Understanding the Effects of Service-Learning:

A Study of Students and Faculty

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Executive Summary

The principal purpose of this study was to enhance our understanding of how the undergraduate service-learning experience affects students' civic engagement and sense of civic responsibility in the post-college years. The study employed a national longitudinal sample of 8,474 students who were initially surveyed as entering college freshmen at 229 colleges and universities in the fall of 1994 and again ten years later in the summer of 2004. The subjects, who had also been followed up in 1998, were limited to those who completed their baccalaureate degrees by 2004.

The overall rate of response to the 2004 follow up survey was 51.2 percent. A complex weighting procedure was applied to the respondents' data in order to approximate the results that would have been obtained if all entering freshmen from 1994 who completed their bachelor's degrees within six years had responded to the survey.

Post-College Outcomes

Thirteen post-college outcome measures from the 2004 follow up survey were used as dependent variables:

- *Community/civic engagement (5 measures)*: civic leadership, working with communities, volunteerism, charitable giving, and involvement with alma mater.

- *Political engagement (5 measures)*: general political engagement and its four subfactors: political activism, political expression, commitment to political/social change, and voting behavior.

- *Civic values/goal (3 measures)*: pluralistic orientation, self-efficacy, and the goal of promoting racial understanding.

Half (50.2%) of the graduates had already attended graduate or professional school by the time of the 2004 follow up, and 31.9 percent had obtained postgraduate degrees. Graduates of private universities were substantially more likely (41.8%) to hold advanced graduate or professional degrees (Ph.D., M.D., J.D., etc.) than were graduates of other types of institutions (30.8%).

Although annual surveys of entering freshmen conducted in recent years have revealed increasing levels of engagement in community service during the senior year in high school, the current study shows decreasing service participation *during* and *after* the college years. Thus, while 80.3 percent of the students surveyed had participated in community service in the year prior to entering college, this figure declined to 74.4 percent by the senior year of college and to 68.1 percent six years after completing college.

These declines are paralleled by a number of post-college changes in students' values: Compared to when they were completing college in 1998, fewer alumni in 2004 embraced the values of "helping others in difficulty," "participating in a community action program," "becoming a community leader," or "influencing social values." There was also a substantial decline in agreement with the proposition that "people should not obey laws that violate their personal values."

Effects of Service

The effects of service-learning and other college activities on the 13 post-college civic outcomes were assessed by means of a series of complex multivariate analyses that controlled for a large number of entering freshman characteristics. Of particular interest was the issue of whether service-learning has unique effects, over and above the effect of "generic" volunteer service. In other words, does imbedding the service experience in an academic course carry any

additional benefits (in terms of post-college civic outcomes) when compared to volunteer service performed under other conditions?

Participating in service-learning courses during college appears to have positive effects on nine of the 13 outcomes (all except involvement with alma mater and the three civic values/goals). However, six of these nine effects appear to be attributable to the effects of generic service. Unique positive effects of service-learning (over and above the effect of generic service) are thus associated with three post-college outcomes: civic leadership, charitable giving, and overall political engagement.

The effects of both service-learning and generic community service appear to be mediated in part by the use of *reflection*. In particular, reflective discussions of the service experience both with student peers and with professors accounts for some, but not all, of the positive effects of service-learning and generic community service on post-college civic engagement.

Other college experiences that are positively associated with post-college civic outcomes include majoring in history or political science, enrolling in either ethnic studies or interdisciplinary courses, attending religious services, and participating in student government. Majoring in business appears to have a negative effect on two outcomes: overall political engagement and working in communities.

Faculty Results

The faculty survey involved 40,760 college and university faculty at 421 institutions. Responses were weighted to approximate the results that would have been obtained if all teaching faculty at colleges and universities in the United States had responded.

While only a small minority of faculty (19%) see the inclusion of community service in coursework as a "poor" use of resources, only about one in three (32%) have ever used

community service in their own courses. And while most faculty (81%) believe that colleges and universities have a responsibility to work with their surrounding communities to address local issues, fewer than half (a) use their scholarship to help address community needs (48%); (b) collaborate with the local community in research or teaching (42%); or (c) believe that their institution places a high priority on creating and sustaining partnerships with surrounding communities (46%).

Men faculty are twice as likely as women faculty are (24% vs. 12%) to view the use of community service in coursework as a "poor" use of resources. Women, on the other hand, are more likely to have used community service in their courses (39 % vs. 27%).

The principal means by which faculty engage with the community (56%) is through pro bono consulting or professional service. The fields where such service occurs most often are agriculture/forestry (74%) and education (70%), whereas the field with the lowest level (36%) is mathematics/statistics.

While faculty at public institutions are more likely than private college faculty are to be engaged in their communities through their research and scholarship, public university faculty are less likely than their peers at private universities to say that their institution places a high priority on creating partnerships or on supporting faculty teaching and research in the community. In contrast, faculty at public four-year colleges and community colleges are more likely than their colleagues at private colleges and universities to say that their institution (a) places a high priority on partnerships with surrounding communities, and (b) provides resources for faculty to engage in community-based teaching and research.

Understanding the Effects of Service-Learning: A Study of Students and Faculty

Chapter One

Introduction

The research reported here was undertaken in large part to follow-up a study the HERI staff conducted about 6 years ago with the cohort of students who entered college in the mid-1990s and completed their studies in 1998. The first study, "How Service Learning Affects Students" (Astin, Vogelgesang, Ikeda, and Yee, 2000), examined the impact of participating in a service-learning course during the college years on attitudes, values and behaviors at the end of college. This current study examines the post-college impact of participating in service-learning, focusing on behaviors and beliefs approximately six years after graduation.

In How Service Learning Affects Students, service-learning appeared to have a unique impact on a number of learning and engagement outcomes, over and above the impact of generic volunteer work. A key aspect of the longitudinal study design was that pre-college activities, values and beliefs were controlled. This current study asks whether this impact of service-learning lasts into the early-career years, and whether service-learning impacts a number of post-college civic engagement outcomes.

This report is organized into eight chapters. This first chapter reviews service-learning research within the broader context of the literature on civic engagement among young adults. Methods and data analysis techniques employed in this study are summarized in the second chapter. In Chapter three, we briefly review the major findings from the previous study, How Service Learning Affects Students. Chapter four presents results and a discussion based on the student data. Chapter five addresses the literature on faculty engagement and Chapter six describes the methods used to analyze the 2004-2005 Faculty Survey data. Results from the

Faculty Survey are presented in Chapter seven. In the final chapter we conclude with limitation and implications for practice and further research.

Background of the Study

Our exploration of the relationship between service-learning and subsequent civic engagement is framed by a larger interest in the role of educational institutions in preparing students to assume the responsibilities of citizenship in a democratic society (Astin, 1997; Barber, 2001; Galston, 2004; McDonnell, Timpane & Benjamin, 2000; Nie, Junn & Stehlik-Barry, 1996; Niemi & Junn, 1998; Saltmarsh, 1996). Historically, educational institutions have played a fundamental role in cultivating an educated citizenry in a democratic society (Barber, 1992; Dewey, 1944; Saltmarsh, 1996). In fact, citizenship education was a primary rationale for the creation of public education in the U.S. (Galston, 2001). While these efforts were initially focused on primary and secondary schooling, in more recent years expanded access to postsecondary education has resulted in an increased focus on, and scrutiny of, the role that universities and colleges play in furthering these civic purposes. However, before delving into more specific research on how service-learning and other college experiences affect the post-college civic lives of college graduates, we will first review what is known about recent civic engagement trends within the general citizenry.

The Civic Engagement of Young Adults

To some degree, the growing interest in service-learning reflects a more general concern over the role of higher education in fostering civic engagement. Previous research finds that the period of young adulthood is one of less engagement in civic and voluntary endeavors, compared to other stages in one's life (Oesterle, Johnson, & Mortimer, 2004). The same study notes gender differences over time: while men and women had equivalent rates of volunteering in high school,

men were much less likely to volunteer later as young adults (Oesterle et al., 2004). In addition to being less engaged, an earlier study finds that young adults tend to belong to different types of voluntary associations over the life-cycle (Knoke & Thomson, 1977).

Being less engaged and showing different patterns of engagement than older adults is attributed to the obligations often assumed during young adulthood, such as marriage, raising children and entering the workforce full-time. Parenting young children and working tend to reduce involvement in volunteerism for young adults, but marriage and income – considered positive predictors for older adults – may be unrelated to volunteer work for young adults (Oesterle, Johnson, & Mortimer, 2004). Not surprisingly, older adults with school-aged children are more likely than either younger adults or older parents to be involved in civic-political voluntary associations, supporting the idea that these life cycle patterns are curvilinear at least for civic-political associations (Knoke & Thomson, 1977).

Research suggests, however, that the disengagement of young people today is more than a life-cycle issue. Young people (generally defined as those between 18 and 29 years old) have also been less engaged than were their counterparts of 30 years ago (Galston, 2001). There is a considerable body of evidence showing that citizens are becoming less involved in collective community efforts, less likely to vote or to take on leadership positions, and less likely to participate in traditional political activities (Putnam, 2000).

It is apparent, however, that defining engagement is important. Is it volunteer work, political activity, or both? Although the Oesterle et al. (2004) study found that individuals became more engaged as they aged, a recent cross-sectional study found that young adults tend to participate in nonpolitical volunteer work at rates close to those of older adults (Keeter, Zukin, Andolina & Jenkins, 2002). In fact, young adults were *more* likely than those of older adults to volunteer

sporadically (40% versus 22-32%) and participated in *sustained* volunteerism at rates close to or greater than those of older citizens (22% versus 19-26%).

Young adults are less likely to vote in elections and possess less political knowledge than older citizens (Niemi & Junn, 1998; Keeter, et al., 2002). In fact, when compared to older adults, young adults are less attentive to news, less likely to volunteer for political organizations, and are less likely to contribute money to various causes (Keeter et al., 2002). Galston (2004) notes that among adults aged 18 to 29, only one-third voted in the 2000 election.

The Keeter et al. study also explored behaviors that young people might be *more* likely to participate in as a means to express their political views. For example, while boycotting has been practiced for many years, "buycotting" (buying a product or service based on the social values or practices of a company) is a relatively new method of political expression. The study also found that young adults' level of involvement in boycotting is similar to that of older adults (38% of young adults have boycotted products versus 28 to 43% of older adults). When it comes to other political acts, younger adults are more likely to have participated in a protest, but much less likely to have contacted a public official within the last year (Keeter, et al., 2002).

In short, the research on civic engagement shows that while young adults engage in volunteer work about as frequently as older citizens do, they may be less engaged than older adults in most forms of political activity. Galston (2004) argues that younger adults are seeing service as an alternative to engaging in political activity. Others propose that young adults embrace service because it is perceived as "less messy" than political engagement (Theiss-Morse & Hibbing, 2005). Students participating in a Wingspread gathering viewed service as a way to address immediate problems and develop skills to become community leaders (Long, 2001). Clearly,

there is a need to enhance our understanding of factors that encourage or discourage civic engagement among young adults.

Civic Engagement in Higher Education

Given the long-term decline in young people's political participation over the last 40 years, increasing attention is being given to the possible role that schools and colleges might play in combating these trends (Center for Information and Research on Civic Learning & Engagement and the Carnegie Corporation, 2003). Accordingly, we turn now to review some of the recent research on political and civic engagement, especially as it pertains to post-secondary education.

Although a person's level of formal education has long been known to be positively associated with increased levels of civic engagement (Niemi & Junn, 1998; Verba, Schlozman & Brady, 1993), it is more recent studies that examine the relationship between the nature of one's college *experience* and civic engagement (e.g. Astin & Sax, 1998; Astin et al., 2000; Hillygus, 2005; Hurtado, 2003; National Survey of Student Engagement, 2004; Nie & Hillygus, 2001; Niemi & Junn, 1998). Only a handful of studies have examined the impact of college experiences on post-college activities (Astin, Sax, & Avalos, 1999; Hillygus, 2005; Nie & Hillygus, 2001; Osterle et al., 2005).

A study examining political participation found that verbal SAT scores and number of social science credits were both positive predictors of near-term (one year after college graduation), political participation, voting, and voluntarism, after controlling for pre-disposing characteristics (Nie & Hillygus, 2001). When this same group of students was surveyed again three years later (four years after graduation), the positive influence of verbal skills on civic engagement was still evident (Hillygus, 2005). Institutional selectivity does not appear to have an independent effect on any measures of political participation in either study.

Service and Service-Learning Research

A number of studies have examined the relationship between engagement and service-learning during the college years. Service-learning is viewed as one form of engaged learning that can enhance the skills and motivation necessary for civic engagement. To date nearly all of the research on post-secondary service-learning and civic outcomes has looked only at the college years (Astin, et al, 2000; Eyler & Giles, 1999; Driscoll, Holland, Gelmon, & Kerrigan, 1996; Gray, Ondaatje, Fricker, Geschwind, Goldman, Kaganoff, et al., 1998; Jones & Abes, 2004; Mabry, 1998; Myers-Lipton, 1994).

In reviewing this research we distinguished between *volunteerism* or what we will call *generic service* (not necessarily attached to coursework) and *service-learning* (service performed as part of a formal course). Generic service has been shown to positively affect a number of academic outcomes, life skills, and civic responsibility (Astin & Sax, 1998, Astin et al., 2000). Further, the strongest predisposing factor for participation in service during college is having been previously involved in service during high school (Astin & Sax, 1998). In a longer-term study, an association was found between volunteerism during the 4th year in college and several value outcomes measured nine years after college entry: the importance later placed upon socialization with diverse people, helping others in difficulty, having a meaningful philosophy of life, and promoting racial understanding (Astin, Sax & Avalos, 1999).

Research on course-based service-learning demonstrates that it can strengthen interpersonal skills, self-efficacy, and feelings of social responsibility (Astin et al., 2000; Eyler & Giles, 1999). Eyler and Giles note that while the research is less plentiful in the area of cognitive development, a positive effect of service-learning has been identified on critical thinking ability and the comprehension of complex problems. Some researchers have also found that service-learning

can play a role in building the knowledge base, inclinations, and the skill sets necessary for civic engagement (Astin et al., 2000; Eyler & Giles, 1999; Westheimer & Kahne, 2004). One study found that service-learning students also showed larger decreases in racial prejudice than students who did not participate in service-learning (Myers-Lipton, 1994).

A key factor in whether or not service-learning has any impact on students appears to be the quality of the experience. Both the number of hours spent in service (Gray et al., 1998) and the use of reflection (Astin et. al, 2000) help to 'explain' the positive impact of service-learning experiences, suggesting that the design and quality of service-learning programs plays a critical role in determining the effectiveness of these programs. Several researchers have emphasized the quality of the reflection itself (Eyler and Giles, 1999; Ikeda, 1999; Mabry, 1998). Ikeda (1999), for example, found that performing a critical analysis of the social issues faced in the service-learning experience is important in producing outcomes such as increased sense of self-efficacy, increased awareness of personal values, and improved classroom engagement. A large-scale study of Learn and Serve America participants showed that students who volunteered more than 20 hours/week, applied course principles to their service experiences, and discussed them in class experienced the largest improvement in academic and life-skill outcomes (Gray et al., 1998).

In addition to exploring the impact of service-learning, our earlier Atlantic-funded study compared service-learning with 'generic' service. Results showed that service-learning has a unique impact (above that of volunteering in general) on outcomes such as commitment to activism, grade-point-average (GPA), growth in writing skills, critical thinking, and promoting racial understanding (Vogelgesang & Astin, 2000). In addition, even after accounting for

generic service experiences, service-learning has a direct effect on choosing a service career at the point of college graduation.

It thus appears that participation in service-learning can indeed foster the development of motivation, values and behaviors that are conducive to civic engagement. This is an important finding given the general decline in political activism among entering college students that has been occurring since the 1960s. Considered together, these findings on college students and adults point to the need for more substantial research, not just on values and motivations, but on actual behaviors of young adults during the post-college years.

Frameworks Informing This Study

The design of much of the research on service-learning reflects a long tradition of college impact studies. For the purposes of this study, it will be helpful to review the frameworks that inform the approach we take to studying the long-term effects of college experiences. These frameworks utilize longitudinal data to assess the impact of institutional characteristics (environments) after a students' background characteristics, beliefs, and values at the time of college entry have been controlled (Astin, 1993).

This conceptual model is reflected in the organization of the HERI Cooperative Institutional Research Program (CIRP) survey instruments. The surveys assess background characteristics, values, attitudes and behaviors of students at the time of college entry, and again in follow-up studies, in order to understand the impact of college experiences. Of particular interest to our work here is the fact that researchers have utilized the CIRP longitudinal data to conduct numerous studies that focus on how various forms of college students' "involvement" (including service-learning) impact civic engagement (Astin et al. 1999; Astin et al., 2000; Astin & Sax, 1998).

A good amount of research using CIRP data incorporates a theory of 'involvement,' which postulates that the more students are involved or engaged in their college experience, the more likely they are to be successful in higher education (Astin, 1993). Within this theoretical framework, service-learning is one unique form of engaged learning. Like other forms of involvement, the quantity and quality of the service-learning experience will determine the influence of the activity on the student, and ultimately their engagement and development during the college years.

This study also draws from several other frameworks used in understanding college students' involvements as they pertain to outcomes associated with civic engagement. In their national study of the impact of service-learning on civic engagement, Eyler and Giles note that while individuals may possess different views as to particular models of democracy, there are key aspects of citizenship that are essential in a democratic society (1999). Civic engagement hinges upon development of social capital, or networks, that can be drawn upon in times of need for social problem-solving. Eyler and Giles delineate five primary elements of citizenship: Values (what I ought to do), knowledge (I know what I ought to do and why), skills (I know how to do), efficacy (I can do and will do), and commitment (I must and will do). This conceptual approach, which is grounded in political science and psychological frameworks, places its emphasis on skills, aptitudes, and behaviors.

The study is also informed by Hurtado's work on the Diverse Democracy Project, which explores issues of civic and democratic engagement in the context of diversity. Drawing from political philosophy and theories of developmental psychology, the Diverse Democracy study's framework is based upon the notion of a "differentiated citizenship" which suggests that in order to construct a democracy based on equal representation, differences must be recognized, valued,

and considered in the context of democratic decision-making (Hurtado, 2003). The Diverse Democracy researchers measure civic skills and engagement through students' perceptions of, interactions with, reactions to, inclusion of, and conflict with diverse groups. In particular, they examine three outcomes, (1) ability to see multiple perspectives, (2) belief that conflict enhances democracy and (3) importance of social action engagement. The study concludes that gender and pre-college engagement are key predictors and account for the greatest percent of total variance explained in each of the three outcome models. However, interaction with diverse peers during the college years was also correlated with the three democratic outcomes. The study also found that, two years after college entry, students placed greater importance on social action if they attended diversity focused co-curricular events or participated in community service focusing on communities in need than those students who did not participate. In other words, participation in particular types of community service may help cultivate a value of social action (Hurtado, Engberg & Ponjuan 2003).

Previous research in higher education tells us a great deal about college experiences that affect cognitive and affective development during the college years. This study seeks to build upon this literature by further exploring how service-learning and other college experiences affect students' civic engagement in the post-college years. By identifying institutional characteristics and student experiences that have long-term effects on graduates' engagement, this study aims to inform postsecondary policy and practice concerning how best to foster the development of engaged citizens.

Chapter Two

Methodology: Post-college Study

The broad aim of the post-college study is to deepen our understanding of how the undergraduate service-learning experience may affect students' sense of civic responsibility and civic engagement in the post-college years. The strategies to accomplish this goal included:

a) assembling an expert Advisory Board of leading scholars and practitioners, as well as an Advisory Group to advise on survey development;

b) conducting focus groups with college students participating in service activities;

c) developing and administering the Post-college Follow-up Survey (PCFS); and

d) analyzing data from the PCFS.

In short, this study employed a multi-pronged, longitudinal, quantitative, and qualitative approach in collecting and analyzing data to provide a means of assessing the impact of service-learning on civic engagement outcomes among recent college graduates. The following narrative details our strategies for survey development, data collection, and initial data analyses.

a) Advisory Board

In May 2003, HERI gathered a group of experts to serve on an Advisory Board for the project. Participants were drawn from various disciplines (political science, psychology, sociology, education) and included scholars and practitioners whose work focuses on service-learning and/or civic engagement (e.g., higher education organizational issues, community organizations, individual student outcomes, program implementation, etc.). Advisory board members include:

- *Tom Ehrlich*, Senior Scholar, Carnegie Foundation for the Advancement of Teaching, and former President, Indiana University, and author of Civic Responsibility and Higher Education
- *Dwight Giles, Jr.* Professor, University of Massachusetts, Boston, and co-author, Where's the Learning in Service-Learning?
- *Barbara Holland,* Director, National Service-Learning Clearinghouse and Senior Scholar, Indiana University-Purdue University Indianapolis.
- *Elizabeth Hollander*, Executive Director, Campus Compact
- *Theodore Hullar,* Program Officer, Atlantic Philanthropies
- *Elaine Ikeda,* Director, California Campus Compact, and co-author of our previous Atlantic-funded study: How Service Learning Affects Students

At its first meeting, the Advisory Board considered our request for guidance as how best to develop a symposium that might shape our research on civic engagement outcomes. Our initial plan was to gather researchers, policymakers, and practitioners to present diverse perspectives on civic engagement and higher education, which in turn would shape the development of survey outcomes for the study beyond those we already intended to use.

Given that the purpose of a symposium was to define survey research outcomes for a post-college student survey and a faculty survey, the Board recommended that we forgo the symposium in favor of two working groups, one for the student survey and one for the faculty. Given the differences both in the target populations and in the tasks (creating a new post-college student survey versus working within an existing faculty survey), creating two working groups seemed logical.

Ted Hullar, our Atlantic program officer, was present at the advisory board meeting and approved this change of plans. It was agreed that two groups would be formed: 1) a student survey work group that would offer guidance on the development of an entirely new student

survey and 2) a faculty survey advisory work group that would help design special items that would complement the traditional content of HERI's triennial faculty survey (methods for the Faculty Survey are detailed in Chapter six.

b) Focus Groups with Current College Students

Qualitative data were collected from a series of focus groups conducted at two public universities in the Spring and Summer of 2003. Although we were aware of research that polled adults as to various civic involvements, we were interested in conducting a qualitative study for two reasons: First, we wanted to hear from students *in their own words* how they thought their service-learning experience impacted their own civic development. Second, and more directly related to the development of the survey, we wanted to be familiar with the nature of young people's involvements and what kind of language they used to describe their activities. This helped us initially to forge language for the survey items. We took advantage of the fact that college students were readily available and willing to participate in the study, keeping in mind that they were still a bit younger than the actual survey target group.

Procedures for Qualitative Study.

Potential subjects were notified of the opportunity to participate in the focus groups through an emailed invitation from the coordinators of the respective university's service-learning program. Students who indicated their interest in participating in the study were then asked to fill out and return a questionnaire requesting demographic information prior to the focus group meeting.

Upon arrival at the focus group, students were asked to complete another questionnaire regarding their previous and current service experience. Eleven focus groups were held, involving a total of 40 students who had taken one or more service-learning classes. Seven focus

groups were conducted at a large Midwestern university in April, 2003, and an additional four focus groups were conducted at a large western university during the months of April, May and August, 2003. The focus groups were semi-structured and lasted from one to one and one-half hours. Students were fairly evenly distributed by year of enrollment: 11 freshmen, 14 sophomores, 14 juniors, and 11 seniors. Nine men and 31 women participated.

All focus group discussions were recorded and subsequently transcribed for data analysis. Textual data were analyzed using a two-step process. First, an initial read of transcripts was conducted by four researchers and a number of common themes were identified. Key themes evident in the narrative responses of students were agreed upon, after which further analyses were performed by a pair of researchers. Findings from the qualitative study were used to inform the PCFS survey development.

c) Post-College Follow-up Survey (PCFS) Development & Administration

Creating the survey

Development of the PCFS began in summer 2003. Its main purpose was to assess post-college values, opinions, and activities. In particular, survey items were designed to gain a deeper understanding of the various ways in which young adults are involved in their communities approximately six years after graduation.

The research team at HERI developed a draft survey instrument that was reviewed by the Student Survey Working Group in November 2003, as suggested by the project Advisory Board. The working group was comprised of experts in the areas of civic engagement, service-learning and student development, and included:

- *Rick Battistoni*, Professor, Providence College
- *Bob Bringle*, Professor, Indiana University-Purdue University Indianapolis
- *Janet Eyler*, Professor, Vanderbilt University

- *Cynthia Gibson*, Program Officer, Carnegie Corporation
- *Dwight Giles*, Professor, University of Massachusetts, Boston
- *Barbara Holland,* Director, National Service-Learning Clearinghouse and senior scholar, Indiana University-Purdue University Indianapolis
- *Scott Keeter*, Associate Director, Pew Research Center for People and the Press
- *Seanna Kerrigan*, Capstone Coordinator, Portland State University
- *Judith Torney-Purta*, Professor, University of Maryland

The working group helped shape our thinking about how to capture different types of engagement activities among this early-career adult population. It was also an opportunity for us to connect with other national efforts to measure civic engagement among college students and adults as well as to ensure that our efforts were informed by thinking on this topic at the national level.

Piloting the survey

In the spring of 2004, we piloted the post-college survey with 23 college graduates who had earned their bachelor's degree in 1998. We chose this specific age cohort in order to gauge respondent reactions among a peer group to this study's respondent pool. The survey piloting was conducted in four focus groups where participants were allowed up to 45 minutes to complete the draft survey followed by a 45-minute feedback session with our project staff. A web-based version of the survey was also tested among graduate students of the same age-cohort, as well as with members of the research team who fit this demographic. Feedback and suggestions were incorporated into the survey and the research team approved the final version in May, 2004.

Data sources

The primary source of baseline data for our study comes from UCLA's Cooperative Institutional Research Program (CIRP) conducted by the Higher Education Research Institute (HERI). CIRP is a national survey program involving all types of colleges and universities throughout the United States. Participants in this study were drawn from the 1994 entering freshman class, and so were first administered the Freshman Survey (SIF-Student Information Form) as they entered college in 1994 (Appendix A). The SIF collects data on a wide variety of topics including demographic characteristics, high school experiences, values, attitudes, self-concepts, and career aspirations. Over 20,000 students were administered a second survey (CSS-College Student Survey) at the end of their fourth year in 1998 (Appendix B). The CSS asks many of the same questions about attitudes, beliefs, etc. as the Freshman Survey, and also includes questions on college experiences.   The SIF and CSS surveys are a regular part of the CIRP, and thus were administered per normal HERI procedures. Since the 1998 CSS was also supported by an earlier Atlantic grant as well as by a grant from the W.K. Kellogg Foundation, it was possible to (1) include content concerning student participation in service-learning, and (2) to expand institutional participation to maximize overlap with the 1994 freshman survey. The PCFS, was developed primarily to serve the needs of the current study, and consisted of items identical to those asked on the 1994 SIF and the 1998 CSS, as well as many items pertaining to post-college life and choices (Appendix D).

Refining the respondent pool

The potential PCFS respondent pool was comprised of all students whose 1998 CSS record could be matched with 1994 SIF data. There are 21,651 records in this file. An additional 814

records came from students who completed the 1998 CSS, but who completed the Freshman Survey in the years 1993, 1995, 1996, or 1997. These records were included because the students had participated in a supplemental service-learning survey we conducted along with the CSS in 1998 (as part of our first Atlantic grant). The 1998 supplemental service-learning study was conducted at 19 colleges and universities who agreed to participate. Each of the 19 institutions was identified by HERI researchers as having active service-learning courses in place. The data from students who completed the Freshman Survey in 1994 is included in our main analyses for this report. Data from the remaining participants will be analyzed separately. However, for the purposes of reporting return rates in this section of the report, the two data files are combined.

From this sample pool of 22,465, we removed those persons for whom we had neither names nor social security numbers (SSNs), leaving a pool of 21,206. The names and SSNs for these records were then utilized to engage in an extensive address updating process.

Our first strategy in tracking these respondents was to contact alumni/development offices and CIRP representatives at their 250 respective institutions. Although the 1994 Freshman Survey asked respondents to provide mailing addresses, we recognized that many of these addresses would have changed since 1994, when the respondents had entered college. Several alumni offices asked that we not survey their 98 alumni, as the institutions were planning to survey these same students in 2004; we removed these institutions from our mailing list.

As we do with all of HERI's national student and faculty surveys, we contracted with one of our established outside vendors to assist us with secure survey dissemination, collection, and processing. The vendor also assisted us in updating addresses. If alumni offices were unwilling or unable to provide addresses to our research team, we worked through our survey vendor, who

in turn used the U.S. Postal Service public search database to perform these searches. Names, mailing addresses, email addresses, and dates of birth are considered public information under Family Educational Rights and Privacy Act (FERPA). Additionally, our survey vendor subcontracted with a firm to conduct other searches on databases that are privately owned (such as magazine subscription services).

After this process was completed, we were left with a sample pool of 19,395 students, whose names and addresses were subsequently sent to our external contractor for survey administration.

Survey administration and data collection

The survey administration strategy consisted of a preliminary postcard notifying potential respondents that they would be receiving a survey and inviting them to participate, followed by two waves of the survey distributed via the U.S. mail. Using the updated address information, our contractor mailed the first wave of the survey instrument to potential respondents in July 2004 with the second wave following in August 2004. The mail-out to respondents included: (1) a cover letter from HERI which explained the study and invited each respondent to participate (via paper or through an online option); (2) a $2 cash incentive to thank them for their participation; (3) a postage-paid reply envelope; and (4) the survey instrument. The second wave of survey dissemination did not include an incentive and targeted only those respondents who had not yet returned their surveys.

In the cover letter (Appendix C) and on the survey instrument itself (Appendix D), we emphasized to the respondents that their participation was voluntary and confidential. Moreover, we explained that their decision to participate (or not to participate) would not affect their relationship with their undergraduate institution. We also offered to respondents the phone number for the Office for the Protection of Human Subjects (OPRS) in addition to HERI's phone

number and the name of the principal investigator (Alexander Astin) and the project director (Lori Vogelgesang) in case they had any questions about the research.

The preliminary (pre-survey) postcard informed former students that they would be receiving a survey from us and requested that they fill it out. Another reason for sending the postcards was to determine if our address was still current. About 6% of these postcards (n=1,195) were returned as non-deliverable with no forwarding address. We updated records for any postcards returned to us with a forwarding address.

The first- and second-wave surveys returned totaled 9,320, yielding an "apparent" response rate of 48.0%. When factoring in the returned postcards, this response rate is 51.2%. Since it was reasonable to assume that most of these former students did not live at the address in our records, we concluded that they did not receive a survey in either wave of administration and thus never had the opportunity to participate in the study.

d) Data set creation

Of the 9,320 PCFS surveys returned, 8729 records were from participants in the 1994 Freshman Survey; these records were merged with the 1994-1998 file. An additional 686 records were from students who participated in the Freshman Survey in years *other than* 1994, and were set aside for separate analyses. We also received 160 additional completed surveys from the vendor after HERI had performed the weighting procedures, and we decided not to include these 'stragglers' in our weighted analyses.

Weighting Process

The first step in creating the "population" weight for the Atlantic Survey was to define the population. Because the vast majority of 2004 survey participants had completed college by 2004, and 90% reported earning at least a bachelor's degree in 1998, we decided that the

population should be 1994 entering freshmen who completed a degree within six years, as defined by one of the equations in Astin and Oseguera's (2004) "Degree Attainment Rates in Colleges & Universities." We thus removed from our weighted analyses 255 respondents who had not earned a Bachelor's or higher degree by 2004, leaving us with 8474 cases in the weighted analyses.

Once we identified the study population, we then began the process of calculating the actual weights. We first determined the 1994 first-time, full-time (FTFT) population counts by stratification cell and gender (see Astin, Korn, Sax, & Mahoney (1994) for stratification procedure). Then, using the Astin & Oseguera (2004) formulas for predicting completion rates, we calculated expected six-year completion rates for each institution. Using the CIRP stratification scheme, these weights were then further adjusted within cells such that the sum of all weights constituted an estimate of the number of 1994 FTFT freshmen who earned bachelor's degrees within six years. These new population weights subsequently became the basis for adjusting each respondent's data so that the weighted results would approximate the results we would have obtained if we had been able to survey all graduates. Upon examining the final weight descriptives, we made adjustments by re-stratifying a few institutions in order to decrease the magnitude of the highest weight values. The final weight variable had a mean of 68.25, a standard deviation of 119.11, a minimum of 4.89, and a maximum of 1442.19.

Description of final sample

The final weighted percentages of gender, race, and institutional control used in the study are described in Tables 2.1; Table 2.2 further breaks out institutional type, and includes the (raw) number of institutions of various types in the sample, as well as the percentage of respondents coming from various types of institutions. Thus while there are relatively few numbers of public institutions in the sample, they account for a sizeable portion of the sample.

Table 2.1. Description of Final Sample

	Percent of Total Sample
Gender Composition	
Female	56.3
Male	43.7
	100.0
Racial Composition	
White	86.5
African American/Black	3.9
Asian American	3.9
Latina/o	2.6
American Indian	1.3
Other	1.8
	100
Institutional Control	
Public	61.8
Private	38.2
	100

Table 2.2. Institutions in the Study

	Number of Institutions	Percent of Total Sample
Public 4 year	19	32.0%
Public University	15	29.8%
Private Nonsectarian	59	13.6%
Private University	25	11.0%
Catholic 4 year	37	4.8%
Other religious	74	8.7%
	229	100.0%

Data Analysis

Outcome Variables

Our choice of variables for analyses was informed by our deliberations with the project Advisory Board, the qualitative analyses, our previous study, and a review of the theoretical and empirical literature on civic outcomes among young adults. Included are 13 outcomes of interest for this study of the post-college years. Though all of the outcomes fall under a broad definition of 'civic engagement,' we have conceptualized three categories of behaviors, values and beliefs that contribute to civic engagement:

- Community/civic engagement: civic leadership, working with communities, volunteerism, charitable giving and involvement with alma mater.
- Political engagement: general political engagement and its four subfactors: political activism, political expression, commitment to political/social change, and voting behavior.
- Civic values/goals: pluralistic orientation, self-efficacy, and the goal of promoting racial understanding.

In this section we detail each of the dependent measures. A descriptive summary of all 13 outcome variables can be found in Table 2.3, and includes minimums, maximums, means, and standard deviations.

Table 2.3. Descriptive Statistics for the 13 Outcome Measures

Dependent Measure	Minimum	Maximum	Mean	Standard Deviation
Community/Civic Engagement Outcomes				
Civic leadership	3.00	12.00	4.74	2.03
Working with communities	2.00	20.00	5.39	3.45
Volunteer work	2.00	6.00	3.76	1.40
Charitable giving	3.00	12.00	6.53	2.33
Involvement with alma mater	6.00	18.00	8.86	2.31
Political Engagement Outcomes				
Political activism	7.00	27.00	8.82	3.09
Political expression	5.00	19.00	10.11	3.42
Commitment to political/social change	5.00	18.00	9.90	2.74
Voting behavior	2.00	8.00	6.12	2.16
Overall political engagement	19.00	72.00	35.03	8.94
Civic Values/Goals Outcomes				
Pluralistic orientation	4.00	20.00	14.54	2.44
Self-efficacy	1.00	4.00	3.01	0.78
Goal of promoting racial understanding	1.00	4.00	2.12	0.93

Community/Civic Engagement Outcomes

Civic Leadership. Civic Leadership is a single item outcome, which measures the frequency of playing a leadership role in one's community. The survey item reads as follows: Please indicate if you have performed any of the following since leaving college: "played a leadership role in improving your community" (Response options: Frequently, Occasionally, Once or Twice, or Never).

Working with Communities. A principal components analysis (with varimax rotation) involved six PCFS items related to dispositions and behaviors of community engagement. The analysis produced one factor: working with communities. This outcome examines service behaviors as

they relate specifically to the young adult's community. This composite measure (Table 2.4) consists of the following six items (α = .80):

- Participated in a community organizing effort or neighborhood group since leaving college
- Worked on community projects that involved a government agency or program since leaving college
- Played a leadership role in improving your community since leaving college
- Worked with others to solve a problem in the community where you live since leaving college
- Personal goal: participating in a community action program
- Personal goal: becoming a community leader

Volunteer Work. The *volunteer work* outcome is a composite of two items that measure the frequency of volunteering. The first question asked: "Please indicate how often you performed volunteer work during the past year," and respondents could mark "frequently"(score 3) "occasionally" (score 2) or "not at all" (score 1). The second question asked how many hours respondents spent on volunteer work during a typical week in the past year. The eight response choices ranged from "none" to "over 20." After analyzing responses to this hours-per-week item, we collapsed the variable into a three-point scale (zero, less than one hour per week, and one or more hours per week) to maximize reliability of the combined measure. These two items (α=.85) were then summed to create a single five-point scale ranging from not at all/zero hours per week (score 2) to frequently/one or more hours per week (score 6).

Table 2.4. Factor Loadings and Reliabilities for the Community/Civic Engagement Outcomes

Factor and Survey Items	Factor Loading	Internal Consistency (Alpha)
Working with Communities		.80
Worked on a community project with government agency/program[a]	.72	
Worked with others to solve community problem[a]	.77	
Leadership role in improving community[a]	.80	
Participated in a community/neighborhood group[a]	.60	
Goal: Participating in a community action program[b]	.65	
Goal: Becoming a community leader[b]	.70	
Volunteer Work*		.85
Frequency of volunteer work in the past year[c]	n/a	
Hours Per Week volunteering[d]	n/a	
Charitable Giving		.65
Donated money to an educational organization[b]	.68	
Donated money to a human services or community service organization[b]	.81	
Donated money to other non-profit organization[b]	.80	
Involvement with Alma Mater		.70
Attended a sports event[c]	.66	
Attended a cultural or intellectual event[c]	.60	
Attended an alumni event[c]	.71	
Donated money[c]	.63	
Used an alumni organization service[c]	.62	
Recruited new students to the college[c]	.56	

* The volunteer work composite measure was not considered a factor because it was comprised of only two items (a doublet).
[a] Four-point scale: From 1 = never to 4 = frequently.
[b] Four-point scale: From 1 = not important to 4 = essential.
[c] Three-point scale: From 1 = not at all to 3 = frequently.
[d] Four-point scale: From 1 = none to 3 = at least one hour.

Another principal components analysis (with varimax rotation) involved numerous PCFS items related to post college lifestyles. The analysis produced many factors, of which 12 were retained as lifestyle factors. Of the 12 lifestyle factors, four were identical or nearly identical to

the four political engagement factors described below. Of the remaining eight lifestyle factors, two were chosen because they represent other ways of involvement. The two factors, charitable giving and involvement with alma mater, had alpha reliabilities of .65 and .70, respectively, and factor loadings of .56 or above for each item within each factor and will be described next.

Charitable Giving. Charitable giving (Table 2.4) is a composite of three types of organizations to which young adults could make donations ($\alpha = .65$):

- Donated money to an educational organization since leaving college
- Donated money to a human services or community services organization (e.g., United Way, a local food bank, etc.) since leaving college
- Donated money to other non-profit organization since leaving college

Involvement with Alma Mater. The *Involvement with Alma Mater* outcome (Table 2.4) reflects many of the ways in which respondents can be involved with their undergraduate institutions. This composite measure consists of the following six items ($\alpha = .70$):

- Attended a sports event since leaving college
- Attended a cultural or intellectual event (e.g., play, lecture) since leaving college
- Attended an alumni event since leaving college
- Donated money since leaving college
- Used an alumni organization service since leaving college
- Recruited new students to the college since leaving college

Civic Values/Goals Outcomes

Pluralistic Orientation. Another principal components analysis (with varimax rotation) involved four PCFS items related to civic values and goals. The analysis produced one factor, pluralistic orientation, with factor loadings ranging from .59 to .83. This factor is modeled after Engberg, Meader & Hurtado's (2003) *Pluralistic Orientation* measure "which encapsulates many of the skills necessary for students to work effectively in today's diverse democracy" (p.4). The

pluralistic orientation scale (Table 2.5) reflects self-perceived abilities dealing with divergent views and openness towards others with different views ($\alpha = .74$):

- Self-rating: ability to discuss and negotiate controversial issues
- Self-rating: ability to see the world from someone else's perspective
- Self-rating: openness to having my views challenged
- Self-rating: tolerance of others with different beliefs

Self-efficacy. *Self-efficacy* is a single item outcome, which measures belief in one's ability to create social change. The survey item reads as follows: Please indicate your agreement with the statement "Realistically, an individual can do little to bring about changes in our society (reverse recoded)" (Response options: Disagree strongly, Disagree somewhat, Agree somewhat, and Agree strongly).

Goal of Promoting Racial Understanding. The goal of *helping to promote racial understanding* is also a single-item measure that demonstrates one's level of commitment to promoting racial understanding. The item reads as follows: "Please indicate the importance to you personally of helping to promote racial understanding" (Response options: Essential, Very important, Somewhat important, and Not important).

Table 2.5. Factor Loadings and Reliabilities for the Civic Values/Goals

Factor and Survey Items	Factor Loading	Internal Consistency (Alpha)
Pluralistic Orientation		.74
Ability to discuss/negotiate issues[a]	.59	
Ability to see the world from someone else's perspective[a]	.81	
Openness to having views challenged[a]	.83	
Tolerance of others with different beliefs[a]	.78	

[a] Five-point scale: From 1 = lowest 10% to 5 = highest 10%.

Political Engagement Outcomes

Another principal components analysis (with varimax rotation) involved 19 PCFS items related to behaviors and values of political engagement. The analysis produced four subfactors of which were retained as separate outcome measures or subscales in addition to the overall political engagement measure, which included all 19 items. The four subfactors included a scale that focused on political activism, a scale that explored political expression, another that spotlighted a commitment to political/social change, and a final scale that measured voting behavior in local/state and national elections. The overall general political engagement factor had an alpha reliability of 0.89 with factor loadings of at least 0.45 or greater. The four subfactors were kept because they made practical sense and they held well together, with alpha reliabilities between 0.71 and 0.90 and factor loadings all above 0.60 for each item within each factor. The factor loadings and alpha coefficients for the four subfactors and the overall general political engagement factor are shown in Tables 2.6 and 2.7 respectively.

Political Activism. The *political activism* construct examines the many ways young adults engage in political activities (Table 2.6). The measure consists of a composite score on the following seven items (α=.83):

- Participated in protests/demonstrations/rallies during the past year
- Participated in community service/volunteer work through a political organization (e.g., political party, campaign, etc.) since leaving college
- Donated money to a political candidate or cause since leaving college
- Expressed your opinion on a community or political issue by contacting or visiting a public official since leaving college
- Worked with a political group or official since leaving college
- Worn a campaign button, put a sticker on your car, or placed a sign in front of your house supporting an issue or candidate since leaving college

- Worked as a canvasser going door to door for a political candidates or a cause since leaving college

Political Expression. The *political expression* construct (Table 2.6) is measured by one's composite score on the following five items (α=.79):

- Discussed politics during the past year
- Used on-line communication with family and friends to raise awareness about social and political issues since leaving college
- Expressed your opinion on a community or political issue by signing a written or email petition since leaving college
- Bought a certain product or service because you liked the social or political values of the company since leaving college
- *Not* bought something or boycotted it because of the social or political values of the company since leaving college

Commitment to Political/Social change. The construct *commitment to political/social change* (Table 2.6) is defined as one's composite score on the following five items (α=.74):

- Personal goal: influencing the political structure
- Personal goal: influencing social values
- Personal goal: keeping up to date with political affairs
- Reason for participating in community service/volunteer activities: I want to do something about an issues that matters to me
- Reason for participating in community service/volunteer activities: I am working to change laws or policies

Voting Behavior. *Voting* is one's composite score (α=.91) on the following two items (Table 2.6):

- Voted in a national election since leaving college
- Voted in a state/local election since leaving college

Table 2.6. Factor Loadings and Reliabilities for the Four Political Engagement Subfactor

Outcomes

Factor and Survey Items	Factor Loading	Internal Consistency (Alpha)
Political Activism		.83
Volunteered through a political organization[a]	.82	
Gave opinion: contact/visit public official[a]	.66	
Worked with a political group/official[a]	.81	
Displayed button/sticker/sign[a]	.75	
Door to door canvassing[a]	.67	
Donated money: political candidate/cause[a]	.70	
Participated in protests/demonstrations/rallies[b]	.61	
Political Expression		.79
Discussed politics[b]	.65	
Gave opinion: sign/write/email petition[a]	.72	
Online communication with family/friends[a]	.72	
Bought product: approve of company[a]	.81	
Boycotted product: disapprove of company[a]	.80	
Commitment to Political/Social Change		.74
Goal: Influence the political structure[c]	.84	
Goal: Influence social values[c]	.71	
Goal: Keep up to date with political affairs[c]	.70	
Volunteer reason: Do something about issue that matters[d]	.53	
Volunteer reason: Working to change laws or policies[d]	.71	
*Voting***		.91
Voted in national election[a]	n/a	
Voted in state/local election[a]	n/a	

* The voting composite measure was not considered a factor because it was comprised of only two items (a doublet).
[a] Four-point scale: From 1 = never to 4 = frequently.
[b] Three-point scale: From 1 = not at all to 3 = frequently.
[c] Four-point scale: From 1 = not important to 4 = essential.
[d] Three-point scale: From 1 = not a reason to 3 = a major reason.

Overall Political Engagement. Overall Political Engagement (Table 2.7) is the sum of all 19

PCFS items that comprised the four political engagement subfactors (α=.89).

Table 2.7. Factor Loadings and Reliability for Overall General Political Engagement

Survey Items	Factor Loading	Internal Consistency (Alpha)
Overall General Political Engagement Factor		.89
Volunteered through a political organization[a]	.70	
Gave opinion by: contacting/visiting public official[a]	.67	
Worked with a political group/official[a]	.68	
Displayed button/sticker/sign[a]	.69	
Door to door canvassing[a]	.50	
Donated money: political candidate/cause[a]	.63	
Participate in protests/demonstrations/rallies[b]	.59	
Discussed politics[b]	.62	
Gave opinion: sign/write/email petition[a]	.63	
Online communication with family/friends[a]	.65	
Bought product: approve of company[a]	.62	
Boycotted product: disapprove of company[a]	.60	
Goal: Influence the political structure[c]	.71	
Goal: Influence social values[c]	.50	
Goal: Keep up to date with political affairs[c]	.64	
Volunteer reason: Do something about issue that matters[d]	.39	
Volunteer reason: Working to change laws or policies[d]	.64	
Voted in national election[a]	.43	
Voted in state/local election[a]	.47	

[a] Four-point scale: From 1 = never to 4 = frequently.
[b] Three-point scale: From 1 = not at all to 3 = frequently.
[c] Four-point scale: From 1 = not important to 4 = essential.
[d] Three-point scale: From 1 = not a reason to 3 = a major reason.

Key independent variables

Because we are assessing the impact of service and service-learning *during* college on a

variety of post-college outcome measures, the two principal independent variables used in this

study come from the 1998 CSS instrument: "generic" community service (volunteering) and

"course-based" service (service-learning). To measure the frequency of generic volunteering,

students were asked two questions (on different parts of the 1998 survey). The first question asked: "Please indicate how often you performed volunteer work during the past year," and students could mark "frequently," "occasionally," or "not at all" (scored 3, 2, and 1 respectively). A different survey question asked students to report how many hours they spent on volunteer work during a typical week in the past year. The eight response choices ranged from "none" to "over 20." We collapsed the hours-per-week variable into a three-point scale (zero=1, less than one hour per week=2, and one or more hours per week=3) to maximize reliability of the combined measure. To determine participation in service-learning, students were asked, "Since entering college, have you performed any community/volunteer service? If yes, how was the service performed?" Students were instructed to mark all that applied: as part of a course or class; as part of a collegiate-sponsored activity (sorority, campus org., etc.); or independently through a non-collegiate group (church, family, etc.). Students who indicated they had performed community/ volunteer service as part of a course (regardless of whether they also marked another choice) were considered to have participated in service-learning.

These two service variables were coded into two partially overlapping variables:
Volunteering, or "generic" service participation: a composite variable in which the two "generic" volunteering variables (described above) were summed, making scores on a single 5-point scale ranging from not at all/zero hours per week (score of 2) to frequently/one or more hours per week (score 6). (Note: This same composite variable was also included on the PCFS survey as the *volunteer work* outcome.)
Service-learning: a dichotomous variable in which those who took one or more service-learning courses during college (score 2) were contrasted with non-service-learning participants (score 1)

(i.e., non-service participants <u>and</u> volunteers who did not participate in a service-learning course).

Note that these two variables differ primarily in the placement of the volunteers who did not take a service-learning course. In the generic service measure, these students received a score between 3 and 6, depending on how involved they were in their "non-service-learning service." On the service learning measure, however, these students received a score or "1," meaning "no service learning." Note, however, that service learning participants *also* received a score between 3 and 6 on the generic service measure (assuming, of course, that they answered at least one of the two questions that make up this scale consistently, i.e., that they had spent at least some time performing community service and/or performed volunteer work at least occasionally).[1] A few service learning students scored "2" on the generic service learning, possibly because they did not consider the community work that they performed in connection with the course to be "volunteer work."

Other Independent and Control Variables

Nine key sets of other independent and control variables were also included in the analyses (Appendix E). Each set was considered as a separate "block" in the multivariate analyses. These blocks were ordered in terms of their presumed temporal order of occurrence. The first three blocks can be considered as student "input" or "control" variables. The first two sets (blocks) of control variables consisted of (1) student background characteristics such as gender, race, socioeconomic status, SAT score, and (2) pretests (or "proxy pretests) of dependent measures. Because there were 13 different outcomes, the pretest(s) and proxy pretests included in this second block varied depending on the outcome. The third block of control variables

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[1]Most service learning students did, in fact, answer at least one of these questions consistently: 93 % of students who reported taking a service learning course scored at least "3" on the generic service measure.

included variables relating to pre-college socialization and were included based on a screening process (see section on *screening process* for details).

Blocks four through eight can be considered as independent or "environmental" variables. The fourth block thus included institutional characteristics such as type, control, selectivity, and peer measures (see section on *peer measures* for details). The fifth and sixth blocks included measures of service and reflection, respectively. Block five contains our two key independent variables: generic volunteering and service-learning. We wanted to pay special attention to the unique effects of service-learning because our earlier study showed that this pedagogy has a positive short-term effect on students' commitment both to activism and to promoting racial understanding as well as plans to participate in service after college (Astin et al., 2000). Block six, which is made up of our three reflection variables, was included because reflection has been shown to explain some of the beneficial effects of service-learning (Astin et al, 2000). If it is true that reflection is part of the learning in service-learning over the long-term, as it is in the short term (Astin et al., 2000, Eyler & Giles, 1999), then reflection will account for at least some of the impact of service-learning. Placing the block of reflection variables following the service/service learning block allows us to see if the impact of reflection lasts beyond the college years.

The seventh block included various college involvements and environments such as diverse interaction with peers, academic major, as well as interaction with faculty. After assessing the impact of service and service-learning, we wanted to see how other college experiences predicted the various outcomes. It is true that activities the eighth block do not necessarily follow the seventh block temporally, but for reasons already explained this ordering allowed us to isolate the effects of service and service-learning.

The eighth block consisted of post-college lifestyle indicators such as marital status, attending graduate school and level of religious involvement. This allowed us to see if any positive effects of service-learning on the outcome measures were mediated by post-college activities, as is suggested in the life-cycle engagement literature (i.e. did having young children mean that these alumni were less engaged). The ninth and final block consisted of control measures as assessed in 1998 such as openness to diversity, promoting racial understanding, and perceptions of faculty support as well as any 1998 pretest or proxy pretest for each outcome. These variables were entered last so we could see if they played a mediating role on the outcomes, but were not included in their assumed temporal order because interpreting the impact of values held at the end of the college years would have been difficult had they been placed earlier in the regression model.

While these other independent or control variables are not of primary substantive interest, they were included in the analyses because they represent characteristics, predispositions, and both college and post-college experiences of young adults that, unless taken into account, can influence the outcomes and therefore result in an under- or overestimation of the effects of service on post-college outcomes.

Screening Process

A screening process was utilized in order to include possible 1994 variables (i.e., precollege socialization variables) that relate to the outcome variable of interest (e.g., pretest or proxy). This made it possible to exercise maximum control for self-selection bias. Specifically, most 1994 variables were included in a blocked, forward regression utilizing the outcome of interest. Any 1994 variable that was significant in this preliminary screening regression was

then included in the screening block (Block 3) in the final regression. Thus, this process resulted in a different set of 1994 freshman control measures in Block 3 for each dependent measure.

Peer Measures

Since peer groups can have a profound impact on students' college experiences (Astin, 1977, 1993), eight peer measures were created to better understand the influence of the peer environment on our outcomes. For example, the socioeconomic status (SES) of the peer environment consisted of the mean SES score of *all* 1994 entering freshmen[2] (see Astin, Korn, Sax, & Mahoney, 1994 for details). The eight peer measures included:

- *Socioeconomic Status*
- *Selectivity*
- *Intellectual self-esteem*
    - Academic Ability
    - Public speaking ability
    - Drive to achieve
    - Leadership ability
    - Intellectual self-confidence
    - Writing ability
    - Election to an academic honor society
    - Mathematical ability
- *Altruism & Social Activism:*
    - Participating in a community action program
    - Promoting racial understanding
    - Influencing social values
    - Helping others in difficulty
    - Becoming involved in programs to clean up the environment
- *Materialism & Social Status:*
    - Being very well off financially

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[2] These means are based on an average of 600 entering freshmen per institution.

- ➢ To be able to make more money

- ➢ Being successful in my own business

- ➢ Becoming an authority in my field

- ➢ Obtaining recognition from my colleagues for contributions to my special field

- ➢ Having administrative responsibility for the work of others

- *Hedonism:*

    - ➢ Drank beer

    - ➢ Drank wine

    - ➢ Smoked cigarettes

    - ➢ Hours per week partying

- *Discussed Politics*

- *High school Service Orientation*

Lifestyle Factors

Additional exploratory analyses were conducted using the 2004 post college "lifestyle" factors. The eighth block, which consisted of 12 post-college lifestyle factors that were measured in 2004 was included because these variables may help explain more of the variance in each 2004 outcome. We use the term 'lifestyle' to reflect the fact that each former student could exemplify a different 'lifestyle' pattern depending on how involved they were with politics, with their communities, with religious activities, with recreation and leisure activities, or with their alma maters. We also felt that how much alumni depended on various kinds of media for their news constituted another aspect of their 'lifestyle.'

As mentioned earlier, a principal components analysis (with varimax) rotation involved many of the PCFS items related to post-college lifestyles. The analysis produced 12 lifestyle factors: volunteerism, political expression, political activism, religious involvement, community involvement, recreation and leisure, involvement with alma mater, reliance on TV news sources, reliance on print media news sources, reliance on radio news sources, charitable giving, and

voting. Of the 12 lifestyle factors, six were replicates of the outcomes (political expression, political activism, community involvement, involvement with alma mater, charitable giving, and voting). Thus, only the remaining six lifestyle factors are presented here: volunteerism ($\alpha = 0.81$), recreation and leisure ($\alpha = 0.72$), reliance on TV news sources ($\alpha = 0.64$), reliance on print media news sources ($\alpha = 0.59$), reliance on radio news sources, and religious involvement ($\alpha = 0.84$). The alpha reliabilities ranged between 0.59 and 0.84 with factor loadings of at least 0.48 for each item within each factor. The factor loadings and alpha coefficients for these six lifestyle factors are shown in Table 2.8.

Volunteerism. Volunteerism examines the frequency and types of volunteer activities in the post-college years (Table 2.8). This factor consists of the following 12 items ($\alpha = .81$).

- Frequency of engaging in volunteer work during the past year
- Hours in a typical week doing volunteer work during the past year
- As a volunteer, collected, prepared, distributed, or served food since leaving college
- As a volunteer, collected, made or distributed clothing, crafts, or goods other than food since leaving college
- As a volunteer, taught, mentored, coached, or referred since leaving college
- As a volunteer, fundraised or sold items to raise money since leaving college
- As a volunteer, supplied transportation for people since leaving college
- As a volunteer, provided general office services since leaving college
- As a volunteer, provided information, was an usher, greeter or minister since leaving college
- As a volunteer, engaged in music, performance, or other artistic activities since leaving college
- As a volunteer, performed physical labor since leaving college
- As a volunteer, performed other since leaving college

Recreation and Leisure. The *recreation and leisure* measure reflects the variety of ways in which young adults spend their free time (Table 2.8). This factor consists of the following five items ($\alpha = .72$):

- Hours in a typical week socializing with friends during the past year

- Hours in a typical week exercising/sports during the past year

- Hours in a typical week reading for pleasure during the past year

- Hours in a typical week hobbies during the past year

- Hours in a typical week recreation/leisure during the past year

The next three outcomes reflect the frequency in which young adults access the following sources for news and current events (i.e., TV, print media, and radio).

TV News Sources. This factor consists of the following three items (Table 2.8) ($\alpha = .64$):

- Times per week accessing television – national/world news programs – for news and current events (excluding sports and entertainment news)

- Times per week accessing television – local news programs – for news and current events (excluding sports and entertainment news)

- Times per week accessing television talkshows for news and current events (excluding sports and entertainment news)

Print Media News Sources. This factor consists of the following four items (Table 2.8) ($\alpha = .59$):

- Times per week accessing a daily newspaper for news and current events (excluding sports and entertainment news)

- Times per week accessing other newspapers for news and current events (excluding sports and entertainment news)

- Times per week accessing news magazines for news and current events (excluding sports and entertainment news)

- Times per week accessing professional or work-related news source for news and current events (excluding sports and entertainment news)

Radio News Sources. This factor consists of the following (Table 2.8) two items:

- Times per week accessing radio news broadcasts for news and current events (excluding sports and entertainment news)
- Times per week accessing television radio talkshows for news and current events (excluding sports and entertainment news)

Religious Involvement. The *religious involvement* measure (Table 2.8) reflects ways in which young adults are involved in their religious communities. This factor consists of the following three items ($\alpha = .84$):

- Donated money to a religious organization since leaving college
- Frequency of attending a religious service during the past year
- Hours in a typical week attending religious services/meetings during the past year

Table 2.8. Factor Loadings and Reliabilities for the Lifestyle Factors

Factor and Survey Items	Factor Loading	Internal Consistency (Alpha)
Volunteerism		.81
Performed volunteer work[a]	.74	
Hours per week: volunteer work[b]	.68	
Collect, prepare, distribute, or serve food[c]	.60	
Volunteer Activity:		
Collect, make or distribute clothing, crafts, or goods other than food[c]	.49	
Teach, tutor, mentor, coach, or referee[c]	.56	
Fundraise or sell items to raise money[c]	.54	
Supply transportation for people[c]	.55	
Provide general office services[c]	.49	
Provide information, be an usher, greeter or minister[c]	.60	
Engage in music, performance, or other artistic activities[c]	.49	
Perform physical labor[c]	.64	
Other[c]	.48	
Recreation and Leisure		.72
Hours per week: socializing with friends[d]	.67	

(Table 2.8 cont.:) Factor and Survey Items	Factor Loading	Internal Consistency (Alpha)
Hours per week: exercising/sports[d]	.64	
Hours per week: reading for pleasure[d]	.63	
Hours per week: hobbies[d]	.73	
Hours per week: recreation/leisure[d]	.76	
TV News Sources		.64
Television – national/world news programs (incl. on-line versions)[e]	.79	
Television – local news programs[e]	.82	
Television talkshows[e]	.67	
Print Media News Sources		.59
A daily newspaper (incl. on-line versions)[e]	.70	
Other newspapers[e]	.76	
News magazines[e]	.67	
Professional or work-related news source[e]	.60	
*Radio News Sources**		n/a
Radio news broadcasts (incl. on-line versions)[e]	n/a	
Radio talkshows[e]	n/a	
Religious Involvement		.84
Donated money to a religious organization[a]	.89	
Attended a religious service[b]	.92	
Hours per week: religious services/meetings[d]	.88	

* The radio news sources composite measure was not considered a factor because it was comprised of only two items (a doublet).
[a] Four-point scale: From 1 = never to 4 = frequently.
[b] Three-point scale: From 1 = not at all to 3 = frequently.
[c] Five-point scale: From 1 = lowest 10% to 5 = highest 10%.
[d] Eight-point scale: From 1 = none to 8 = over 20 hours.
[e] Four-point scale: From 1 = none to 4 = 5+ times.

Analytic Approach

The purpose of this study was to assess the unique effects of both generic volunteering and

service-learning (service as part of an academic course) on each of the various outcomes. For

this study, we utilized a method of causal modeling which used blocked, forward linear

regression analysis to study the changes in partial regression coefficients for all variables at each step in the analysis (Astin, 1991).

The advantage of this form of analysis is that it allows us to observe how each of the entering independent variables (or block of variables) affects the relationship of the dependent variable to every other variable, both in and out of the model. Such changes in relationships can be seen because (1) partial regression coefficients for variables in the equation can change from step to step; and (2) SPSS has a feature that computes the "Beta in" for each variable not yet in the equation. "Beta in" shows what the standardized regression coefficient for a non-entered variable would be if it were the variable entered in the next step. By tracking step-by-step changes in partial Betas (for variables already in the model) and in "Beta-ins" (for variables not yet in the model), we can examine more closely how the relationships of community service and service-learning to the dependent variable are affected by the entry of every other variable.

Because the partial Beta coefficients for all variables are shown at each step, this method allows us to conduct a series of path analyses, tracking how the coefficients for variables already entered into the regression equation are changed when new variables are entered. For example, when an entering variable significantly reduces the partial Beta coefficient for a variable already in the model, an "indirect" path has been identified. On the other hand, when a variable's coefficient remains significant through the last step of the regression, a "direct" path has been identified (Astin, 1991). A "suppressor" effect is identified when an entering variable strengthens the effect of a variable already in the model. In other words, the entering variable is said to have been "suppressing" the true effect of another variable on the dependent measure when its entry into the model causes the Beta coefficient for the other (suppressed) variable to increase or change signs (see Astin, 1991, for a more detailed discussion).

For each of the regressions in this study, there were nine blocks of variables to be entered sequentially in the regression equations. The nine blocks of variables were entered into the regression in the following order:

Block 1: Student background characteristics (i.e. race, gender, socio-economic status)

Block 2: 1994 Pretest (if any)

Block 3: Precollege socialization (high school activities, values, beliefs)

Block 4: Institutional characteristics (includes peer measures)

Block 5: Service-learning and volunteerism

Block 6: Reflection measures

Block 7: College involvements

Block 8: Post-college lifestyles

Block 9: College values/beliefs/goals/interaction with faculty/1998 pretests or proxies

Missing Values Analyses

In order to maintain statistical power, missing values for all continuous independent variables were replaced using SPSS's Missing Values option. Specifically, missing values were replaced using the multiple regression method. In other words, multiple regression was used for data imputation by using non-missing data to predict the values of missing data. For example, missing values for any one item that was an independent variable was imputed using all of the other independent variables as predictors. Because the final dataset was essentially a combination (or merging) of three datasets (i.e., 1994, 1998, 2004), the missing values analysis (MVA) was run on the three datasets separately. Then, the new variables (with the missing values replaced) were renamed and merged into the final combined dataset. Thus, in any regression the new variables (with the missing values replaced) were used as independent variables while the original variables (with missing data cases excluded) were used as dependent

variables. Other exceptions in which the original (instead of the missing values replaced) variables were used included the 1998 service variables (generic volunteer work and service-learning) and the 1998 reflection variables.

Chapter Three

Review of Findings from Previous Atlantic-Funded Study

Before we share the findings of the current study, we would like to review briefly the highlights of our earlier study, which surveyed this same cohort in 1998, four years after they entered college in 1994 (Astin et al., 2000).[3] The two major goals of that study were: 1) to explore the comparative effects of service-learning and community service on the cognitive and affective development of college undergraduates and 2) to enhance our understanding of <u>how</u> learning is enhanced by service. These questions were explored by means of a quantitative longitudinal study of a national sample of students at diverse colleges and universities and a qualitative study of students and faculty who participated in service-learning at a subset of these institutions.

The quantitative study of over 22,000 students examined the impact of service-learning and community service on 11 different dependent measures: academic outcomes (three measures), values (two measures), self-efficacy, leadership (three measures), career plans, and plans to participate in further service after college. Most of these outcomes were pretested when the students entered college as freshmen. Additionally, multivariate controls were used for both freshmen characteristics and institutional characteristics (size, type, selectivity, etc.) before the comparative impact of service-learning and community service was assessed on the eleven student outcomes.

Service participation showed significant positive effects on all 11 outcome measures: academic performance (GPA, writing skills, critical thinking skills), values (commitment to activism and to promoting racial understanding), self-efficacy, leadership (leadership activities,

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[3] In the first study, most but not all of the students entered college in 1994; the current study is limited to those students who entered in 1994.

self-rated leadership ability, interpersonal skills), choice of a service career, and plans to participate in service after college. Furthermore, performing service as part of a course (service-learning) adds significantly to the benefits associated with community service for all outcomes except interpersonal skills, self-efficacy and leadership. Positive results for the latter two outcomes were borderline (i.e., $.01 < p < .05$).

The benefits associated with course-based service were strongest for the academic outcomes, especially writing skills. Service participation appears to have its strongest association with the student's decision to pursue a career in a service field. This effect occurs regardless of whether the student's freshmen career choice is in a service field, a non-service field, or "undecided."

The positive effects of service can be explained in part by the fact that participation in service increases the likelihood that students will discuss their experiences with each other and that they will receive emotional support from faculty. Providing students with an opportunity to reflect upon, or "process," the service experience with each other is a powerful component of community service and service-learning. Compared to community service, taking a service-learning course is much more likely to generate such student-to-student discussions.

The qualitative portion of the study involved in-depth case studies of service-learning on three different campuses. Individual and group interviews with faculty and students, together with classroom observations, were conducted at each site. This part of the study found that service-learning is effective in part because it facilitates four types of outcomes: an increased sense of personal efficacy, an increased awareness of the world, an increased awareness of one's personal values, and increased engagement in the classroom experience. The qualitative findings also suggest that both faculty and students develop a heightened sense of civic responsibility and personal effectiveness through participation in service-learning courses. Finally, the qualitative

study findings provided strong support for the notion that service-learning courses should be specifically designed to assist students in making connections between the service experience and the academic material.

The quantitative study also contained a sub-study of service-learning participants. The sub-study confirmed other research about the importance of course quality, which was defined in terms of practices such as the use of reflection, training, and professors *connecting* the service experience with the course material. Furthermore, the study found that the single most important factor associated with a positive service-learning experience appears to be the student's degree of interest in the subject matter. Subject matter interest is an especially important determinant of the extent to which (a) the service experience enhances understanding of the "academic" course material, and (b) the service is viewed as a learning experience.

In sum, the previous study found that service-learning can indeed be a powerful educational tool, and that benefits are especially pronounced for academic outcomes. Given that the participants are now out of college and pursuing their careers and interests as young adults, is it possible to connect these strengthened academic and affective outcomes with the post-college civic engagement and attitudes? Given its demonstrated advantages during the college years, does participating in service-learning during college also affect students' subsequent civic life and engagement in their communities during the post-college years? If there is an impact, is it a direct effect, or does service-learning participation lead to behaviors or strengthen values that in turn lead to more post-college civic and community engagement? Is it possible that service-learning during college does not have any lasting impact? Or is it the case that participation in community-based service experiences during college makes a difference in the post-college

years, but service-learning per se is no more powerful than is service in general? The current study attempts to test each of these possibilities.

Chapter Four

Post-College Study Findings

Overview of Post-College Attitudes and Activities

The focus of this study is to understand the long-term impact of service-learning and other college involvements on post-college life. Therefore, most of our attention is focused on findings from the multivariate analyses, where we were able to control for numerous pre-college characteristics, beliefs, values, and experiences, as well as institutional characteristics and many college experiences, in order to understand the impact of specific college experiences.

Before turning our attention to the multivariate analyses, let us first take a brief look at the kinds of activities in which this cohort of college alumni are currently participating, as well as their values and lifestyle choices in the post-college years.

Keep in mind that the participants in this survey are not only college graduates, they are also "fast-trackers" and high achievers. They all completed college within six years after entering. Over half (50.2%) attended graduate or professional school, and 31.9% already held a degree higher than the baccalaureate at the time of our follow-up survey in 2004. Additionally, 26.5% are currently working toward a master's degree, and 10.7% are working toward a doctorate (J.D., Ph.D., M.D. etc).[4]

Patterns of Civic and Community Involvement among College Alumni[5]

Although annual surveys of entering freshmen conducted in recent years have revealed increasing levels of engagement in community service during the senior year in high school, the current study shows decreasing service participation *during* and *after* the college years. Thus,

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[4] Note that there may be overlap between those who hold a degree beyond the baccalaureate and those who are currently working toward a degree beyond the baccalaureate; for instance one might have a master's and be working toward a doctorate or another master's degree.

[5] This section of the report was also published in a HERI Research Report (Vogelgesang & Astin, 2005).

while 80.3 percent of the students surveyed had participated in community service in the year prior to entering college, this figure declined to 74.4 percent by the senior year of college and to 68.1 percent six years after completing college.

These declines are paralleled by a number of post-college changes in students' values (see Figure 1). Compared to when they were completing college in 1998, fewer alumni in 2004 embraced the values of "helping others in difficulty," "participating in a community action program," "becoming a community leader," or "influencing social values." There was also a substantial decline in agreement with the proposition that "people should not obey laws that violate their personal values."

Figure 1. Civic Values Before and After College
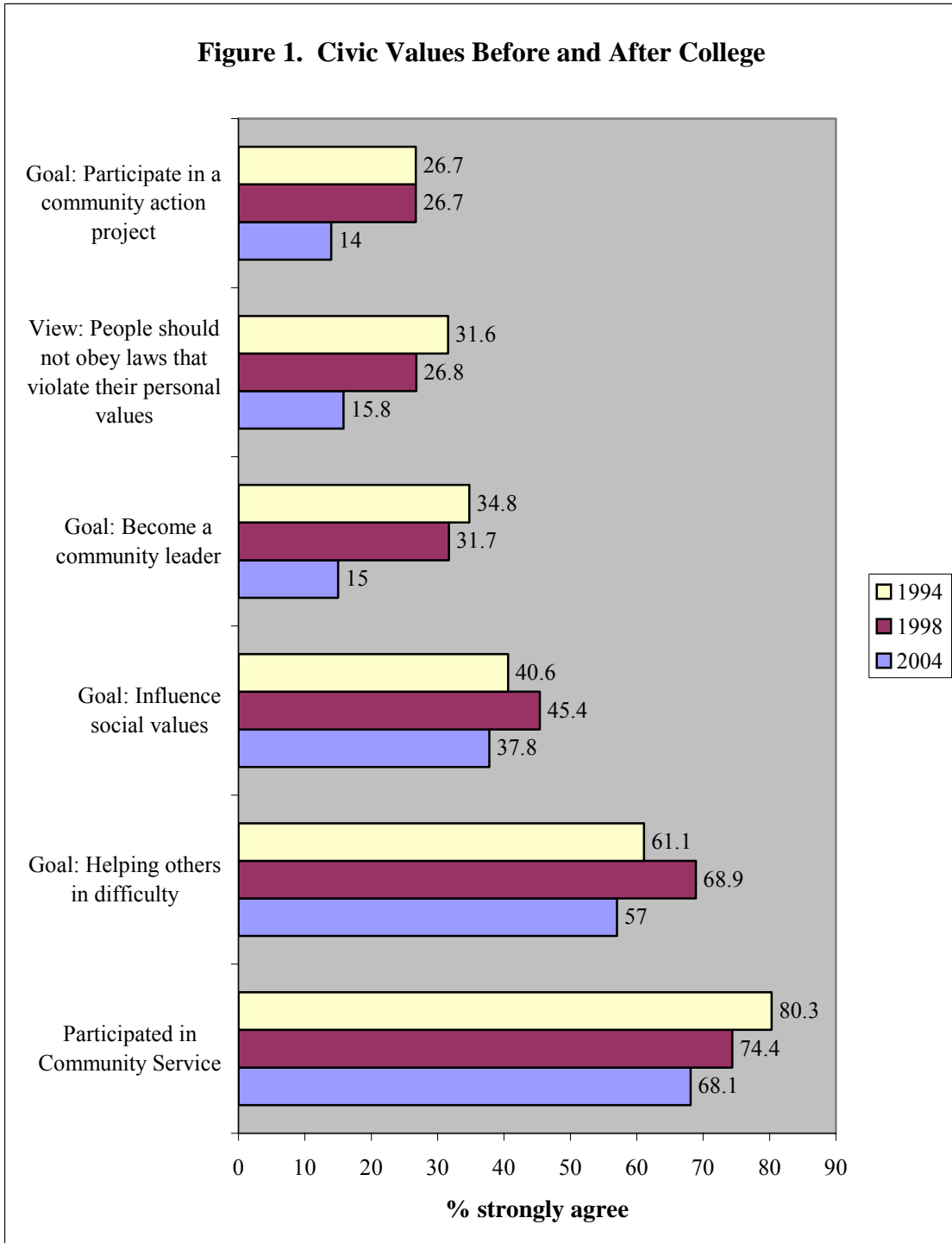
Among young adults who currently engage in volunteer work in their communities, their

motivations are much more likely to be cast as helping others than working for social or political

change (see Figure 2). Over 82% indicated that helping other people was a 'major' reason they decided to participate in volunteer activities, compared to only 14.5% who were motivated by the desire to create a more equitable society, and fewer than seven percent who were working to change laws or policies. Doing one's part as a community member was a major motivator for about one-third of the respondents, and doing something about an issue that matters to them was cited as important for well over half of the participants. It appears, then, that motivations reflect an intent more towards '*doing/helping'* at a local level than they do towards *changing* society or laws.

Figure 2. Motivations for Post-College Volunteering

Motivation	%
Help Other People	82.5
Do Something About Issue that Matters	55.3
Do My Part as Community Member	31.6
Want to Create More Equitable Society	14.5
Working to Change Laws or Policies	6.9

% indicating item is 'major reason' for volunteering
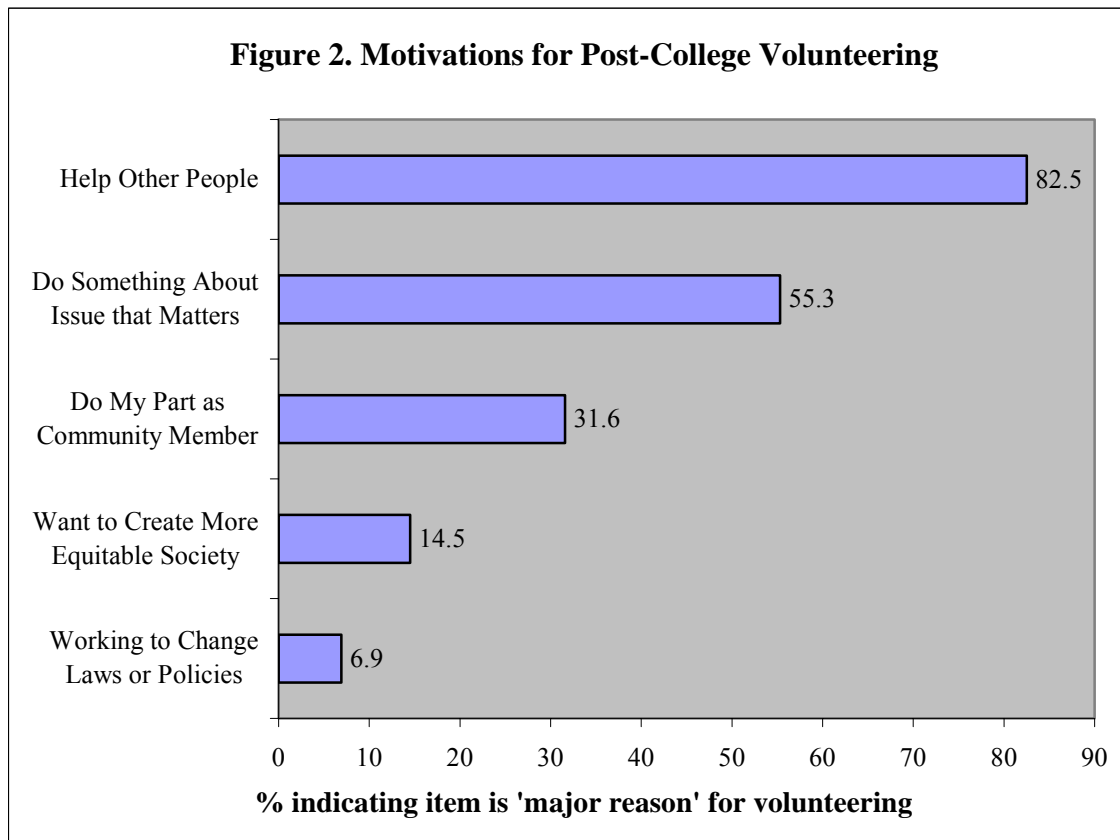
Alumni who are engaged in volunteer work are most likely to do so through a school or educational organization (59.7%), their employer (57.7%), a religious or faith-based organization

(49.4%) or a sports or recreational organization (44.3%). They were far less likely to report being involved through a public/government agency (12.9%), a political organization (16.0%), or an advocacy/issue group (20.1%).

Gender

Studies have demonstrated that women and men participate in civic life somewhat differently (Burns, Schlozman & Verba, 2001). In addition to volunteer work, the HERI survey polled former students' engagement in numerous community/civic activities, such as donating money, expressing their opinion in public ways, and working with political structures. In general, men are more likely than women to say that they have worked with political groups or officials, and expressed their opinion by contacting public officials or the media (see Figure 3). Women report higher frequencies than do men of volunteering through civic and educational organizations, signing email petitions and expressing their opinion by choosing to buy from – "buycott" – or boycott companies based on the values of the company (see Figure 4). Though women are more likely than men to sign email petitions, men are more likely than women to see the use of internet and email petitions as an effective way to participate in the political process (71.3% vs. 67.7%). These numbers underscore the fact that women don't seem to associate their actions with politics as much as do men.

Figure 3. Post-College Involvements by Gender

Legend: ■ Men ■ Women

- Worked with a political group or official: Men 15.2, Women 12.0
- Volunteered through: political organization (e.g. political party, campaign, etc.): Men 17.8, Women 14.6
- Expressed opinion: Called a radio/television talk show: Men 9.3, Women 4.2
- Expressed opinion: Contacted a newspaper or magazine: Men 17.4, Women 10.0
- Expressed opinion: Contacted /visited a public official: Men 28.1, Women 24.0

% participating in activity since leaving college

Figure 4. Post-College Involvements by Gender

- Buycott a product/company: Men 52.5, Women 56.4
- Boycott a product/company: Men 64.5, Women 68.3
- Volunteered through: school or educational organization: Men 55.3, Women 63.1
- Volunteered through: civic organization: Men 29.6, Women 35.9
- Expressed opinion: Signed/wrote an email petition: Men 48.5, Women 53.9

% participating in activity since leaving college

Religious Participation

This study reveals that these early-career college graduates are increasingly looking for meaning in their lives, but the decline in religious participation during the college years reflects their practices in the post-college years as well. While 86.8 percent of the students attended religious services during high school, attendance had dropped to 73.0 percent by the senior year in college. During the six years since college graduation the figure has risen only slightly, to 74.9 percent. It appears that students strengthen their convictions about a meaningful life, however. The data reveal a steadily increasing endorsement of the value of "developing a

meaningful philosophy of life: from 45.1 percent as entering freshmen, to 56.7 percent as graduating seniors, to 63.3 percent six years after college.

Religious participation is associated with higher levels of volunteer involvement for these alumni, supporting findings from studies of the general population that explored the relationship between religious organizations and civic skills among adults (Verba, Schlozman & Brady, 1995). Among the alumni in this study, those who attended religious services were more likely than their peers to be engaged in volunteer work (72.7 % vs. 54.8%, respectively). Although women are more likely than men to volunteer (72.4% vs. 62.8%), and more likely to attend religious services (78.7% vs. 70.5%), men and women are equally likely to report that expressing their faith is a major reason for participating in volunteer work (23.0% and 23.5%).

Institutional Type

The data on post-college civic engagement and related values reveal interesting differences across institutional types. For this report, we examined public and private universities, as well as public and private four-year institutions. We also looked at differences among nonsectarian, Catholic and other (mostly Protestant) religious affiliations among the four-year private institutions. [6]

There is substantial variation in volunteering across different types of institutions. Although 68.2% of all alumni report volunteering at least occasionally during the past year, only 62.7% among Catholic college graduates report volunteering, compared to 77% of those at other religious colleges, and 63.1% of public university graduates (see Figure 5). Catholic college alumni are also less likely than others to vote in a national election (50.1% compared to 57.7% overall), or to discuss community issues (24.5% vs. 29.5% overall). Interestingly though,

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[6] Religious universities are included in the group of private universities, not among the religious four-year institutions.

Catholic college alumni were the *more* likely to report that participating in community service/volunteer work (during the college years) had a 'strong impact' on preparing them for life after college (22.4% compared to 16.1% overall).

Figure 5. Post-College Volunteering across Institutional Type

Institutional Type	% performing volunteer work in the last year
Public University	63.1
Private University	66.0
Public 4-yr	69.4
Nonsectarian 4-yr	74.6
Catholic 4-yr	62.7
Other Religious 4-yr	77.0

% performing volunteer work in the last year
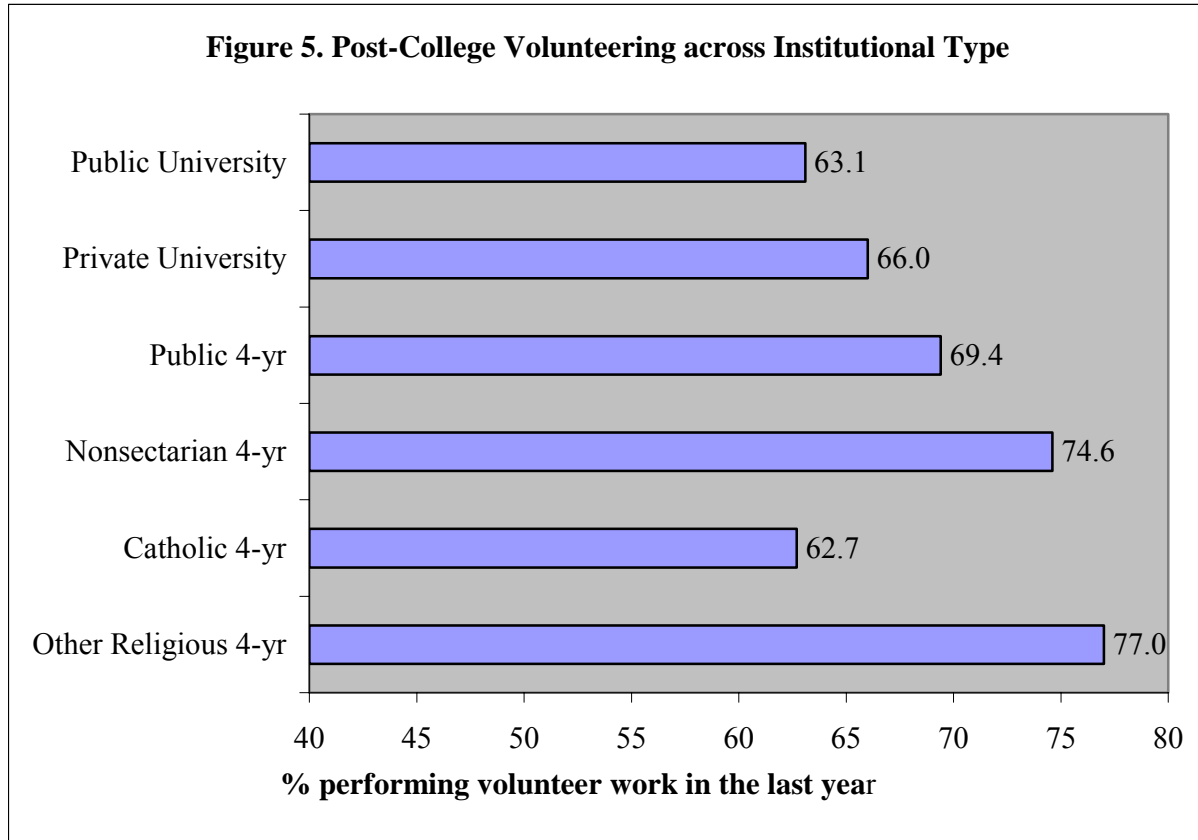
Public college graduates report voting in state/local elections at a somewhat higher rate than their peers at universities and at private colleges (50.1% vs. 47.05 overall), but they are less likely to engage in other political activities such as working with a political group, displaying a political sign of support (campaign button, sign in front of house, etc.), working as a canvasser, or working in a political campaign.

Alumni of nonsectarian four-year institutions report participating in volunteer work in high numbers (74.6% compared to 68.2% overall) and are slightly more likely than their peers to donate professional services on a pro-bono basis (8.0% vs. 6.0% overall), and to express an

opinion on a community or political issue by contacting a public official (29.0% vs. 25.8% overall), work with a political group (16.6% vs. 13.4%), and to boycott based on the social or political values of a company (70% vs. 66.7% overall).

Private university alumni are more likely than other alumni to discuss politics frequently (48% vs. 37.2%), and to report that the following are 'very important' or 'essential' values: participating in a community action program (16.1% vs. 14.1%), keeping up to date with political affairs (48.9% vs. 39.4%), influencing the political structure (16.8% vs. 14.0%). However, when it comes to actual behaviors (voting, donating money, playing a leadership role in the community, etc.), these alumni participate at comparable rates to their peers. This may be due in part to their high levels of participation in graduate studies since leaving college: private university graduates are more likely than all their peers to hold advanced degrees, especially Ph.D.s, and degrees in law and medical fields (See Figure 6). These alumni are also more likely than their peers to be working 50 or more hours per week (31.1% vs. 21.1%).

Figure 6. Highest Degree Held
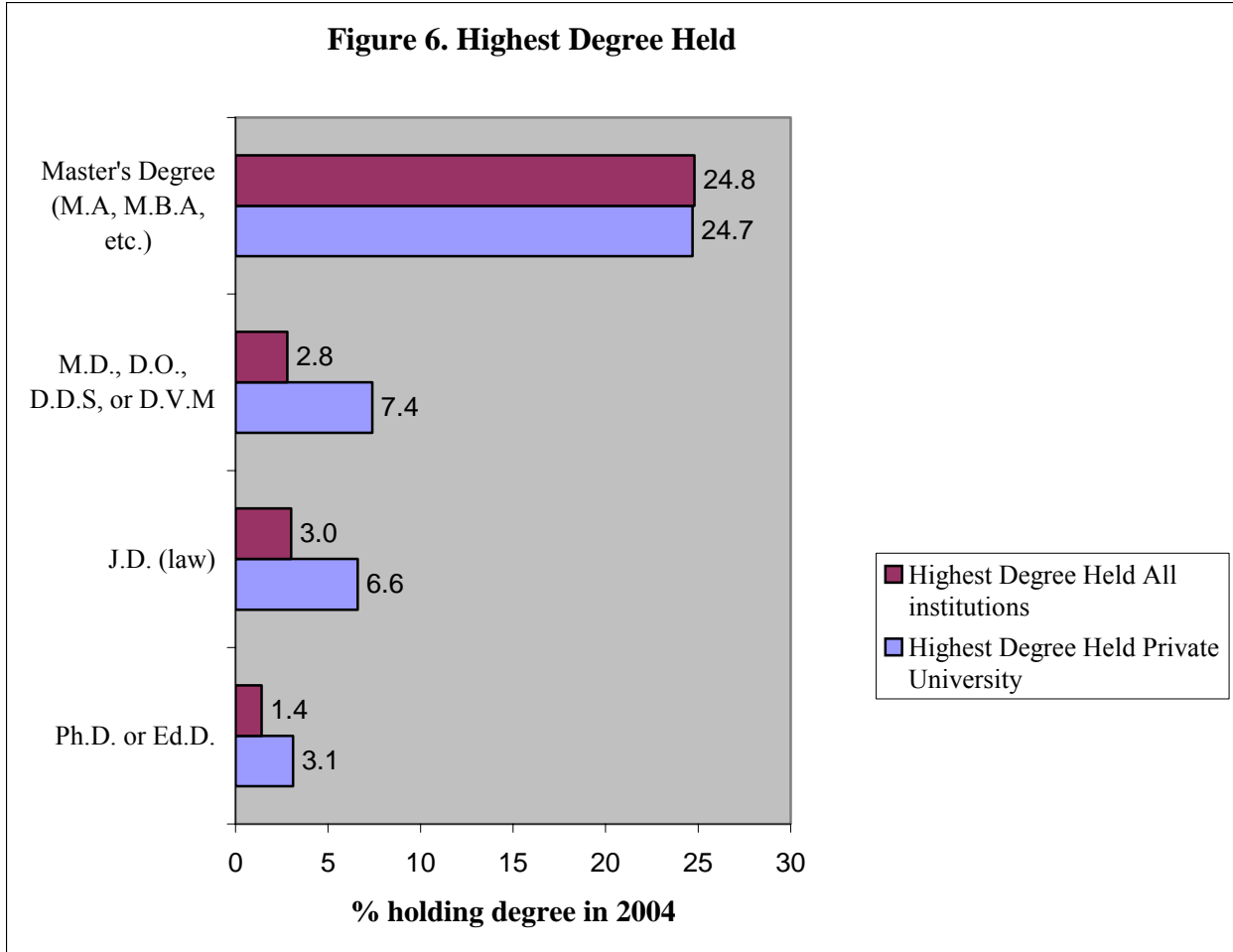
Public university graduates do not differ greatly from the average in their participation rates on most items, but some of their values and motivations were distinct. Public university alumni are less likely than their peers to say that influencing social values is an important goal for them personally (30.9% vs. 37.7%). And those that volunteer show an interesting difference in their motivations for volunteering: they are *more* likely than other graduates to say that a major reason for volunteering is to do their part as a community member (34.7% vs. 31.6%) but they are *less* likely to say that they volunteer because by getting involved they can influence what happens in their community (22.9% vs. 26.6%).

In sum, there are many differences across institutional types, and between men and women. However, there are not strong, consistent patterns of difference that would lead one to generalize that particular institutional types are associated with any given motivation for civic engagement, nor could we say that graduates of any particular type of institution are more likely to be engaged overall than are their peers from other institutions. Rather, we see that institutional type is associated with different responses to particular behaviors (i.e. volunteering). Multivariate analyses will control for individual characteristics and institutional differences to better understand the impact of a variety of institutional types and college experiences on post-college civic engagement.

Summary of Multivariate Analyses

For this study we explored the effects of service-learning and other college activities on 13 different dependent measures. Results are organized in two sections. First, we summarize the relationship between service-learning during college and the dependent measures. Next, we take a closer look at service-learning as it compares to other college experiences for a subset of the dependent measures that reflect the alumni's civic and political engagement. A detailed discussion of the results for each dependent measure is presented following this overview summary.

Summary of the Effects of Service-Learning

In order to understand the relationship between service-learning and the multiple dependent measures examined in this study, our primary focus is on the partial Beta coefficients rather than the simple correlations between service-learning and each outcome (see Data Analysis section in this report for further discussion). These 'key points' in each regression include the stages at which we have controlled for each of the following sets of variables: (1) pre-college characteristics, values and beliefs (including demographics); (2) institutional characteristics (control/type, selectivity) including peer means on selected measures; (3) generic volunteer work; (4) reflection variables; and (5) other college experiences.

Table 4.1 shows the partial Betas for service-learning at each key point (column), separately for each outcome measure (row). Participation in service-learning has a significant positive correlation with 11 of the 13 outcomes. Seven of these relationships remain significant after the effects of entering student (blocks 1-3) and institutional characteristics (block 4) are controlled and the other two relationships are reduced to borderline significance ($.001 < p < .01$). However,

once generic service (volunteer work) is controlled, only one effect remains significant (p < .001), and two effects are borderline.

In short, service-learning does have modest long-term effects on seven and possibly nine outcome measures, even when we take into account the pre-college (student input) and institutional characteristics that account for one's predisposition to engage in certain activities, as well as the opportunities an institution might present to become engaged. Six of these effects, however, appear to be attributed to generic service.

Recall that we decided to enter service-learning and volunteer work in a separate regression block that precedes other college experiences (in order to isolate their impact on the post-college outcomes). Since generic volunteer work turns out to be the stronger predictor of most outcomes *and* accounts for the influence of service-learning on at least six of these nine dependent measures, service-learning shows clearly independent effects in only one regression: Civic Leadership. In other words, service-learning has a unique effect on this dependent measure and borderline effects on two others, over and above the effect of participating in volunteer work during the college years.

To summarize, participation in service-learning during college appears to have long-term positive effects on as many as nine post-college outcomes, but at least six of these effects can be explained by participation in generic volunteer service rather than service-learning per se. Part of the effect on Civic Leadership appears to be uniquely attributable to the experience of service-learning, and there is suggestive evidence of additional unique effects of service-learning on Charitable Giving and Overall Political Engagement. Furthermore, for Civic Leadership and Overall Political Engagement, the unique benefits of the service-learning experience can be explained by the use of reflection.

Table 4.1. Effects of Service Learning on 13 Post-College Outcomes at Five Key Points in the Stepwise Regressions.

Dependent Measure	Simple r	Partial Beta-In after Controlling for:				
		Entering student characteristics	Institutional characteristics	Volunteer work	Reflection	Other College Activ.
Community/Civic Engagement:						
Working with Communities	.09	05***	05***	02*	-01	-02*
Civic Leadership	.08	06***	06***	04***	02	01
Volunteer Work	.09	05***	05***	01	-01	-02
Charitable Giving	.10	05***	05***	03**	03*	03**
Involvement w/Alma Mater	.01	01	02	00	-03*	-02
Political Engagement						
Political Activism	.05	03**	03**	02	01	00
Political Expression	.07	03***	04***	02*	-01	-01
Commitment to Political/						
Social Change	.07	04***	04***	02*	-01	-01
Voting	.04	04***	03**	02	02	01
Overall Political Engagement	.07	05***	04***	03**	00	00
Civic Values/Goals						
Pluralistic Orientation	-.02	00	00	-01	-01	-02*
Self-efficacy	.05	02	01	-01	-03*	-04***
Promot. Racial Understanding	.07	02*	02*	01	-01	-02

*** p < .001   ** p < .01   *p < .05
Note: for ease of reading, the decimal places have been omitted from the Beta-in coefficients

Table 4.2. Effects of Generic Service on 13 Post-College Outcomes at Five Key Points in the Stepwise Regressions.

Dependent Measure	Simple r	Partial Beta-In after Controlling for:				
		Entering student characteristics	Institutional characteristics	Service learning	Reflection	Other College Activ.
Community/Civic Engagement:						
Working with Communities	.23	14***	14***	14***	10***	07***
Civic Leadership	.18	11***	11***	10***	09***	06***
Volunteer Work	.29	20***	20***	20***	17***	15***
Charitable Giving	.17	09***	09***	09***	08***	05***
Involvement w/Alma Mater	.14	09***	09***	09***	07***	04**
Political Engagement						
Political Activism	.12	06***	06***	06***	05***	03**
Political Expression	.15	08***	08***	08***	05***	03**
Commitment to Political/						
Social Change	.15	08***	07***	07***	05***	03**
Voting	.11	07***	07***	07***	07***	06***
Overall Political Engagement	.17	09***	09***	09***	06***	04***
Civic Values/Goals						
Pluralistic Orientation	.08	04***	04***	04***	04***	01
Self-efficacy	.18	12***	12***	12***	10***	07***
Promot. Racial Understanding	.14	05***	05***	05***	02	-01

*** p < .001　　** p < .01　　*p < .05
Note: for ease of reading, the decimal places have been omitted from the Beta-in coefficients

9/17/2007

How "Strong" are the Effects of Service?

Given the abstract nature of partial regression coefficients, and given the relatively small size of most of the coefficients reported here, it is useful to examine the actual differences on the 10-year outcome measures that are associated with our two service measures. In this way, readers can judge for themselves the "strength" or "importance" of each effect.

Table 4.3 shows a sampling such items, separately for different levels of the generic service variable. Note that the percentages increase fairly regularly with each higher level of involvement in generic service. When we compare the percentages at the highest and lowest levels on generic service, we find some rather substantial differences (despite the "small" partial regression coefficients). Many of these differences are around two-to-one, and one—playing a leadership role in the community—is three to one. Clearly, the differences in post-college outcomes can be substantial when we compare alumni who experienced high levels of service engagement in college with alumni who were not engaged in service.

Table 4.3: Generic Service and Post-College Outcomes

	Percent by Generic Service Score				
Outcome Item	2	3	4	5	6
Promoting Racial Understanding[1]	26	28	28	35	40
Individual can do little to change society[2]	67	71	77	79	85
Held leadership role in improving community[3]	08	13	09	14	25
Donated money to a charitable organization[3]	22	34	41	36	42
Performed volunteer work	47	61	73	78	82
Voted in a national election[4]	49	53	59	62	64
Worked on a community project w/ a govt agency	21	26	28	32	46

[1] "Very important " or "Essential"
[2] Agree "Strongly" or "Somewhat"
[3] "Frequently" or "Occasionally"
[4] "Frequently"

Patterns of College Effects on Civic Outcomes

In this section we examine the patterns of impact that various college experiences have on civic engagement outcomes. The aim here is to understand the ways in which service-learning compares in its long-term impact to other college experiences. In Tables 4.4 through 4.9 we display long-term impacts of a number of college experiences on the 13 outcome measures examined in this study. Each group of outcomes (community / civic engagement, political engagement, and civic values/goals) is displayed over two tables. First, we show all significant (p < .001) effects that were observed after entering student (blocks 1-3) and institutional characteristics (block 4) were controlled. In this case each college experience is evaluated without respect to any other college experience. Next, for each set of outcomes, we report only those effects that are <u>unique</u> to each college experiences, (i.e., the effects that remain after all college experiences have been entered into the regression). Note that when these college experiences are, in effect, allowed to compete with each other, unique effects of volunteering and service-learning remain. The community / civic outcomes are displayed in Tables 4.4 and 4.5; the political engagement outcomes are in Tables 4.6 and 4.7; the civic values/goals are in Tables 4.8 and 4.9.

Table 4.4: Long-term Impact of College Experiences on Civic Outcomes:

Student Background & Institutional Characteristics Controlled

	2004 Outcome Measure				
College Experience	Volunteer Work (N=7946)	Working in Communities (N=7721)	Civic Leadership (N=8013)	Charitable Giving (N=7664)	Alma Mater (N=8064)
Volunteering	+	+	+	+	+
Service-learning	+	+	+	+	
Reflection: Discuss service experience with other students	+	+	+	+	+
Reflection: Discuss service experience with a professor	+	+	+	+	+
Reflection: Keep a journal	+	+	+		
Enrolled in interdisciplinary course	+	+	+	+	
Enrolled in ethnic studies course	+	+	+		
Student Government	+	+	+	+	+
Attend religious services	+	+		+	+
Major: history/poli sci.	+	+	+		
Major: engineering	-	-	-		
Major: business		-	-		+

* significant at p < .001; a ' + ' indicates a positive relationship, and a ' - ' reflects a negative relationship

Table 4.5: Long-term Impact of College Experiences on Civic Outcomes:

Student Background, Institutional Characteristics and College Experiences Controlled

College Experience	2004 Outcome Measure				
	Volunteer Work (N=7946)	Working in Communities (N=7721)	Civic Leadership (N=8013)	Charitable Giving (N=7664)	Alma Mater (N=8064)
Volunteering	+	+	+	+	
Service-learning			+		
Reflection: Discuss service experience with other students	+				
Reflection: Discuss service experience with a professor		+	+	+	+
Reflection: Keep a journal				-	
Enrolled in interdisciplinary course		+	+		
Enrolled in ethnic studies course	+	+	+		
Student government		+			+
Attend religious services	+	+	+	+	+
Major: history/poli sci.	+	+	+		
Major: engineering					
Major: business		**-**			

* significant at p < .001; a ' + ' indicates a positive relationship, and a ' - ' reflects a negative relationship

Table 4.6: Long-term Impact of College Experiences on Political Engagement Outcomes:

Student Background & Institutional Characteristics Controlled

College Experience	2004 Outcome Measure				
	Political Activism (N=7776)	Political Expression (N=7958)	Comm to Poli/ Social Change (N=8064)	Voting (N=7999)	Overall Political Engagement (N=7586)
Volunteering	+	+	+	+	+
Service-learning		+	+		+
Reflection: Discuss service experience with other students		+	+	+	+
Reflection: Discuss service experience with a professor	+	+	+	+	+
Reflection: Keep a journal			+		
Enrolled in interdisciplinary course	+	+	+	+	+
Enrolled in ethnic studies course	+	+	+	+	+
Student Government	+	+	+		+
Attend religious services					
Major: history/poli sci.	+	+	+	+	+
Major: engineering		-		-	-
Major: business	-	-	-		-

* significant at p < .001; a ' + ' indicates a positive relationship, and a ' - ' reflects a negative relationship

Table 4.7: Long-term Impact of College Experiences on Political Engagement Outcomes:

Student Background, Institutional Characteristics and College Experiences Controlled

College Experience	2004 Outcome Measure				
	Political Activism (N=7776)	Political Expression (N=7958)	Comm to Poli/ Social Change (N=8064)	Voting (N=7999)	Overall Political Engagement (N=7586)
Volunteering				+	+
Service-learning					
Reflection: Discuss service experience with other students	-				
Reflection: Discuss service experience with a professor		+	+		+
Reflection: Keep a journal		-			-
Enrolled in interdisciplinary course		+			
Enrolled in ethnic studies course		+	+	+	+
Student government	+				+
Attend religious services					
Major: history/poli sci.	+	+	+	+	+
Major: engineering					
Major: business			-		-

* significant at p < .001; a ' + ' indicates a positive relationship, and a ' - ' reflects a negative relationship

Table 4.8: Long-term Impact of College Experiences on Civic Values Outcomes:

Student Background & Institutional Characteristics Controlled

College Experience	2004 Outcome Measure		
	Pluralistic Orientation (N=8139)	Self - Efficacy (N=8020)	Promoting Racial Understanding (N=7947)
Volunteering	+	+	+
Service-learning			
Reflection: Discuss service experience with other students		+	+
Reflection: Discuss service experience with a professor	+	+	+
Reflection: Keep a journal		+	+
Enrolled in interdisciplinary course	+	+	
Enrolled in ethnic studies course	+		+
Student Government		+	
Attend religious services		+	
Major: history/poli sci.	+	+	
Major: engineering		-	
Major: business	-		-

* significant at p < .001; a ' + ' indicates a positive relationship, and a ' - ' reflects a negative relationship

Table 4.9: Long-term Impact of College Experiences on Civic Value Outcomes:

Student Background, Institutional Characteristics and College Experiences Controlled

College Experience	2004 Outcome Measure		
	Pluralistic Orientation (N=8139)	Self-Efficacy (N=8020)	Promoting Racial Understanding (N=7947)
Volunteering		+	
Service-learning		-	
Reflection: Discuss service experience with other students			
Reflection: Discuss service experience with a professor			
Reflection: Keep a journal		+	
Enrolled in interdisciplinary course	+		
Enrolled in ethnic studies course	+		+
Student Government			
Attend religious services			
Major: history/poli sci.	+		
Major: engineering		-	
Major: business			

* significant at p < .001; a ' + ' indicates a positive relationship, and a ' - ' reflects a negative relationship

Discussion of Overall Findings

The findings thus present a mixed picture for service-learning. On the one hand, service-learning has a lasting impact for most of the civic engagement *behaviors* even after accounting for entering student characteristics and institutional differences. However, service-learning does not remain a significant predictor of most civic engagement outcomes once other college experiences – most often generic volunteer work –are accounted for. Keep in mind, moreover, that the positive effect of service-learning on Civic Leadership is <u>mediated</u> by other college experiences and that generic volunteerism does <u>not</u> explain its effect.

Notably, however, the pedagogical components that are generally regarded as critical to a well-designed service-learning experience do retain their lasting impact on civic engagement outcomes even when all other college experiences are controlled (Tables 4.4 through 4.9). Service-learning experiences, of course, consist of a service component and a reflection component tied to a learning objective. Thus it is interesting that while generic volunteer work / community service has a unique and lasting effect on all four civic outcomes, certain forms of reflection (the form varies depending on the outcome) also have unique and lasting impacts, even though service-learning courses as such do not make a unique contribution. Apparently, reflection during college makes a unique contribution to post-college civic engagement, regardless of whether or not it occurs in connection with a formal service-learning course.

There are several possible explanations for this key finding. Minimally, we want to present some caveats to keep in mind when interpreting the findings. But we also want to explore why it is that service-learning had clear and unique (if modest) effects during

the short-term (Astin et al., 2000), but doesn't emerge as having a unique impact over the longer term.

First, it may simply be that service-learning doesn't have a lasting impact, beyond the fact that it is one of several forms of volunteer work. However, recall that since our service-learning measure - a simple dichotomy - does not reflect the quality of the courses taken, our estimates of the impact of service-learning are probably very conservative. In 1998 (near the end of students' college years), we simply asked students whether they had participated in community service as part of a course. Including reflection variables helps us understand one aspect of course quality, but there are other important features of a well-designed service-learning course, such as connecting the course material and the service experience, that we did not assess. And, even though we ask students how often they performed service, we do not know the intensity (frequency of service activities) or duration of service-learning courses themselves.

Another explanation has to do with the scale of the service-learning measure. As a dichotomous measure that equates students who took one short-term course with those who took several intensive courses, it has considerably less variance than some of the other measures of other college experiences, including generic volunteer work measure (which is a five-point scale that combines responses to two separate survey items). As a result, our service-learning measure will tend to show lower correlations with the dependent measures than one that better reflects the students' degree of involvement in service-learning experiences.

Finally, recall that for this study, service-learning participation occurred during participants' undergraduate years - the mid 1990s (1994-1998). In the last dozen years

much energy has been devoted to improving and deepening the practice of service-learning, and many more colleges now have administrative structures in place to support faculty members engaged in the practice. Support & training was much less prevalent in the mid 1990s, when the service-learning movement was still gaining momentum.

We would also like to point out that the results of this study should not be construed as a kind of "competition" between service learning and generic service, primarily because we designed our variables and our analysis in such a way as to "favor" generic service over service learning. We could, for example, have included only a simple measure of service learning in our analysis and no measure of generic service, in which case we would have concluded that service learning has significant effects on many other outcomes besides Civic Leadership. However, we chose instead not only to add generic service to the analysis, but also to include service learning as one form of generic service. We thus gave generic service primacy in the analysis, for at least two reasons: (1) because generic service has been shown in several earlier studies to have significant effects on a number of student outcomes and (2) in order to apply the time-honored scientific principle of parsimony: explaining findings in terms of a single variable (generic service) is preferable to explaining the same findings in terms of two variables.

To test the possible advantage of having a more nuanced measure of generic service (with scores ranging from 2 to 6) in contrast to the simple dichotomous measure of service learning, we created three groups: students who experienced service learning, students who participated in community service but not in service learning, and students who experienced neither. In effect, this reduces generic service to a simple one-category measure that excludes service learning. We then compared the three groups on each of

the items used in the various outcome measures that were significantly affected by either

service learning or generic service. As would be expected, the two service groups scored

higher than the non-service group did on virtually every item. However, the service

learning group also scored higher than the generic service group did on most of the items.

What this suggests is that generic service tended to produce stronger effects in the

multiple regression analyses than did service learning because we were able to construct

a more nuanced measure of it. In other words, service learning would in all likelihood

have shown stronger effects if we had been able to assess *how much* service learning each

student experienced.

Detailed Analyses of Specific Outcomes

This section delves more deeply into the 13 different regressions run for this

study, with each discussion focusing on the direct and indirect relationships between

service-learning and the outcomes. Recall that the 13 outcomes are clustered in three

thematic groupings: Community/civic engagement (civic leadership, working with

communities, volunteerism, charitable giving and involvement with alma mater);

Political engagement (general political engagement and its four subfactors: political

activism, political expression, commitment to political/social change, and voting

behavior); Civic values/goals (pluralistic orientation, self-efficacy, and goal of promoting

racial understanding).

Community/Civic Engagement

Volunteer Work

Although we assessed many forms of community engagement that might be perceived as "volunteering," for the purposes of having a precise 'post-test' measure of volunteer work in 2004 we asked participants how often they engaged in volunteer work during the past year (frequently, occasionally, or not at all), and, at a different point in the survey, how many hours per week they engaged in volunteer work during the past year (responses could range from 'zero' to 'over 20.') We asked these same two questions in 1994, in 1998, and in 2004. As noted in the section describing our variables, these variables were combined to create the dependent measure of Volunteer Work.

Service-learning during the college years has a modest simple correlation with alumni participation in volunteer work in 2004 (r = .09). Service-learning participants, then, report somewhat higher levels of volunteering in the post-college years than those who didn't participate in service-learning. But is the higher level of volunteer work reported actually *caused* by participation in service-learning during college?

One major strength of this study is our ability to analyze whether such simple correlations are caused specifically by service-learning participation, or whether the positive relationship is instead reflecting the effects of other variables that happen to be related to participation in service-learning. Other variables that could be impacting the frequency of one's post-college volunteer work are many, but several of the most likely candidates are (1) pre-disposing (i.e. pre-college) characteristics that lead students to enroll in service-learning courses. (Students who volunteer during high school, for example, are also more likely to (a) engage in volunteer work post-college, and (b) take

service-learning courses during college); and (2) some other college activity –such as generic volunteer work (students who volunteer during college are more likely to volunteer after they leave college).

We can explore the first possibility – that students who participate in service-learning are pre-disposed to do more volunteer work regardless of college experiences – by examining whether service-learning remains a significant predictor of post-college volunteer work once we have controlled for the effects of demographic characteristics and high school experiences in the first blocks of the regression model. Indeed, the positive effect of service-learning, though diminished in strength, remains with a 'Beta-in' value of .05 (p < .001) after demographic characteristics, pre-college characteristic, and high school experiences (including service participation) are controlled. Although service-learning did not enter this particular regression analysis, by examining the 'Beta-in' values we can see what the Beta value would have been if service-learning had entered the regression at various points. For example, because we see a decrease in the correlation from .09 to .05 when pre-college variables are controlled, we can say that some but not all of the correlation between service-learning and post-college volunteer work is due to predisposing characteristics and experiences (i.e., to self-selection).

Examining the multiple R (a measure of how much of the dependent measure is explained by variables in the equation), we see that although high school service contributes to the total variance explained, values and beliefs at the time of college entry and college experiences also add to the predictive power of the model (Appendix F). As we turn to the second possible explanation for the positive relationship between service-learning and post-college volunteer work, more light is shed on this issue.

The second possibility – that another college experience is positively related to both service-learning and post-college volunteer work, is explored by examining the fifth through seventh blocks of the regression model, where we enter college experiences, including service-learning and volunteer work, and the reflection variables. College volunteering enters the equation first, meaning that it is the stronger predictor of post-college volunteering (Table 4.1). Again, this is not surprising since it is a pre-test of volunteering in 2004, as is high school volunteering. However, once college volunteering enters the equation, the coefficient for service-learning is no longer significant, and thus does not enter the regression. In practical terms, this means that service-learning is positively associated with post-college volunteer work because it is a form of volunteer work.

Interestingly, although volunteering accounts for the impact of service-learning on post-college propensity to participate in volunteer work, one of the reflection variables – discussing one's (college) service experience with other students – also has unique effects, with a Beta value of .06 after college experiences have been controlled (Table 4.4). This suggests that when students participate in co-curricular service experiences, the act of discussing their experience with other students reinforces and strengthens their long-term commitment to voluntarism. This is confirmed because we see the Beta value for volunteering drop (from .20 to .17) when the discussion variable enters the regression model.

Here we should point out that students' volunteering/community service experience during the college years is the variable with the highest simple correlation with the outcome measure (.29), and also retains the highest Beta value at the end of the

regression model (.15). Still, other college experiences are significant too, including frequency of attending religious services, participating in cross-racial interactions, enrolling in an ethnic studies course, and attending a racial or cultural awareness workshop. The relatively strong effect of attending religious services (final Beta = .09) suggests that affiliation with a religious organization provides more opportunities and/or incentive for engaging in community service.

Civic Leadership

Service-learning appears to have a unique effect on young adults' decisions to play leadership roles in their communities. Service-learning's effect on this measure (a single survey item measuring how often one has played a leadership role in improving one's community since leaving college) remains significant even after entering student characteristics, institutional characteristics and generic volunteer work are controlled. This effect of service-learning appears to be mediated by reflection. Service-learning students are more likely to discuss their service experience with a professor than are students who have not participated in service-learning. Once this reflection variable enters the regression, service-learning becomes non-significant and remains non-significant as other college experiences are entered. In other words, service-learning has a positive effect on civic leadership after college because it affords students an opportunity to reflect on the service actively with the professor.

The fact that service-learning seems to enhance post-college civic leadership is noteworthy because many higher education institutions are explicitly committed to cultivating "future leaders."

Other college activities that positively predict post-college civic leadership include participating in leadership training, enrolling in an ethnic studies course, taking an interdisciplinary course and attending religious services. Majoring in the social sciences or history/political science is also a positive predictor of post-college civic leadership.

Working with Communities

As we have noted earlier, this study seeks to explore a range of civic engagement behaviors among college alumni. Working with communities describes a specific set of possible activities that revolve around improving one's local community. As such, the measure captures activities that are self-interested, but that also have a potentially broad impact. The measure is somewhat more specific than our measure of volunteer work (which simply asks how often one has volunteered in any capacity). Working with Communities is a composite measure, including the following six items from the Post-college Follow-up Survey (see Table 2.4 for response scales and a description of the factor loadings).

Frequency of:

- working on a community project with a government agency
- working with others to solve a community problem
- playing a leadership role in improving one's community
- participating in a community/ neighborhood group
- *goal: becoming a community leader*
- *goal: participating in a community action program*

The last two items noted – both of which reflect values rather than behaviors – were pre-tested in 1994. While none of the behavioral items was pre-tested directly, several items on the pre-test are strongly correlated with this dependent measure, as we shall explain.

Like a number of the other outcomes we are exploring, working with communities has a modest positive relationship with service-learning (simple r = .09). However, the effect of participating in service-learning during college is accounted for when generic volunteering is entered. Both volunteering and one form of reflection – discussing the service experience with one's professor – remain significant after other college involvements have entered the regression.

In addition to volunteering and discussing one's service experience with a professor, several other college involvements appear to have unique positive effects on one's post-college propensity to be involved working with one's community. In particular, attending a racial/cultural awareness workshop, enrolling in an ethnic studies or interdisciplinary course, attending religious services, and being in student government all show independent effects on this outcome. Given the 'hands-on' nature of the items that compose the working with communities measure, it is not surprising that participating in a range of college involvements would enhance such post-college commitments. Taking an ethnic studies or interdisciplinary course may also contribute to post-college work with communities because such courses may help to make students more aware of community problems and issues that need attention. Additionally, majoring in social science, or history/political science increases the likelihood of working with communities in the post-college years, while majoring in business is a negative predictor.

Charitable Giving

Recall that the charitable giving outcome is a composite of young adults' monetary donations to three types of organizations: an educational organization, a human services or community services organization, and other non-profit organizations. Service-learning

has a positive impact on charitable giving after controlling for entering student characteristics, high school experiences and institutional characteristics. Its effect becomes borderline ($.001 < p < .01$), however, once volunteering is entered in the model. Because the confidence level is borderline, these findings are to be interpreted with great caution; however, we want to explore some possible reasons for this effect.

There are several possible explanations as to why participating in service-learning during college might have a lasting impact on charitable giving. It may well be that participating in service as part of an academic course helps to raise students' awareness of the importance of non-profit work in communities. Note that performing service during college (generic volunteering) has positive effects on charitable giving and volunteering after college. But it is worth considering that even if service-learning participants don't get involved, they may have been exposed to deeper policy issues as part of a course, and might be more likely to feel that financially supporting organizations is effective.

On the other hand, it may be that giving money (when coupled with comparably less involvement in terms of time) is something these early-career adults are doing as a substitute for direct volunteer work.

We should also note here that the charitable giving outcome does not have a direct pre-test. We don't know specifically the extent to which these graduates were inclined to give money to charities at the time of college entry. Still, we have been able to control for dispositions that are correlated with charitable giving, notably gender, high school volunteer work, self-rated leadership ability at college entry and participation in religious services.

Even after controlling for college involvements, we find that women are significantly more likely than are men to give to charities. Self-rated leadership ability at the time of college entry also remains a significant predictor, as does attending religious services during college, higher levels of academic interactions, participating in internships, attending a racial/cultural awareness workshop, and joining a fraternity or sorority. Along with volunteering during college, discussing one's service experience with one's professor is also a positive predictor of post-college charitable giving. It is not clear why keeping a journal has a small (but statistically significant) negative impact on charitable giving. Majoring in the biological sciences, the health professions, or journalism/communications has a negative effect on charitable giving. In any case, with only 14% of the variance explained by the 27 variables that entered the regression, there are clearly other factors that determine one's propensity to give to charitable causes.

Involvement with Alma Mater

Service-learning does not enter the regression for our composite measure of post-college involvement with one's alma mater. Recall that this measure consists of doing the following with one's undergraduate institution since leaving college: attending a sports event; attending a cultural or intellectual event (e.g., play, lecture); attending an alumni event; donating money, using an alumni organization service; and recruiting new students to the college. Clearly there other experiences in college that are more likely to predict one's post-college involvement with the institution.

In terms of college involvements, the strongest unique predictor (after controlling for other college experiences) is joining a fraternity or sorority, not surprising given that participation in Greek life tends to be a relatively intense experience of involvement for

undergraduates, and one that connects one to one's institution as well as to a fraternity or sorority,. Students who participate in internships, student government, and racial/cultural awareness workshops, attend religious services, and those who engage in more academic interaction are also more likely to be involved with their alma mater. Generic volunteer work is a positive predictor until we control for other college experiences, at which point it becomes non-significant. However, discussing one's service experience with a professor remains a positive predictor of post-college alumni involvement, even when other college experiences are controlled. Psychology majors tend to be less engaged with their alma mater, once other college experiences are controlled.

Other predictors of post-college involvement with one's undergraduate institution include institutional selectivity, and the mean level of intellectual self-esteem among the entering class. These two measures are related, to be sure, yet each retains a significant positive effect on this dependent measure. Attending a more selective institution increases students' chances of being involved with their alma mater in the early career years. By contrast, attending a public four-year institution is negatively associated with post-college involvement with one's alma mater.

Political Engagement

General Political Engagement

General Political Engagement is a composite measure consisting of the sum of 19 items that can be further disaggregated into four types of engagement: political activism, political expression, commitment to political and social change, and voting. In this section we describe first the results of the 'overall' political engagement measure, and

then results for each of the four subscales (see Chapter Two for a complete description of the survey items).

Both service-learning and volunteer work are significant predictors of political engagement after we control for entering student demographics, high school experiences, institutional characteristics and peer measures. Two measures of reflection are also significant to this point: discussing the service experience with one's professor and discussing the service experience with other students. However, when volunteering enters the regression, the effects of service-learning are reduced to a borderline level of significance $(.001 < p < .01)$. When discussing the experience with one's professor enters, the effect of student discussions disappears. Once other college experiences are controlled, both volunteering and reflecting with one's professor remain significant. That is to say that volunteering and discussing that experience with one's professor show unique effects on one's post-college propensity to be engaged in political activities that cannot be explained by other college experiences.

Not surprisingly, one's disposition toward keeping up to date with political affairs, discussion politics, and volunteering in the pre-college years are also positively associated with post-college volunteer work, even after we account for college activities. Similarly, one's self-rated academic ability also remains a positive predictor.

Majoring in history/political science has a positive impact on post-college engagement, as do attending a racial / cultural workshop, taking ethnic studies or interdisciplinary courses, having cross-racial interactions, and participating in student government. Joining a sorority or fraternity during college, living on campus during the

freshman year, and majoring in business or the health professions each show a modest but statistically significant negative effect on post-college political engagement.

The four subscales of political orientation show similar patterns of predictors, yet they are also distinct from one another in modest but interesting ways.

(1) Political Activism

For the political activism measure, service variables play out in similar ways to the patterns we see for overall political engagement. Service-learning's effect is borderline $(p < .01)$ until volunteering enters the regression, at which point service learning is wiped out. Again discussing one's experience with a professor is the reflection variable that enters the equation. Other college experiences also have similar patterns of effect: majoring in history/political science is a positive predictor, as is attending racial/cultural awareness workshops, participating in student government, and cross-racial interactions. Majoring in the humanities/English has a small positive effect. Enrolling in an ethnic studies course does not contribute (uniquely) to increasing the level of one's activism post-college, and again we see living on campus showing a small negative effect. Attending a four-year public college also decreases the likelihood of reporting higher levels of political activism in the post-college years. Once other college involvements are controlled, generic volunteering falls to borderline significance $(.001 < p < .01)$, a pattern we shall see in the next two subscales as well.

(2) Political Expression

Like political engagement in general, service-learning is positively associated with the outcome of political expression until generic volunteer work enters the regression. Volunteer work remains a positive predictor until other college experiences

are controlled, at which point the coefficient for volunteering is borderline significant. Again, discussing one's service experience with one's professor remain significant predictors of the outcome even after accounting for other college experiences. The effect of other college experiences follows the same patterns as for overall political engagement, with attending a racial/cultural awareness workshop, enrolling in an ethnic studies or interdisciplinary course, or majoring in history/political science, all displaying positive relationships with political expression once other college activities are controlled. Joining a fraternity or sorority, majoring in education or the health professions each have negative effects.

(3) Commitment to Political/Social Change

Post-college commitment to political and social change is influenced by participation in volunteer work and service-learning in the same ways that general political engagement is, with discussing the experience with one's professor once again emerging as a positive factor. However, once other college activities are controlled, volunteering is no longer a unique predictor of this measure of commitment. Fewer college activity have a unique impact on the outcome, perhaps because this outcome has more pre-tests than the other political engagement outcomes, and these pre-test (values and goals) account for a good deal of the predictive power of the regression model.

Enrolling in an ethnic studies course, participating in a racial/cultural awareness workshop, and majoring in history/political science each have unique (positive) impacts on the participants' post-college levels of commitment to political and social change. By contrast, majoring in business as an undergraduate has a fairly strong (final Beta = -.09) negative effect, and living on campus again has a modest negative effect.

(4) Voting Behavior

For post-college voting behavior, the service variables show the same pattern of effects as was found for the political activism subscale, with service-learning having a borderline effect until volunteering enters the regression. For voting, however, no reflection variables enter the model. College activities show a slightly different pattern here, with performing generic volunteer work, participating in a racial/cultural awareness workshop and enrolling in an ethnic studies course being the only activities with a significant (unique) positive impact., Whereas attending a public four-year institution, decreases the likelihood of political activism, it increases the student's chances of voting as young adults. Finally, as with other political outcomes, participating in a fraternity or sorority is a negative predictor, and majoring in history/political science is positively associated with post-college voting.

Civic Values/Goals

Pluralistic Orientation

Recall that pluralistic orientation is a composite measure derived from the following self-ratings: ability to discuss and negotiate controversial issues; ability to see the world from someone else's perspective; openness to having one's views challenged, and tolerance of others with different beliefs. Pluralistic orientation was assessed in 2004, but has no pre-tests, since these items were not asked in 1994 or 1998.

Volunteering is a significant predictor of pluralistic orientation until other college experiences enter the model; at which point it becomes non-significant. Neither service-learning nor any of the reflection measures enter the model, but discussing one's service experience with a professor is significant until volunteering enters the regression, at which point it becomes non-significant. The relationship between generic volunteering and the reflection measures is discussed in the section on self-efficacy (below).

College experiences that strengthen one's pluralistic orientation include cross-racial interactions, enrolling in a women's study course or ethnic studies course, and taking interdisciplinary courses. Majoring in history/political science or psychology also appear to strengthen one's pluralistic orientation, whereas majoring in physical/computer sciences has a negative effect.

Several demographic characteristics predict pluralistic orientation. Men are more likely to rate themselves higher on the measure, and being male is a positive predictor of pluralistic orientation even when other demographic characteristics, high school experiences, values and beliefs, and college experiences are controlled. Higher levels of post-college pluralistic orientation are also associated with high freshman self-ratings on

cooperativeness and creativity, discussing politics in high school, talking with one's teacher, and speaking a language other than English as home. Pluralist orientation in 2004 is also positively predicted by the students' political orientation when they entered college ten years earlier, with more liberal students subsequently rating themselves higher on pluralistic orientation as adults.

Self-efficacy

A single survey item measured self-efficacy –the belief that one has the power to make a difference. Participants were asked to rate their agreement with the statement: *Realistically, an individual can do little to bring about changes in our society.* Responses were reverse coded, so that a high score (rejecting the proposition) indicates self-efficacy. Not surprisingly, the 1994 and 1998 pre-tests of self-efficacy have the strongest simple correlations with the outcome measure (simple correlations are .23 and .32 respectively). Both pre-tests of self-efficacy remain significant at the final step of the regression with Beta values of .16 and .22, respectively.

Participating in service-learning has a positive simple correlation (.05) with one's post-college sense of self-efficacy. Once we control for students' characteristics and beliefs (including self-efficacy) at the time of college entry, the relationship between service-learning and post-college self-efficacy becomes non-significant. Recall that in the previous study (Astin et al., 2000) service-learning became a non-significant predictor of self-efficacy only after community service participation (generic volunteering) was controlled.

In contrast, community service participation is positively associated with post-college self-efficacy even after we control for students' entering sense of self-efficacy and other

college activities. Furthermore, the reflection variable of keeping a journal makes a unique positive effect on post-college self-efficacy. This is particularly interesting since reflection activities are more often associated with service-learning that with generic volunteer work. This finding reinforces the notion that reflecting on one's experience is an important part of strengthening the impact of service, regardless of whether the experience is course-based.

The only college experience that predicts self-efficacy better than volunteering (final Beta = .07) is discussing politics during college (final Beta =.10). Several other college experiences are more modest unique predictors of the self-efficacy outcome: participating in leadership training or a racial/ethnic student organization. Majoring in the physical sciences or engineering are negative predictor's of one's post-college sense of self-efficacy, and majoring in psychology is a positive predictor.

Commitment to Promoting Racial Understanding

Commitment to promoting racial understanding is measured by a single item from a list where students are asked to rate the importance of a number of goals. The four-point response scale ranges from 'not important' to 'essential.' The same survey item was first included in 1994 at the time of college entry and again in 1998 and 2004.

The correlations of the outcome measure with the 1994 pre-test (.37) and the 1998 pre-test (.52) are the strongest of all simple correlations, but service-learning becomes non-significant after we control for the 1994 pre-test and other entering student characteristics and high school experiences. In other words, the positive relationship between service-learning and post-college commitment to racial understanding (r = .07) is accounted for by the fact that students who take service-learning courses during

college, compared to those who do not take such courses, entered college with higher levels of commitment to promoting racial understanding.

Volunteering during college is a significant predictor of commitment to promoting racial understanding even when high school experiences, institutional characteristics and demographic variables are controlled. However, when the reflection measure of discussing one's service experience with other students enters the model, volunteering is no longer a significant predictor. It appears, then, that volunteering strengthens students' commitment to promoting racial understanding because it increases the likelihood that they will discuss their experience with other students. Here again we see the connection between service in general and reflection (see the discussion on self-efficacy).

A number of diversity-related college activities strengthen alumni commitments to promoting racial understanding. Cross-racial interactions, taking part in demonstrations, enrolling in an ethnic studies course, participating in racial/cultural awareness workshops, discussing politics, and majoring in psychology are all positive predictors. Joining a fraternity or sorority has a slight negative impact on strengthening commitment to promoting racial understanding.

Black alumni have significantly more commitment to promoting racial understanding than do non-Blacks; no other demographic characteristic remains significant. In fact, next to the pre-test the measure of student's commitment to racial understanding at the time of college entry, being Black is the strongest predictor of this outcome.

Chapter Five

Background: Faculty Survey

Thus far our report has been concerned with how service learning (and other experiences) during the college years has shaped the experiences and beliefs of young alumni during the post-college years. If we are concerned over the role of higher education in shaping a more engaged citizenry, we must also examine the role of the faculty in shaping the curricular experiences students will have, and in creating an institutional culture that values connections between communities and campus.

Our interest in the role of faculty includes how it provides rich classroom environments and opportunities for students to become engaged in community work, but goes beyond this curricular role. As higher education has faced scrutiny over its relevance to contemporary challenges, we are interested in the role that the faculty plays in responding to community and social needs directly, as well as through educating students.

The current concern with strengthening the role of colleges and universities' engagement with local communities and addressing contemporary challenges in our society grew out of a variety of forces shaping higher education in the past two decades. Soaring costs of college during the early 1980s, accompanied by decreasing financial aid led to an atmosphere of increased accountability for undergraduate educational outcomes. During this same period, initiatives and research focusing on undergraduate education and teaching challenged traditional notions of scholarship, and have broadened our understanding of meaningful work in the academy.

In particular, Ernest Boyer's work at the Carnegie Foundation for the Advancement of Teaching, documented in *Scholarship Reconsidered*, has challenged traditional notions of scholarship as being too narrowly defined. Boyer articulated a framework that broadened the notion of scholarship as it had been viewed – synonymous with being a tenured faculty member engaged in (basic) research and publication – to include not only the scholarship of discovery, but also the scholarships of integration, application, and teaching (1990, p. 15). Boyer argued that a broader conceptualization of scholarship was a more accurate reflection of how knowledge is developed.

Around the same time that Boyer and his colleagues were studying the roles of faculty members and expanding notions of scholarship, a national movement around higher education and community service was gaining momentum. Indeed, the precursors to what we now call service learning had been evolving at least since the 1960s, with a professional home in the National Society for Experiential Education (Stanton, Giles & Cruz, 1999).   In 1984, Campus Outreach Opportunity League (COOL) was formed by recent college graduates concerned with their generation's reputation of being self-centered and materialistic. Similarly, growing out of perceptions that young adults during the 1980s were increasingly disengaged in their communities and more materialistic than ever, several presidents of elite colleges and universities formed a national organization - Campus Compact- that now has over 900 college and university president members who have committed their institutions to providing service opportunities for students. Since its inception, Campus Compact has supported numerous institutional stakeholders (faculty, departments, administrators, students) as they seek to strengthen the linkages between institutional work and community-based work.

It is important to note here that although both of these broad efforts – broadening conceptualizations of scholarship and strengthening community service - focused in some manner on college students, their intended aims were distinct. In the first instance the focus is on teaching and learning, and in the second instance the aim was to get students involved in service under the assumption that such involvements would lead to creating better, more engaged, citizens. Building on the organizational work of the 1980s and 1990s, current emphasis is on examining not just students, or faculty, but on multiple levels of engagement within higher education, including institutional and community aspects.

In addition to various constituencies organizing themselves to facilitate college students' community service efforts, there have been several initiatives that have spawned scholarly inquiry and institutional action. Soon after *Scholarship Reconsidered* was published, the W.K. Kellogg Foundation, in conjunction with The National Association of State Colleges and Land-Grant Universities, sponsored a Commission on the Future of State and Land-Grant Universities. The Kellogg Commission released what has become a seminal report on the role that colleges and universities have historically played and must play in society (1999). Acknowledging the contributions that higher education has historically made to the public good, the Commission challenged institutions to renew their commitment to addressing the pressing issues of our day. In particular, the Commission noted the perception that institutions of higher education are "out of touch and out of date," and that "despite the resources and expertise available on our campuses, our institutions are not well organized to bring them to bear on local problems in a coherent way" (p. 9).

The Kellogg Commission clearly articulated what had been a growing concern for several decades among some higher education leaders, and concluded that institutions must move towards engagement, which it defined as "institutions that have redesigned their teaching, research, and extension and service functions to become even more sympathetically and productively involved with their communities, however community may be defined" (1999, p. 9).

Following *Scholarship Reconsidered* there has also been increased attention to the work of faculty members and to higher education organizational culture in light of the desire to be more responsive to social concern, more engaged with local communities, and perceived as relevant to broader constituencies. Indeed, it is understood that the core work of the institution – the academic work – is the purview of the faculty and thus faculty work must be at the center of efforts to engage institutions more meaningfully in their communities if it is to be sustained.

There are to-date no large national studies examining the ways in which institutions support engaged scholarship, but previous research has documented that women and faculty of color are more likely to engage in community-service related behaviors, including advising student groups engaged in community service (Antonio, Astin & Cress, 2000; Baez, 2000). Other research has documented that for ethnic minority faculty members in particular, there are perceived obligations to one's ethnic/racial community, and these obligations can be seen as detracting from the kind of individual scholarly work that is rewarded in the professoriate (Tierney & Bensimon, 1996; Turner, 2002; Turner & Myers, 2000).

In a study that explores the ways in which faculty of color and white faculty are committed to the four views of scholarship as articulated by Boyer, Antonio concludes that faculty of color are an important resource for the transformation of the professoriate and the academy (2002, p. 598). Furthermore, he states "in most cases, it is the value orientation that faculty of color bring to the academy that distinguishes their greater involvement in, and support of, activities reflective of the scholarship of teaching, integration, and application" (p. 598).

The studies just mentioned point to the centrality of values in motivating faculty participation in engaged scholarship, even though the authors note that the review process is for the most part best at evaluating more traditional forms of scholarship. O'Meara (2002) finds that faculty values also play a role in resisting the assessment of service as scholarship, thereby expressing support for traditional forms of scholarship. Such faculty values are rooted in the desire to make the institution more prestigious according to traditional ranking systems, and to be more prestigious means they don't want to be seen as rewarding the scholarship of service (O'Meara, 2002).

The research undertaken in this study aims to describe the ways in which faculty members are undertaking engaged scholarship, and the extent to which values and attitudes towards engagement vary according to discipline and institutional type. This information can inform the efforts underway to understand and reward multiple ways that institutions are and might be involved in local communities.

Chapter 6

Method: Faculty Survey

Faculty Survey Development and Administration

The HERI faculty survey has been administered triennially to faculty across the nation since 1989. The survey instrument collects demographic as well as biographical information, and is focused on faculty procedures and practices, professional priorities, opinions and perceptions of the institution, and satisfaction ratings. It is designed to provide colleges and universities with timely information about the attitudes, experiences, concerns, job satisfaction, workload, teaching practices, and professional activities of these faculty and administrators. At the same time, aggregate data are used to conduct numerous national studies of interest.

When our Atlantic Advisory Board recommended that we convene a working group to develop the service-learning and civic engagement items for the faculty survey, the HERI leadership was simultaneously considering convening an advisory group for the entire faculty survey. The working group, which became the Faculty Survey National Advisory Board, convened in January 2004 to discuss proposed and potential survey items. We thus integrated our efforts with other HERI staff to produce a survey with a comprehensive set of indicators of faculty engagement. These combined efforts have helped produce the largest institutional participation numbers (N=511) in the history of the triennial faculty survey.

HERI Faculty Survey Working Group/ National Advisory Board:

- *Ann Austin*, Professor, Michigan State University
- *Alan Bayer*, Professor, Virginia Polytechnic Institute & State University

- *Larry Braskamp*, Senior Fellow, American Association of Colleges & Universities and Professor Emeritus, Loyola University of Chicago
- *Amy Driscoll*, Associate Senior Scholar, Carnegie Foundation for the Advancement of Teaching
- *Barbara Holland*, Senior Scholar, Indiana University-Purdue University Indianapolis and Director, National Service-Learning Clearinghouse
- *R. Eugene Rice*, Former Scholar-in-Residence, American Association for Higher Education and Director of AAHE's Annual Faculty Roles and Rewards Conference

We also worked with Campus Compact to increase participation in the Faculty Survey by publicizing to institutions that this year included an emphasis on faculty and institutional engagement. There was space on the Faculty Survey for individual institutions to add a limited number of their own items – in addition to the standard questions. Subsequently, in conjunction with Campus Compact, we decided to develop supplemental questions that any individual institution could use to specifically assess service-learning and civic engagement among faculty on its campus. These items were posted on the Campus Compact website. All registered institutions were invited to use the supplemental questions if they so chose.

Sample

The data for this study were collected in the fall and winter of the 2004-2005 academic year, as part of the Higher Education Research Institute (HERI) triennial survey of college and university faculty. Detailed descriptions of the data collection and weighting procedures for the 2004-2005 Faculty Survey, are available in The American College Teacher (Lindholm, Szelényi, Hurtado, and Korn, 2005).

Of the 172,051 questionnaires mailed out to faculty at 417 two- and four-year colleges and universities across the country, 65,124 usable faculty surveys were returned, reflecting a 38% response rate. The final sample used for this study consists of 40,670 faculty members, which is a normative subset of the overall sample that includes full-time undergraduate teaching faculty from institutions with a representative number of respondents. Multi-stage weighting procedures were applied in order to approximate as closely as possible the results that would have been obtained if all college and university teaching faculty in all institutions had responded to the survey (Astin, Korn, & Dey, 1991).

The Faculty Survey includes a variety of items designed to assess practices of engaged scholarship (including service-learning), beliefs about the importance of civic engagement in the undergraduate curriculum, and perceptions among faculty of the extent to which their institutions valued service and community-based scholarship. Some of the behavioral measures include: teaching a service-learning course, collaborating with the local community in research/teaching, and using scholarship to address local community needs. There are also items measuring attitudes or beliefs such as: importance of instilling in students a commitment to community service, importance of preparing students for responsible citizenship, and the belief that colleges have a responsibility to work with their surrounding communities to address local issues.

Variables

For this study, we explored 10 variables that were grouped into three categories of civic engagement goals, values, and behaviors: 1) civic goals for undergraduates, 2) faculty perceptions about the role their institutions play in their communities, and 3)

engaged scholarship behaviors. The civic goals for undergraduates consisted of two items, which asks faculty to "Indicate the importance to you of each of the following education goals for undergraduate students:" (1 = not important to 4 = essential)

- Prepare students for responsible citizenship

- Instill in students a commitment to community service

We assessed three beliefs about the role institutions should play in their communities. Specifically, faculty were asked to "Please indicate your agreement with each of the following statements:" (1 = disagree strongly to 4 = agree strongly)

- Colleges have a responsibility to work with their surrounding communities to address local issues

- Colleges should encourage students to be involved in community service activities

- Including community service as part of a course is a poor use of resources (reverse coded)

Finally, we explored five engaged scholarship behaviors. Two of the items asked faculty, "During the past two years, have you engaged in any of the following activities?" (1 = no; 2 = yes)

- Collaborated with the local community in research/teaching

- Taught a service-learning course

Another two items queried, "For each of the following items, please mark either Yes or No:" (1 = no; 2 = yes)

- Do you use your scholarship to address local community needs?

- Engaged in public service/professional consulting without pay

And, the last item asked, "In how many of the courses that you teach do you use

each of the following?" (1 = none to 4 = all)

- Community service as part of coursework

The data used in the faculty study are described in Tables 6.1 and 6.2. Gender and racial composition is described in Table 6.1, and the distribution of institutional types is detailed in Table 6.2.

Table 6.1 Description of Final Sample

Gender Composition	Percent
Female	39.4
Male	60.6
	100.0
Racial Composition	
White	84.6
African American/Black	2.4
Asian American	4.2
Latina/o	3.4
American Indian	2.8
Other	3.5

Table 6.2. Institutions in the Study

	Number of institutions	Percent of Total Sample
Public Universities	28	25.0
Private Universities	31	9.5
Public 4-year Colleges	85	23.5
Private 4-year Colleges	96	8.3
Catholic 4-year Colleges	48	3.7
Other Religious college	85	6.2
All 2-year Colleges	48	23.1
HBCU	3	.5
	424	100.0

Chapter 7

Faculty Study Findings

As noted in the previous chapter, the 2004 Faculty Survey was created with an emphasis on the civic engagement values, beliefs and behaviors of faculty members. The survey instrument assessed practices of engaged scholarship (including service-learning), beliefs about the importance of civic engagement in the undergraduate curriculum, and perceptions among faculty of the extent to which their institutions valued service and community-based scholarship.

In this chapter, we examine differences in beliefs and practice across four different groups of faculty members. First, we explore differences in civic values and practices between women and men, followed by an examination across different types of institutions. We then describe differences across faculty ranks, and lastly take a look at disciplinary differences in beliefs and practice. Before examining the differences across institutions and between groups of faculty members, however, we first provide a broad picture of civic values and practices among the professoriate.

Virtually all colleges and universities have stated missions of preparing students for civic life, whether stated in terms of "developing future leaders," "preparing students for a changing society" or "preparing engaged citizens." But what does this mean for faculty work? What do faculty members hold as the most important aspects of their work, and to what extent is there agreement on civic-oriented values across gender, disciplines, faculty rank, and different institutional types?

We know that faculty members are in agreement about the importance of developing academic skills among undergraduates. Among faculty, 99 percent agree that

it is very important or essential for undergraduates to develop the ability to think critically, 94 percent say that helping students master knowledge in a discipline is very important or essential, and 87 percent agree that promoting the ability to write effectively is very important or essential. It goes without saying, then, that developing these academic skills is seen as a critical goal for higher education among faculty members.

There is less widespread agreement among faculty that preparing students for responsible citizenship is very important or essential (61 percent). In other words, while nearly all faculty tend to see instilling disciplinary knowledge, critical thinking and writing skills as important goals, many apparently do not associate such skills with preparing students for responsible citizenship. It may be that preparing students for responsible citizenship is less likely to be viewed as an "academic" activity than developing academic skills traditionally associated with undergraduate education. Still, well over half of faculty members see preparing students for responsible citizenship as a very important goal.

Faculty members distinguish 'responsible citizenship' from 'community service': only 38 percent of faculty say that instilling a commitment to community service is a very important or essential goal for undergraduates. Still, a large majority of faculty members (85 percent) agree that colleges should encourage students be involved in community service activities. Why is there such a discrepancy between the number of faculty members who believe community service opportunities should be provided and the number who consider it an important educational goal? It may be that community service is seen as an institutional concern, perhaps a co-curricular responsibility, but not the responsibility of the faculty.

It may also be that instilling a commitment to community service among undergraduates is seen as an acceptable, but not necessarily important role for faculty members. Few faculty members (19 percent) see the use of community service in coursework as a *poor* use of resources, but less than one in three (32 percent) use community service in at least some of their courses. Reflecting the viewpoint that community service is laudable, but extra-curricular, a good number of the faculty are advising student groups engaged in service/volunteer work (42 percent).

We find similar gaps between faculty beliefs about institutional goals and their own practice when we look at measures of engaged scholarship. For example, many faculty say they value working with communities, but far fewer practice it.   Forty eight percent use their scholarship to address local community needs, and 42 percent collaborate with the local community in research and teaching. Although these figures suggest that significant numbers of faculty members are practicing engaged scholarship, many more – more than four in five (81 percent)-- agree that colleges have a responsibility to work with their surrounding communities to address local issues.

There is also a gap between what faculty feel *should* be an important priority for institutions, and what they view as current institutional priorities. Thus, while 81 percent believe that colleges have a responsibility to work with their surrounding communities to address local issues, just 46 percent believe that their institution places a high priority on creating and sustaining partnerships with surrounding communities. Even fewer (31 percent) say that their institution places a high priority on providing resources for faculty to engage in community-based teaching or research. These findings suggest that while many faculty members value connections between institutions and communities,

significantly fewer make a personal commitment to engaging undergraduate students in community-based work, or view their own institution as making a commitment to scholarly engagement in local communities. In general, then, while faculty members report that they value undergraduate community service, working in communities, and engaged scholarship, they and their institutions are actually engaged in these activities at much lower rates.

Gender Differences in Engaged Scholarship and Service Beliefs and Practice

Women faculty express stronger commitment to all five civic engagement values we examine here. This is not surprising since women tend to report higher levels of commitment to social values than do men in general. Tables 5.1 and 5.2 compare between men and women on two goals for undergraduate education (Table 5.1) and three beliefs about the role institutions should play in their communities (Table 5.2).

Table 5.1. Gender differences: civic goals for undergraduates

	Percent marking 'Very Important' or "Essential"	
	Men	Women
Prepare students for responsible citizenship	56.0	68.4
Instill a commitment to community service	32.8	46.2

Table 5.2. Gender differences: Views on institutional engagement

	Percent marking Agree 'Strongly' or 'Somewhat'	
	Men	Women
Colleges have a responsibility to work with surrounding communities to address local issues	79.2	83.7
Colleges should encourage students to be involved in community service activities	81.9	89.2
Including community service as part of a course is a poor use of resources	24.2	11.9

In addition to being more committed to values that reflect engagement, women are more likely to be engaged with communities as part of their teaching and research (Table 5.3). Men and women tend to engage in unpaid consulting at similar rates, but women are more likely to collaborate with local communities in scholarly ways, and to include a service component in their courses.

Table 5.3. Gender differences: engaged scholarship

	Percent engaging in practice	
	Men	Women
Collaborate with local community in research/teaching	41.1	44.1
Use own scholarship to address local community needs	45.4	52.5
Teach a service-learning course (last two years)	18.7	23.6
Include community service as part of coursework	26.5	39.2
Engage in professional service/ consulting without pay	56.1	55.0

Why women are more likely to practice engaged scholarship might be explained by their stronger commitment to beliefs and values that support such engagement (as we have just demonstrated in Tables 5.1 and 5.2). And as we will see later in this chapter, there are also disciplinary differences in the extent to which engaged scholarship is practiced, and women are more likely than men to be in the disciplines which support engaged scholarship. There is surely a mutually reinforcing dynamic occurring: people who embrace civic and pro-social values tend to choose disciplines which, in turn, reinforce such dispositions, and value applied scholarship (i.e. education, social and applied sciences).

Practices that are now seen as "engaged scholarship" have been seen as a natural fit with some disciplines, and have long history in several fields. We now turn to a closer examination of disciplinary differences.

Engaged Scholarship Across Disciplines

Across all disciplines, substantial numbers of faculty report engaging with local communities in scholarly ways (Table 5.4). Not surprisingly, the applied fields (Agriculture/Forestry, Education, Health Sciences) show the highest percentages of faculty members collaborating with communities in research and teaching, and using their scholarship to address local community needs.

A majority of faculty in 11 of the 14 fields shown in Table 5.4 report engaging in professional service or consulting without pay. Not everyone will agree that such work constitutes "scholarship," but it is a measure of faculty work in a broader sphere, and indeed faculty are engaged in this kind of service to a larger public. With more than half (55.5 percent) of all faculty engaging in professional service or consulting without pay, it is the most common form of engagement for faculty.

Service-learning is practiced less than are other forms of engagement, and the rate at which faculty in different fields use service-learning varies widely. Overall, 20.3 percent of faculty report teaching a service-learning course in the last two years, but the use of service-learning ranges from 11.5 percent among Fine Arts faculty to 31.5 percent of Agriculture/Forestry faculty and 32.3 percent among those in the Health Sciences.

In disciplines where service-learning is used at lower rates, there are some large discrepancies with other community activities. For example, while only 11.5 percent of Fine Arts faculty report using service-learning, 55.0 percent report using their scholarship to address local community needs. Similar differences can be seen among the Business faculty: 16.7 percent used service learning in the last two years, while 45.4 percent report using their scholarship to address local community needs. Obviously, even though most

faculty see themselves as contributing to a greater good in some form or another, the

extent and form of civic involvement varies.

Table 5.4. Disciplinary differences: engaged scholarship

		Percent engaging in practice					
	All	Ag/ Forestry	Biological Sciences	Business	Education	Engineering	English
Collaborate with local community in research/teaching	42.2	53.2	48.9	42.2	58.0	44.6	25.9
Use own scholarship to address local community needs	48.2	62.3	49.9	45.4	63.9	38.9	39.5
Teach a service-learning course (last two years)	20.3	31.5	18.2	16.7	25.2	16.6	17.2
Include community service as part of coursework	30.9	38.1	20.0	31.0	56.9	19.2	22.4
Engage in professional service/ consulting without pay	55.5	73.8	58.8	59.6	69.5	56.5	43.3

Table 5.4. (cont) Disciplinary differences: engaged scholarship

		Percent engaging in practice					
	Health Sciences	History Poli Sci	Humanities	Fine Arts	Math/Stat	Physical Sciences	Social Sciences
Collaborate with local community in research/teaching	52.9	40.8	28.8	46.0	27.7	43.0	42.8
Use own scholarship to address local community needs	59.7	43.2	38.1	55.0	28.8	41.4	54.6
Teach a service-learning course (last two years)	32.3	15.7	16.5	11.5	19.4	18.8	24.2
Include community service as part of coursework	55.2	22.2	21.9	33.8	9.1	12.5	37.8
Engage in professional service/ consulting without pay	57.1	51.5	43.8	67.5	36.4	50.1	56.6

Differences in Engaged Scholarship Across Academic Rank

We turn our attention now to differences in engaged practices across levels of academic rank. One of the more common arguments against the practice of engaged scholarship is that it is less "rigorous" than other forms of scholarship. It is, therefore, not as likely to be recognized or rewarded in the faculty tenure and promotion process in comparison to other forms of scholarship and pedagogy. Do the combined challenges of being more time-consuming and less recognized in the tenure and promotion process tends to discourage assistant professors from using community-service and service-learning in their courses, or make them less inclined to be engaged in their communities in scholarly ways? Apparently not, if the data in Table 5.5 are used as a guide.

Associate professors are slightly more likely than assistant professors are to participate in various forms of engaged scholarship (Table 5.5), but the gaps are not large, and in fact junior faculty members are slightly more likely than associate professors to use community service as part of their courses. Differences between assistant and full professors reveal no consistent pattern.

Junior (assistant and associate) faculty are more likely than full professors are to collaborate with their local communities in research or teaching, to use service-learning, and to include community service as part of their courses. Full professors are more likely than other faculty to engage in professional service or consulting without pay. Presumably the further along one is in one's career, the greater the opportunities (and the higher the demand) for one to be engaged in consulting work, and it appears that senior faculty are participating in pro-bono work in high numbers, with well over 60 percent of full professors participating. The relatively low percent (51.0) of assistant professors who

do pro bono consulting may also reflect the economic realities of being an assistant

professor.

Table 5.5. Engaged scholarship Across Faculty Rank

	Percent engaging in practice					
	All	Professor	Associate Professor	Assistant Professor	Lecturer	Instructor
Collaborate with local community in research/teaching	42.3	40.4	46.9	45.5	35.9	35.6
Use own scholarship to address local community needs	48.2	48.6	49.1	46.8	45.9	49.4
Teach a service-learning course (last two years)	20.7	20.0	22.6	21.1	21.4	18.0
Include community service as part of coursework	31.5	27.2	33.2	33.7	31.6	34.5
Engage in professional service/ consulting without pay	55.7	62.2	59.1	51.0	51.4	45.7

Differences in Engaged Scholarship by Institutional Type

Faculty members at public institutions are more likely than their counterparts at private colleges and universities to be engaged with local communities in scholarly ways (Table 5. 6). This is not entirely surprising, given that public institutions have a clear mandate to serve their communities –however that public gets defined (the city, region. state, etc.).

The public-private gap is least pronounced when it comes to teaching a service-learning course; in fact faculty members at private four-year institutions are slightly more likely (20.8 percent) than their peers at public four-year colleges (20.4 percent) to say they have taught a service-learning class in the last two years. Faculty at public universities were most likely to use service-learning (22.2 percent). These data could be interpreted to suggest that public institutions are indeed fulfilling their public mission, but the absolute level of faculty engagement in community-related activities (generally less than 50%) suggests that many faculty in public institutions are not so engaged.

For three of the measures – collaborating with local community in research and teaching, using scholarship to address local community needs, and engaging in pro-bono professional service and consulting, the differences between public and private university participation rates were over five percent, and greater still – over eight percent – between public and private four-year institutions.

It also needs to be pointed out that many of the public – private differences may be disciplinary in nature, given that public institutions are more likely to offer programs in education, agriculture and the health professions. While faculty at public institutions are more likely than private college faculty to be engaged in their communities through

their research and scholarship, the perceptions that faculty have of their institutional

priorities for such work are mixed (Table 5.7). Faculty at public *universities* are less

likely than their peers at private universities to say their institution places a high priority

on creating partnerships or on supporting faculty teaching and research in the community.

So while public university faculty are slightly more committed to practicing engaged

scholarship, they do not report the same level of institutional support for their work, as

private university faculty do.

In contrast, faculty at public four-year *colleges* and community colleges are more

likely than their colleagues at four-year private colleges & universities to say that their

institution a) places a high priority on partnerships with surrounding communities, and b)

provides resources for faculty to engage in community-based teaching and research.

(Interestingly enough, faculty at public universities produce the lowest percentages of

these last two items.) It appears, then, that faculty at public colleges experience the most

institutional support for community-based work, while those at public universities

experience the least support.

Table 5.6. Engaged scholarship Across Institutional Types

	Percent engaging in practice					
	All	Public University	Private University	Public Four-Year	Private Four-Year	Two-Year
Collaborate with local community in research/teaching	42.3	44.6	38.0	49.8	38.8	36.5
Use own scholarship to address local community needs	48.2	45.9	40.3	53.7	44.9	51.1
Teach a service-learning course (last two years)	20.7	22.2	20.3	20.4	20.8	19.3
Engage in professional service/ consulting without pay	55.7	61.0	54.4	60.7	52.3	48.0

Table 5.7. Differences in Institutional Priorities Across Institutional Types

	Percent Marking 'high' or 'highest' Institutional Priority					
	All	Public University	Private University	Public Four-Year	Private Four-Year	Two-Year
Provide resources for faculty to engage in community- based teaching / research	31.2	26.7	28.0	34.2	31.0	34.5
To create and sustain partnerships with surrounding communities	46.4	35.3	37.1	49.5	40.9	48.2

The Faculty Survey findings present a rich picture of faculty beliefs, values and behaviors with respect to civic engagement. We see differences by gender, rank, discipline, and institutional type. Though we presented these differences separately, they are not unrelated. For example, women are less likely than men to be full professors, so lower rates of engaged scholarship among full professors might be reflecting a gender difference, rather than differences by rank per se. Similarly, since women are more likely than men to be faculty members in the social sciences, education, and the health professions, higher levels of service-learning in these fields might be caused by gender differences. Conversely, women might be attracted to these fields because there is more opportunity to work in communities.

The faculty data yield some interesting implications for practice, and for further research. The strong support among faculty for community service opportunities for undergraduates and partnerships with local communities reflect a consensus that such work matters. What is less clear is that faculty feel a personal responsibility to be engaged scholars - to connect their own work to local issues. Understanding the roles that faculty, administrators, staff and students each play in this work presents a logical 'next-step' for practice. Additionally. Understanding how these roles and responsibilities might vary across institutional types is important work, as the faculty reward structure varies across institutional types.

Further understanding the complex nature of relationships between engaged scholarship, discipline, and institutional type will constitute the next steps in research for the faculty data. These results also show that disaggregating the faculty data by institutional type yields interesting findings on practice and on perceived institutional

priorities. At the same time, some of these institutional differences might be reflecting disciplinary differences, since fields such as agriculture, education and the health professions are more likely to be found at public rather than private institutions. Research that explores institutional differences in context will be important work, as will be studies that understand these institutional differences (i.e. public vs. private) in the context of different kinds of student bodies (i.e. commuter vs. residential campuses, high percentages of under prepared students vs. highly selective institutions, etc.) In sum, multivariate analyses that can better understand the nature of the differences presented here will constitute the next steps in research with these data.

Chapter Eight

Implications, Limitations and Conclusion

As we conclude the study and this report, we address issues that have been part of our research team discussions throughout the project. As some would say, this is the 'so what?' chapter of our report. Here we discuss implications for practice and further research, followed by limitations of the study. We addressed implications and next steps for the Faculty Survey data in the previous chapter, and here we focus on the post-college student data. We conclude by offering our thoughts on what this project can contribute to higher education.

Implications for Practice

This study suggests that performing service-learning and community service can have lasting impacts on graduates in the early career years. We find that service and service-learning are part of a larger collection of college experiences that strengthen engagement in the post-college years. The findings regarding the unique impact of course-based community service are mixed; service-learning has a positive impact on seven post-college engagement outcomes once pre-college characteristics and values, and institutional characteristics are controlled. However, once the effect of generic volunteer work is taken into account, service-learning has a unique (positive) impact only on post-college civic leadership, and possibly on political engagement and charitable giving. This means that, when it comes to post-college outcomes, most of the positive effects of taking a service-learning course appear to be attributed to the fact that service-learning is a form of community service.

Practitioners may be disappointed to read that this study doesn't find large, unique effects of service-learning participation on post-college civic outcomes. As we travel to conferences and meetings around the country, we are regularly asked if our study results can provide the 'evidence' that service-learning practitioners can use to justify greater institutional commitment to service-learning. This study suggests that service-learning can have an impact, but its impact will vary, depending on the outcome of interest. In this study, we have focused on outcomes that shape civic and community engagement.

We can see from this study, and from other research, that the quality of the service-learning experience matters as well. In our study this is evidenced by the fact that the three different reflection measures help 'explain' the impact of service-learning and generic volunteer work. In particular, discussing one's service experience with one's professor turns out to have lasting impact across a variety of engagement measures. For service-learning practice, the clear implication is that the service experience needs to be embedded in the course, not an 'add-on' experience run solely out of a service-learning office. This is not to suggest that faculty members need to be responsible for the administrative aspects of the service experience; rather it is to say that faculty members need to weave the service experience – including discussion/reflection – into the learning goals of the course, and need to help students reflect on their experiences.

We ought not to be surprised that service-learning is not having a unique effect (over and above that of generic volunteerism) on all the outcomes examined. After all, our measure of service-learning assessed the impact of a single service-learning course that included a wide array of college courses that no doubt varied in quality of both teaching and service experiences. Thus our estimates of impact are conservative.

Remember, though, that this limitation existed in the previous (short-term) study of service-learning, and yet service-learning had a unique impact on a number of outcomes (Astin et al., 2000).

Furthermore, for most of these service-learning experiences post-college civic engagement would not likely have been the intended outcome; rather we would expect to see that course goals reflected more immediate, content-learning outcomes. Measuring the impact of a learning experience makes most sense when the instruction is geared toward meeting the course goals.

Nevertheless, what this study examines - civic engagement – is a professed outcome of higher education institutions. What we are really studying is a product of an entire educational experience, in which service-learning clearly plays a role at least for some students. Of course, our findings suggest that in addition to the widespread positive effect of community service in general, other academic and personal experiences also contribute to developing graduates who are engaged in their communities. The pattern appears to be that courses and experiences which likely expose students to diverse and new perspectives have lasting impact, as do those that suggest an experiential component. So in addition to engaging in community service, we see that experiences such as enrolling in an ethnic studies course and enrolling in an interdisciplinary course have an impact across a variety of civic engagement outcomes. Experiences such as study abroad and internships are most likely to have an impact on preparing students for life after college in general, though they were not the focus of this study.

Implications for Research

One of the strengths of this study is that we have been able to isolate the impact of service-learning by controlling for many measures that might lead to self-selection as well as other college experiences that might shape civic engagement in the post-college years. For the civic engagement outcomes we examined, it is clear that students come to college with prior experiences and dispositions that play a strong role in shaping their post-college life choices. By allowing us to control for the potentially biasing effect of such pre-college characteristics, longitudinal studies thus play a critical role in our ability to understand the impact of service learning across many different kinds of students. We are able to see, for example, that performing service during college increases the likelihood that one will continue to be engaged in service during the years after graduation, even after controlling for one's pre-college service experience. This inclination holds true, even though we see an overall decline in volunteer work in the post-college years.

Another advantage of this study is that we have been able to examine the impact of service-learning in light of multiple college experiences. This provides a more realistic assessment of the impact of service-learning in the context of an entire college experience. Had we not examined other college experiences, especially generic volunteer work, we would have limited our ability to understand what it is about service-learning that makes a difference (for those outcomes which service-learning did have a unique impact). The patterns of experiences that shape post-college engagement suggest that service-learning is not a 'silver-bullet' but can be part of a well-rounded educational experience that includes reflective learning and courses that expose students to divergent perspectives.

Further research can build on this study's findings by examining different institutional characteristics. We included several salient organizational contexts, including selectivity, control (public/private) and (for private institutions) affiliation as control variables, but by and large these were not significant predictors of post-college civic engagement (after freshman student characteristics were accounted for). But we can see that institutional culture and context matter by examining the different views of faculty across institutional types. An interesting avenue of research will be to replicate this work by examining other institutional descriptors, with more sophisticated measures of the student body (we used average SAT scores as the measure of selectivity, but it is just one measure of the student body). For instance, does service-learning matter more for students at institutions that primarily serve first-generation college students?

Additional longitudinal research is clearly warranted, using more sophisticated measures of service-learning quality that, for example, would yield further information about the learning in service-learning. This study followed students who experienced college in the mid- 1990s. Since that time the practice of service-learning has been enhanced by greater dissemination of research and models of good practice; the Michigan Journal of Community Service Learning (a peer-reviewed research journal) started publishing in 1994 and the eighteen volume AAHE series on service in the disciplines (written for practicing faculty) was published from 1997-1999 (Zlotkowski). These are but two of the many publications designed to strengthen the pedagogy of service-learning. Campus Compact reports that the number of service programs and institutional

support is increasing as well. In 2004, 92% of its member campuses[7] had an office

dedicated to coordinating service, service-learning, and/or civic engagement activities, up

from 75% in 2000 (Campus Compact, 2004). Since this study captured the national

movement only in its infancy, continued national longitudinal studies are needed to

assess service-learning as it has become more central to meeting institutional goals. In all

likelihood, the practice has improved in recent years.

Anecdotally, we also know that larger numbers of college-bound high school

students are exposed to service-learning before they get to college. The belief in the field

is that this increases the demand for service-learning courses.

Limitations of the Study

A national longitudinal survey such as this one has obvious strengths, but by its

very nature the survey limits our ability to understand as much as we would like about

service-learning experiences, and why participants do what they do in the area of civic

engagement. The biggest practical limitation, already discussed in this report, has been

that our service-learning measure treats a wide range of experiences as equal, assigning

the same value to one-time service experiences and in-depth, extended experiences in the

same way. (The same might be said about our generic service measure, except that it did

attempt to quantify the <u>amount</u> of each student's involvement in the service experience.)

This dichotomous measure has statistical limitations (see data analysis section of this

report), as well as practical limitations. Furthermore, although we examine measures of

reflection, other measures of quality are not examined, such as weather the service was

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[7] Campus Compact is a membership organization with over 900 institutional members. As such these data are not nationally representative, but do provide a sense of change over time across many different types of institutions in the United States.

well-connected to course learning or not, or whether the partnerships created between campus and community reflected what is now known as best-practices.

We have struggled to capture a wide range of post-college civic engagement measures, but here again survey research limits our ability to delve into particular experiences with participants. This research should be understood in light of other studies that have examined particular experiences (i.e. political engagement) in greater depth.

This study is limited to college graduates, and 'fast-track' graduates at that. All findings should be understood in light of this limitation. This particular population entered college as first-time full-time freshman, were still enrolled in college four years later, and by and large graduated in four years. Although we have statistically adjusted our final sample to reflect all first-time full-time freshmen entering in 1994 who completed their degrees at their first college, even this adjustment does not capture the universe of college students. For instance, we know there are many students who begin their higher education as part-time students (particularly at community colleges), many who 'stop out' and start again, and many who are not traditional aged students. These groups are simply not captured in this study, and they are important populations to understand.

In the three years during which we undertook this study, we have heard many more discussions, seen essays written and heard calls for a greater understanding of civic engagement of students, faculty and institutions in their communities. Service-learning can be an important pedagogy to realize civic engagement goals, but we have also seen many practitioners use the terms 'service-learning' and 'civic engagement'

interchangeably, adding to confusion and difficulty in creating and assessing programs. We conclude by expressing our hope that by operationalizing civic engagement outcomes and service-learning practice in this study we can contribute to the national discussions about both.

Although we operationalize some aspects of civic engagement, this work clearly argues against a definition that is too narrow. Both post-college student data and faculty data show that there is a wide range of activities, motivations and commitments expressed in the term 'civic engagement.' Capturing these perspectives and activities has been a considerable challenge of this study, and much remains to be done. A major strength of the United States system of higher education is its diversity. We hope that examining a range of college experiences and civic outcomes will prove to be useful to institutions as they define their goals and strategies within their own institutional cultures (or in some cases by challenging the existing culture).

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Appendix C. **Invitation letter to participate in survey**
 – included in survey packet wave 1 mailing; printed on HERI letterhead

June 8, 2004

Dear Former College Student:

You may remember when you started college in 1994 (or 1995 etc.) you completed a survey questionnaire about your educational and career plans, beliefs, and attitudes. In 1998, before you left (i.e. transferred, graduated, stopped, etc.) your undergraduate college, you also completed a follow-up questionnaire that asked you to reflect on your college experiences. The enclosed questionnaire is intended to learn more about your current experiences and values. We are particularly interested in learning about adults' involvement and non-involvement in their communities.

This national study involves former undergraduates at about 250 colleges and universities around the country. Your response is critical in helping us to understand the college experience. We welcome your honest assessment of your experiences. Please know that there is no "right" response that we are looking for. Findings from this study may also have implications for curricular and co-curricular change in higher education.

Please be assured that your responses will be held in the strictest of confidence. We are identifying each student respondent only for the purposes of following up non-respondents. As soon as your completed questionnaire is received at our data processing facility, your responses will be optically scanned and converted to an electronic format for analysis, and all individual identifiers will be removed. At no time will individual responses be reported. This is strictly a voluntary activity and participation or non-participation will have no impact on your relationship with your former institution, or with UCLA.

We hope you will participate in this project! To do so, please return the completed questionnaire in the enclosed postage-paid envelope. If you prefer to complete this survey online, please visit www.vendor.uclasurvey/takesurvey and use this password to login: **PTE123**. As a token of appreciation for helping us with this study, we have enclosed two dollars. Thank you for your help!

Sincerely,

Alexander W. Astin
Professor and Director

UCLA IRB #G02-11-032-02c
Approval Period from 05/20/04 – 10/02/04

Appendix E. Summary of Variables and Indices

Name of Block/Variable	Variable Label	Scale

Dependent/Outcome Variables

Charitable Giving	Char_giv	
Civic leadership	Polact05	
Giving to alma mater	AlumAll	
Promoting Racial Understanding	Obj0411	
Pluralistic Orientation	Plural	
Overall political engagement	Poleng	
Political Activism	Poleng1	
Political Expression	Poleng2	
Commitment to political and social change	Poleng3	
Voting	Poleng4	
Self-efficacy	Vws0407r	
Volunteer work	Service04	
Working with communities	Workcomm	

Student Background Characteristics (Block 1)

Gender	sifsex	1=Male, 2=Female
Socioeconomic Status	ses	Scale
SAT composite	satcomp_reg	Scale
White	sifrace1	1=no, 2=yes
African Am/Black	sifrace2	1=no, 2=yes
American Indian	sifrace3	1=no, 2=yes
Asian American	sifrace4	1=no, 2=yes
Latina/o	latino	1=no, 2=yes
Other	sifrace8	1=no, 2=yes

1994 Pretest (Block 2) – if any

Precollege socialization (Block 3)

Screening process (varies by regression model): A screening process was utilized in order to 1994 variables (i.e., precollege socialization variables) that relate to the outcome variable of interest (e.g., pretest or proxy). Survey item #s 9, 22, 24, 25, 29, 31, 32, 34, 35 and 37 were considered in the screening process, making it possible to exercise maximum control for self-selection bias. Specifically, these 1994 variables were included in a blocked, forward regression utilizing the outcome of interest. Any 1994 variable that was significant in this preliminary screening regression was then included in the screening block (Block 3) in the final regression. Thus, this process resulted in a different set of 1994 freshman control measures in Block 3 for each regression.

Appendix E., cont.

Name of Block/Variable	Variable Label	Scale

Institutional Characteristics (Block 4)

Public University	pubuniv	1=no, 2=yes
Private University	priuniv	1=no, 2=yes
Public 4yr	pub4yr	1=no, 2=yes
Private Nonsectarian 4yr	priNS4yr	1=no, 2=yes
Catholic 4 year	Cath4yr	1=no, 2=yes
Other Religious 4yr	Other4yr	1=no, 2=yes
Selectivity	selectiv	Scale
Peer Mean All: Intellectual Self-Esteem	pm_intel	Scale
Peer Mean All: Social Activism	pm_altru	Scale
Peer Mean All: Materialism and Status	pm_mater	Scale
Peer Mean: Socioeconomic Status	pm_ses	Scale
Peer Mean All: Discuss Politics	pm_dispol	Scale
Peer Mean All: Hedonism	pm_hedon	Scale
Peer Mean All: Service Orientation in High School	pm_volunt	Scale

Curricular Context for Service (Block 5)

Took a Service-learning course	csvhow1	1=no, 2=yes
Service Orientation 98	service98	Scale

Types of Reflection (Block 6)

Kept a journal	refjourn	1=no, 2=yes
Discussed experience with other students	refstud	1=no, 2=yes
Discussed experience with a professor	refprof	1=no, 2=yes

College Environments (Block 7)

Living on campus	oncampus	1=no, 2=yes
Cross racial interaction	interact	Scale
student academic interaction	studx	Scale
Took interdisciplinary course	acdact02_reg	1=not at all to 3=frequently
Prof provided-Assist w/ study skills	provid08_reg	1=not at all to 3=frequently
Prof provided – Negative feedback	provid12_reg	1=not at all to 3=frequently
Roommate of a diff race/ethnicity	colact11_reg	1=no, 2=yes
Enrolled in Ethnic Studies Course	colact08_reg	1=no, 2=yes
Enrolled in Women's Studies Course	colact09_reg	1=no, 2=yes

In racial/ethnic student organization	colact12_reg	1=no, 2=yes
	colact10_reg	1=no, 2=yes
Attd racial/cultural awareness wkshp	colact01_reg	1=no, 2=yes
Joined a frat/sorority	colact23_reg	1=no, 2=yes
In leadership training	colact22_reg	1=no, 2=yes
In internship program	colact06_reg	1=no, 2=yes
In student government	genact06_reg	1=no, 2=yes
Attd religious services	majbio	1=no, 2=yes
css major: biological science	majbus	1=no, 2=yes
css major: business	majeduc	1=no, 2=yes
css major: education	majengi	1=no, 2=yes
css major: engineering	majart	1=no, 2=yes
css major: fine arts	majheal	1=no, 2=yes
css major: health professional	majhis	1=no, 2=yes
css major: history or political science	majhum	1=no, 2=yes
css major: humanities/english	majjour	1=no, 2=yes
css major: journalism/communications		
css major: physical science/compscience/	majphys	1=no, 2=yes
math/stats	majpsy	1=no, 2=yes
css major: psychology	majsoc	1=no, 2=yes
css major: social science	csspolvw_reg	1=far right to 5=far left
Political Orientation		

Post-college lifestyle (Block 8)
(also varies by regression model)

Marital Status	MARRY04	1=no, 2=yes
Children in 2004	children	1=none to 4=3 or more
Hours per Week Working (for pay)	HRSWORK	1=less than 10 to 7=60+
Currently in Grad School	gradnow	1=no, 2=yes
Already hold a MA, MBA, etc	masters	1=no, 2=yes
Already hold a Ph.D, M.D, J.D. etc	doctorat	1=no, 2=yes
Understanding of Others	RATE0414_reg	1=lowest 10% to 5=top 10%
Leadership Ability	RATE0408_reg	1=lowest 10% to 5=top 10%
Political Orientation	POLIVW04_reg	1=far right to 5=far left
Factor 1: Volunteerism Factor	volunteerism_reg	Scale
Factor 2: Political Expression Factor	pol_exp_reg	Scale
Factor 3: Political Activism Factor	pol_act_reg	Scale
Factor 4: Religious Involvement Factor	religious_inv_reg	Scale
Factor 5: Community Involvement Factor	community_inv_reg	Scale
Factor 6: Recreation & Leisure Factor	rec_leisure_reg	Scale
Factor 7: Involvement with Alma Mater Factor	alma_mater_reg	Scale
Factor 8: News sources: TV Factor	news_tv_reg	Scale
Factor 9: News sources: Print Media Factor	news_print_reg	Scale
Factor 10: News sources: Radio Factor	news_radio_reg	Scale
Factor 11: Charitable Giving Factor	char_giv_reg	Scale
Factor 12: Voting Factor	voting_reg	Scale

1998 Post-test/Proxies (Block 9)

Openness to diversity	openness	Scale
Understanding of others	cssrat14_reg	1=lowest 10% to 5=top 10%
Leadership ability	cssrat08_reg	1=lowest 10% to 5=top 10%
Help others in difficulty	cssobj09_reg	1=not important to 4=essential
Part in community action program	cssobj16_reg	1=not important to 4=essential
Promote racial understanding	cssobj17_reg	1=not important to 4=essential
Keep up to date w/ politics	cssobj18_reg	1=not important to 4=essential
Influence social values	cssobj05_reg	1=not important to 4=essential
Become a community leader	cssobj19_reg	1=not important to 4=essential
Faculty Support: Emotional	facsupe	Scale
Faculty Support: Research	facsupr	Scale

Appendix F. Multiple R at Four Key Points in the Regression Models.

Dependent Measure	Multiple R after Controlling for:			
	Entering student characteristics	Institutional characteristics	Service	Other College Activ.
Community/Civic Engagement:				
Working with Communities	41	41	43	47
Civic Leadership	32	32	34	37
Volunteer Work	39	39	43	46
Charitable Giving	32	32	33	37
Involvement w/Alma Mater	36	40	40	45
Political Engagement				
Political Activism	41	41	42	45
Political Expression	51	51	52	55
Commitment to Political/				
Social Change	48	48	48	51
Voting	37	38	38	40
Overall Political Engagement	53	53	54	57
Civic Values/Goals				
Pluralistic Orientation	46	47	47	50
Self-efficacy	33	33	35	38
Promot. Racial Understanding	48	48	49	52

Note: for ease of reading, the decimal places have been omitted from the Multiple R values.