# Engaging with Difference Matters: Longitudinal Student Outcomes of Co-Curricular Service-Learning Programs

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The potential contribution of co-curricular service-learning to develop engaged citizens is relatively unexplored. Much of the available research on college-level service-learning has studied the effect of service-learning in single courses on a variety of student outcome measures and there are at least two large, multi-campus studies of curricular service-learning (Astin, Vogelgesang, Ikeda, & Yee, 2000; Eyler & Giles, 1999). This article reports on analysis of longitudinal surveys completed at 23 liberal arts colleges by participants in four-year, co-curricular service-programs, collectively called the Bonner Scholar Program, sponsored by the Bonner Foundation.

The terms "service-learning" and "civic engagement" merit definition. The National Service-Learning Clearinghouse (2005) defined service-learning as a "teaching and learning strategy that integrates meaningful community service with instruction and reflection to enrich the learning experience, teach civic responsibility, and strengthen communities." A frequent tendency in the field is to use the phrase *service-learning* and assume the reference is to *academic service-learning* based in coursework. Giles and Eyler's (1999) seminal study of programs that linked academic study with service acknowledged the value of co-cur-

ricular learning and, in defining service-learning, also mentioned "non-course-based programs that include a reflective component and learning goals" (p. 5). The terms service-learning and civic engagement have recently been used interchangeably in the field. The Bonner Scholar Program (BSP) studied here defines civic engagement as intentional participation in direct service, democratic process, and public policy (Hoy, 2006).

Multi-campus studies have demonstrated that college-based, curricular service-learning contributes to academic, civic, and personal outcomes. Eyler and Giles (1999) demonstrated that one-semester service-learning classes had significant, consistent, and modest effects on student personal, civic, cognitive and academic outcomes in multicampus pre-and post-tests (p. xvii). In another large, longitudinal study, Astin, Vogelgesang, Ikeda, and Yee (2000) compared the effects of classroom-based service-learning and other forms of community service. Students who participated in one or more service-learning classes and community service experiences which were enhanced by opportunities for reflective dialogue were more likely to evidence personal and academic growth that lasted through the end of the senior year than were students who participated only in academic service-learning (p. 41–42).

Little research exists on sustained co-curricular service-learning. This study explored two research questions to address that gap. Does co-curricular service-learning have an impact on desired outcomes of the college experience, particularly an appreciation of diversity and of dialogue across boundaries of perceived difference? A second question is reported separately. Do characteristics of liberal arts colleges (specifically, more or less internationally-focused, faith-oriented, diverse, urban or "elite") increase the effects of participation in co-curricular service-learning on college outcomes?

*The Study*

### Study Context

Yearly, the BSP funds approximately 1,500 Bonner Scholars across 23–25 campuses, almost all traditionally-aged college students, and engages them in a four-year program that requires service while offering extensive training and support. Many participating colleges are located in Appalachia.[1] Ten to twenty students are selected yearly on each campus and are required to complete a minimum of ten hours of service, training, and reflection each week. In addition, the program provides financial support for two to three full-time service experiences for at least seven weeks in the summer or during co-op terms, including interna-

tional service. By graduation, each Bonner Scholar has served at least 1,680 hours. The program also provides a philanthropic fund on each campus and Scholars make decisions regarding its distribution. The BSP's best practices and model of desired college student development in co-curricular programs (Hoy, 2006) align well with other models of developmental outcomes and best practices of higher education (Kuh, Kinzie, Schuh, & Whitt, 2005; Keeling, 2004; Pascarella, Wolniak, Cruce, & Blaich, 2004; Astin et al., 2000; Chickering & Gamson, 1987).

The potential of the BSP to support lifelong service commitments drew the lead author into working with the Bonner Foundation more than ten years ago. Early evaluations of the BSP using descriptive analysis found that multiple programmatic opportunities for sustained dialogue across thresholds of perceived difference were the program's most valuable component (C. Keen & J. Keen, 2002). This study further examined questions raised by these initial evaluations using inferential analyses.

### *Study Participants*

College applicants expressing interest in the program were informed by admissions officers of the availability of the BSP scholarship. At least 80% of selected students' estimated family contribution to tuition was below $4,500 and they were financially needy compared with other students at their colleges. At least 20% of each campus cohort represented historically underrepresented groups. Gender balance on each campus was reflected in the cohorts.

### *The Survey Instrument and its Administration*

Surveys were first developed in 1995 from more than 20 individual and group interviews with BSP participants across a dozen campuses and BSP alumni at three national Bonner meetings. The surveys were conceived as formative evaluation tools for the freshmen, junior, and senior years to help the Bonner Foundation and participating campuses improve student experiences. In addition, the BSP leadership sought to gain better understanding of the effects of the program on student development that might be shared with a wider audience. Modest changes were made in the surveys between 1995 and 2004.

An incoming BSP survey included questions regarding demographics, past service experience, interest in opportunities offered by the BSP, and expectations. A mid-point impact survey administered in the first semester of the junior year included questions regarding Scholars' perceptions of the impact of the first two years of Bonner participation, including the "summer of service" which is typically scheduled between the sopho-

more and junior year. The graduating student impact survey questions addressed Scholars' perceptions of the impact of the program design elements, Scholars' values, outlook on the future, and plans beyond college. All three BSP surveys contained questions drawn from the UCLA's Higher Education Research Institute's Cooperative Institutional Research Program (CIRP) survey to allow for comparison to a national sample.

All BSP surveys also included questions reflecting the construct of "sustained dialogue across boundaries of perceived difference," developed from the lead researcher's previous analysis of interviews with 100 people to find what had influenced them in their sustained commitments to working on behalf of the common good in the face of diversity, ambiguity, and complexity (Daloz, C. Keen, J. Keen, & Parks, 1996). All 100 interviewees spoke of enlarging encounters with *otherness*: points in their lives at which some person or group that had previously been an external "they" came to be included in a newly reframed sense of "we." These encounters, enabled most often by travel, shared work or study, military service, or community service were always rich in meaningful dialogue. The perceived differences included but were not limited to ethnicity, race, religion, culture, physical ability, and social class. The developmental power of dialogue and reflection across thresholds of difference identified in the lead researcher's co-authored book, *Common Fire* (Daloz et al., 1996), has become a fruitful theoretical lens for examining educational programs, including service-learning, and hence was reflected in the BSP survey questions.

The surveys analyzed and reported in this study were administered to two cohorts of Scholars by program administrators (with instructions insuring confidentiality) when students began as freshmen in 1999 and 2000 (*n* = 790; 96% response rate), in the middle of their junior years in 2002 and 2003 (*n* = 467; 70% response rate), and before graduation in 2003 and 2004 (*n* = 537; 75% response rate). Forty alumni who graduated in 1999 from 10 of the campuses were also surveyed (Keen & Hall, 2008).

### The Study Participants' Programmatic Experiences

The BSP provides many opportunities for young adults to experience and reflect on *otherness,* the substantive sense of difference encountered intersubjectively. Coaching, reflection, retreats, classes, participatory meetings, and informal dialogue are intended to help students make sense of their experiences, and ultimately to develop critical, systemic understandings of the world anchored in compassionate approaches to

human need. Bonner Scholars' most frequent co-curricular service activity was tutoring and other work with children, consistent with the volunteer and academic service-learning work of students nationally (Campus Compact, 2003); yet there was significant variety in service activities. In addition to tutoring, 50% of seniors reported being involved over four years in poverty issues, and 40% in environmental work and health issues. A lower percentage of students were involved with the elderly and public safety. Having a choice of service sites over four years is reported by Scholars as contributing to their building a habit of service. The BSP has maintained community partnerships and includes partners' leaders in planning to insure that Scholars' service meets partners' expectations. Graduation rates of Bonner Scholars are higher than campus averages and many Scholars have gone on to careers in public service (Keen & Hall, 2008).

The BSP is now more than 16 years old and its program design has been well honed. The effectiveness of the program design has been recognized with two replication grants from the Fund for Improvement of Post-Secondary Education (FIPSE) and a Learn and Serve grant. Staff and faculty from more than 75 campuses have participated in annual Bonner Foundation trainings (Meisel, 2006). The potential of the program and the existence of longitudinal survey data inspired this quantitative analysis of the formative evaluation data.

### Limitations

The chief limitation of the study is the self-selection of academically above average participants into a small program, thus applicability to campus-wide programs may be limited. However, a related study demonstrated that requiring service (which would probably be necessary in a campus-wide program) does not seem to mute desired developmental outcomes of service-learning experiences (Keen & Hall, 2008). There are several other possible limitations. Having student respondents complete surveys with over 100 questions three times in four years may have resulted in reactive and interactive effects of testing, including "artifact"-based responses. Researchers' desire to maintain consistent phrasing in the survey over 10 years may have resulted in effects related to instrumentation from a lack of changed language. The lead researcher is an advocate of the program and was herself a director of one of the BSP campus programs during part of the period of data collection. Hence, researcher bias for positive results may be at play. While the Bonner Foundation sought to insure a consistent program design on all BSP campuses, adaptations in program delivery are inevitable and often desirable. Contributions of program differences are not accounted for.

*Findings*

Results of the BSP surveys provided evidence of program outcomes over four years and program input factors influencing these outcomes. In particular:

1. Academic, civic, and personal gains correlate with four years of involvement in BSP activities. Most notable was development between the freshman and senior year regarding the importance of opportunities for dialogue and between the junior and senior years regarding skills needed to cross boundaries of difference.
2. Attending a more diverse liberal arts campus enhanced desired program outcomes while no differences were evident when comparing four other characteristics of college campuses.

The paper is organized, accordingly, in two sections.

### First Major Finding: The Developmental Importance of Dialogue across Difference During all Four College Years

To measure the overall outcomes of the BSP, 20 academic, career, civic, personal, and social outcomes variables available from surveys of 1999 and 2000 freshmen ($n = 790$) and 2003 and 2004 seniors ($n = 539$) were compared. Phi coefficients measuring the differences between freshmen and seniors were moderate or moderately strong for 5 of the 20 outcomes variables measured on a 5-point scale, weak for 9 of the variables, and insignificant for 6 variables.[2] A conservative interpretation of Phi coefficients, based on verbal designations adapted from Losh (2003), was used to determine the strength of the outcomes: $0.01–0.10 =$ very weak; $0.11–0.25 =$ weak; $0.26–0.40 =$ moderate; $0.41–0.54 =$ moderately strong; $0.55–0.74 =$ strong; and $0.75–0.99 =$ very strong. Some social researchers would consider a coefficient of 0.30 or more as indication of a "strong" change when measuring human behavior (Babbie, Halley, & Zaino, 2003). If this less stringent interpretation were used, almost one-half of outcome variables measuring change between freshmen and seniors would be considered strong.

After an expected moderately strong positive difference between freshmen and seniors regarding the importance of doing community service ($\varphi = .518$, $\chi^2 = 356.529$, $p \leq 0.000$); the strongest positive difference between the same freshmen and seniors was the importance of the BSP as an opportunity for dialogue ($\varphi = 0.421$, $\chi^2 = 235.184$, $p \leq 0.000$), an aspect of the program that surfaced in other findings presented later. Moderate differences between freshmen and seniors were found regarding the

importance of the BSP as an opportunity to serve ($\varphi$ = 0.339, $\chi^2$ = 152.563, $p \leq 0.000$) and Scholars' perception of the importance to work for social justice ($\varphi$ = 0.323, $\chi^2$ = 138.668, $p \leq 0.000$). Moderate academic differences between freshmen and seniors, represented by increased time spent studying ($\varphi$ = 0.333, $\chi^2$ = 144.538, $p \leq 0.000$), were also not muted by the requirements of a service scholarship, nor the increased time spent in athletics or exercise ($\varphi$ = 0.294, $\chi^2$ = 114.328, $p \leq 0.000$).

Weak but significant variables included hours spent using the internet; importance of the BSP for developing new skills, leadership development, enhancement of resume, developing an international perspective, furthering faith development, exploring faith development, influencing the political structure, engaging different dimensions of diversity, developing a philosophy of life, and opportunity to work with people; and hours spent in faith development, social life, and jobs.

The increased attention to social justice issues between the freshmen and senior years is an important finding: growth in concern for social justice is a desired but difficult stretch for most college seniors (Baxter-Magolda, 2001). That statistical outcomes are not stronger might be related to the fact that 10% of Scholars stressed, in response to an open-ended question on the survey, that their sense of civic responsibility was instilled not in the BSP, but before entering the BSP. Hence, the self-selection by participants might partially affect outcomes.

### *Importance of dialogue and social justice associated with co-curricular, not curricular service-learning.*

To examine the outcomes related to Scholars' concurrent participation in service-learning classes, the association between the number of service-learning classes taken by seniors (0 to 4 or more) and the three strongest co-curricular service-learning outcomes discussed above was calculated for 2003 and 2004 seniors (n = 537). Using chi-square, no significant associations were found between the number of service-learning courses and opportunity for dialogue ($p$ = 0.194, $\chi^2$ = 20.62), importance of social justice ($p$ = 0.361, $\chi^2$ = 17.39), or opportunity for service ($p$ = 0.383, $\chi^2$ = 17.04). This finding suggests that the larger college experience, and not just one or more service-learning classes, may be essential to increase the chances that seniors will value dialogue and service opportunities to address social justice concerns.

### *Skills in dialogue across difference increased between junior and senior years.*

Having discovered that the most powerful development from the freshman to senior year was the growing importance of the BSP as an

opportunity for dialogue, we further explored if there were differences between juniors and seniors in relation to their experiences with dialogue. Four questions available on both junior and senior surveys were related to the skills of dialogue and these were combined to create a composite, 20-point variable. The four, five-point survey questions followed a single probe: "Overall, how has participation in the BSP affected the development of your skills in the following (four) areas: listening carefully to other people, helping groups overcome differences of opinion, understanding of a person of a different background from your own, and skills needed to do effective community service." Chi-square was used to test for differences between juniors and seniors. Eta was used to measure the strength of these differences for the 20-point composite variable.

Scholars reported an increase in their skills for dialogue between the junior and senior year as is indicated by the significant difference in the composite variable ($\eta = 0.193$; $\chi^2 = 61.734$, $p \leq 0.000$; M, juniors = 16.23, SD 2.81; M, seniors = 17.19, SD = 4.42). Not surprisingly, when each of the four skill variables was tested individually, the results were again significant, though weak based on the Phi coefficient. The strongest of these four relationships was the variable measuring changes between the junior and senior year in students' assumptions that the BSP had affected the development of skills in understanding person(s) of a different background ($\varphi = 0.192$; $X^2 = 37.497$, $p \leq 0.000$). One might surmise that the most important kind of dialogue was dialogue with people from a different background, be they peers or those served at community partners' sites.

### *Dialogue skills associated with efforts to gain understanding across difference in meetings with peers.*

To explore the nature of the contribution of the program design to developing skills for dialogue, senior data were analyzed in three ways. To start, individual associations between seniors' evaluations of 19 program input variables measured on a 5-point ordinal scale and the composite, 20-point dialogue skills variable were calculated using Tau-b. Twelve of the 19 program design input variables that were statistically significant and at least moderately associated are presented in Table 1. Ranked first was a moderate association of the composite dialogue skills variable with the survey question "the BSP has provided opportunities within the BSP meetings to gain understanding across boundaries of difference ($\tau$-b = 0.355, $X^2 = 233.622$, $p \leq 0.000$ ).

To understand the inter-relationships among the same 19 program input variables, linear regression toward the composite dialogue skills

variable resulted in an $R^2$ of 0.59 ($SE$ = 1.73). Five of the 19 program input variables were significant to dialogue skills development (enter method; entered at $p \leq 0.03$; removed at $p \leq 0.08$). When a second regression analysis was calculated (using the same method and criteria as the first analysis) with only the 5 significant variables among the original 19, the percentage of the variance explained decreased only 5%: from 0.59 to 0.54 ($SE$ = 1.78). Hence, these five program inputs can be considered the most valuable set of co-curricular program support attributes. (See Table 1.) Opportunities for understanding difference within BSP meetings explained more of the variance in seniors' dialogue skills development than other program input variables ($\beta$ = 0.232, $t$ = 4.986, $p \leq 0.000$). This finding challenges the assumption that differences experienced at service sites off-campus with people from a different background have the most developmental impact compared to differences within the peer group of other students doing service. This could reflect the value of diversity among the Bonner Scholars and/or the value of ongoing reflection for four years with such diverse Bonner peers.

*Importance of staff and journals.*

The second strongest program input variable was support by Bonner staff ($\beta$ = 0.224, $t$ = 4.809, $p \leq 0.001$) whose more mature, systemic analysis of social ills, which may be crucial to dialogue, particularly for reflecting on social justice issues. Alternatively, support by Bonner staff may entail helping gain access to resources needed to support service-learning efforts and peer interaction.

Additional significant program input variables were "the BSP has provided opportunities to understand root causes of social justice issues such as homelessness" ($\beta$ = 0.171, $t$ = 3.762, $p \leq 0.001$) and "writing about Bonner work in journals" ($\beta$ = 0.156, $t$ = 3.894, $p \leq 0.001$). The value of writing in journals is not surprising given the process of reflection that is enhanced by writing. When asked on the senior survey which of the nine kinds of reflection activities they most valued, Scholars valued most reflection and dialogue at the site with their supervisors and people they serve, reflection with Bonner Scholars informally, reflection in journals, and reflection with faculty. These categories of dialogue support Astin et al.'s (2000) findings. While Bonner Scholars have often been heard to be annoyed by the requirement of regular journaling for four years, the results of this study suggest that it helped them internalize their experiences and build capacity to listen to and dialogue with those who may be different from Scholars themselves.

The last significant association is a negative one regarding "one-on-ones with Bonner staff have helped me more deeply understand my BSP

Table 1

Statistically Significant Associations ($p \leq .000$) between BSP Program Inputs and Seniors' Skills, Understanding of Difference, and Respect for Diversity ($n=537$).

| Program input variables | Skills composite variable | Skills composite variable | "Skill in understanding a person of a different background" | "Respect and engage the many dimensions of diversity" |
|---|---|---|---|---|
| | $df=48$<br>$\tau_b$<br>$(\chi^2)$ | $R^2=.54$<br>$\beta$<br>$(t)$ | $df=16$<br>$\tau_b$<br>$(\chi^2)$ | $df=16$<br>$\tau_b$<br>$(\chi^2)$ |
| The BSP has provided opportunities within the BSP meetings to gain understanding across boundaries of difference | .355<br>(233.622) | .232<br>(4.986) | .325<br>(144.257) | .203<br>(51.57) |
| The BSP has provided support by Bonner staff on your campus | .313<br>(211.533) | .224<br>(4.809) | .281<br>(149.778) | |
| The BSP has provided opportunities to serve people with backgrounds different from your own | .308<br>(234.038) | | .395<br>(231.537) | .231<br>(57.752) |
| The BSP has provided realistic performance standards and enforced them | .308<br>(329.387) | | .230<br>(125.770) | |
| The BSP has provided opportunities to understand root causes of social justice issues such as homelessness | .299<br>(227.869) | .171<br>(3.762) | .288<br>(216.021) | |
| The BSP has provided support for the initiation of new service projects to meet community needs | .289<br>(175.242) | | .252<br>(105.940) | |
| The BSP has provided understanding of the community surrounding your college | .281<br>(236.500) | | .279<br>(189.693) | |
| Writing about Bonner work in journals and in academic course work has helped me more deeply understand my BSP experiences | .280<br>(130.415) | .156<br>(3.894) | .215<br>(44.750) | |
| Dialogue with people I serve has helped me more deeply understand my BSP experience | .275<br>(207.643) | | .301<br>(111.444) | .296<br>(68.110) |
| The BSP has provided opportunities to work at service sites with people from backgrounds difference from your own | .273<br>(196.407) | | .324<br>(218.220) | .202<br>(43.404) |
| Organized Bonner meetings have helped me more deeply understand my BSP experiences | .257<br>(195.984) | | .218<br>(56.73) | |
| Informal discussions with other Bonners have helped me more deeply understand my Bonner experiences | .256<br>(193.835) | | .186<br>(55.362) | |
| One on ones with Bonner staff have helped me more deeply understand my BSP experiences | .169<br>(196.266) | −.098<br>(−2.229) | | |

experiences" ($\beta = -0.098$, $t = -2.229$, $p \leq 0.001$). In contrast, the positive influence of the variable "the BSP has provided support by Bonner staff on your campus" reported above is puzzling. Perhaps the kinds of support from Bonner staff that correlates with gaining dialogue skills are provision of access to resources such as transportation, small grants to support gatherings at their tutoring sites, and the means for international summers of service.

### *Understanding of difference influenced more than appreciation of diversity.*

To explore which of the same 19 program inputs most strongly associated with variables regarding *difference* and *diversity*, two survey outcomes were isolated: Scholars' rating of their own "skills in understanding of a person of a different background from your own" and "the importance of respecting the many dimensions of diversity." Tau-b was the measure of association for analyses of these two ordinal variables. Significant associations for these analyses are noted in Table 1 along with results from the previous analyses and are discussed below.

Eight of 12 program inputs included on the survey moderately influenced Scholars' skills in understanding difference and four program inputs influenced Scholars' rating of respecting diversity. In rank order, the eight program imputs affecting Scholars' understanding of difference included: serving people from a background different from students' own, opportunities in BSP meetings to gain understanding across boundaries of difference, opportunities to work at a service site with people from backgrounds different from students' own, dialogue with people served, opportunities to understand root causes of social justice issues, support by Bonner staff on campus, understanding the community surrounding your college, and support for the initiation of new service projects.

Compared with 8 of 12 variables influencing skills in understanding *difference*, 4 of 12 program input variables were significantly associated with Scholars' rating the importance of *diversity*. All input variables related to diversity were weak except for one variable. The one variable which was moderately related to difference was "dialogue with people I serve." Hence, understanding difference, a variable with broad definition including socioeconomic status, was more influenced by the BSP than was understanding diversity—a variable with meanings connected largely with characteristics such as race and ethnicity largely as well as with sexual preference and age characteristics.

*Summary of findings regarding outcomes of co-curricular service-learning.*

In summary, data mining and analysis led to several findings that suggest the particular developmental power of dialogue across boundaries of perceived difference, particularly in sustained relationships with peers who also do service. The importance of the opportunity for dialogue was the strongest of 19 outcomes between freshman and senior years, followed closely by the importance of working for social justice, most likely influenced by witnessing injustices suffered by other Scholars or by people served. Scholars reported an increase in a composite variable of four dialogue skills between the junior and senior years; the largest skill change being "development of skills in understanding a person(s) from a different background." When associations were sought between seniors' dialogue skills and 19 program design input variables, the strongest program design element was with the question "the BSP has provided opportunities within the BSP meetings to gain understanding across boundaries of difference." A linear regression towards the composite dialogue skills variable again pointed to dialogue within regular BSP meetings. The variable "skills in understanding a person of a different background from your own" was significantly related to more than half of the program design elements, the strongest two of which were "serving people from a different background" and "opportunities in BSP meetings to gain understanding across boundaries of difference."

*Discussion of the first finding regarding the centrality of dialogue across difference.*

Central to engaging with the *other* is dialogue. The *other* is often a fellow student or someone on whose behalf they do community service. Astin et al.'s (2000) study of the effect of academic service-learning and non-academic service-learning experience found dialogue to be central as well. The two most significant of 11 significant mediating variables of service-learning outcomes in Astin et al.'s study both dealt with dialogue—the importance of dialogue with other students and informal and supportive interactions with faculty (p. 33). Astin et al. stress that it is not discussions with students in general, but discussions about the service in particular. Engagement in service-learning in an academic context and doing community service informally both increased the likelihood that students would receive support from faculty and that they would reflect on their experiences (pp. 41–42). Astin et al. also found that two civic attributes (commitment to activism and to racial understanding) as well as the belief that one can make a difference were mediated by reflecting on service with one's fellow students.

Similarly, as reported earlier, desired developmental outcomes, including skills in dialogue, were not enhanced by taking service-learning courses. Eyler and Giles' (1999) large study of the impact of participation in a one-semester service-learning class did not find course-based engagement with diversity to always correlate with students' perception of increased comprehension of course material. (Their study included 11 of the 23 Bonner campuses.) They found that diversity (defined as interaction with people from ethnic groups different than their own) was a negative predictor of "students' perception that their (academic) service-learning experience was more intellectually stimulating than their regular class…(and) a negative predictor that students will learn to apply material they are learning to the community" (pp. 72–73). Our data support the idea that dialogue demands more than "interaction"; one-semester courses may be too short for students to appreciate dialogue across difference, which also makes it more difficult to meet the needs of the community. However, outcomes of academic service-learning found by Eyler and Giles did include reduction in stereotypes, sense of connection with the *other*, developed tolerance and appreciation of other cultures, and discovery of similarities with others they previously thought were different from themselves (pp. 29–32), a finding very similar to the findings of Daloz et al. (1996).

Our study, along with King and Magolda (2005), would suggest that students need sustained and reflective dialogue across boundaries of perceived difference to effectively engage with the intellectual, moral, and spiritual challenges such engagement can create. One semester courses without follow-up or adequate reflection on such developmentally challenging experiences could deepen a divide (Schoem & Hurtado, 2001) or not develop strong enough discourse among peers to maximize its value. One might also not expect such appreciation for dialogue across differences until the senior year when students are likely to be more cognitively mature (Hurtado, 2005).

In a multi-campus study of the first two years of college comparing the longitudinal developmental outcomes of four common campus practices designed to support understanding of diversity, Hurtado (2005) confirmed the importance of dialogue across difference for college student development. She found diversity courses to have significant effect on the greatest number of student development outcome variables, followed by three other activities: extracurricular activities, course-linked intergroup dialogue, and, lastly, one semester, academic service-learning experiences. Most important in the curricular design of all four campus practices studied by Hurtado was "positive and meaningful" interaction among diverse peers, rather than leaving these interactions to

chance. The BSP design may practice the same dynamic as the diversity courses studied by Hurtado—a group of diverse individuals committed to staying in a group with each other over time while they discussed difficult issues.

Valuing engagement with *otherness* may come more easily for the BSP population of students, who are already *other* on a liberal arts campus due to being financially needy. Lee (2005) found that while the outcomes of service-learning were not different by *race* or class, that the interpretations of those outcomes were different, as discerned from interviews. It is possible that significant, continued growth of Scholars over four years resulted from their being more financially challenged, more racially diverse, and more likely to be first generation college students than peers in their colleges. This marginality may sharpen their critical abilities and desires to connect with community partners as well as dialogue partners on campus. They may also have had an easier time connecting with challenges facing the communities of need where they worked.

### Second Finding: The Positive Effects of Campus Diversity and Sustained Service-Learning on Liberal Arts Campuses

While the 23 colleges represented in this sample which host Bonner Scholar programs are all private, liberal arts colleges, there was tremendous variation among the schools. For instance, included in the sample were some of the United States' most "elite" schools as well as regional colleges that often serve first generation college students.

Data analyses suggest that attending a more diverse liberal arts campus enhanced desired program outcomes while no differences were evident when comparing four other characteristics of college campuses. To explore differences between colleges for BSP-desired program outcomes, five college characteristics were compared. Means of a composite variable measuring seniors' BSP outcomes on two sets of campuses with dichotomous characteristics were compared for variability using Levine's F. The composite variable was calculated by summing the responses to survey questions related to the outcomes most desired by BSP program officers.[3] Resulting was a composite variable with a range between 0 and 75.

Campuses were classified dichotomously in the following categories: more or less diverse, faith-based, elite, international, and urban. Campuses identified as "diverse" had greater than 22% of all students identifying themselves as minorities and greater than 36% of all students receiving financial aid, using data from the Common Data Set used nationally by admissions offices. Faith-based vs. non-faith-based campuses were determined by the percentage of Scholars who reported on

the survey that faith was an important commitment to them. Determination of elite and non-elite campuses was based on a combination of endowment giving, selection, and retention rates drawn from the Common Data Set. International campuses sent larger percentages of students to do international service and were those on which Scholars, as indicated on the survey, more highly valued an international focus. Campuses defined as urban campuses were situated in urbanized areas as defined by the U.S. Census Bureau.

Of the five dichotomous sets of campus types, only attendance at a more or less diverse college influenced Scholars' indications that they had experienced the desired outcomes of the program ($F = 7.17$; $p = 0.01$). Scholars attending more diverse colleges (n = 224) rated program outcomes an average of 61 on a 0- to 75-point scale (SD = 5.94). Scholars at less diverse colleges (n = 309) rated program outcomes an average of 59 (SD = 6.92). (See Table 2.)

A possible explanation for a general lack of difference in desired outcomes expressed by Scholars from four of the five types of colleges is the relative influence of campus clubs and other sub-groups, such as the BSP, in relationship to the dynamics of the larger campus culture. Students who choose their way into an elite service "fraternity" such as the BSP will likely experience, from the first day, more powerful influences than the larger campus culture can likely provide. And attendance at a more diverse college may further support the benefits of participating in the BSP (itself comprised of students who reflect more diversity than the student population on their campus) and extend reflection (Pettigrew & Tropp, 2006; Chang, 1996).

TABLE 2

Students' Outcomes on Different Types of Campuses.

| Type of college | n | M | SD | Levine's $F$ | $p$ |
|---|---|---|---|---|---|
| Diverse | 224 | 60.78 | 6.92 | 7.17 | .01 |
| Less diverse | 309 | 58.63 | 5.94 | | |
| Faith-based | 190 | 60.72 | 6.76 | 2.85 | .09 |
| Less faith-based | 343 | 58.88 | 6.17 | | |
| Elite | 221 | 58.14 | 6.38 | .77 | .38 |
| Less elite | 312 | 60.52 | 6.68 | | |
| Internationally-oriented | 123 | 59.53 | 6.62 | .10 | .75 |
| Less internationally-oriented | 410 | 59.54 | 6.60 | | |
| Urban | 147 | 57.53 | 6.53 | .01 | .91 |
| Less urban | 386 | 59.54 | 6.83 | | |

*Influence of liberal arts colleges continue through senior
year with sustained and intense support and challenge.*

Finding no differences in the outcomes for students from four di-
chotomous sets of campuses raises another possibility that the powerful
nature of a liberal arts learning environment is itself an overriding factor
in student development. Pascarella et al. (2004) asked if liberal arts col-
leges are particularly successful at promoting best practices in under-
graduate education, as compared to research universities and regional
universities. Comparing developmental outcome variables before col-
lege with results after each of the first three years of college, they found
students from liberal arts colleges were more likely to report experienc-
ing these good practices, regardless of their pre-college characteristics.
In the first year of college, the quality of non-classroom interactions
with faculty had the greatest and significant effect size (p. 66). However,
this advantage declined in the second year and again in the third year
(p. 69). They conclude that the advantages of liberal education practice
can not be explained away by students' motivations or the interests they
have when they enroll. Their findings support the assumption that while
Bonner Scholars are hand-selected and motivated by their interests to do
community service, the BSP's many opportunities for substantive inter-
action outside of classrooms extend the developmental push gained from
attending a liberal arts college.

Pascarella et al. urged colleges to seek ways to continue the develop-
mental supports offered during the first year of college through the se-
nior year, such as those supports provided by the BSP. Opportunities for
dialogue across difference can diminish as juniors and seniors choose
their way into more exclusive and formalized majors, clubs, and campus
activities, and move away from informal dialogue across difference.
Liberal arts colleges might advance their missions more successfully if
they marshal the developmental power of sustained and supported dia-
logue across difference both on and off campus. Kuh et al. (2005) found
that on college campuses where students report high levels of student
engagement across the years of college (more typically found on liberal
arts colleges), the college not only drew the campus community into en-
gagement with the local community but also supported staff and faculty
in working across lines of difference.

Both the duration of service throughout college and the intensity of
service experience have correlated with developmental outcomes in two
other longitudinal studies (Melchior & Bailis, 2002; Eyler & Giles,
1999). In a third study, analysis of interviews with alumni of an environ-
mental service-learning program found that the program's high intensity
and significant duration was attributed to have sustained impact (Keen &

Baldwin, 2004). Meyers-Lipton's (1998) research using a nonequivalent control group found that students who participated in a two-year service-learning program were more likely to increase in civic responsibility and international understanding and decrease racial prejudice. The control group in the Meyers-Lipton study included students not involved in service and students doing service that was not tied to reflection. These studies suggest that "intense and lengthy" service programs may be necessary for significant change in values.

> *Influence of service-learning on alumni service commitments.*

Attendance at a liberal arts college does not explain high BSP alumni rates of community service. In a study of BSP alumni, 100% of BSP alumni who graduated in 1999 and were reached in a selective but vigorous outreach effort were still involved in service, compared to 66% percent of the alumni from their college and 69% of all alumni from comparable institutions. Scholars were also involved at higher rates in six out of eight civic engagement activities compared with other alumni from their own liberal arts college and comparable liberal arts institutions (Keen & Hall, 2008).

The value of providing support for co-curricular service-learning for all the college years may be that more experiences are likely to result in more enculturation, more reflection, more consolidation of the meaning of the experience, as well as more application to studies and future plans. Developmental theory supports the idea that the major developmental shift hoped for in the college years requires support through the four years of college, carrying into work experiences after graduation (Baxter-Magolda, 2001).

## Conclusion

The potential power of a well-designed, four-year, co-curricular service-learning program can be inferred by the findings of this study, yet we strongly agree with Astin et al.'s (2000) point that "service-learning has a place in the curriculum, and should not be relegated solely to the extracurricular" (p. 19). In fact, the Bonner Foundation's recent FIPSE grant to support the design of public policy and service minors or certificates formalizes the connection between co-curricular service and academic study (Hoy & Meisel, 2008). The extent of the engagement with community partners may be a key variable as well as the development of classroom relationships that led to sustained peer interaction in and out of class.

The developmental power of co-curricular engagement when it is incorporated into academic work and reflection with staff and faculty members is highlighted by the *Learning Reconsidered* report (Keeling, 2004) and has been supported by Giles and Eyler (1999) and Astin et al. (2000) in their longitudinal studies of service-learning. The *Learning Reconsidered* report, synthesizing the literature on desired curricular and co-curricular learning outcomes for college students, highlighted service-learning programs, with an emphasis on co-curricular experiences, as an example of how learning experiences on a campus can be integrated to help students achieve desired outcomes. Astin et al. (p. 91) and Eyler and Giles (p. 10) also concur that service-learning of all kinds is uniquely situated to draw together student services and faculty. Indeed, engagement in such a four-year, co-curricular program design may help more students achieve the desired outcomes of a liberal arts college experience.

Strong service-learning programs, both curricular and co-curricular, should be valued for their contribution to the infusion of diversity efforts on our campuses (Keen, 2006; Vogelgesang, 2004). As further research explores the rich potential of co-curricular service-learning and other experiential learning opportunities to promote the goals of a liberal arts education, variables pertaining to engaging with difference should be central to research problems posited in future studies. A significant contribution of this study may be the recognition that "dialogue across boundaries of perceived difference" is a more robust construct than "appreciation of diversity."

Further research should also be done on the educational contribution of financial aid and United States' Federal Work-Study Program funds for service-learning work, on the value of scholarships tied to a requirement for service, and the role of program support and required reflection. While four years of support for co-curricular service-learning has been demonstrated to make a significant contribution to student development, future studies might explore two- to three-year programs that occur during the last years of college, as well as the effects of sustained cocurricular service-learning experiences on students' retention and academic outcomes.

Colleges have invested in supporting service-learning, both in the classroom and co-curricularly, as service-learning has been recognized for its capacity to enliven colleges' mission statements and advance developmental goals for students. The field of service-learning committed more than a decade ago to tying reflection to service as the key to increasing the developmental impact of community service work. This study demonstrates the wisdom of that choice and locates the power of

reflection centrally in dialogue with peers who are also doing service and to whom students doing service return regularly to make sense of the dilemmas and struggles facing them at their service sites as well as in the broader society.

This study's findings suggest that the core experience of service is not the service itself but the sustained dialogue across boundaries of perceived difference that happens during service and in reflection along the way, including with people students serve, with the people they serve alongside of, with their supervisors at the service site, with the college staff, and, centrally, with their peers. Peers may offer the most challenging but supportive company with whom to make sense of pressing moral, economic, social, and political dilemmas. With these dialogue partners, students can construct new understandings of what is compassionate and just and what is required of them now and in their future.

### Notes

[1]The 23 campuses are: Antioch College, Berea College, DePauw College, Carson-Newman College, College of the Ozarks, Concord College, Davidson College, DePauw College, Earlham College, Emory & Henry College, Ferrum College, Guilford College, Hood College, Mars Hill College, Maryville College, Morehouse College, Oberlin College, Rhodes College, Spelman College, University of Richmond, Warren Wilson College, Waynesburg College, and West Virginia Wesleyan University.

[2]Statistically insignificant variables included: the importance of the BSP as an opportunity to connect community service to academic work; the importance of raising a family; the importance of being well-off financially; the importance of influencing social values; the number of hours per week spent in campus activities, clubs, and groups; and the number of hours per week watching TV.

[3]The composite variable was comprised of the sum of values from the following 15 survey items measured on a 0–5 point scale: BSP's affect on 1) listening carefully to other people; 2) helping groups overcome differences of opinion; 3) understanding of a person(s) of a different background from your own; 4) skills needed to do effective community service; 5) sense that you can make a difference; 6) understanding of the community surrounding your college; 7) community service within and outside BSP; 8) developing an international perspective; 9) furthering your faith development; 10) building community-based partnerships; 11) maintaining or developing civic engagement (voting, participating in democratic deliberation, etc.); 12) working for social justice; 13) respecting and engaging the many different dimensions of diversity; 14) the extent of anticipation being active in community service following graduation; and 15) the number of hours in community service within and outside BSP.

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