

Stability and Change in the Development of College Students' Civic Attitudes, Knowledge, and Skills

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Students entering Tulane University in 2006, 2007, and 2008, the years following Hurricane Katrina, were surveyed soon after arriving on campus and again after they had been at the university for two years. Attitudes toward a new public service graduation requirement, established after the storm, remained positive after students had completed two years of study. Measures of civic attitudes, knowledge, and skills were stable over two years, as well, but, at the same time, students showed increases in their valuing of community engagement and in several self-reports of civic knowledge. Comparisons involving additional groups showed the importance of the college experience in accounting for these changes. Interests in civic engagement expressed at college entry were correlated with and appear to be important predictors of later civic attitudes.

The present study grew out of a new initiative undertaken at Tulane University in 2006, after Hurricane Katrina severely damaged New Orleans. Following the storm, the university instituted a two-tiered public service graduation requirement for all undergraduate students as one aspect of its increased involvement with the New Orleans community. Students are required to take at least one service-learning course during their first two years of study and to complete a second community-based learning experience (service-learning course, public service internship, research project, etc.) before graduation. Opportunities for volunteer community service were also enhanced as part of the new initiative for university involvement with the community after Hurricane Katrina.

To assure that each student would receive a high quality service-learning experience, special efforts were begun in 2006 by the newly created Center for Public Service. The two-tiered graduation requirement and the timing of completion allowed for the Center to strategically target specific areas for growth. Internally, faculty development was at the core of the strategy. Faculty seminars on service-learning pedagogy and practice were offered at least once a semester. Between 2006 and 2011, 119 faculty members completed the 10-week service-learning development seminars. Additionally, national experts were invited to provide single-session workshops open to a larger faculty audience. Support for faculty teaching service-learning courses was provided through direct assistance from the staff of the Center for Public Service as well as through the efforts of student leaders in the Public Service Fellows (PSF) Program, implemented in AY2008, and the Service Learning Assistants (SLA) Program, implemented in

AY2009. The programs are very similar in nature—giving assistance to faculty members while at the same time providing leadership opportunities for students. In the PSF program, students are required to participate in a “service-learning platform course” that delves into topics of community engagement and leadership, while students in the SLA program are provided stipends through the Federal Work Study program. In both programs, these student leaders are trained to assist faculty members, community partners, and students as they engage in their collaborative service-learning work.

Faculty efforts notwithstanding, community partner training and support were the linchpin to the success of the public service graduation requirement initiative. Community organizations were responding to the vast needs of a rebuilding community but lacked the training to work efficiently with the newly instituted program at Tulane. Training and workshop sessions were offered to community agencies to help them understand different forms of engaged student work (e.g., service-learning courses, public service internships, community-based research, etc.), provide them with logistical assistance, and inform them of mandated rules governing student supervision and safety. Further assistance was offered to community agencies through a partnership between the University and the Corporation for National and Community Service's AmeriCorps VISTA program. Traditional AmeriCorps VISTA placements at higher education institutions have assigned VISTA members work on the university campus; in the Tulane model, the University became a third-party provider of VISTA support to the local community, as described by Moely, Pizzolato, and Ilustre (2012). In this model, VISTA participants had two purposes: to

build capacity at their nonprofit placements, and at the same time, to connect their organizations to university resources through the Center for Public Service. Often this involved the supervision of service-learning students; in some cases, VISTA participants created programs at their agencies through which service-learners and community volunteers contributed to the agency work. These efforts to encourage high-quality public service opportunities for students have continued and been elaborated upon in subsequent years.

In addition to increasing curricular options for student service, the Center for Public Service manages programs through which students can do volunteer service in the community—from single-day community work projects to year-long involvement of student groups with a community agency. Single-day service projects include Outreach Tulane in the beginning of the fall semester and MLK Service Day in the spring. The Community Action Council of University Students (CACTUS), a coordinating entity for 11 service projects, and 19 other service-oriented student groups provide on-going service activities throughout the academic year. Service opportunities are also available to students through programs in the residence halls, through fraternities and sororities, and through religious organizations serving the campus community. Students are provided mentorship and advising from Center staff members and given the opportunity to provide feedback on Center programming through the Student Advisory Board.

Our previous research has shown that students who entered the university after the public service graduation requirement was established were positive about the requirement (Moely & Ilustre, 2011). A model of attitude change put forth by Stukas, Snyder, and Clary (1999) was helpful in understanding the students' views: Student interest in service upon entry and their perception of choices available to them in completing the requirement very likely mitigated any potentially negative views. One of the questions addressed in the present research concerned students' evaluations of the requirement after they had been at the university for two years.

In her keynote address to the International Association for Research on Service-Learning and Community Engagement (IARSLCE) conference in 2008, Lori Vogelgesang emphasized the value of longitudinal research for understanding students' civic development and the influence of educational experiences such as service-learning on that development (Vogelgesang, 2009). Only a few longitudinal studies have been reported, and the majority of them rely on retrospective reports rather than data gathered at several points in time as would be the case for a true longitudinal study. For example, several studies of the

relationship between college experiences and later life choices have used only a single data collection point, asking research participants to recall their college experiences from years before. Fenzel and Peyrot (2005) contacted college alumni 5 and 10 years after graduation to investigate relations between service-learning or community service experiences during college and later service involvement and civic attitudes. Those who had experienced both service-learning and other community service during college were more highly engaged in service as alumni and had more positive attitudes about civic responsibility and involvement. Similarly, Warchal and Ruiz (2004) used a retrospective design to conclude that there was a relationship between service-learning experiences in college and subsequent employment choices and community engagement. There are several problems with the approach used in these studies. First, the determination of service involvement in each case was based on memories that could be influenced by later events or experiences (Achenbach, 1978). More importantly, since no information was available in either study about students' attitudes during or before entering college, it is not possible to determine whether their college service experiences influenced later behaviors or if both college service and subsequent community involvement were a result of attitudes and interests developed at an earlier time.

Several studies have used longitudinal designs involving data collection at several points in time from the same individuals. Kiely (2004, 2005) presented findings from a relatively short-term longitudinal case study of college students' transformational learning processes and outcomes resulting from participation in a service-learning immersion program in Nicaragua. Data were gathered prior to and during the program, after returning to the U.S., and again at a later date, using a variety of qualitative techniques. From observations, interviews, focus groups, and student writing, Kiely (2005) described a transformational learning process involving ways in which students conceptualized their service-learning experiences: border crossing, dissonance, personalizing, processing, and connecting. Kiely did not focus on individual differences, because his aim was to create a generalizable model of transformational learning. Bringle, Hatcher, and Muthiah (2010) showed that student intentions to graduate from college predicted continuation in college, thus showing long-term impacts of initial intentions, although participation in a high-quality service-learning course was also important in determining continuation in college a year later. However, they did not gather follow-up data about students' intentions after the first year or about subsequent enrollment.

Vogelgesang's research has demonstrated the value of the longitudinal approach, showing that involvement in service-learning predicted positive later outcomes for civic values, academics, and choices of service-related careers (Vogelgesang & Astin, 2000), with some of these outcomes maintained up to 10 years after college (Vogelgesang, 2009). Similarly, an extensive study of the long-term impacts of participation in AmeriCorps programs showed pre-post change and positive long-term outcomes, with those taking part reporting more extensive community engagement, more likely choice of service-oriented careers, and greater life satisfaction eight years after program completion than was shown by those in a comparison group (Corporation for National and Community Service & Abt Associates, 2008). A recent dissertation by Shuler (2011) followed a group of 137 students over four years of college, using several measures to assess their civic attitudes and engagement. This study showed that both pre-college and college involvement in civic activities was related to civic attitudes held during college.

The present report focuses on a group of 147 students who completed surveys when they entered college and again after two years of study at the university, with the aim of looking at both stability and change over time in civic attitudes and self-assessed knowledge and skills for engagement. Regarding stability over time, several studies have shown carry-over from high school to college in students' civic interest and involvement (Moely & Ilustre, 2011; Shuler, 2011), but there have been few efforts to determine the stability of civic attitudes during the college years. With regard to change, although there is an extensive body of research describing growth in intellectual skills during the college years (e.g., Baxter Magolda, 1992; King & Kitchener, 1994; Perry, 1979), little research has been reported to date on the extent to which college students' civic attitudes and community engagement change over time in college. Shuler's study did not show regular growth over time in civic attitudes concerned with civic self-efficacy and tolerance of diversity or in community engagement, but additional work is needed to determine the generality of her findings. The longitudinal design allowed us to address questions about both stability and change in civic attitudes and beliefs, with data gathered from the same individuals, using the same measures, at two data points.

The stability question is essentially one about correlation: Do individuals similarly order themselves on a scale at two points in time? A different question concerns change in mean values on a scale: Does the group as a whole show change in a positive or negative direction over time? To begin to understand the reasons for any changes that might be documented,

several comparison groups were included in the study. A group of students who had finished at least one year of college (termed a "more advanced" group) completed the survey in 2006, while another group of more advanced students completed the survey in 2010. Students in each of these groups were comparable in age and other characteristics to those in the Longitudinal sample who completed the second survey after two years of college. Comparisons of these three groups make it possible to separate the influences of college experiences (including service-learning) from those of age or other factors that might be responsible for changes in students' attitudes toward community engagement and self-perceptions of civic knowledge and skills.

We were also interested in the extent to which relationships between personal characteristics and experiences prior to college entry influenced students' views of the public service requirement (following up on relationships described in Moely and Ilustre, 2011) and on how interests expressed at college entry might have an impact on attitudes and values at a later point in time. Previous research has shown that preexisting beliefs or pre-college experiences "set the stage" for students' reactions to service-learning and other community engagement activities during college (Bringle et al. 2010; Metz & Youniss, 2005; Vogelgesang & Astin, 2000). With the longitudinal design, we were able to assess possible "carry over" from pre-college activities and college-entry attitudes to views and attitudes two years later. Research questions were the following:

- a To what extent are individual students' views of the public service graduation requirement and their civic attitudes, knowledge, and skills stable over the two year period?
- b Do students, as a group, show changes in civic attitudes, knowledge, or skills over time? Are these changes related to experience with college or other factors?
- c What factors in students' backgrounds are related to attitudes toward the public service graduation requirement? Are patterns shown at college entry still present two years later?
- d Are students' interests in civic matters, academic/career goals, and social experiences, assessed at college entry, related to concurrent and later civic attitudes?

Method

Research Participants

As shown in Table 1, data were gathered from students entering the university in the fall of 2006, the fall of 2007, and the fall of 2008. A total of 670

Table 1

Numbers of Students Surveyed at Time 1 (Years 2006-08) and Time 2 (Years 2008-10) and Groups of Students Compared in the Present Study

Year of University Entry	Time of Test (Year)				
	2006	2007	2008	2009	2010
2003-05	(257)*				
2006	290*		47**		
2007		185*		55**	
2008			195*		45**
					(103)**

Note: * Time 1 Survey ** Time 2 Survey

Group	Definition
Longitudinal Sample	147 students of the original 670 who completed the Time 1 survey and also completed the Time 2 survey (47 + 55 + 45 = 147 total over three years)
Time 1 Advanced Group	257 students (sophomore level or above) who completed the survey in 2006
Time 2 Advanced Group	103 students (sophomores or juniors) who completed the Time 2 survey in 2010 but did not take part at Time 1

incoming students completed this survey, labeled for the present report as the “Time 1” survey. As indicated by Moely & Ilustre (2011), there were only a few differences between the three cohorts, so we have combined their data in addressing the research questions of this study. After two years at the university, during which students would have completed the first required public service course, they were invited to respond to a second survey during 2008, 2009, or 2010) and a total of 147 students did so (the Longitudinal sample). The survey completed by students after two years of college is labeled here as the “Time 2” survey.

Initial analyses were conducted to see if the loss of research participants through attrition led to a non-representative sample. As shown in Table 2, the original group of 670 students fell into three groups at Time 2: the 147 students in the Longitudinal sample who completed both the Time 1 and Time 2 surveys, 393 students who had taken the Time 1 survey and were still at the university but did not respond to our invitations to complete the Time 2 survey, and a third group of 130 students who completed the Time 1 survey but were no longer enrolled at the university or could not be contacted because of inadequate identifiers. The Longitudinal sample, then, represents 27% of those who were still at the university and thus could have participated in the Time 2 survey. To determine how similar the Longitudinal sample was to the other two groups, several analyses were conducted (see Table 2).

The students in the Longitudinal sample were

more likely to be female and to have attended a public high school, and had higher GPAs in high school than did the 393 students in the No Response group. The Longitudinal sample showed greater pre-college interest in civic and community matters: They were more likely to have taken part in community service during high school and to have enjoyed that service than the group of students who did not complete the Time 2 survey. On the other hand, Table 2 also shows a number of characteristics in which the groups do not differ, including age, race, likelihood of being from Louisiana, parents’ education, educational goals, religiosity, and perceived impact of pre-college community service.

In addition to the Longitudinal sample, two contrast groups contributed data to the present study: A group of 257 advanced students completed a survey in the year 2006 (labeled as the “Time 1 advanced” group) and a group of 103 advanced students completed the survey in 2010 (the “Time 2 advanced” group). As shown in Table 3, these groups were similar in age to the Longitudinal sample at Time 2. The Time 1 advanced group included more men than the other two groups, making it necessary to control for gender in analyses (reported below) that compare these groups. The Longitudinal sample indicated greater involvement in service in high school, and described the service as more enjoyable than did the Time 1 advanced group; however, the Time 1 advanced group saw their high school service as having a greater impact. There were no differences between the groups in race, parents’ education, edu-

Table 2

Attrition of the Sample over Time: Student Characteristics at Time 1 for Groups Participating or Not Participating at Time 2

Student Characteristic	Longitudinal Sample <i>N</i> = 147	No Response at Time 2 <i>N</i> = 393	Gone at Time 2 <i>N</i> = 130
Mean Age in Years at Time 1	18.42 (<i>SD</i> = 1.05)	18.54 (<i>SD</i> = 1.50)	18.65 (<i>SD</i> = 1.47)
Gender : % female *	69% ^a	58% ^b	60% ^b
Race:% white	82%	77%	76%
% from Louisiana	19%	25%	28%
Fathers: % Graduate Degree	55%	49%	48%
Mothers:% Graduate Degree	41%	40%	34%
% Planning Graduate or Professional Degree	90%	89%	87%
% Quite or Very Religious	29%	28%	28%
% Attended Public High School *	76% ^a	65% ^b	73% ^{ab}
Mean High School GPA (4-point scale) **	3.80 ^a (<i>SD</i> = .28)	3.67 ^b (<i>SD</i> = .39)	3.63 ^b (<i>SD</i> = .51)
Hours of service in high school ** (0-9 point scale)	3.90 ^a (<i>SD</i> = 2.11)	3.28 ^b (<i>SD</i> = 2.05)	3.29 ^b (<i>SD</i> = 2.09)
Pre-college community service was enjoyable * (1-4 point scale)	3.40 ^a (<i>SD</i> =.80)	3.19 ^b (<i>SD</i> =.85)	3.18 ^b (<i>SD</i> =.88) ^b
Pre-college community service had an impact (1-5 point scale)	3.00 (<i>SD</i> = 1.00)	3.03 (<i>SD</i> =.93)	3.05 (<i>SD</i> =.89)

Note: * $p < .05$ or ** $p < .01$ for comparisons of the three groups. For the attributes that show an overall group difference, groups that do not share a superscript differ significantly, according to follow-up tests of the means.

cational goals, religiosity, or high school GPAs. We did not have as much information for the Time 2 advanced group, but members of that group are comparable to the Longitudinal sample in age, gender, and race.

Table 3 also gives information about the classes from which these samples were drawn. Information was available from the university for the 882 students who entered in 2006 and 1,353 who entered in 2008; their data have been averaged to give an overall picture of student characteristics at this time. As shown in Table 3, students in the entering classes as a whole were somewhat more equally balanced between male and female than was the case for the Longitudinal sample and the Time 2 advanced students. Our groups were similar to the classes in general with regard to race, parents' education, and highest degree planned.

Measures

At Time 1, students answered a number of questions about themselves, their past experiences with community service, their educational goals, their views of the public service requirement and their plans for service involvement. The following measures were also obtained:

Civic attitudes, knowledge, and skills at Times 1 and 2. These were reported by participants using scales adapted from previous research or developed for the present study. Civic attitudes included measures of Civic Responsibility (from Furco's *Higher Education Service-Learning Survey*), Social Justice, Community Engagement, and Cultural Awareness. Civic knowledge measures concerned Knowledge of New Orleans, Knowledge of Social Issues, and Seeks Information about Cultural Issues. Civic skills included measures of Interpersonal Skills, Leadership, and Cultural Skills. Items on each scale were rated on 5-point scales, where values were characterized in terms of agreement, with a value of 1 indicating strong disagreement, 3 indicating neither agreement nor disagreement, and 5 = strong agreement. Items on the Civic Responsibility scale used a 1-4 point response format for Time 1 data collection, but as a result of an error in survey administration, 5-point scales were used at Time 2. Because of this, change over time for the Civic Responsibility scale could not be evaluated, although the measure could be used for correlational analyses. The items contributing to each scale and psychometric information were reported previously in Moely and Ilustre (2011). Internal consistency was adequate for each

Table 3

Sample Representativeness: Characteristics of Groups in the Present Study Compared to Those of Entire Classes Entering in 2006 and 2008

Demographic Indices	Longitudinal Sample N = 147	Time 1 Advanced Students N = 257	Time 2 Advanced Students N = 103	2006 and 2008 Entering Classes N = 2,235
Mean Age	20.16 (SD = 1.12) at Time 2	20.31 (SD = 1.95) at Time 1	20.04 (SD = .40) at Time 2	
Gender: % female **	69% ^a	52% ^b	69% ^a	54%
Race: % white	83%	83%	88%	85%
Fathers: % graduate degree	55%	48%		51%
Mothers: % graduate degree	41%	39%		43%
% planning graduate or professional degree	90%	87%		90%
% Quite or Very Religious	29%	28%		
Mean High School GPA (4-point scale)	3.80 (SD = .28)	3.73 (SD = .39)		
Hours of service in high school ** (0-9 point scale)	3.90 (2.11)	2.70 (2.10)		
Pre-college community service was enjoyable * (1-4 point scale)	3.40 (.80)	3.22 (.79)		
Pre-college community service had an impact ** (1-5 point scale)	3.00 (1.00)	3.32 (.88)		

Note: * $p < .05$ or ** $p < .01$ for comparisons of the two (or three) groups. For the three-group comparison, groups that do not share a superscript differ significantly, according to follow-up tests of the means.

scale: Alpha values ranging from .78 to .90 for scales at Time 1, and from .74 to .91 at Time 2.

College Interests at Time 1. Students completing the first survey rated 11 possible reasons for their decisions to attend the university using a 4-point scale from 1 = Not important at all to 4 = Very important. They also rated 13 items about possible gains they could expect to achieve during college, using the same 4-point scale. Items from these questions were used, on the basis of a factor analysis, to create three scales, indicating students' Civic Interests (7 items), Academic/Career Interests (6 items), and Social Interests (4 items). Items included in the Civic Interest scale, along with illustrative items from the scales for Academic/Career Interest and Social Interest, are shown in Table 4. Internal consistency was adequate for the Civic Interests scale, but questionable for the other two scales. Mean scores presented in Table 4 show that the interests of the 147 students in the Longitudinal sample were strongest for the academic/career area, moderate for civic matters, and low for social aspects of college.

Attitudes toward the Public Service Graduation Requirement at Times 1 and 2. Students' evaluations of the graduation requirement were assessed at Time 1 and again at Time 2, responding to a question shown in Table 5. Also, at Time 1, students indicated how much public service they planned to do while at

the university, and at Time 2, reported the extent of their actual service activities. To assess the extent to which these views were related to other variables, the response alternatives shown in Table 5 were used to form scales: For Evaluations, responses could range from 1 ("a bad idea") to 4 ("a good idea") and for Plans/Activities, from 1 ("Just the amount required...") to 3 ("...very active...").

Service-learning Course Quality (Time 2). Students were asked to describe their most recent service-learning course in terms of several attributes characterizing high quality service-learning. This scale was developed by Furco and Moely (2006) and includes a number of attributes identified as important in service-learning (National Youth Leadership Council, 2008). Students responded to the items by indicating the extent to which they agreed that the attribute had been present in their service-learning courses, using a 1-5 scale with the items given in Table 6.

Procedure

Data Collection. Time 1 data collection in 2006 was done by distributing survey forms to students in their classrooms. For subsequent Time 1 surveys, incoming students were informed about the survey by e-mail and invited to complete the survey on a Website called Student Voice (2010). For Time 2 surveys, students who had taken part as incoming students two years

Table 4

Items Used to Assess Civic, Academic/Career, and Social College Interests, with Scale Properties for Students in the Longitudinal Sample (N = 147)

CIVIC INTERESTS	
Cronbach's <i>alpha</i> for 7 items = .82, <i>M</i> = 3.12 (<i>SD</i> = .57)	
<i>Why did you choose to attend Tulane University?</i>	
Tulane's location in the city of New Orleans appealed to me.	
Opportunities for me to engage in service in New Orleans communities.	
Tulane will make it possible for me to help rebuild New Orleans.	
<i>What do you hope to gain from your college experience?</i>	
Making a difference.	
Gaining leadership experience and developing leadership skills.	
Helping with the revitalization of the New Orleans community.	
Becoming active in politics.	
ACADEMIC/CAREER INTERESTS (Illustrative items only)	
Cronbach's <i>alpha</i> for 9 items = .67, <i>M</i> = 3.35 (<i>SD</i> = .33)	
<i>Why did you choose to attend Tulane University?</i>	
Tulane's reputation for scholarship.	
<i>What do you hope to gain from your college experience?</i>	
Exploring career possibilities and preparation for a chosen career.	
SOCIAL INTERESTS (Illustrative items only)	
Cronbach's <i>alpha</i> for 3 items = .66, <i>M</i> = 2.75 (<i>SD</i> = .57)	
<i>Why did you choose to attend Tulane University?</i>	
Tulane's reputation as a fun place to socialize and meet people.	
<i>What do you hope to gain from your college experience?</i>	
Making new friends.	

Note: Responses could range from 1 = Not important at all to me to 4 = Very important to me. Mean scores of the three sets of items differed significantly, according to a repeated-measures analysis of variance: $F(2, 199) = 57.32, p < .001$.

earlier were contacted by e-mail and invited to complete the second survey, again using Student Voice. All potential participants were informed that upon survey completion, their names would be entered into drawings for prizes (e.g., gift certificates for restaurants, day spas, or an iPad). IRB approval for the research was obtained for each testing time.

Service-Learning and Community Service Opportunities. Within their first two years at Tulane, all undergraduates are required to complete at least one service-learning course. This course has to be for-

mally approved by two faculty Curriculum Committees: a sub-committee of the Center for Public Service's Executive Committee and the university's undergraduate Curriculum Committee. Courses are evaluated for clear rationale for service-learning, appropriate choices of community partner(s), required reflection by students, integration of service and course content, and clear evaluation criteria. Courses must be submitted for approval each year. To ensure community agency involvement, job descriptions for student service-learning activities are developed and

Table 5

Assessing Stability: Students' Views of the Graduation Requirement Initially and after Two Years

Items Assessing Students' Evaluations and Plans/Activities	Time 1	Time 2
<i>Evaluation: "Do you think that learning about academic subject matter through public-service experiences is..."</i>		
A good idea	61%	58%
OK	32%	35%
I don't have any opinion about this	3%	2%
A bad idea	4%	5%
<i>Plans/Activities: "How much public service do you plan to do/are you doing while here at Tulane?"</i>		
I plan to/have become very active in the community	31%	13%
More than the amount required (if it seems beneficial to me)	61%	64%
Just the amount that is required, no more	8%	23%

Note: Time 1 – Time 2 correlations: Evaluation: $r = .47, p < .001$; Plans: $r = .36, p < .001$

Table 6
Assessing Service-learning Course Quality

Service-learning Course Descriptions	Ratings <i>M (SD)</i>
I did a good job in my service-learning activity.	4.14 (.82)
I had opportunities to reflect on my service-learning experience through written journals and papers I did for the course.	3.90 (1.11)
I had opportunities to reflect on my service-learning experience through discussions with faculty, students, and community members.	3.82 (1.13)
The community organization in which I worked was ready to receive service-learning students.	3.80 (1.18)
I was well-prepared to engage in the service I did for this course.	3.74 (1.09)
I accomplished something in my service-learning activity.	3.74 (1.17)
In my service-learning experience, I was appreciated when I did a good job.	3.70 (1.23)
I feel that my service-learning activity was worthwhile.	3.69 (1.31)
I would recommend service-learning to a friend.	3.65 (1.29)
My service-learning activity met real needs of the community.	3.55 (1.26)
In service learning, I was free to develop and use my ideas.	3.29 (1.27)
The service-learning experience was an integral part of my college course, not just an "add on" activity.	3.11 (1.39)

Note: Participants in the Longitudinal sample and Time 2 advanced group (total $N = 250$) rated their most recent service-learning course on each attribute, using a scale that ranged from 1 = Strongly Disagree to 5 = Strongly Agree. Cronbach's alpha for 12 items ($N = 198$) = .93.

faculty members are encouraged to meet with and communicate with agency representatives.

Nearly all of the students in the Longitudinal sample and the Time 2 advanced group had completed at least one service-learning course by Time 2. Only 2% of the students had not met the requirement at this point; 68% had completed one course, and 30% had completed two or more service-learning courses. Students described their service-learning courses as having many of the components of high-quality service-learning. As indicated in Table 6, course offerings were seen by students as strong on reflection opportunities and providing a quality experience at the community site where they could work effectively. Students were least positive about the integration of the service activity with the academic course, something that is probably the greatest challenge in creating a service-learning course. However, students' reports showed increasingly positive evaluations of the courses over the time of the study, with mean scores for the average of all items increasing from 3.41 ($SD = 1.00$) for 44 students who completed the Time 2 survey in 2008, to 3.57 ($SD = .93$) for 42 students in 2009, and to 3.89 ($SD = .78$) for 112 students in 2010 (means of the three groups differ significantly, according to a univariate analysis of variance, $F(2, 195) = 5.55, p < .01$). Faculty development and quality control efforts described above appear to be having a positive effect on service-learning course offerings.

In addition to service-learning, Tulane students are encouraged to participate in community service pro-

jects arranged by the Center for Public Service, as well as by other groups on the campus. Students in the Longitudinal sample and the Time 2 advanced group were active in such service, with 77% reporting volunteer service activities, some through fraternities and sororities (31%) or through service organizations such as Boys and Girls Clubs (27%), and lesser numbers through religious organizations (12%) or with political campaigns (7%).

Results

Assessments of Stability over Time

The first research question concerned stability of students' attitudes over the two-year period. Strong evidence for stability was found for students' evaluations of the public service graduation requirement and for their civic attitudes and self-evaluations of civic knowledge and skills.

The majority of students maintained their initial positive views of the graduation requirement: As shown in Table 5, only 4% of the students at Time 1 and 5% at Time 2 saw the requirement as "a bad idea." Looking at exact correspondences between Times 1 and 2 in these evaluations, 66% of the students gave the same ratings both times, while 15% were more positive and 19% were less positive at Time 2. Despite the restricted range of scores due to the generally very positive views, the correlation between ratings of the requirement at Times 1 and 2 was significant: $r = .47, p < .001 (N = 142)$.

A second question about students' views of the

requirement asked at Time 1 about how much public service students expected to do while at the university. Again, students were very positive, with only 8% limiting themselves to just the amount of service required. At Time 2, students answered the question with regard to the actual service they were doing, and while the majority reported doing more than required, the group as a whole was somewhat less enthusiastic at Time 2 than earlier (i.e., fewer students indicated that they were very active in the community (13%) than had expected to be (31%), with the percentages of those focusing on simply meeting the requirement increasing from 8% to 23%). For this measure, 52% of the students gave the same response both times: 39% had lower scores at Time 2 and 9% were more positive at Time 2 than they had been at Time 1. Again, Time 1 and 2 responses were positively correlated: $r = .36, p < .001 (N = 138)$.

The second line of evidence for stability over the two-year period is shown in the similarity between Time 1 and Time 2 scores for scales assessing civic attitudes, knowledge, and skills, shown in Table 7. Correlations for the various scales range from $r = .55$ to $.75$, all significant at $p < .001$, indicating strong stability over time in the ordering of responses of individual respondents.

Assessing Change over Time

The second research question concerned possible changes in students' attitudes over the two-year period. As shown in Table 7, changes over time were seen for students' valuing of community engagement, their interest in seeking information about political

and social issues, and for their self-assessments of knowledge of the city culture and issues and of current events. None of the self-assessed civic skills changed over time, nor did the attitude scales concerned with Social Justice and Cultural Awareness. Focusing on the scales for which change was shown, comparisons of groups allowed us to isolate the influence of college experience from other possible causes of change. Complex developmental designs, such as those used by Whitbourne and Waterman (1979) and described by Achenbach (1978, pp. 100-104) can help to separate possible causative factors. Changes seen for the Longitudinal sample could be due to a number of factors, including the age (and life experiences) of the participants at the time the survey was completed, the experience of taking repeated surveys, or the unique college experience that the public service emphasis at the university provided these students. Several comparisons allowed inferences about the importance of each of these.

First, to look at age (and general life experience) as a factor, we can employ a cross-sectional design at Time 1, comparing the scores of students in the Longitudinal sample with those of the group of more advanced students at Time 1. If age is important, scores for the more advanced students should be higher on the measures in which the Longitudinal sample showed change over time. But as shown in Table 8, this is the case only for one variable, that of self-assessed Knowledge of New Orleans Culture and Issues. No differences between groups were seen for reports of Seeking Information about Political and Social Issues or self-assessed Knowledge of

Table 7

Stability and Changes over Time in Civic Attitudes, Knowledge, and Skills for the Longitudinal Sample (N = 147)

	Time 1 <i>M (SD)</i>	Time 2 <i>M (SD)</i>	Time 1-Time 2 Correlation (<i>r</i>)
CIVIC ATTITUDES			
Civic Responsibility	3.24 (.42) (4-pt. scale)	3.97 (.68) (5-pt. scale)	.58***
Valuing of Community Engagement **	3.79 (.62)	3.99 (.58)	.67***
Social Justice	3.80 (.56)	3.86 (.59)	.75***
Cultural Awareness	3.68 (.55)	3.88 (.48)	.55***
CIVIC KNOWLEDGE			
Seeks Knowledge About Political/Social Issues**	3.46 (.52)	3.64 (.50)	.71***
Knowledge of New Orleans Culture and Issues***	2.83 (.74)	3.35 (.67)	.56***
Knowledge of Current Events ***	3.61 (.86)	3.90 (.70)	.59***
CIVIC SKILLS			
Interpersonal Skills	4.08 (.47)	4.15 (.48)	.61***
Leadership Skills	3.82 (.65)	3.82 (.60)	.58***
Cultural Skills	3.84 (.57)	3.91 (.53)	.62***

Note: Scores could range from 1 to 5 on items contributing to each scale, except as indicated. Significant increases in mean scores from Time 1 to Time 2 were found for the scales represented by italicized labels. Levels of significance for comparisons of means and assessments of the magnitude of correlations are indicated as * $p < .05$, ** $p < .01$, and *** $p < .001$

Table 8

Cross-Sectional Design: Civic Attitudes and Knowledge for Incoming Students and Advanced Students Surveyed at Time 1

Civic Measures	Time 1	Time 1
	Incoming Students <i>N</i> = 147 <i>M</i> (<i>SD</i>)	Advanced Students <i>N</i> = 257 <i>M</i> (<i>SD</i>)
Age in Years	18.42 (1.05)	20.31 (1.95)
Valuing of Community Engagement***	3.79 (.62)	3.50 (.72)
Seeks Knowledge about Political/Social Issues	3.46 (.52)	3.36 (.63)
Knowledge of New Orleans Culture and Issues**	2.83 (.74)	3.04 (.69)
Knowledge of Current Events	3.61 (.86)	3.55 (.95)

Note: Scores could range from 1 to 5 on items contributing to each scale. Significant differences in mean scores were found for the scales represented by italicized labels. Levels of significance for comparisons of means are indicated as **p* < .05, ***p* < .01, and ****p* < .001

Current Events. On the scale for Valuing of Community Engagement, the Longitudinal sample is actually higher than the Time 1 advanced students upon college entry, reflecting the greater interest in community service and involvement of this group, as noted above. A multivariate analysis of variance of the means of these measures showed a significant group effect, $F(4, 352) = 8.08, p < .001$, as well as a significant gender difference, $F(4, 352) = 3.54, p < .01$, with no gender x group interaction. Univariate follow-ups showed the group differences presented in Table 8; for gender, univariate analyses showed only that women were higher than men on the Valuing of Community Engagement.

Instead of limiting the comparison to the 147 students in the Longitudinal sample, we can look at the total group of 670 students who completed the survey upon college entry: Comparing their scores with those of the advanced group, we see no differences for three of the four variables, with only the self-reported Knowledge of New Orleans Culture and Issues showing an age difference, again with the more advanced students scoring higher. Thus, the only support in the cross-sectional comparison for an age effect appears for students' ratings of their own knowledge of the city of New Orleans, something

that could be expected to change as students spent time in the city.

Another way of testing for an age effect is to hold age constant using a time lag design, as shown in Table 9. Here, we compared the Time 2 scores obtained by the 147 students in the Longitudinal sample with those of the advanced group at Time 1 (*N* = 257, predominantly sophomores and juniors who had entered the university before the graduation requirement was implemented). These students completed the surveys when they were at about the same ages and point of time in their education, so if age were the important factor, there should be no difference between the groups. But this was not the case. As shown in Table 9, the Longitudinal sample obtained higher scores at Time 2 on all four variables than did the Time 1 advanced group.

Another factor that could have contributed to the increased scores of the Longitudinal sample was the experience of having completed a very similar survey two years earlier. Comparing the 103 students who took the Time 2 survey without having taken the Time 1 survey with those in the Longitudinal sample, also shown in Table 9, we can rule out the influence of repeated testings, as there were no significant differences between these two groups on any of the

Table 9

Time Lag Design: Civic Attitudes and Knowledge for Advanced Students Surveyed at Times 1 and 2

Measure	Time 2	Time 1	Time 2
	Longitudinal Sample <i>N</i> = 147 <i>M</i> (<i>SD</i>)	Advanced Students <i>N</i> = 257 <i>M</i> (<i>SD</i>)	Advanced Students <i>N</i> = 103 <i>M</i> (<i>SD</i>)
Age in Years (no difference between groups)	20.16 (1.12)	20.31 (1.95)	20.04 (.40)
Valuing of Community Engagement ***	3.99 ^a (.58)	3.50 ^b (.72)	3.86 ^a (.73)
Seeks Knowledge About Political/Social Issues **	3.64 ^a (.50)	3.36 ^b (.63)	3.50 ^a (.58)
Knowledge of New Orleans Culture and Issues ***	3.35 ^a (.67)	3.04 ^b (.69)	3.25 ^a (.67)
Knowledge of Current Events **	3.90 ^a (.70)	3.55 ^b (.95)	3.58 ^{ab} (.92)

Note: Levels of significance for univariate analysis of variance are indicated for the scales represented by italicized labels. Levels of significance for comparisons of the means are indicated as **p* < .05, ***p* < .01, and ****p* < .001
For each scale that showed an overall difference, groups that do not share a superscript differ significantly, according to follow-up tests of the means.

Correlates of Students' Views of the Public Service Graduation Requirement

Time 2 measures. Means for the three groups shown in Table 9 were shown to differ significantly by a multivariate analysis of variance that included group and gender as independent variables, $F(8,756) = 6.56, p < .001$. There was also a main effect of Gender, at $p < .01$, but no gender x group interaction. Group differences shown in follow-up analyses are summarized in Table 9; women scored higher than men on the Valuing of Community Engagement and on self-evaluated Knowledge of Current Events.

Comparing the results of these different designs, it is clear that the changes over time seen in the Longitudinal sample could not be due simply to an increase in the age of the students (or related life experiences, including college), but rather, must be due to particular aspects of the post-Hurricane Katrina Tulane college experience, which was different for the Longitudinal sample and the Time 2 advanced group than for those who entered the university before the emphasis on public service that has come to characterize the campus. Although students in the Longitudinal sample were relatively high on their Valuing of Community Engagement at Time 1, they still showed a significant increase in scores for this scale over the two-year period, during which they engaged in service-learning and other kinds of service activities in the New Orleans community.

The third research question concerned factors in students' backgrounds that might be related to Time 2 attitudes toward the public service graduation requirement. This is an extension of work reported previously (Moely & Ilustre, 2011), which showed that several personal characteristics, high school experiences, and civic attitudes, knowledge, and skills predicted students' views of the public service graduation requirement at Time 1. How well are these relationships maintained at Time 2? Table 10 summarizes the findings regarding correlations of Evaluations and Plans with Time 1 variables for the total sample at Time 1 ($N = 670$) and for the 147 students from that group who are in the Longitudinal sample. It also shows the correlations for Evaluations and Service Activities for the Longitudinal sample at Time 2.

For students' evaluations of the public service requirement, gender, enjoyment of high school community service, measures of Civic Responsibility, Valuing of Community Engagement, and Interpersonal Skills were related to Evaluations at both Times 1 and 2. For the second indicator of students' views of the requirement, measured by their plans for or actual service involvement, significant correlations were shown at both Times 1 and 2 for enjoyment of and hours spent in high school community service, for Civic

Table 10

Personal Characteristics, High School Service Experiences, and Civic Attitudes, Knowledge, and Skills Related to Views of the Graduation Requirement (Evaluations and Plans/Activities) at Times 1 and 2

Characteristics Related to Evaluations and Plans/Activities:	Evaluations			Plans/Activities		
	Time 1	Time 2		Time 1	Time 2	
	All N=670	Long. N=147	Long. N=147	All N=670	Long. N=147	Long. N=147
PERSONAL CHARACTERISTICS						
Gender (1 = male, 2 = female)	.21**	.17*	.22**	.18**	.00	.13
Area of Origin (1 = Louisiana, 2 = Other)	.12**	.10	.11	.17**	.12	-.01
Level of Religiosity (5-point scale)	.07	.18	.02	.11**	.13	.17*
HIGH SCHOOL EXPERIENCES						
Enjoyment of Prior Community Service	.30**	.36**	.21*	.35**	.38**	.22*
Impact of Prior Community Service	.23**	.24**	.09	.20**	.23**	.13
Hours of Community Service in Past Year	.09	.08	.11	.36**	.46**	.25**
CIVIC ATTITUDES, KNOWLEDGE, AND SKILLS (at Time 1)						
Civic Responsibility	.51**	.42**	.44**	.59**	.47**	.26**
Valuing of Community Engagement	.46**	.33**	.34**	.59**	.55**	.36**
Social Justice	.25	.11	.19*	.36**	.31**	.26**
Seeks Knowledge	.29**	.04	.13	.37**	.23**	.33*
Interpersonal Skills	.27**	.19*	.26**	.28**	.28**	.27**
Leadership Skills	.18	.07	.09	.25**	.38**	.21*
Cultural Skills	.12	.11	.19*	.25**	.26**	.06

Note: Moely & Ilustre (2011) found that these variables predicted Evaluations and/or Plans for the sample of 670 incoming students. Correlation coefficients (r) describe the relationships between variables for this sample: the entire sample ($N = 670$) and the Longitudinal sample at Times 1 and 2 ($N = 147$). * $p < .01$, ** $p < .001$

Responsibility, Valuing of Community Engagement, Social Justice, Seeking Knowledge, as well as for Interpersonal and Leadership Skills (all of which were measured at Time 1). Students committed to civic involvement, as shown on these various measures, were likely to maintain their actual service even when the challenges of managing time in college could have been a distraction, causing them to become less positive about being involved in the community. Patterns previously reported were maintained two years later, for both evaluations of and indications of activities related to the public service graduation requirement.

Correlations of Interests at College Entry with Later Attitudes

The final research question asked if interests expressed at college entry were related to concurrent and, especially, to later civic attitudes and behaviors. Summary scores representing students' interests in civic, academic, and social aspects of college were obtained. As shown in Table 11, students' Civic Interests at Time 1 were related to both their Time 1 and Time 2 scores on views of the public service graduation requirement, and to all but one of the scales measuring civic attitudes, knowledge, and skills. Only the scale measuring "cultural skills" was not related to initial college interests. Academic/career interests and social interests at college entry

were not strongly or consistently related to either concurrent or later attitudes toward public service or civic matters.

Discussion

Use of a longitudinal design has allowed us to address questions of stability and change in civic interests, attitudes, and involvement over the first two years of college. The degree of stability over time for a number of measures was quite dramatic. Similarity between responses at college entry and two years later was shown for attitudes toward required public service as well as for civic attitudes, knowledge, and skills. Further, interests in civic engagement expressed at college entry continued to show significant relations to these civic attitudes two years later. Students in the Longitudinal sample entered the university having had positive experiences with service before entering college, and with positive attitudes about becoming involved in the community. The public service emphasis that the university adopted following Hurricane Katrina gave them an environment that supported and encouraged these interests in community engagement, leading to increased valuing of such engagement and to increases in knowledge seeking and gains in information about the city and about public issues in general. The students' continued positive views of the public service graduation requirement very likely are

Table 11
Correlations of College Interests at Time 1 with Times 1 and 2 Views and Civic Attitudes (N = 147 Students in the Longitudinal Sample)

Interests	Concurrent Correlations (r) of Time 1 College Interests and Time 1 Civic Measures			Correlations (r) of Time 1 College Interests and Time 2 Civic Measures		
	Civic	Academic, Social Career		Civic	Academic, Social Career	
VIEWS OF THE GRADUATION REQUIREMENT						
Evaluations	.25**	.09	-.05	.25**	.19*	.02
Plans for or Actual Service	.45**	.08	.00	.23**	.05	-.04
CIVIC ATTITUDES						
Civic Responsibility	.60**	.23*	.11	.39**	.12	-.03
Valuing of Community Engagement	.63**	.16	.19*	.49**	.29**	.03
Social Justice	.34**	.00	-.18*	.20*	-.02	-.19*
Cultural Awareness	.33**	.13	-.10	.26**	.26**	-.16
CIVIC KNOWLEDGE						
Seeks Knowledge	.47**	.20*	.14	.42**	.16	.01
Knowledge of New Orleans	.23**	.11	.09	.32**	.17	-.07
Knowledge of Current Events	.28**	.16	-.04	.32**	.22*	.00
CIVIC SKILLS						
Interpersonal Skills	.20*	.14	.03	.29**	.13	-.02
Leadership Skills	.29**	.25**	-.02	.32**	.04	-.05
Cultural Skills	.13	.04	-.08	.15	.02	-.15

Note: Significance of correlations indicated at *p < .05 ** p < .01

related to the generally good quality of the service-learning courses in which they were enrolled (Billig, 2009; Bringle et al. 2010; Warchal & Ruiz, 2004) as well as the variety of different courses available to them (Stukas et al. 1999). Students also took advantage of volunteer opportunities available to them through various university programs.

The longitudinal study allowed us to document change over time and, through the use of comparison groups, to conclude that something about the college experience was important in determining changes seen. In particular, students showed increases over time in their valuing of community engagement. Even though they began with greater appreciation of community engagement than did an older comparison group, they showed a significant increase in this attitude. Students also indicated that they had become active in seeking information about political and social issues—reading news reports, watching television news, paying attention to local political issues, being involved with campus issues, etc. And they rated themselves higher after two years in their knowledge of current news events, including national and international issues. Increases in these efforts to gain knowledge and knowledge acquired were independent of age change and the number of surveys completed, as shown by comparisons with the two contrast groups. Instead, these changes can be attributed to some aspects of the college experience present with the new emphasis on public service implemented following Hurricane Katrina.

On the other hand, the increase over time in knowledge of the city may result simply from being a resident of the city, regardless of public service opportunities. This is shown by the higher scores obtained for this measure by the advanced students at Time 1, a finding that suggests that simply living in the city, regardless of university programs, leads to greater reported knowledge of the city. There may be qualitative differences in the nature of this knowledge that our measure was not sensitive enough to document, however. One would expect a different conceptualization of the city to be gained by working at a community agency than by taking part in recreational opportunities in the city. A more qualitative approach to data collection would have been useful in qualifying this finding.

There were also a number of measures on which no change was seen over the two years of the program. Students did not increase in Social Justice thinking or in Cultural Awareness; also, their Interpersonal, Leadership, and Cultural Skills did not vary over time. It may be that some attitudes and the self-evaluations of skill levels develop gradually as students carry out their community work, so that significant change might be seen from the beginning of

college to the senior year. We are currently analyzing additional data to investigate this possibility.

Similar to our findings, Vogelgesang and Astin (2000) and Shuler (2011) reported that students who had volunteered or tutored other students in high school and expressed a commitment to participate in community action programs were likely to participate in community service during college. We were able to show that such relationships hold not only concurrently, but after two years in college. There were impressive carry-over effects of a positive community service experience in high school on students' views of required public service. Also the relationships between students' civic attitudes, knowledge, and skills at Time 1 and their evaluations of the requirement at Time 2 are consistently strong. It may be that the emphasis on service at the university allows this stability over time, in that the students' initial interests are being encouraged rather than redirected toward other goals and activities.

Similarly, attitudes and interests that attracted students to the university continued to be related two years later to their attitudes toward the requirement as well as their civic attitudes, knowledge, and skills. Evidence for positive relations between College Civic Interest at Time 1 and views after 2 years is consistent with the Metz and Youniss (2005) finding that high school students inclined toward service scored high on civic measures throughout the course of a two-year long study.

There are clear limitations of this study, however. One particularly troubling question is the extent to which the students who took part in the research are typical of students at this university, or of college students in general. Our comparisons show numerous ways in which the students in our sample are similar to the classes from which they were drawn, in race, parent education, and their own educational plans. But we do find that women, students with high GPAs in high school, and those with interests in community service were more likely to participate in the research and to continue their participation two years later, so that our findings may be limited to a particular kind of student. There is also the issue of time and place: These students entered the university in the three years following a major disaster, when the city was in need of assistance in many ways. We have shown in earlier work that students entering after Hurricane Katrina had different reasons for coming to this university and different expectations for college than students who had entered before the storm (Moely & Ilustre, 2011). Finally, the kinds of students who attend this relatively selective private university are not typical of college students in general. For all these reasons, our findings may not generalize to other settings. However, we view this work as a

first step in understanding stability and change over time; future research will determine the extent to which other students, in other times and places, will produce similar findings. Other questions remain for future research, as well. Through continued work with this data set, we can ask about the nature of service-learning experiences that impact civic attitudes, knowledge and skill acquisition. Follow-up surveys of the same students will allow assessment of stability and change over longer time periods.

Implications for programming can be inferred from these findings: An educational setting that offers opportunities for high-quality service-learning experiences and ample volunteer service choices and that encourages efforts to learn about the community will make it possible for students to build upon initial civic interests and learn about civic issues, thereby increasing their commitment to service and their knowledge of civic matters. As we continue to follow these students through the remainder of their college years and beyond, we hope to document further growth in civic attitudes and involvement, and to identify factors influencing their activities as citizens and community members.

References

- Achenbach, T. M. (1978). *Research in developmental psychology: Concepts, strategies, methods*. New York: Free Press.
- Baxter Magolda, M. B. (1992). *Knowing and reasoning in college: Gender-related patterns in students' intellectual development*. San Francisco: Jossey-Bass.
- Billig, S. (2009). Does quality really matter? Testing the new K-12 service-learning standards for quality practice. In B. E. Moely, S. H. Billig, & B. A. Holland (Eds.), *Creating our identities in service-learning and community engagement* (pp. 131-157). Charlotte, NC: Information Age Publishing.
- Bingle, R. G., Hatcher, J. A., & Muthiah, R. N. (2010). The role of service-learning on the retention of first-year students to second year. *Michigan Journal of Community Service Learning, 16*(2), 38-49.
- Corporation for National and Community Service and Abt Associates, Inc. (2008). *Still serving: Measuring the eight-year impact of AmeriCorps on alumni*. Retrieved from http://www.americorps.gov/about/role_impact/index.asp
- Fenzel, L. M., & Peyrot, M. (2005). Comparing college community participation and future service behaviors and attitudes. *Michigan Journal of Community Service Learning, 12*(1), 23-31.
- Furco, A. (n.d.) *Higher Education Service-Learning Survey*. Retrieved from www.servicelearning.org/filemanager/download/HEdSurveyRel.pdf
- Furco, A., & Moely B. E. (2006, April). *A comparative analysis of the impacts of service-learning on students*. Paper presented at the annual meeting of the American Educational Research Association, San Francisco, CA.
- Kiely, R. (2004). A chameleon with a complex: Searching for transformation in international service-learning. *Michigan Journal of Community Service Learning, 10*(2), 5-20.
- Kiely, R. (2005). A transformative learning model for service-learning: A longitudinal case study. *Michigan Journal of Community Service Learning, 12*(1), 5-22.
- King, P.M., & Kitchener, K. S. (1994). *Developing reflective judgment: Understanding and promoting intellectual growth and critical thinking in adolescents and adults*. San Francisco: Jossey-Bass.
- Metz, E. C., & Youniss, J. (2005). Longitudinal gains in civic development through school-based required service. *Political Psychology, 26*(3), 413-437.
- Moely, B. E., & Ilustre, V. (2011). University students' views of a public service graduation requirement. *Michigan Journal of Community Service Learning, 17*(2), 43-58.
- Moely, B. E., Pizzolato, M., & Ilustre, V. (2012). *An innovative university-based program supporting community development efforts of VISTA participants: Implementation and outcomes*. Unpublished paper, Tulane University.
- Perry, W. G., Jr. (1979). *Forms of intellectual and ethical development in the college years*. New York: Holt, Rinehart and Winston, Inc.
- National Youth Leadership Council (2008). *K-12 service-learning standards for quality practice*. Retrieved from <http://www.nylc.org/k-12-service-learning-standards-quality-practice>
- Shuler, L. O. (2011). *Paths to active citizenship: The development of and connection between civic engagement involvement and attitudes in college students*. ProQuest, UMI Dissertation Publishing.
- Student Voice: The first comprehensive assessment platform for higher education*. Available at www.studentvoice.com/
- Stukas, A. A., Snyder, M., & Clary, E.G. (1999). The effects of "mandatory volunteerism" on intentions to volunteer. *Psychological Science, 10*(1), 59-64.
- Vogelgesang, L. J. (2009). Civic engagement and service-learning: The challenge and promise of research. In B. E. Moely, S. H. Billig, & B. A. Holland (Eds.), *Creating our identities in service-learning and community engagement*. Charlotte, NC: Information Age Publishing.
- Vogelgesang, L.J., & Astin, A. W. (2000). Comparing the effects of community service and service learning. *Michigan Journal of Community Service Learning, 7*, 25-34.
- Warchal, J., & Ruiz, A. (2004). The long-term effects of undergraduate service-learning programs on postgraduate employment choices, community engagement, and civic leadership. In M. Welch & S. H. Billig (Eds.), *New perspectives in service-learning: Research to advance the field* (pp. 87-106). Greenwich, CT: Information Age Publishing.
- Whitbourne, S. K., & Waterman, A. S. (1979). Psychosocial development during the adult years: Age and cohort comparisons. *Developmental Psychology, 15*(4), 373-378.

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