

Relationships between Motivations for Community Service Participation and Desire to Continue Service Following College

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In this study, we explored whether college students' motivations for participating in community service were associated with their perceptions that service enhanced their desire to continue participating in community-focused activities after graduation, after statistically controlling for demographic variables and other variables of interest. Motivations for participating in community service were categorized in a matrix developed under the framework of Ryan and Deci's (2000) self-determination theory. The sample consisted of undergraduate students enrolled in nine large, public research universities (N = 7,823). Results supported our primary hypothesis that, after statistically controlling for demographic variables, college experiences, and interest in service, students' motivations accounted for statistically significant unique variance in their reported desire for post-graduation community service.

Community service has long been demonstrated to have positive effects on college students' development. Researchers have discovered community service participation and service-learning are positively associated with heightened self-confidence, sense of belonging, civic responsibility, multicultural awareness, and feelings of responsibility to encourage social change, among many other outcomes (Astin & Sax, 1998; Astin, Sax, & Avalos, 1999; Eyer, Giles, & Grey, 1999; Soria, Nobbe, & Fink, 2013; Soria, Troisi, & Stebleton, 2012). While scholars have spent several decades exploring the immediate and long-term benefits of college students' participation in community service, gaps remain in the literature regarding the potential for community service experiences in college to promote students' interest in continuing service post-graduation. Specifically, while motivations to engage in service support several important outcomes (Clary et al., 1998; Clary & Snyder, 1999; Finkelstein, 2009; Stukas, Snyder, & Clary, 1999), little is known about the potential influence of students' motivations to pursue service in college and whether those motivations are linked to students' desire to continue service after they leave their higher education institutions.

Some evidence supports the notion that community service experiences in higher education in and of themselves inspire students to continue service post-graduation. For example, Fenzel and Peyrot (2005) found that college students who participated in both service-learning and community service were more likely to participate in service and service-related careers after graduation from their religiously-affiliated liberal arts colleges. Similarly, Keen and Hall

(2008) discovered that 100% of the Bonner Scholars respondents (N = 41) surveyed—college students with financial need who received funding to become engaged in a four-year co-curricular service-learning program—were participating in community service activities six years after graduation compared to 66% of similar groups of students sampled at the same campuses. Johnson's (2004) survey of 31 colleges in the Appalachian College Association revealed that college students' participation in service had the strongest effects on alumni's participation in service activities. Similarly, utilizing a broader sample of college students from 209 institutions, Astin, Sax, and Avalos (1999) also found that volunteerism during college is positively associated with students' participation in service five years after graduation.

While the aforementioned longitudinal research yields insights into the relationships between service participation in college and alumni participation in community service, little is known about whether college students' motivations to participate in service are associated with future intentions to participate in community service. Research related to individuals' motivations for participating in service has been limited by smaller sample sizes, single-institution contexts, and a focused application of motivational frameworks (Allison, Okun, & Dutridge, 2002; Clary & Snyder, 1999; Finkelstein, 2009; Finkelstein, Penner, & Bannick, 2005; Stukas, Snyder, & Clary, 2002). In this paper, we extend prior research associated with individuals' motivations to participate in community service through an increased sample size, multi-institutional context, and an application of a broader theory of motivation—Ryan and Deci's

(2000) self-determination theory. More specifically, the purpose of this study is to examine the extent to which different types of motivation for community service relate to desire to continue community service following college graduation controlling for other variables. Prior to stating specific hypotheses, a brief review of relevant research and theory on motivation is provided.

Motivations for Participation in Community Service

Functional Analysis Theory

The predominant motivational theory used in scholarship related to individuals' motivations to participate in community service is the functional analysis of volunteerism theory (Clary & Snyder, 1991, 1999; Clary et al., 1998). Clary et al. (1998) suggested individuals' motivations for seeking out community service can influence their commitment to service and sustained involvement over long periods of time. The authors suggested a framework—a functional analysis of volunteerism—reflecting six different motivational processes that manifest into voluntary helping behavior (values, career, social, understanding, protective, and enhancement motives). The functional approach suggests that individuals can perform the same actions based on different motives and that individuals can have multiple motivations for pursuing their goals (Clary & Snyder, 1999). Additionally, the functional analysis theory holds that individuals are likely to continue volunteering to the extent that their experiences fulfill their motives (Finkelstein, 2009). In other words, when individuals' motivations for service are matched by the outcomes of the service, they are more likely to remain committed to the service activity (Clary & Snyder, 1999).

Researchers have suggested these six motivational processes are differentially associated with volunteer behaviors. For example, Allison, Okun, and Dutridge (2002) found value motives (e.g., feeling concerned about others less fortunate, feeling compassion toward people in need) and understanding motives (e.g., volunteering allows participants to gain new perspectives, volunteering enables participants to learn things through hands-on experience) were positively associated with frequency of community service participation. Conversely, the researchers discovered social motives for community service participation (e.g., others want participants to volunteer, participants' friends volunteer) were negatively associated with volunteering frequency. Stukas, Snyder, and Clary (2002) discovered stronger perceptions of external control eliminated a positive relationship between prior volunteer experience and future intentions to volunteer.

There are connections between the functional analysis of volunteerism theory and self-determination theory (the primary conceptual framework for the present study, discussed below). Specifically, authors have linked the six motivational processes of the functional analysis of volunteerism to the intrinsic or extrinsic motivations described in self-determination theory (Finkelstein, 2009; Finkelstein, Penner, & Bannick, 2005; Penner, 2002). Finkelstein (2009) investigated college students' intrinsic and extrinsic motivations for participating in service through the lens of functional analysis theory (Clary et al., 1998; Clary & Snyder, 1999). Finkelstein incorporated items from the Volunteer Functional Inventory (Clary et al., 1998) into a factor analysis that resulted in a two-factor solution—internal motivations for participating in service and external motivations for participating in service. Finkelstein discovered that internal motivations were significantly and positively associated with intrinsic motivation toward work and, correspondingly, external motivations were significantly and positively associated with extrinsic motivation toward work. Intrinsic motivations were associated with prosocial personality characteristics such as helpfulness and other-oriented empathy (Penner, 2002) as well as the establishment of a volunteer role identity (Finkelstein, Penner, & Bannick, 2005); however, extrinsic motivations were not associated with prosocial tendencies or volunteer self-concepts. Finally, internal motivations for participating in service were positively associated with the amount of time college students spent volunteering (Finkelstein, 2009).

Self-Determination Theory: Conceptual Framework for the Study

Ryan and Deci's (2000) self-determination theory distinguishes between different types of motivation based on the reasons or goals that promote an action or behavior. Self-determination theory contributes to the present study because it provides a broad framework around which to understand college students' motivations for participating in community service. Self-determination theory examines the idea of "universal psychological needs" and posits that satisfaction of these needs determines the level of motivation individuals experience (Deci et al., 2001, p. 930). Human motivation is highly complex—people are moved to act based upon a variety of different factors yielding multiple consequences and experiences. The extent to which people are motivated by internal, self-authored interests or externally controlled is a matter of significance in every culture (Deci et al., 2001; Ryan & Deci, 2000). Motivations do not exist in complete isolation; instead, external social and environmental conditions can enhance or subdue motivations. Studies exploring human motivation are

therefore important in a wide variety of contexts, including educational contexts.

Ryan and Deci's (2000) self-determination theory proposed that motivation stretches across a continuum between extrinsic motivation and intrinsic motivation. Feelings of motivation are enhanced by *perceived locus of causality*—one's sense of autonomy and agency in completing a task. Motivation is further dependent upon one's sense of *self-regulation*—the extent to which one carries out activities autonomously due to the internalization and integration of values and regulations. Both perceived locus of causality and self-regulation stretch across continuums from external to internal (Ryan & Deci).

Extrinsic motivation refers to doing something because it leads to a separable outcome or is externally regulated (Ryan & Deci, 2000). Innumerable social pressures motivate individuals to engage in activities or behaviors that are not inherently interesting to them. Extrinsic motivations can, to some extent, be internally regulated as opposed to externally controlled (Gagne & Deci, 2005). The more externally regulated forms of extrinsic motivation revolve around compliance, external rewards and punishments, lack of agency, and a conscious non-valuing of activities. Conversely, more internally regulated forms of extrinsic motivation feature internal rewards or punishments, self-control, a conscious valuing of activities, personal importance, and a synthesis between behaviors and self. For example, students who complete their homework because they comprehend its value for their careers are extrinsically motivated but have a greater sense of autonomy than students who complete their homework because their parents require them to complete it (Ryan & Deci, 2000).

Extrinsic motivations range from an external to internal locus of causality corresponding with a continuum of regulation representing four areas: external regulation, introjection, identification, and integration. *External regulation* reflects behaviors performed to satisfy an external demand—behaviors that typically leave individuals feeling controlled or alienated. *Introjection* occurs when people perform actions with the feeling of pressure in order to avoid guilt or to attain ego-enhancements, such as behaviors undertaken to gain approval from others. *Identification* occurs when individuals have identified with the personal importance of a behavior; for example, students may complete their required homework because the homework aligns with a life goal, thereby identifying with the value of the learning activity. Finally, *integration* occurs when actions occur in congruence with one's values and needs and are considered to be more autonomous in nature. Although integrated forms of regulation share many

qualities with intrinsic motivations, these regulations are considered extrinsic because the behavior leads to an outcome that is separate from the action or behavior itself, even though the action may be volitional and valued by the individual (Ryan & Deci, 2000).

In contrast to extrinsic motivation, intrinsic motivation refers to doing something because it is inherently interesting or enjoyable (Ryan & Deci, 2000). Intrinsic motivations correspond with an internal perceived locus of causality and are internally regulated; often, actions conducted under intrinsic motivation are done so because the individual inherently enjoys the activity and receives inherent satisfaction from it. Intrinsic motivation has been associated with interest, excitement, and confidence, which in turn manifests into enhanced performance, persistence, and creativity (Deci et al., 2001; Deci & Ryan, 1991; Gagne & Deci, 2005; Ryan & Deci, 2000; Sheldon, Ryan, Rawsthorne, & Ilardi, 1997). Ryan and Deci (2000) suggested that their theory of intrinsic motivation is concerned less with the causes of intrinsic motivation and is focused more on the conditions that elicit and sustain what they view as an innate propensity (Leroy, Anseel, Dimitrova, & Sels, 2012; Ryan, Kuhl, & Deci, 1997). In other words, research on intrinsic motivation centers upon learning more about the environmental conditions that might draw out individuals' natural inclinations rather than the means through which individuals developed those interests.

Within educational contexts, it is no surprise that more autonomous forms of extrinsic motivation are associated with better performance (Miserandino, 1996), lower attrition (Vallerand & Bissonnette, 1992), increased engagement (Connell & Wellborn, 1991), and higher quality learning (Grolnick & Ryan, 1987). Ryan and Deci (2000) suggested that individuals perform extrinsically motivated actions because their behaviors are prompted or valued by significant others to whom one wants to establish a relationship or attachment. Through internalization and integration, individuals can be extrinsically motivated to perform an action and yet be committed to the action and feel authentic in undertaking the action. Even if the regulation is external, one can exhibit a level of commitment and authenticity traditionally exhibited through intrinsic motivation if one feels competent in undertaking the action, perceives autonomy, and synthesizes its meaning with respect to their other goals and values (Ryan & Deci). Individuals become more autonomously motivated when they internalize external role demands into a core sense of self, suggesting that one's true self is often a function of continuously evolving environmental demands (Leroy et al., 2012).

Previous research has established connections between self-determination theory and participation

in service-related activities. In a study on self-determination and service-learning, Levesque Bristol, & Stanek (2009) suggested intrinsic motivation was positively associated with supportiveness of autonomy in the learning climate, students' effort toward completing their service, and students' valuing of the service activities. The authors also found that amotivation was negatively associated with those outcomes. Werner and McVaugh (2000) hypothesized that students who discover the intrinsic rewards of service will become psychologically committed and maintain a life of community service. Ilsley (1990) identified additional factors contributing to service participants' desire to continue their service at one particular service-learning site, some of which included agency, choice, and personal competence, which Werner and McVaugh considered components of intrinsic motivation.

Given those previous findings, we hypothesized that, after controlling for the variance explained by demographic variables, college experiences, and interest in community service experiences, students' motivations would account for a significant level of variance in students' self-reported desire to continue service post-graduation. We further hypothesized that, after controlling for the demographic variables and college experiences, intrinsic motivations and extrinsic motivations that have an internal perceived locus of causality (i.e., identification and integration motivations) would be positively associated with students' interest in service post-graduation.

Methods

Participants

We utilized survey responses from non-transfer undergraduate students enrolled in nine large, public research-intensive universities ($N = 7,823$). The majority of participants identified as White, female, and non-first-generation students (see Table 1). Slightly over one-third (33.8%) included students of color with 2.7% international students. The average age of students was 20.25 ($SD = 1.98$, range = 18-61).

Measures

The Student Experience in the Research University (SERU) survey is administered annually within a consortium of large, public research universities that are members of the Association of American Universities (Center for Studies in Higher Education, 2010). The SERU survey contains over 600 items intended to gather data on students' satisfaction, academic engagement, use of time, perceptions of campus climate, research experiences, and civic/community engagement, and other areas (Douglass, Thomson, & Zhao, 2012; Soria, Fink,

Lepkowski, & Snyder, 2013).

Researchers have provided evidence for the internal consistency of students' responses over several administrations of the survey. For example, Chatman (2011) noted that reliability estimates of seven primary factors (ranging from $\alpha = .72$ to $\alpha = .92$) developed from core survey items remained consistent over three years of survey administration. Douglass et al. (2012) also provided evidence for the validity of students' self-reported learning gains in the SERU, finding students' grade point average was associated with substantial differences in students' learning outcomes. Given the length of the SERU survey, not all variables have undergone evaluation of psychometric properties. All sets of items used in the present study were derived from the SERU survey or provided by the institutional research offices at participating campuses. The sets of items employed in this particular study are outlined below.

Demographic items. We measured a number of demographic characteristics which were derived from institutional research offices at participating institutions (see Table 1). These included sex and race/ethnicity. In the survey, students self-reported the highest education achieved by their mothers and fathers and we defined first-generation students as those whose parents have not earned a baccalaureate degree.

Community service interest items. We assessed students' interest in community service opportunities while in college. In the survey, students were asked to rate their agreement with the following statements: "opportunities for community service while here are important to me" and "opportunities to connect my academic work with community-based experience are important to me."

Academic level and major items. We assessed academic level, defined by the number of credits earned, which was provided by participating institutions. Institutional research offices also provided data regarding students' academic majors.

Motivations for service. After students responded affirmatively to an item in the survey which asked if they had participated in community service during the academic year, they were then asked to respond to an item which began "Which of the following were significant reasons for getting involved in community service?" The options were organized in a single block in the SERU survey and students selected either "not a significant reason" or "a significant reason" for each of the 12 motivations listed.

Intention to continue community service. In this measurement, students were asked, "To what extent has participation in community-focused activities at this University enhanced your desire to continue community-focused activities after you graduate?"

Table 1
Measures Used in Analyses.

<i>Categorical Measures Used in Analysis</i>	<i>n</i>	<i>%</i>	<i>Coding/Scale</i>
<i>Demographics and Personal Characteristics</i>			
Female	5,068	64.8	0 = no; 1 = yes
First-Generation	1,621	20.7	
Black	420	5.4	
Asian	1,283	16.4	
Native American	38	0.5	
Hispanic	896	11.5	
Other/Unknown	343	4.4	
International	214	2.7	
<i>Reasons Students Became Involved in Community Service</i>			
Become a better citizen and community participant	5,802	74.2	0 = not a significant reason; 1 = a significant reason
Belief in the particular cause	5,689	72.7	
Unique or interesting opportunity arose to participate	5,291	67.6	
Change conditions in the community	4,736	60.5	
Opportunity to learn new things	4,540	58.0	
Opportunities to develop leadership skills	4,134	52.8	
Strengthen my resume for graduate school or employment	4,134	52.8	
Encouragement from friends or family	3,149	40.3	
Opportunity to enhance my academic achievement	2,693	37.9	
Location of where the work was to be conducted	2,687	34.3	
Required by my fraternity/sorority	1,810	23.1	
Required as part of my academic program	1,560	19.9	
<i>Academic Major Areas</i>			
STEM	2,255	28.8	
Arts and humanities	1,249	16.0	
Social sciences	1,095	14.0	
Business	1,034	13.2	0 = no; 1 = yes
Medical	679	8.7	
Education	131	1.7	
<i>Continuous Measures Used in Analysis</i>	<i>M</i>	<i>SD</i>	<i>Coding/Scale</i>
Academic level	2.83	1.10	1 = freshman to 4 = senior
Opportunities for community service while here are important to me	4.68	1.09	1 = strongly disagree to 6 = strongly agree
Opportunities to connect my academic work with community-based experiences are important to me	4.83	1.01	
Desire to continue community-focused activities after you graduate	2.07	.65	1 = not at all to 3 = to a great extent

Procedures

The SERU survey was administered to 213,160 undergraduate students across nine large, public universities classified by the Carnegie Foundation as having very high research activity. The Institutional Review Boards at each of the respective institutions provided full approval to administer the survey. Institutional representatives sent emails to all undergraduates enrolled spring 2011 asking them to respond to the web-based questionnaire. Each insti-

tution offered different incentives to students (e.g., a lottery drawing for gift cards). The institutional level completion response rate for the SERU survey was 38.1% ($N = 81,135$). The items used in this analysis were embedded in a survey module randomly assigned to 20-30% of students depending upon an institution's preference. With regard to research design, this study was correlational in nature and utilized hierarchical multiple regression to examine the primary and second hypotheses as explained below (Field, 2009).

Results

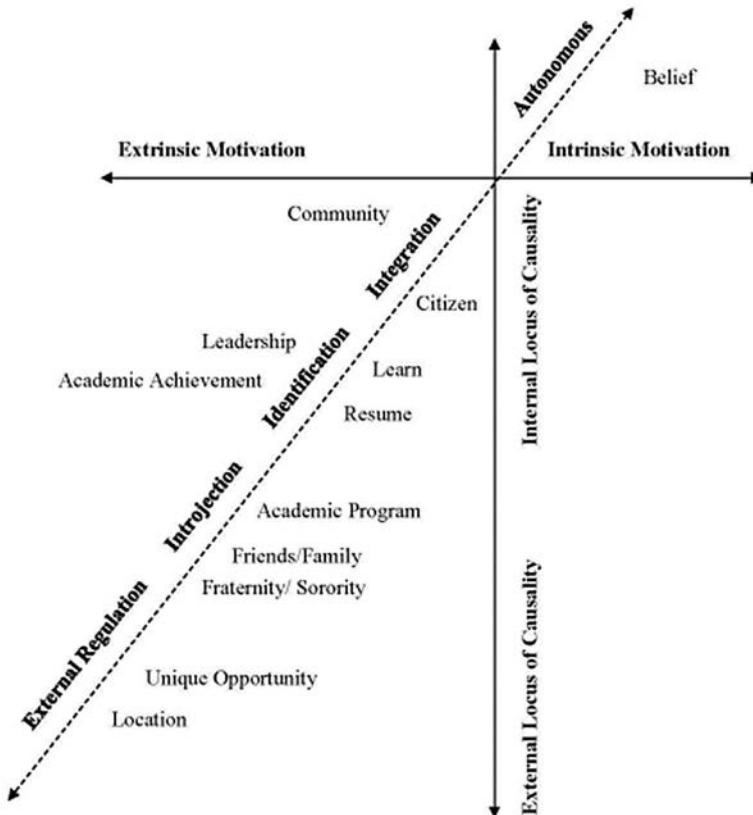
Categorizing Community Service Motivations in the Self-Determination Theoretical Framework

To prepare for this analysis, we dummy-coded some measures; for example, students’ academic majors were dummy-coded with undeclared students as the common referent. Sex, race, ethnicity, and first-generation status were also dummy-coded, as were students’ motivations for participating in service (e.g., 0 = “not a significant reason” and 1 = “a significant reason”). All other measures were left continuous in the analysis. After the initial steps were completed, we categorized students’ motivations for participating in community service within a matrix based on the perceived locus of causality and the regulatory styles suggested by Ryan and Deci (2000). This step allowed the results of the study to fall within the framework of intrinsic and extrinsic motivation proposed by Ryan and Deci (2000).

Using Ryan and Deci’s (2000) self-determination theory as a framework, we categorized students’ motivations for community service participation into a matrix (see Figure 1). We categorized participation in service because of the location in which the work was to be conducted (Location) or because of a unique opportunity (Unique Opportunity) as *extrinsic/externally-regulated*; however, these particular survey items did not capture more detail, so we cautiously categorized them due to the potential lack of inherent value in the service and the external locus of causality. Academic program requirements (Academic Program), encouragement from friends or family (Friends/Family), or fraternity/sorority requirements (Fraternity/Sorority) were categorized as *extrinsic/introjection* because the service was regulated by an external locus of causality and the service itself had a separable external outcome—meeting requirements, alleviating feelings of guilt, or enhancing self-esteem by receiving approval from others.

The more autonomous *extrinsic/identification*

Figure 1
 Motivations for service participation categorized as extrinsic or intrinsic by regulation and perceived locus of causality.



Note. The motivations were categorized based on the sense of autonomy and agency (perceived locus of causality) and the extent to which individuals can identify or integrate the value of the service activity in their identity (regulation). Extrinsic motivations for service lead to a separable outcome whereas intrinsic motivations refer to conducting service because it is inherently enjoyable.

motivations included participating in community service to build a strengthened resume (Resume), enhance academic achievement (Academic Achievement), develop leadership skills (Leadership), and learn new things (Learn). In these areas, individuals have identified with the personal importance of the behavior—in this case, society rewards enhanced resumes and greater academic achievement with employment opportunities, higher salaries, academic advancement into graduate schools, and more—and thus students may accept those values as their own. The two *extrinsic/integration* motivations—participating in community service to become a better citizen (Citizen) and to change conditions in the community (Community)—represent more self-determined viewpoints, although the outcome of better communities and better citizens is separable from the behavior (even though it appears volitional). Finally, we categorized the motivation of belief in the particular cause (Belief) as an *intrinsic* motivation because the perceived locus of causality is internal and the relevant regulatory processes convey personal interest and values. The inherent satisfaction that follows engagement in service because of one's personal belief in the social issues likely motivates individuals to engage in the activity autonomously.

Hierarchical Multiple Regression Analysis

We next employed multiple regression analysis to examine the extent to which student's self-reported motivations accounted for significant variance in their self-reported desire for post-graduation community service, above and beyond the variance accounted for by self-reported demographic variables, college experiences, and interests in community service. With desire for post-graduation community service as the variable to be explained, hierarchical multiple regression analysis provided support for the first hypothesis. At step one, demographic variables were entered into the model and explained a significant level of variance in desire for post-graduation community service ($R = .189$, $R^2 = .036$, $F(8, 7,815) = 36.348$, $p < .001$). Specifically, the demographic variables entered at step one included sex, first-generation status, and race/ethnicity. College experiences and interest in community service variables were entered in step two and were also found to account for unique variance in desire for future community service ($R = .467$, $R^2 = .218$, $F(17, 7,806) = 127.713$, $p < .001$; R^2 Change = .182, $F(9, 7,806) = 201.463$, $p < .001$). Finally, to specifically examine our primary hypothesis, the motivation variables were entered at step three. Specifically, these variables included the 12 motivations students had for participation in community service (see Table 1). This set of motivation variables explained a signifi-

cant amount of unique variance in desire for future service, above and beyond the variance accounted for by previously entered variables ($R = .536$, $R^2 = .288$, $F(29, 7,794) = 108.445$, $p < .001$; R^2 Change = .070, $F(12, 7,794) = 63.699$, $p < .001$). Thus, the results support our first hypothesis.

In describing the results of our second research question, we provide the part correlations, which represent the relationship between each predictor variable and the variable to be explained (i.e., desire for post-graduation community service), after controlling for the amount of variance in desire for future community service is explained by other variables in the equation (Field, 2009). We received mixed results supporting our second hypothesis that intrinsic motivations, extrinsic/identification, and extrinsic/integration motivations would be positively associated with students' interest in service post-graduation after controlling for demographic variables and college experiences. The results suggest intrinsic and extrinsic/integration motivations were positively associated with students' perceptions that their community service experiences increased their desired to continue community service post-graduation. Controlling for demographic variables, college experiences, and interest in community service, students who participated in community service because of their belief in the particular cause (intrinsic, $r = .068$, $p < .001$), to become a better citizen and community participant (extrinsic/integration, $r = .056$, $p < .001$), and to change conditions in their community (extrinsic/integration, $r = .078$, $p < .001$) were significantly more likely than their peers, on average, to perceive their participation in community-focused activities enhanced their desire to continue community-focused activities post-graduation.

Contrary to our hypothesis, not all extrinsic/identification motivations were significant in the model. Controlling for demographic variables, college experiences, and interest in community service, students who participated in service because of opportunities to develop their leadership skills ($r = .043$, $p < .001$) and because of opportunities to learn new things ($r = .052$, $p < .001$) were more likely than their peers, on average, to perceive their participation in community-focused activities enhanced their desire to continue community-focused activities post-graduation. The two remaining extrinsic/identification motivations—participating in service to enhance one's resume or academic achievement—were not significant in the model.

Mixed findings also emerged for extrinsic/introjection motivations and extrinsic motivations. For example, controlling for other variables, students who participated in service because it was required by their fraternity or sorority were significantly *less*

likely than their peers, on average, to perceive their participation in community-focused activities enhanced their desire to continue community-focused activities after post-graduation ($r = -.019, p < .001$). Controlling for demographic variables, college experiences, and interest in community service, students who participated in service because it was required by their academic program ($r = .019, p < .001$) or because a unique or interesting opportunity arose to participate ($r = .044, p < .001$) were significantly more likely than their peers, on average, to report their participation in community-focused activities enhanced their desire to continue community-focused activities after post-graduation. It is important to acknowledge that significance is easy to achieve with the statistical power of large sample sizes (Chatfield, 1995) and some of these motivations were significant at only the $p < .05$ level in the hierarchical regression model. As a result, the importance of these measures in this model should be interpreted with caution.

Several additional measures were also significant in the regression model. Controlling for demographic variables, college experiences, and interest in community service, females were significantly more likely than males to report their service experiences enhanced their interest in continued participation in community-based activities after graduation ($r = .040, p < .001$). Compared to all other racial and ethnic groups, Hispanic or Latino students were significantly more likely to report their service experiences influenced their interest in continuing service after graduation ($r = .031, p < .001$). Students who identified as other/unknown racial and ethnic background were significantly less likely than their peers to report their service experiences enhanced their interest in post-graduation community service ($r = -.022, p < .001$). Additionally, as students' academic levels increased, they were significantly more likely to perceive their service experiences enhanced their desire to continue service ($r = .052, p < .001$). Compared with all other majors and undeclared students, students enrolled in arts/humanities and education degree programs were significantly more likely to be interested in continuing service post-graduation ($r = .032, p < .001$). Students who were interested in community service opportunities ($r = .188, p < .001$) and in opportunities to connect service with their academic work ($r = .046, p < .001$) were also more likely to believe their service experiences on campus enhanced their desire to continue service post-graduation.

Discussion and Recommendations

The results of this study suggest that students' motivations for participating in community service explained a statistically significant amount of vari-

ance in their desire to continue service post-graduation above and beyond the variance explained by demographics and college experiences. Additionally, the results suggest students who were motivated to participate in service because of intrinsic or extrinsic/integrated reasons were more likely to believe their service experiences in college enhanced their desire to participate in service post-graduation. Yet, we also observed that motivations to participate in service explained only small variance in students' desire to continue service post-graduation. The magnitude of the individual part correlations between motivations to participate in service and desire to continue service post-graduation, while statistically significant with this large sample, were also very small in magnitude. Overall, then, these findings suggest students' motivations for participating in service only minimally explains the variance in students' decisions to participate in service post-graduation; consequently, our results should be interpreted under these cautious terms and viewed as preliminary in nature.

Additionally, the results of the study suggest two-thirds of the college students in our sample participated in community service for primarily extrinsic/internally-regulated or intrinsic reasons. These findings suggest many college students may pursue community service experiences because of an inherent interest, their belief that they can become better citizens and effect positive change in communities, and perceiving service affording opportunities to learn in different contexts (see Table 1). Over four-fifths of the students in our sample believed their community service experiences positively enhanced their desire to continue participating in community-focused work after they graduated from college—56.8% ($n = 4,446$) agreed their participation in service “to some extent” influenced their desire to continue these activities after graduation, 25.2% ($n = 1,974$) indicated their participation in service influenced their desire for continued participation “to a great extent,” and 17.9% ($n = 1,403$) indicated their participation in service did “not at all” impact their desire to continue community-focused work after graduation. Vogelgesang and Astin (2000) similarly discovered that students who participated in community service while in college were more likely than non-participants to state that they planned to pursue service as part of a career. The authors also discovered that freshman college students with undecided majors who participated in service-learning were significantly more likely to pursue a service-related career than their undecided peers who did not engage in service-learning (41.3% compared to 18.5%). In tandem with the results of our study, Vogelgesang and Astin's results suggest the powerful effectiveness of community service experiences in higher education to inspire students' long-

term desires to continue community-focused work to promote positive social change.

We also found that measures associated with students' college experiences—particularly, students' interest in community service while in college—explained more variance than other measures (including the different motivations to pursue service) in the extent to which community service experiences in college enhanced their desire to pursue service post-graduation. This finding supports prior research regarding the importance of college students' predispositions toward service on not only participation in service, but also the outcomes of service participation (Astin & Sax, 1998; Vogelgesang & Astin, 2000). Given the strength of the relationships between students' interest in pursuing service while in college and students' beliefs that service enhanced their desire to continue service post-graduation, we encourage researchers to include students' interest in community service as a control measure in future scholarship.

As hypothesized, students who participated in community service because of intrinsic or extrinsic/integrated reasons were significantly more likely to believe their service experiences in college enhanced their desire to participate in service post-graduation. This result corresponds to prior research suggesting that internal motivations for participating in service are positively associated with the amount of time students spend in service (Finkelstein, 2009; Ilsley, 1990; Werner & McVaugh, 2000). The findings of this study also corroborate interesting links previously unearthed between college students' engagement in service, their interest in leadership opportunities, and their development of leadership skills (Astin, Vogelgesang, Ikeda, & Yee, 2000; Dugan, 2006; Soria, Nobbe, & Fink, 2012; Vogelgesang & Astin, 2000). College students who participate in community service because of their inherent desire or because the service opportunities are connected to their internalized value system may find these experiences more meaningful in terms of promoting their desire to continue working in community-focused work after they graduate from college. Practitioners seeking to stimulate lifelong civic responsibility, community service participation, and community engagement may be successful if they take time to discover students' intrinsic and values-based motivations for participating in service. For offices whose primary role is to offer community service opportunities for students, a survey of students' interests and beliefs can help to connect students with community partners matching students' intrinsic motivations (Moely, Furco, & Reed, 2008).

Some college students may benefit from receiving messages explaining the explicit connections between community service participation and the

outcomes of service (which may include bettering communities or becoming a better citizen). Researchers have documented the potential importance of community service self-efficacy—individuals' beliefs that they can make significant contributions to their communities—as a mediator or moderator in predicting not only students' desire to participate in community service but also in their ongoing commitment to service (Reeb, 2006; Reeb, Katsuyama, Sammon, & Yoder, 1998; Reeb, Folger, Langsner, Ryan, & Crouse, 2010). Similarly, authors have proposed that intrinsic motivation can be enhanced when activities are completed with competency because they satisfy a basic psychological need for competence (Ryan & Deci, 2000). College students' motivations for completing service can certainly change over time and their competency can increase over time as well; yet, the present study is limited because it only captured students' motivations in one given academic year and did not capture competency at all. Therefore, practitioners may wish to highlight the outcomes of community service endeavors for students who are more motivated to participate in service if they are confident they can make a positive difference in their communities or feel competent in completing the tasks required in community service.

Students who were required to participate in service through their academic program were also more likely to believe their service experiences enhanced their desire to participate in service after graduation. In contrast, students who participated in service because it was required by their fraternity or sorority were less likely to indicate these experiences enhanced their desire to continue service. These mixed findings somewhat contradict prior research suggesting that mandating volunteer activities may prove counterproductive in encouraging lifelong community engagement (Stukas, Snyder, & Clary, 1999); instead, academically-affiliated mandatory service, at least in this study, was positively associated with students' beliefs that their service enhanced their desire to continue community work post-graduation. Given the limitations of the survey instrument, we are not certain whether students' required community service in academic programs would constitute "service-learning" in its various forms. This distinction is important in that prior researchers have discovered service-learning has greater benefits over and beyond "generic" community service (Vogelgesang & Astin, 2000). Due to the contradictory nature of these findings and limitations in our measures, we recommend that future researchers continue to disentangle the nature of mandatory service in different contexts—including academic and co-curricular service-learning contexts.

Due to the limitations of the research design, we only assessed whether students expressed interest in participation in service after graduation as opposed to directly measuring post-college service. Additionally, the motivation items operationalized within self-determination theory were limited in their scope and often vaguely worded, leaving students' interpretations of the items unknown and our conceptualization of those measures within the self-determination framework somewhat imprecise. Motivational research in community service contexts can be richly supplemented by scholarship regarding individuals' personality traits. Researchers have discovered that helping dispositions are indirectly associated with longevity of service because individuals with helping dispositions develop greater satisfaction in completing service activities (Omoto & Snyder, 1995). Others have found prosocial dispositions, including altruistic tendencies, perspective taking, resiliency, empathy, and social skillfulness, significant in decisions to volunteer and the longevity of volunteering (Carpenter & Myers, 2010; Davis et al., 1999; Carlo, Okun, Knight, & de Guzman, 2005; Matsuba, Hart, & Atkins, 2007; Penner, Fritzsche, Craiger, & Freifeld, 1995; Unger & Thumulari, 1997). All of these factors could intersect in interesting ways with college students' motivations to pursue community service; yet, none of these measures were investigated in the present study.

Amid these limitations, this study provides continued support to existing literature suggesting undergraduate students' motivations for participating in community service may be relevant in predicting the outcomes of service. As noted earlier, the magnitude of correlations obtained in this study, though statistically significant with this large sample, were very small in magnitude, and so our results must be viewed as preliminary in nature. Nevertheless, it may be justified for scholars and practitioners to continue to examine students' motivations for participating in community service endeavors and seek ways to enhance students' personal interests in community service activities—including the ways in which students perceive the benefits of service for self and community—as those personal interests and motivations may diminish or enhance students' interest in continuing service participation after graduation.

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