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2002

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## The Impact of Community Service Involvement on Three Measures of Undergraduate Self-Concept

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*The central purpose of this study is to increase our understanding of how community service involvement affects the development of undergraduate self-concept. The findings from this study suggest that the quality of service involvement is more important than the amount of service performed by students.*

The need to develop in undergraduates a commitment to the common good has become an integral part of the public dialogue about what it means to be an educated American (Levine, 1980; Bellah, Madsen, Sullivan, Swindler, & Tipton, 1985, 1991; Parks Daloz, Keen, Keen, & Daloz Parks, 1996; Kuh, 1998; Rhoads, 1998). Most colleges work to foster this commitment through the development of students' altruistic attitudes and commitment to community service. There has been little systematic study of community service participation in American higher education, despite increasingly high levels of interest in promoting undergraduate involvement in community service activities on campus (Astin, Sax, & Avalos, 1999). Moreover, while the educational potential of undergraduate involvement in community service has

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been widely championed (Astin, 1990; Fleischauer & Fleischauer, 1994; Rhoads, 1998), empirical evidence regarding the educational benefits of community service participation among college students is only beginning to emerge. The nature of student involvement in community service and volunteerism varies across institutional contexts. Many administrators and faculty members at postsecondary institutions try to encourage their students to become involved in service activities, while others require participation in service-related activities as part of course or graduation requirements (Dodge, 1990). In an attempt to better understand the effect of community service participation on undergraduate educational outcomes, this study focuses on how the behavioral and psychological aspects of community service involvement affect the development of three areas of undergraduates' self-concept; psycho-social wellness, academic ability, and achievement orientation.

## Review of Literature

High levels of involvement in community service (defined by the number of hours per week spent involved in service during the last year of college) positively affect a number of student outcomes measured four and ten years after first entering college (Astin et al., 1999). These outcomes include positive changes in student behavior (undergraduate degree attainment, graduate school attendance, alumni contributions, cross-racial interaction, and continued involvement in community service), values (commitments to helping others, participating in community action programs, participating in environmental cleanup, promoting racial understanding, and developing a meaningful philosophy of life), degree aspirations, and work preparation (Astin et al., 1999). While this study shows that more frequent participation in community service activities has positive effects on students, it sheds little light on the many reasons that students become involved in community service or the effect that different types of community service involvement have on student outcomes.

It is also important to consider why students are involved in community service, the frequency with which they are involved, and the kinds of service they perform (Fitch, 1991; Serow, 1991). This information provides us with a better understanding of the quantitative

and qualitative aspects of students' involvement in community service. Students provide a variety of reasons for their decision to become involved in community service (Winniford, Carpenter, & Grider, 1995). Some students are motivated by altruistic reasons, others by egotistic reasons, while others feel a sense of social obligation (Fitch, 1987, 1991; Winniford, et al., 1995). Altruistic motivation typically centers around the volunteer's desire to help others in a selfless manner (Fitch, 1987; Winniford et al., 1995; Marotta & Nashman, 1998). Egotistic reasons focus on the desire of the community service volunteer to gain something personally (e.g., satisfaction, skills) while helping others (Fitch, 1987; Winniford et al., 1995; Marotta & Nashman, 1998). A sense of social obligation is a source of motivation for involvement that seems to have increased in the last ten years (Marotta & Nashman, 1998) and is defined as performing community service out of a sense of duty or responsibility (Winniford et al., 1995).

While community service activities are designed to aid others, the person providing the service can also realize educational benefits (Fitch, 1991). Indeed, several studies show that undergraduates who participate in community service realize greater educational benefits than do their nonvolunteering peers. For example, undergraduate community service volunteers tend to be more empathetic to others, have more positive attitudes toward self, and have more highly internalized moral standards (Allen & Rushton, 1983). Giles and Eyler (1994) found that service learning positively affected students' beliefs that they can make a difference in the world, that community service is important, that leadership and political influence are important aspirations, and that students involved in service learning want to be involved in additional service efforts. Batchelder and Root (1994) found that participation in service learning positively affected the development of cognitive capacities and pro-social reasoning skills.

Clearly, evidence suggests that involvement in community service positively affects the development of students. One outcome that seems to be affected positively by community service participation and that has been identified widely as an important outcome of a college education is self-concept. Undergraduate self-concept tends to increase during college (Pascarella & Terenzini, 1991). While self-concept has been defined in a number of different ways (Pascarella & Terenzini, 1991), a recent study offers three dimensions of self-concept—acade-

mic ability, achievement orientation, and psycho-social wellness; these are useful in studying college impact (Berger & Milem, 2000). Academic ability describes students' beliefs about their ability to perform a variety of tasks that are commonly used to assess their academic abilities. In other words, the academic ability subscale provides a description of how students view themselves with regard to the core tasks that are asked of them inside the classroom. One of the traditional goals of American higher education has been to prepare future generations of leaders for society. *Achievement orientation* measures how students assess their abilities to be leaders and successful in life. The final scale, *psycho-social wellness*, focuses on the core concepts that are a major focus of the work done by student development theorists and practitioners. When taken together, these three subscales provide a comprehensive, yet concise, description of undergraduate self-concept (Berger & Milem, 2000). Using these measures as dependent variables in this study provides a means for examining the effects of community service involvement on the development of undergraduate self-concept in three important domains of development.

This review of literature indicates that some studies focus on the amount of time students spend involved in community service activities (Astin, 1993; Astin et al., 1999) while others consider the reasons students become involved in service activities (Fitch, 1987; Serow, 1991; Winniford et al., 1995). Yet, there is a compelling need for new insights regarding the effects of different types of community service activities on student learning and development (Astin, 1990).

## Data and Methods

This study investigates the effects of community service involvement—defined in terms of time spent by students on service activities, types of service activities engaged in by students, and student motivations for service—on the development of undergraduate self-concept. No previous studies have examined this combination of community service-related variables on student outcomes. The effects of these community service factors on the development of self-concept are estimated after controlling for relevant student entry characteristics and types of college involvement that affect the development of self-concept (Berger & Milem, 2000).

This study uses data gathered as part of a project that studied the status and outcomes of community service involvement at a sample of United Methodist-affiliated liberal arts colleges. Specifically, the sample is composed of a subsample of United Methodist-affiliated colleges that participated in the 1992 CIRP (Cooperative Institutional Research Program) Freshman Survey and the 1996 College Student Survey (CSS). In the spring of 1996, the CSS was distributed to students at the six participating institutions. In addition to the standard CSS items, we included a number of items specifically designed for this study that measured the extent and nature of students' involvement in community and volunteer service while in college. The final data set is longitudinal and is comprised of data from the 1992 CIRP Freshman Survey, the 1996 CSS, and 1996 institutional data provided by the six schools. The final sample included 441 students, a 53% response rate. The sample was representative of the population from which it was drawn with 67% of the students being female and 89% Caucasian.

Three regression equations were used to predict the three self-concept outcome measures. The variable groupings used in the model represent five types of information: (1) student entry characteristics, (2) student involvement behaviors, (3) measures of reasons or motives for becoming involved in community service, (4) types of community service involvement, and (5) measures of self-concept.

Student entry characteristics help to control for student predispositions that affect subsequent outcomes. Student entry characteristics used in this study include measures of gender, race, family income, high school grade point average, political views, high school community service involvement, and pretests for each of the three measures of self-concept. Measures of student involvement behaviors were also included in the model. Astin (1977, 1993) recommends examining students' involvement behaviors as intermediate outcomes that affect other important student outcomes. Academic effort (time spent in hours per week on academic work), participation in collaborative learning efforts, organized club/group participation, social engagement with peers, and forms of noninvolvement (time spent being bored or lonely) were all included as measures of involvement. Also

included in these measures of involvement is a measure of how much time per week each student was involved in community service activities during their senior year.

The next block of variables focused on sources of motivation for students to participate in community service. The three principal reasons students report for participating in community service activities while in college include: (1) egotistic, (2) altruistic, and (3) obligatory. These reasons for involvement in community service are well documented as primary sources of motivation for students to be involved in service-oriented activity (Fitch, 1987; Serow, 1991; Winniford et al., 1995). As a reminder, egotistic reasons focus on the desire for volunteers to realize personal gain as a result of their volunteerism, altruistic reasons reflect volunteers' desire to help others in a selfless manner, and obligatory reasons refer to motivation that stems from a sense of duty or responsibility (Fitch, 1987; Winniford et al., 1995).

Four items from the CSS describe the nature of students' service involvement. The types of service include: (1) *academic*—involvement with a course requirement as a form of service learning, (2) *religious*—involvement in a service project sponsored by the campus Chaplain's office or a campus religious organization, (3) *co-curricular*—involvement in a service project sponsored by a nonreligious club or organization on campus, and (4) *off-campus*—involvement with community service not affiliated with the student's college. Each type of involvement was measured by a single item indicating the frequency with which (often, occasionally, seldom, or never) students had participated in this type of service.

The three measures of self-concept (academic ability, achievement orientation, and psycho-social wellness) are scales that were developed through exploratory factor analysis in an earlier study that used this data set (Berger & Milem, 2000). The integrity of the scales was confirmed by examining the Cronbach's alpha reliability scores for each scale. Table 1 provides the variable definitions and descriptive statistics for all of the variables used in this study.

**Table 1**  
**Variables Definitions with Means and Standard Deviations**

| <b>Variable Name</b>               |  |
|------------------------------------|--|
| 1. Gender: Female                  | Single item identifying students' gender (1 = male, 2 = female) Females = 67%  |
| 2. Race: White                     | Single item asking students to identify whether they belong to the racial/ethnic category—white/Caucasian (1 = no, 2 = yes). SIF item. White Students = 89%  |
| 3. Race: Black                     | Single item asking students to identify whether they belong to the racial/ethnic category—Black/African American (1 = no, 2 = yes). SIF item. Black Students = 4%  |
| 4. Income                          | Single item measuring family income during the previous year (1 = less than \$6,000 to 14 = \$200,000 or more). SIF item. Mean = 5.80, S.D. = 2.67   |
| 5. High School Grade Point Average | Single item self-reported measure of high school grade point average (1 = D to 8 = A or A+). SIF item. Mean = 5.06, S.D. = 1.64  |
| 6. Political View: Liberal         | Single item asking students to characterize their political view (1 = far right, 2 = conservative, 3 = middle of the road, 4 = liberal, 5 = far left). SIF item. Mean = 3.19, S.D. = 0.83  |
| 7. High School Community Service   | Single item measuring how frequently students reported participating in community service during senior year of high school (1 = not at all, 2 = occasionally, 3 = frequently). SIF item. Mean = 3.83, S.D. = 0.72   |
| 8. Academic Ability                | Four-item scale measuring (1 = lowest 10% to 5 = highest 10% when student compares self with persons their own age) students' academic ability self-concept, including (1) intellectual self-confidence, (2) academic ability, (3) writing ability, and (4) public speaking ability. SIF items for entry measure and CSS items for exit measure. Alpha reliability = .64 (entry) and .77 (exit). Entry: Mean = 14.32, S.D. = 2.26<br>Exit: Mean = 15.53, S.D. = 2.42 |



Table 1, continued

|                              |  |
|------------------------------|--|
| 9. Achievement Orientation   | Three-item scale measuring (1 = lowest 10% to 5 = highest 10% when student compares self with persons their own age) students' achievement orientation, including (1) drive to achieve, (2) competitiveness, and (3) leadership ability. SIF item for entry measure and CSS items for exit measure. Alpha reliability = .74 (entry) and .76 (exit). Entry: Mean = 11.16, S.D. = 2.15, Exit: Mean = 12.00, S.D. = 1.99  |
| 10. Psycho-Social Wellness   | Four-item scale measuring (1 = lowest 10% to 5 = highest 10% when student compares self with persons their own age) students' psycho-social wellness self-concept, including (1) social self-confidence, (2) understanding of others, (3) cooperativeness, and (4) emotional health. SIF items for entry measure and CSS items for exit measure. Alpha reliability = .69 (entry) and .81 (exit). Entry: Mean = 15.51, S.D. = 2.31, Exit: Mean = 16.23, S.D. = 2.39 |
| 11. Academic Effort          | Two-item scale indicating level of student's academic effort, including (1) hours per week spent studying during the past year and (2) hours per week spent in classes and labs during the past year. Alpha reliability = .68, Mean = 10.43, S.D. = 3.28   |
| 12. Collaborative Learning   | Three-item scale indicating level of student's participation in collaborative learning, including (1) how frequently student studied others, (2) worked on group project in class, and (3) discussed course with other students. Alpha reliability = .54, Mean = 7.89, S.D. = 1.12   |
| 13. Club/Group Participation | Single item indicating how many hours per week during the last year student spent involved in club/group participation (1 = none to 7 = 16 or more). Mean = 2.83, S.D. = 1.86  |
| 14. Socializing with Peers   | Single item indicating how many hours per week during the past year student spent socializing with friends (1 = none to 7 = 16 or more). Mean = 4.80, S.D. = 1.84  |

Table 1, continued

|                                     |   |
|-------------------------------------|---|
| 15. Noninvolvement                  | Five-item scale indicating the extent to which students reported having (1) not completed homework on time, (2) felt bored in class, (3) been lonely or homesick, (4) felt depressed, and (5) felt overwhelmed. Alpha reliability = 0.50. Mean = 6.78, S.D. = 2.88  |
| 16. Community Service Frequency     | A single item indicating how many hours per week during the last year students reported having participated in community service. (1 = none, 2 = <1, 3 = 1-2, 4 = 3-5, 5 = 6-10, 6 = 11-15, 7 = 16-20, 8 = >20). Mean = 2.37, S.D. = 0.92   |
| 17. Academic Community Service      | A single item indicating how often students participated in community service that was an academic course requirement (1 = never to 4 = often). Mean = 2.28, S.D. = 1.07  |
| 18. Religious Community Service     | A single item indicating how often students participated in community service that was sponsored by the campus Chaplain's office or a campus religious organization (1 = never to 4 = often). Mean = 1.81, S.D. = 1.02  |
| 19. Co-curricular Community Service | A single item indicating how often students participated in community service that was sponsored by a nonreligious club or organization on campus (1 = never to 4 = often). Mean = 2.42, S.D. = 1.10  |
| 20. Off-campus Community Service    | A single item indicating how often students participated in community service that was not affiliated with the student's college (1 = never to 4 = often). Mean = 2.10, S.D. = 1.02   |
| 21. Egotistic Motivation            | Three-item scale measuring the importance of (1) enhancing one's own learning and skills, (2) enhancing one's own resume, and (3) feeling personal satisfaction as reasons for participating in community service (1 = not important to 4 = essential). Alpha reliability = .60, Mean = 7.55, S.D. = 1.95 |

Table 1, continued

|                           |   |
|---------------------------|---|
| 22. Altruistic Motivation | A single-item measuring the importance of helping others as a reason for participating in community service (1 = not important to 4 = essential). Mean = 3.19, S.D. = 0.86  |
| 23. Obligatory Motivation | Two-item scale measuring the importance of (1) satisfying moral/religious beliefs and (2) fulfilling social/civic responsibilities as reasons for participating in community service (1 = not important to 4 = essential).<br>Alpha reliability = .62, Mean = 4.81, S.D. = 1.35 |

## Results

Table 2 provides a summary of the results of the three regression equations that were used to estimate the effects of community service participation on the development of self-concept. The regression equation predicting academic ability accounted for just over 32% of the variance in the dependent variable. In addition to the pretest, three other entry characteristics had statistically significant effects on the development of positive self-concept in the area of academic ability. Being white and previous involvement in community service were positive predictors, while being female was a negative predictor. Two involvement behavior measures—academic effort and participating in student clubs/groups—had positive effects on students' academic ability self-concept, while noninvolvement had a negative effect on this outcome. One measure of motivation for community service and one measure of type of community service each had a statistically significant effect on the development of academic ability self-concept. Involvement with religiously-sponsored community service activities had a negative effect on academic ability self-concept, while students who participated in community service to fulfill social obligations were more likely to report higher levels of self-concept regarding their academic ability.

The regression equation predicting the achievement orientation subscale of self-concept explained almost 25% of the variance. The pretest for this type of self-concept was a significant positive predictor of subsequent levels of achievement orientation. Being female had a negative effect on the development of achievement orientation during college.

**Table 2**  
**Summary of Regression Equations Predicting Self-Concepts Scales**  
 (standardized regression coefficients [Betas] are reported)

| Independent Variables           | Dependent Variables |                         |                        |
|---------------------------------|---------------------|-------------------------|------------------------|
|                                 | Academic Ability    | Achievement Orientation | Psycho-social Wellness |
| Gender: Female                  | -.09*               | -.12**                  | -.02                   |
| Race: White                     | .14**               | .08                     | .08                    |
| Race: Black                     | .03                 | -.01                    | -.04                   |
| Income                          | .02                 | .01                     | -.03                   |
| HSGPA                           | .05                 | .03                     | -.02                   |
| Political View: Liberal         | .00                 | -.04                    | -.01                   |
| High School                     | .12**               | .13**                   | .10*                   |
| Community Service Pretest       | .31***              | .26***                  | .29***                 |
| Academic Effort                 | .30***              | .19***                  | .10*                   |
| Collaborative Learning          | .03                 | .10*                    | .14**                  |
| Clubs/Groups                    | .10*                | .12**                   | .11*                   |
| Socializing with Peers          | -.01                | -.02                    | .05                    |
| Noninvolvement                  | -.15***             | -.15***                 | -.25***                |
| Community Service Frequency     | -.02                | -.03                    | -.04                   |
| Academic Community Service      | -.02                | -.06                    | .10*                   |
| Religious Community Service     | -.09*               | -.09*                   | -.04                   |
| Co-curricular Community Service | .02                 | -.03                    | .01                    |
| Off-campus Community Service    | .02                 | .01                     | -.08*                  |
| Egotistic Motivation            | .01                 | .03                     | -.02                   |
| Altruistic Motivation           | -.06                | -.01                    | .06                    |
| Obligatory Motivation           | .10*                | .10*                    | .07                    |
| R <sup>2</sup>                  | .32***              | .25***                  | .25***                 |

\*  $p \leq .05$ ; \*\*  $p \leq .01$ ; \*\*\*  $p \leq .001$

while high school community service involvement was a positive predictor. Noninvolvement was once again a negative predictor of the dependent variable. Involvement behaviors that served as positive predictors of achievement orientation included academic effort, being involved in collaborative learning activities, and being involved with student clubs/groups. The only type of community service involvement that showed significant effects on achievement orientation was involvement in religiously-oriented community service. Students who reported that they were involved in service because of a sense of obligation were likely to report higher levels of achievement orientation four years after entering college.

The pretest and previous community service involvement were the only entry characteristics that exerted a significant effect on the development of psycho-social wellness and both had positive effects. Students' patterns of involvement were the most important predictors of the psycho-social wellness subscale of self-concept. Academic effort, involvement in collaborative learning activities, and membership in student clubs and groups all demonstrated positive effects on the development of psycho-social wellness while being less engaged in college life exerted a negative effect. Students who were involved in academically-based community service were more likely to report higher levels of psycho-social wellness, while students who participated in off-campus community service were likely to report lower levels of self-concept in this area. This equation explained 25% of the variance.

### Limitations

Before moving to our discussion of the findings from this study and the related implications, it is important to note some of the limitations inherent in this research. First, the sample was drawn exclusively from private liberal arts colleges affiliated with the United Methodist Church, and the findings may not be generalizable to other types of college student populations. Second, only students who persisted at the institution they entered as freshmen had the opportunity to complete the CSS. Students who did not persist at the institution or who transferred to other institutions may have exhibited different patterns of involvement or impact regarding the questions posed in this study.

Finally, the measures of type of community service and frequency of involvement in community service do not take into account the exact nature of the service project (e.g., tutoring, Habitat for Humanity participation), nor do they account for the quality of the student effort and engagement in these activities. These issues are important to consider when discussing the impact of community service involvement on students (Rhoads, 1998).

## Discussion and Implications

In this study, higher levels of involvement in community service did not have a positive effect on student self-concept. This finding is somewhat surprising because it contradicts earlier findings from a similar study by Astin et al. (1999) regarding the positive benefits associated with higher levels of participation in community service. We suspect that this occurred because of the low variability evident in our measure of involvement in service. The mean number of hours per week spent by students engaged in service during their fourth year at the institution was about one hour per week. It may be that a certain threshold of effort (in terms of number of hours invested by a student) is required before community service begins to have an impact on student outcomes. If this is the case, then campus educators, student affairs professionals, and faculty members should work to involve students in community service in more than just a cursory manner. Higher levels of involvement in community service may be necessary for students to realize positive effects on developmental outcomes like self-concept. Future studies should investigate whether such a threshold exists and if so, at what point, in terms of hours invested, the higher levels begin to have an impact on students in this manner.

Our measure of service examines involvement in service only during the fourth year of college. If a measure of service throughout college had been used, we might have found a relationship between the amount of time spent involved in service and our outcome measures. However, if there is indeed no relationship between the impact of frequency of contact and our outcome measures, this would support the assertion that quality of involvement in community service is more important than the quantity of involvement. Clearly, this idea is con-

sistent with Astin's (1984) assertions regarding the need to consider both the quantitative and qualitative aspects of involvement in determining the impact that involvement has on student outcomes.

The strong relationship between participation in community service in high school on involvement in community service four years after entering college is an important finding in this study. While this trend has been well documented in other studies (e.g. Astin et al., 1999) and is not surprising, this finding has important implications for campus leaders interested in promoting volunteerism and community service efforts on campus. Efforts on college campuses to stimulate involvement in community service appear not to be working as well as we might hope. While some studies document rising participation rates (Astin et al., 1999; Dodge, 1990), most students do not participate in community service and those who do tend to have established a pattern of community service involvement prior to college. This suggests that current efforts to involve undergraduates in community service is reinforcing existing patterns of behavior rather than fostering development in this area.

This study adds to our understanding of involvement in community service and college impact through its examination of the relationship between the types of service and the reasons or motivation for involvement in service and changes in student self-concept. This is a particularly important study given that few studies have examined the various sources of student involvement in community service while in college. Regarding the four types of community service involvement, academic involvement seems to be the most prevalent form of participation, while religious involvement is the least common form of community service participation for students in this sample. The four types of community service involvement are highly intercorrelated, suggesting that students who participate in one form of community service are likely to participate in other types as well. This is consistent with our earlier assertion that students who are involved in service prior to attending college are likely to continue their involvement in college. The higher participation rates in academic service learning suggest that the college classroom provides an appropriate educational forum for encouraging involvement in service.

Regarding students' reasons for involvement in service, obligation motivations had a positive effect on two of the three types of self-concept (academic ability and achievement orientation). In contrast, the other two types of service motivation (egotistic and altruistic) exerted no statistically significant effect on any of the measures of self-concept. This is a particularly surprising finding given that previous studies suggest that altruistic motivation has the most significant effect on student outcomes. This contradictory finding may be due to the fact that our study focused on internalized outcomes (e.g., self-concept), while other studies have focused primarily on outcomes that are more externally focused (e.g., future service involvement, altruism towards others). It is likely that each type of motivation affects different types of outcomes differently. Future studies should examine how each type of motivation affects certain types of outcomes rather than focusing on which type of motivation has stronger effects than the others on a limited range of outcomes.

Academic community service involvement was the only type of community service to have a positive effect on the development of self-concept (psycho-social wellness), while religious involvement negatively affected the development of academic ability and off-campus involvement negatively affected psycho-social wellness. This suggests that participation in different types of community service is likely to affect students in different ways. Existing literature and public perceptions tend to treat community service as a monolithic activity with little regard for the kind of community service or for the specific effects that may be associated with various forms of community service involvement.

The negative effect of participation in religiously-based community service activities is surprising, as is the negative effect of off-campus service on psycho-social wellness self-concept. This lends further support to the idea that not all forms of community service are equal when it comes to promoting certain types of student outcomes. Clearly, we need to know more about how and why participation in particular types of service leads to certain outcomes. This pattern of findings may also indicate the need for other types of student characteristics that may be related to the types of service activities in which students choose to engage and the subsequent impacts of such choices.



It is also interesting that involvement in co-curricular community service did not exert any statistically significant effects on any of the three measures of self-concept. This suggests that the nature of such service activities is so varied that there is no real pattern to be found among them and that the type of service activity may vary depending on the nature of the sponsoring club or group. It is possible that we might detect clearer patterns of relationship if we were to develop more specific ways of classifying the many different types of service that are likely to occur in this domain. This particular finding has implications that are particularly important for student affairs professionals. Co-curricular involvement is the one type of involvement used in this study that falls most directly under the purview of student affairs professional. Student affairs professionals should reflect on this finding and should look for ways to better identify various types of co-curricular involvement and the effects they have on various aspects of student development.

## Conclusion

One of the contributions made by this research is that it is one of the first studies to consider the impact that frequency of involvement in service, types of involvement of service, and reasons for being involved in service have on student outcomes. The findings from this study have important policy implications. Institutional leaders may need to focus more on how and why students become involved in community service and less on how much they are involved. The findings of this study also suggest that campus leaders may need to think more carefully about the type of outcome they are hoping will be affected by community service involvement. Matching student motivations for involvement in service with the right kinds of involvement may be an effective and efficient way to promote the development of desired student outcomes.

The findings from this study also suggest that campus administrators and faculty members who have responsibility for undergraduate community service activities may need to focus more on understanding the nature of students' motivation to serve. The three forms of motivation used in this study—egotistic, altruistic, and obligation—are well established in literature on community service (Serow, 1991;

Winniford et al., 1995). However, they have not been examined very well in studies of college impact. Despite previous findings on the importance of amount of service as a predictor of positive college outcomes (Astin et al., 1999), the findings from this study suggest that when measures of type of service and basis for motivation are included, frequency of service is a less important consideration as a precursor to more highly developed levels of self-concept.

Perhaps the most important implication for policy and practice that arises from this study is that there need to be more efforts in getting a wider range of students involved in community service efforts. The low frequency with which students report engaging in community service activities and the fact that those students who do participate in community service in college are the same students who participated in similar activities while in high school, suggests that colleges and universities may not be doing a good enough job of providing an impetus for students who haven't been previously involved in community service to become engaged with it while in college.

In conclusion, our study contributes to the literature on college impact in three primary ways. First, this study extends our knowledge of the benefits of involvement in community service for students, particularly as it relates to increases in the self-concept of students. Second, it provides additional information regarding the quantitative and qualitative aspects of community service involvement. Third, this study provides impetus for more research in this area that will help faculty members and administrators link the kinds of community service opportunities available to students with the types of motivations that students have regarding service and the impact that this has on specific educational outcomes.

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