated with volunteer involvement and outcomes (Clary et al., 1998; Clary & Orenstein, 1991; Finkelstein, 2009; Griffith, 2010; Marks & Jones, 2004; Ozorak, 2003; Planty et al., 2006; Stukas et al., 1999), this study provides further evidence to support the claim that the reasons behind students' service participation influence the benefits they derive from their experience and subsequent citizenship/service outcomes.

Third, the benefits that stem from service work are closely linked to students' commitment to being a leader in the community, helping others, influencing the political structure, and finding meaning and a sense of purpose in life. Specifically, service-work benefits characterized by vocational clarity and personal advancement actually appear to undermine the value students place on meaning, purpose, and citizenship. Conversely, becoming a more compassionate and socially aware person as a result of service work is intimately and positively linked to committing oneself to a meaningful life marked by helping others, civic engagement, and subsequent service participation.

Finally, although life goals that students cultivate in relation to their service experiences are indeed correlated with the average hours per month that individuals devote to service six years after the beginning of college, the modest effect size and small proportion of the outcome's variance explained by the model underscores the reality that enduring commitments to service work are likely contingent on an array of interrelated life experiences, obligations, and circumstances beyond the scope of the dataset. Although we can only surmise the factors that may be at work in determining service engagement toward the end of and after college, it may be that variations in work, family, and community obligations have a more powerful impact on long-term service participation than the college experience itself—a hypothesis that merits testing in future research.

All told, this study has important theoretical utility. Past research has generally focused on the personal and contextual predictors of service (Cruce & Moore, 2007; Dote et al., 2006; Griffith, 2009; Hellman et al., 2006; Marks & Jones, 2004; Ozorak, 2003; Seider, 2007; Vogelgesang & Astin, 2005), the outcomes of service (Astin & Sax, 1998; Astin et al., 1999; Astin et al., 2000; Einfeld & Collins, 2008; Jones & Abes, 2003, 2004; Sax, 2004; Taylor &

Trepanier-Street, 2007), and the motivational forces underlying decisions to serve (Clary et al., 1998; Clary & Orenstein, 1991; Finkelstein, 2009; Griffith, 2010; Marks & Jones, 2004; Ozorak, 2003; Planty et al., 2006; Stukas et al., 1999). Rarely have these multiple dimensions been integrated into a single conceptual model.

This study moves beyond predicting service behaviors and outcomes by illuminating the interrelated, multidimensional processes by which service participation transforms students' citizenship goals and subsequent service engagement. We conclude that developing committed, service-oriented college students is a holistic endeavor that builds upon the values students express as they enter college and is facilitated by the level of effort students devote to service and the context in which it is performed. Moreover, the meaning of service in students' lives—whether it leads to “getting ahead” academically or vocationally or to deeper understanding of the world around them and empathy for others in need—is a critical intermediary between the contextual aspects of service work and later service-related values and behaviors. In the end, the dimensions of service participation exist together in a larger mosaic that takes into account each of the distinct yet interlocking elements.

Implications for Policy and Practice

The practical relevance of the study is two-fold: First, the study informs educators and policymakers about the ideal structure of service opportunities by identifying that the intensity and context of service work are associated with the benefits of participation and life goal orientations. The findings suggest that the implications of volunteer work for individual citizenship development depend on more than merely the time invested in service work; efforts to create meaningful service contexts are imperative. The time that students invest in service should include opportunities to interact directly with the individuals they are serving in order to

generate outcomes such as compassion and social consciousness. Fostering meaningful human connections in the service work context may entail sharing stories with and experiencing the lived realities of served populations. Developing mutuality in the relationships between students and those they are serving is another essential ingredient, and, through reflection on the experience, students should be encouraged to recognize that service work is a two-way exchange. In essence, all partake in the giving and receiving aspects of the service relationship.

Second, the study sheds light on the role of external motivations and benefits of service work and shows that required service does not necessarily undermine intended service benefits and outcomes (the effect is null), but that encouraging “internal” benefits of service participation over and above benefits such as resume-building and skill expansion can develop students’ commitment to meaning, purpose, and citizenship. Clarity regarding how the benefits of service shape student goals and values can guide the manner in which educators facilitate community service experiences. These experiences should begin and end with an emphasis on the deeper meaning and other-focus of service rather than on the utilitarian ways that participation may benefit the individual student. Arguably, there is merit in students finding their vocational calling in conjunction with service participation, but when students prioritize their own advancement rather than the personal revelations and empathy that may emerge in the process of serving, their opportunities to develop purposeful citizenship diminish.

Limitations

Selection bias is an inherent problem in observational studies that rely on non-randomized data. For instance, in this sample of volunteering students, the types of service toward which students gravitated may have been a function of other covariates, such as prior service experiences. In other words, purported “effects” of the type of service work on student

life goals may not be a result of the service work but of past experiences that propelled them toward a particular type of service work in the first place. For the sake of parsimony, the proposed model does not incorporate the breadth of personal and contextual factors known to influence community service participation.

Another acknowledged limitation of the study, also related to selection bias, concerns causality. Because this study does not test the effects of a singular “intervention” but examines complex relationships among a set of observed variables and latent constructs, it is not feasible to create “matched” samples to reflect an “experimental” and “control” group using propensity score matching or another comparable technique. The model controls for the confounding effects of students’ life goals in 2004 so that the relationship between service work and 2006 life goals can be estimated with greater accuracy. Even so, the study is not designed to test the causal effects of service work on student life goals and subsequent service participation. Akin to other studies based on structural modeling techniques that estimate the direct and indirect relationships between educational practices and student outcomes (e.g., Schmidt et al., 2001), the intent of this study is to model *potential* causal relationships to inform the design of future intervention studies (Schneider, Carnoy, Kilpatrick, Schmidt, & Shavelson, 2007). In sum, the study provides evidence of the associations among various dimensions of student service work as well as their relationship to students’ life goals to guide later efforts to investigate the causal nature of these relationships.

Lastly, as discussed earlier, the R^2 for the final outcome—intensity of service work in 2009—was a marginal .073. The model has limited capacity to explain the variance in long-term service engagement.

Future Research

Given the limitations of this study highlighted above, future research endeavors should explore additional personal and contextual variables known to influence community service participation. Although gender, race/ethnicity, income, and institutional type were not significant predictors in the model, the moderating role of these variables should be explored to assess the applicability of the conceptual model and structural paths for diverse students. College students are not a homogenous group, and future research that investigates whether the model proposed here is conditional on demographic and institutional characteristics will reveal whether multi-prong policy initiatives may be necessary to promote service engagement and key outcomes among diverse sub-populations attending various types of institutions. Another limitation of this study is its inability to prove causality. The causal nature of structural paths in the conceptual model may be tested by randomized studies of service work participation or (more feasibly) by studies of service-related interventions involving matched samples generated by propensity score matching or other techniques. Finally, additional variables—for example, work, family, and community obligations post-college—may improve the predictive power of the model.

Conclusion

Student success amounts to more than graduation rates, grades, degree attainment, and job placement and includes outcomes that reflect students' capacity to make meaningful contributions to the society in which they live. Understanding how the college experience promotes values and behaviors oriented toward citizenship, life meaning, and purpose marks a critical step on the path to ensuring that higher education is fulfilling its public service mission. Generations past and present judge the relative social good of higher education on the basis of the citizens it produces. Are they compassionate and attentive to the needs of others? Are they motivated by deep conviction to make meaningful contributions to the world around them? Are

they prepared to actively engage the political, social, and economic realities that confront the local and global communities in which they live? Similar questions are at the forefront of initiatives implemented by the Corporation for National and Community Service, which provides young adults with opportunities for service through SeniorCorps, AmeriCorps, and Learn and Serve America (Dote et al., 2006), and Campus Compact, which involves more than 1,000 college and university presidents in executing the public service mission of higher education through efforts to integrate civic values and behaviors into their institutions (Campus Compact, 2007). Given the concerted national effort to engage young adults in community service work, this study makes a contribution by demonstrating that the service work context and benefits play a central role in developing citizens who are committed to lives of meaning, purpose, leadership, and helping others.

References

- American Council on Education. (1949). *The student personnel point of view*. Washington, DC: American Council on Education.
- Astin, A. W., & Sax, L. J. (1998). How undergraduates are affected by service participation. *Journal of College Student Development, 39*, 251-263.
- Astin, A. W., Sax, L., & Avalos, J. (1999). Long-term effects of volunteerism during the undergraduate years. *Review of Higher Education, 22*, 187-202.
- Astin, A. W., Vogelgesang, L. J., Ikeda, E. K., & Yee, J. A. (2000). *How service learning affects students*. Los Angeles, CA: Higher Education Research Institute, University of California, Los Angeles.
- Berger, J. B., & Milem, J. F. (2002). The impact of community service involvement on three measures of undergraduate self-concept. *NASPA Journal, 40*(1), 85-103.
- Bringle, R. G., & Steinberg, K. (2010). Educating for informed community involvement. *American Journal of Community Psychology, 46*(3-4), 428-441.
- Campus Compact. (2007). *Presidents' declaration on the civic responsibility of higher education*. Providence, RI: Campus Compact.
- Clary, E. G., & Orenstein, L. (1991). The amount and effectiveness of help: The relationship of motives and abilities to helping behavior. *Personality and Social Psychology Bulletin, 17*, 58-64.
- Clary, E. G., Snyder, M., Ridge, R. D., Copeland, J., Stukas, A. A., Haugen, J., & Miene, P. (1998). Understanding and assessing the motivations of volunteers: A functional approach. *Journal of Personality and Social Psychology, 74*, 1516-1530.

- Cohen, A. M. (1998). *The shaping of American higher education: Emergence and growth of the contemporary system*. San Francisco: Jossey-Bass.
- Cruce, T. M., & Moore, J. V. (2007). First year students' plan to volunteer: An examination of the predictors of community service participation. *Journal of College Student Development, 48*, 655-673.
- Dote, L., Cramer, K., Dietz, N., & Grimm, R. (2006). *College students helping America*. Washington, DC: Corporation for National and Community Service.
- Dugan, J. P., & Komives, S. R. (2010). Influences on college students' capacities for socially responsible leadership. *Journal of College Student Development, 51*(5), 525-549.
- Einfeld, A., & Collins, D. (2008). The relationships between service-learning, social justice, multicultural competence, and civic engagement. *Journal of College Student Development, 49*, 95-109.
- Fenzel, L. M., & Peyrot, M. (2005). Comparing college community participation and future service behaviors and attitudes. *Michigan Journal of Community Service Learning, 12*(1), 23-31.
- Finkelstein, M. A. (2009). Intrinsic vs. extrinsic motivational orientations and the volunteer process. *Personality and Individual Differences, 46*, 653-658.
- Gonzalez, R. G. (2008). College student civic development and engagement at a Hispanic serving institution. *Journal of Hispanic Higher Education, 7*(4), 287-300.
- Griffith, J. (2009). Community service among a panel of beginning college students: Its prevalence and relationship to having been required and to supporting "capital." *Nonprofit and Voluntary Sector Quarterly, 39*, 884-900.

- Griffith, J. (2010). Community service among a panel of beginning college students: Its prevalence and relationship to having been required and to supporting “capital.” *Nonprofit and Voluntary Sector Quarterly*, 39(5), 884-900.
- Griffith, J., & Hunt-White, T. (2007). *Community service among college undergraduates: A longitudinal analysis*. Washington, DC: National Center for Educational Statistics.
Retrieved from <http://airweb.org/forum07/102.pdf>
- Handy, F., Cnaan, R. A., Hustinx, L., Kang, C., Brudney, J. L., Haski-Leventhal, D., Holmes, K., Meijs, L. C. P. M., Pessi, A. B., Ranade, B., Yamauchi, N., & Zrinscak, S. (2009). A cross-cultural examination of student volunteering: Is it all about résumé building? *Nonprofit and Voluntary Sector Quarterly*, 39(3), 498-523.
- Hart, D., Donnelly, T. M., Youniss, J., & Atkins, R. (2007). High school community service as a predictor of adult voting and volunteering. *American Educational Research Journal*, 44(1), 197-219.
- Haski-Leventhal, D., Cnaan, R. A., Handy, F., Brudney, J. L., Holmes, K., Hustinx, L., Kang, C., Kassam, M., Meijs, L. C. P. M., Ranade, B., Yamauchi, N., Yeung, A. B., & Zrinscak, S. (2008). Students’ vocational choices and voluntary action: A 12-nation study. *VOLUNTAS: International Journal of Voluntary and Nonprofit Organizations*, 19(1), 1-21.
- Hellman, C. M., Hoppes, S., & Ellison, G. C. (2006). Factors associated with college student intent to engage in community service. *Journal of Psychology*, 140, 29-39.
- Hirschinger-Blank, N. & Markowitz, M. W. (2006). An evaluation of a pilot service-learning course for criminal justice undergraduate students. *Journal of Criminal Justice Education*, 17(1), 69-86.

- Hu, S. (2008). Do financial aid awards in college affect graduates' democratic values and civic engagement? *Journal of College & Character, 10*(1), 1-16.
- Hu, L., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling 6*(1), 1-55.
- Johnson, D. I. (2004). Relationships between college experiences and alumni participation in the community. *The Review of Higher Education, 27*(2), 169-185.
- Jones, S. R., & Abes, E. S. (2003). Developing student understanding of HIV/AIDS through community service-learning: A case study analysis. *Journal of College Student Development, 44*, 470-488.
- Jones, S. R., & Abes, E. S. (2004). Enduring influences of service-learning on college students' identity development. *Journal of College Student Development, 45*, 149-166.
- Jones, S. R., & Hill, K. E. (2003). Understanding patterns of commitment: Student motivation for community service involvement. *The Journal of Higher Education, 74*(5), 516-539.
- Marks, H. M., & Jones, S. R. (2004). Community service in the transition: Shifts and continuities in participation from high school to college, *Journal of Higher Education, 75*, 307-339.
- Misa, K., Anderson, J., & Yamamura, E. (2005). *The lasting impact of college on young adults' civic and political engagement*. Paper presented at the Association for the Study of Higher Education Annual Conference, Philadelphia, PA. Retrieved from <http://www.heri.ucla.edu/PDFs/Lasting%20Impact%20of%20College%20-%20ASHE05.pdf>
- Nokes, K. M., Nickitas, D. M., Keida, R., & Neville, S. (2005). Does service learning increase cultural competency, critical thinking, and civic engagement? *Journal of Nursing Education, 44*(2), 65-70.

- Okun, M. A., & Sloane, E. S. (2002). Application of planned behavior theory to predicting volunteer enrollment by college students in a campus-based program. *Social Behavior and Personality, 30*(3), 243-250.
- Ozorak, E. W. (2003). Love of God and neighbor: Religion and volunteer service among college students. *Review of Religious Research, 44*, 285-299.
- Parker-Gwin, R., & Mabry, J. B. (1998). Service learning as pedagogy and civic education: Comparing outcomes for three models. *Teaching Sociology, 26*, 276-291.
- Planty, M., Bozick, R., & Regnier, M. (2006). Helping because you have to or helping because you want to? Sustaining participation in service work from adolescence through young adulthood. *Youth & Society, 38*(2), 177-202.
- Radford, A. W., Berkner, L., Wheelless, S. C., & Shepherd, B. (2010). Persistence and attainment of 2003-04 beginning postsecondary students: After 6 years (NCES 2011-151). U.S. Department of Education. Washington, DC: National Center for Education Statistics. Retrieved from <http://nces.ed.gov/pubsearch>
- Reinders, H., & Youniss, J. (2006). School-based required community service and civic development in adolescents. *Applied Developmental Science, 10*, 2-12.
- Sax, L. J. (2004). Citizenship development and the American college student. *New Directions for Institutional Research, 122*, 65-80.
- Schneider, B., Carnoy, M., Kilpatrick, J., Schmidt, W. H., & Shavelson, R. J. (2007). *Estimating causal effects using experimental and observational designs* (report from the Governing Board of the American Educational Research Association Grants Program). Washington, DC: American Educational Research Association.

Schmidt, W. H., McKnight, C. C., Houang, R. T., Wang, H., Wiley, D. E., Cogan, L. S., et al.

(2001). *Why schools matter: A crossnational comparison of curriculum and learning*.

New York, NY: John Wiley & Sons.

Schumacker, R. E., & Lomax, R. G. (1996). *A beginners' guide to structural equation modeling*.

Hillsdale, NJ: Erlbaum.

Seider, S. (2007). Catalyzing a commitment to community service in emerging adults. *Journal of*

Adolescent Research, 22, 612-639.

Stukas, A. A., Snyder, M., & Clary, E. G. (1999). The effects of mandatory volunteerism on

intentions to volunteer. *Psychological Science*, 10, 59-64.

Taylor, J. A., & Trepanier-Street, M. (2007, January/February). Civic education in multicultural

contexts: New findings from a national study. *The Social Studies*, 14-18.

Vogelgesang, L. J., & Astin, A. W. (2005). *Post-college civic engagement among graduates*. Los

Angeles, CA: Higher Education Research Institute, University of California, Los

Angeles.

Wilson, J. (2000). Volunteering. *Annual Review of Sociology*, 26, 215-240.

Winniford, J. C., Carpenter, D. S., & Grider, C. (1995). An analysis of the traits and motivations

of college students involved in service organizations. *Journal of College Student*

Development, 36(1), 27-38.

Winniford, J. C., Carpenter, D. S., & Grider, C. (1997). Motivations of college student

volunteers: A review. *NASPA Journal* 34(2), 134-146.