Enduring Commitments to Community Service among Diverse College Students: Testing a Multidimensional Conceptual Model

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The Enduring Community Service Engagement Model illustrates how multiple dimensions of service participation – including the type and intensity of service, the motivations to serve, and the benefits of service – relate to subsequent citizenship values and behaviors. This study draws on data from the Beginning Postsecondary Students Longitudinal Study (BPS:04/09) and utilizes structural equation modeling to examine the extent to which the relationships in the model are conditional on college students' gender, race and ethnicity, income level, and institutional type. The findings provide evidence for model invariance in the case of institutional type; however, some model parameters differ by gender, race and ethnicity, and income level.

Keywords: community service; diversity; higher education

Cultivating students' commitment to engaged citizenship and preparing them for lives of service are central to the educational aims of the college experience (American Council on Education, 1949; Campus Compact, 2007; Dote, Cramer, Dietz, & Grimm, 2006). National studies of service participation make the promising observation that young adults are invested in volunteer efforts, as rates of service engagement have risen over the last decade (Dote et al., 2006; Griffith, 2010; Handy et al., 2009; Haski-Leventhal et al., 2008; Misa, Anderson, & Yamamura, 2005; Sax, 2004). Even so, sustained commitment to service is not guaranteed, according to longitudinal research that highlights declines in service behavior from one point in the educational trajectory to the next (Vogelgesang & Astin, 2005). What factors promote values and behaviors associated with enduring commitments to community service participation?

In pursuit of answers to this question, a recent study tested the Enduring Community Service Engagement Model, which elucidates the multiple dimensions of service work participation—including the type and intensity of service, motivations to serve, and the benefits associated with service—in relation to service behaviors six years after college entry (Rockenbach, Hudson, & Tuchmayer, 2014; see Figure 1). Although the empirical literature on college students' service has not yielded a consistent definition of service participation, for the Enduring Community Service Engagement Model and the present study, service participation is defined as performing any community service or volunteer work during the previous year, excluding charitable donations and service that is court-ordered or for which the individual received pay. The final outcome represented in the model—hours devoted to volunteer work or community service six years after college—was selected so as to gauge the degree of commitment to service outside of one's paid occupation.

Rockenbach, Hudson, and Tuchmayer (2014) identified evidence to suggest that citizenship values expressed by students when they begin college are predictive of service work during college and are linked to commitments to citizenship and living a life of meaning and purpose two years later. Moreover, service contexts that involve tutoring and mentoring children, helping people and communities in need, and serving religious organizations exhibit a more robust connection to enhancing students' sense of compassion and social consciousness than service work involving

fundraising. Another contextual factor—participating in service because of a class or program requirement—appears to encourage vocational clarity and career advancement among students but not compassion and social consciousness. The benefits students experience in relation to their service participation are influential as well. Specifically, service-work outcomes characterized by vocational clarity and personal advancement diminish the value students place on citizenship and finding a sense of meaning and purpose in life. By contrast, becoming a more compassionate and socially aware person in conjunction with service work is associated with commitments to meaning, purpose, and citizenship. Controlling for the number of hours worked weekly (which detracts from service participation), commitments to meaning, purpose, and citizenship, in turn, are correlated with the average hours per month that individuals devote to service six years after college entry.
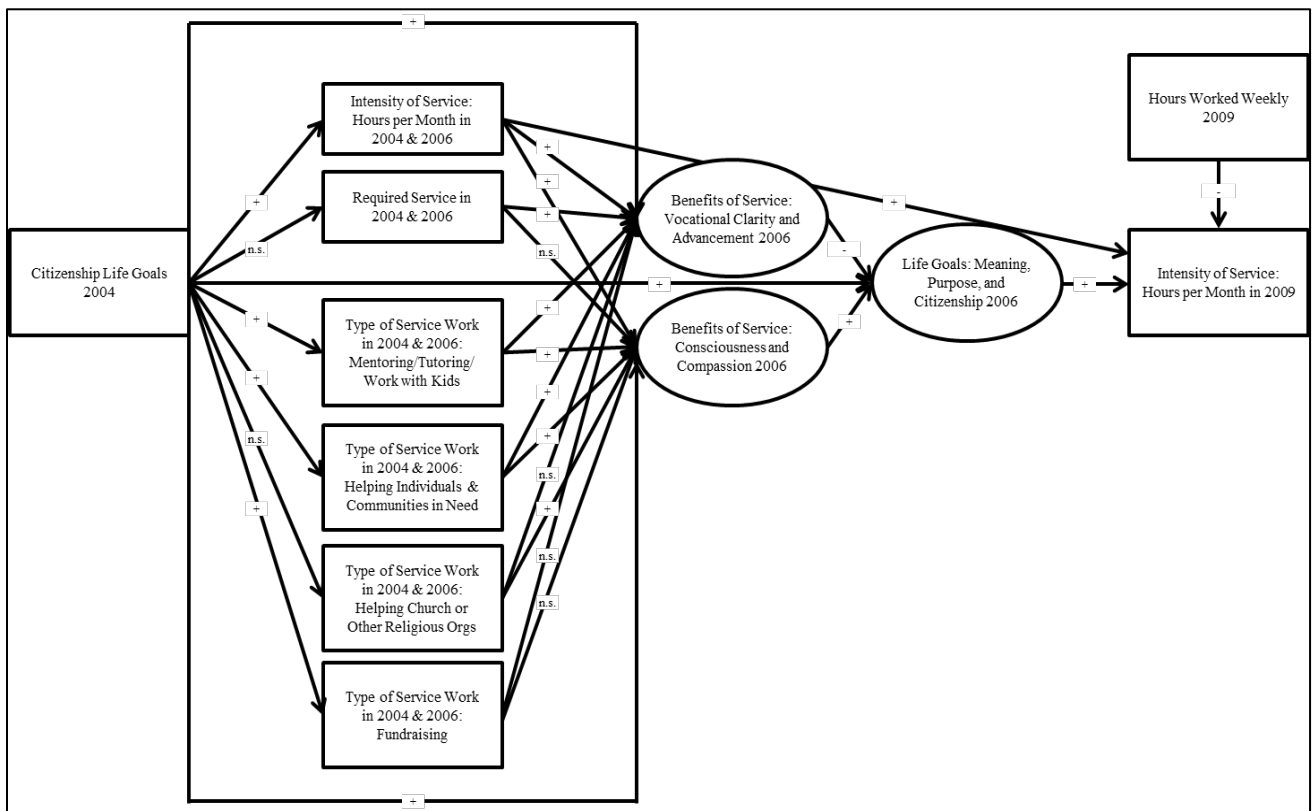

Figure 1. Enduring Community Service Engagement Model[1]

Although the model identifies the relationships among service work dimensions and enduring commitments, and provides a framework for understanding the contextual features that matter most in fostering the desired outcomes of service, an assumption of universality comes with models tested on aggregated samples of college students. In reality, many of the effects of college are conditional on student and institutional characteristics (Pascarella, 2006), and ignoring the heterogeneity of the college population in pursuit of generalizable findings often results in models that reflect and privilege the experiences of the majority (Stage, 2007). The purpose of the present study is to trouble the assumptions of universality by exploring whether and how the relationships in the model developed by Rockenbach, Hudson, and Tuchmayer (2014) are conditional on gender, race and ethnicity, income level, and institutional type.

Community Service Participation: The Role of Personal and Contextual Factors

Gender

Although a few studies point to gender similarities in community service engagement (Ferrari & Bristow, 2005; Griffith & Hunt-White, 2007; Handy et al., 2009; Hart, Donnelly, Youniss, & Atkins, 2007), most studies have found that women participate in community service at higher rates than men (Cruce & Moore, 2007; Dote et al., 2006; Marcelo, Lopez, & Kirby, 2007; Marks & Jones, 2004; Metz & Youniss, 2005; Oesterle, Johnson, & Mortimer, 2004; Planty, Bozick, & Regnier, 2006; Sax, 2004). Furthermore, within key demographic groups such as age, race, marital status, level of education, and employment status, women are more likely to volunteer than men (Davila & Mora, 2007b; White, 2006). Gender differences in service participation may also interact with race: among young adults between the ages of 15 and 25, the gap in service participation rates has been found to be larger for Whites than for Blacks (Marcelo et al., 2007).

Wilson (2000) suggested that "women would volunteer even more if they had the same amount of human capital as men" (p. 227), based on his comprehensive literature review on studies of service participation among U.S. adults. However, some studies have found no difference between the participation rates of women and men (Ferrari & Bristow, 2005; Handy et al., 2009; Hart et al., 2007), including a study involving the same dataset used in the present research, the 2004/09 Beginning Postsecondary Students Longitudinal Study (Griffith & Hunt-White, 2007). Handy and colleagues also found no difference between men and women in intensity of service (i.e., hours engaged in service per month).

Female college students may be more likely than men to commit to continued service (Chesbrough, 2011; Marks & Jones, 2004; Trudeau & Devlin, 1996), to begin volunteering in college (Marks & Jones, 2004), to be more motivated to serve by altruism (Trudeau & Devlin, 1996), and to have higher levels of post-college civic engagement (a composite measure including community service) (S. Hu, 2008). Moreover, researchers have found that men and women participate in community service differently. Women tend to volunteer in caring and relational service, such as with health organizations and with preschool children, whereas men are more involved in political and sports-related organizations and opportunities (Trudeau & Devlin, 1996; Vogelgesang & Astin, 2005; Wilson, 2000). Although Vogelgesang and Astin (2005) found that women are more likely than men to volunteer with educational organizations, Dote and colleagues (2007) found that religious, tutoring, educational, and youth-related service opportunities tend to be popular with both men and women. Among college students, men have been found to prefer competitive rather than relational service (Jones & Hill, 2003).

Gender may also impact attitudes toward service. Women are less likely than men to report that it is not important to help others in the community (Davila & Mora, 2007b). A mixed-methods study of gender differences in college students' attitudes and motivation toward service found that male students described service in rational ways and as an individual activity, and considered the time commitment required and external sources of motivation in choosing whether and where to serve, whereas women described service in relational terms and considered internal motivators (Chesbrough, 2011). The men in Chesbrough's (2011) study also reported feeling that they had not been "invited to serve or were unaware of service opportunities" (p. 703), suggesting that college students may perceive participation in community service to be a gendered activity; this may explain the gender differential in service participation rates some researchers have found.

Race and Ethnicity

Findings regarding the relationship between race and ethnicity and participation in community service are mixed. Some studies of college students, young adults, and the general U.S. population have found higher participation rates among Whites (Dote et al., 1996; Eyler, Giles, Stenson, & Gray, 2001; Fitch, 1991; Musick, Wilson, & Bynum, 2000; Nolin, Chaney, & Chapman, 1997; Planty & Regnier, 2003; Wilson, 2000), while others have found higher rates of service among people of color (Cruce & Moore, 2007) or no difference in service participation among racial and ethnic groups (Hart et al., 2007; Marks & Jones, 2004; Oesterle et al., 2004). Lower rates of service or civic engagement (which includes community service) have been reported for Hispanic (Griffith & Hunt-White, 2007; Marcelo et al., 2007) and Asian American (S. Hu, 2008) students; yet, Marcelo and colleagues (2007) found Asian Americans between the ages of 15 and 25 to have the highest rates of service among all racial and ethnic groups. A longitudinal study of youth from eighth grade until age 26 found that the rate of service participation for Asian American and White youth declined over time, while the rate for Black youth increased to the point that they were 71% more likely to participate in service than Whites at age 26 (Planty et al., 2006). Some researchers have found differences between Whites and African Americans in the types of service in which they engage (Dote et al., 2006; Wilson, 2000), but Marcelo and colleagues found little variation among African Americans, Whites, Asians, and Latinos in the organizations for which they volunteer.

Complicating reported rates of service for different racial and ethnic groups is the finding that African Americans may see community service activities as something they just do (i.e., not "service"), and may therefore underreport their participation (Jones & Hill, 2003); this may be true of other minority racial and ethnic groups as well, as those from marginalized groups tend to see service as a way to connect with and give back to their communities (Jones & Hill, 2003; Lee, 2004). African American respondents also report higher rates of political involvement than their White peers (Lopez et al., 2006), which might not always be captured in studies on civic engagement. In addition, racial differences in rates of participation in community service may be reduced or eliminated when controlling for human capital factors, including education and employment, as well as family characteristics and propensity to volunteer (Davila & Mora, 2007b; Niemi et al., 2000; Oesterle et al., 2004; Wilson, 2000).

Socioeconomic Status

For college students as well as the general population, there is a positive relationship between socioeconomic status and volunteering. This relationship has been found for specific components of socioeconomic status, such as individual and parental education levels (Cruce & Moore, 2007; Davila & Mora, 2007a; Griffith & Hunt-White, 2007; Handy et al., 2009; S. Hu, 2008; Lopez, Levine, Both, Kiesa, Kirby, & Marcelo, 2006; Marks & Jones, 2004; Marks & Kuss, 2001; Metz & Youniss, 2005; Niemi et al., 2000; Oesterle et al., 2004; Planty et al., 2006; Wilson, 2000; Youniss, McLellan, Su, & Yates, 1999) and individual and family income (Griffith & Hunt-White, 2007; Handy et al., 2009), as well as for social class generally (Hart et al., 2007; Planty et al., 2006). As Wilson (2000) explains, having greater human capital gives people and their children the resources (e.g., skills, money, etc.) that enable volunteering. Others, however, have found no relationship between socioeconomic status and service participation (Oesterle et al., 2004; Serow & Dreyden, 1990).

Considering family income specifically, affluence is positively linked to the frequency and intensity (hours per month) of service participation (Handy et al., 2009), although change over time in service activity provides some compelling indications of the differing motivations for service participation across income groups. In one study, affluent students participated in service at significantly higher rates during high school than less affluent students (60.3% versus 29.6%). However, the participation rates of the affluent students declined more precipitously after high

school than did the participation rates of the less affluent students (-19.4% versus -3.9%; Planty et al., 2006). Planty and colleagues (2006) explained this disparity as a function of affluent students attempting to inflate their resumes in preparation for college admissions applications.

Further evidence links socioeconomic status and students' service attitudes and motivations. Specifically, for students of lower social class, benefitting those like them (in terms of both race and class) and "giving back to my community" were primary motives and intrinsic rewards for service (Lee, 2004). In addition, the benefits students gain from service participation may differ for students from different socioeconomic backgrounds. Yeh (2010) found that participation in service learning helped low-income, first-generation students build their social and cultural capital, resilience, sense of purpose, support networks, and self-efficacy, which in turn fostered success in college.

Institutional Characteristics

In addition to personal factors such as gender, race, and socioeconomic status, institutional characteristics—control, type, and religious affiliation—are predictive of college students' engagement in community service. Students attending private colleges are more likely to volunteer than those attending public colleges, and those attending for-profit or public two-year colleges are less likely to serve than those at public four-year institutions (Griffith & Hunt-White, 2007). In addition, students attending private, religiously affiliated institutions are more likely to volunteer compared to students attending private, independent institutions and public institutions (Cruce & Moore, 2007; Serow & Dreyden, 1990). Religiously affiliated institutions often weave community service into the academic and social fabric of the institution, influencing students' motivations to serve. For instance, Kuh and Umbach (2004) found that students attending religiously affiliated institutions had a greater desire to contribute to their community than students at secular institutions. Similar to religious affiliation, other contextual features of the campus—perceptions of an altruistic campus environment (Ferrari & Bristow, 2005) and perceptions of a "moral community" (Serow, 1989)—are positively related to service participation.

Limitations of the Research on Community Service Participation

The findings regarding college students' participation in community service overall, as well as differences by subpopulations, vary widely, due largely to inconsistent and idiosyncratic definitions and operationalization of community service participation. For example, some studies use a dichotomous yes/no measure for service participation, which may be measured as participation within the past month (Oesterle et al., 2004), past year (Dote et al., 2006; Griffith, 2010; Griffith & Hunt-White, 2007; Handy et al., 2009; Haski-Leventhal et al., 2008; Marcelo et al. 2007), or any past participation (Fitch, 1991; Hart et al., 2007; Marks & Jones, 2004; Trudeau & Devlin, 1996). Others use measures of service participation intensity, such as hours of service (continuous or categorical) (Handy et al., 2009) or frequency of service (categorical) (Dote et al., 2006; Handy et al., 2009; Haski-Leventhal et al., 2008; Serow, 1989; Serow & Dreyden, 1990). These differences in service participation measurement make it challenging to compare findings across studies. Furthermore, while many studies measure actual service performed (e.g., performing service in the past year, as with the present study), some have chosen to measure intent or motivation to perform service (Cruce & Moore, 2007; Ferrari & Bristow, 2005; S. Hu, 2008; Stukas, Snyder, & Clary, 1999) or propensity for service (Cruce & Moore, 2007; Planty et al., 2006), which are conceptually different than measures of actual service performed.

Community service or volunteering may also be grouped with other measures into a single dependent variable such as civic engagement or community participation (González, 2008; S. Hu, 2008; Johnson, 2004) rather than measured independently. In addition, some studies differentiate between required service (e.g., as a class requirement) and volunteer service, while others include all

forms of service. As the characteristics and outcomes of students who engage in required service may differ from those who engage in volunteer service, the findings of studies that do not disaggregate results by type of service may be misleading. Altogether, the significant inconsistencies in measuring service participation and lack of agreement on the definition of service likely account for much of the substantial variation in findings about college students' service participation. In the present study, we use the Enduring Community Service Engagement Model in an effort to represent relationships among complex dimensions of community service engagement while clearly operationalizing the constituent elements.

Research Question

All told, gender, race and ethnicity, socioeconomic status, and institutional characteristics are among the primary predictors of community service engagement. Women tend to serve at higher rates, in different contexts, and for different reasons than men. The research is inconclusive when it comes to which racial and ethnic groups have the highest rates of service participation, but there is evidence to suggest that students of diverse races and ethnicities have unique perceptions of what service is and why it is important. Regarding socioeconomic status, affluence is positively related to service, although, as with race, the motivational forces behind service engagement may differ by income level and class. Finally, institutional type, control, and affiliation are important predictors of service, with students attending religious colleges and universities engaging in service to a greater extent than students attending other institutions.

In light of the importance of these four dimensions in relation to community service engagement, Rockenbach, Hudson, and Tuchmayer (2014) included them in the initial Enduring Community Service Engagement Model. Surprisingly, the variables were not significant predictors of the dependent variable—that is, intensity (hours per month) of service six years after college entry—and were omitted from the final model. The weight of the evidence in the existing knowledge base, though, suggests these variables play an important role in the community service experience for students. It may be that these variables serve a moderating function, nuancing the way in which the dimensions of service participation relate to one another. To test this conjecture, we investigated the following research question: To what extent are the relationships among service work dimensions and outcomes conditioned by gender, race and ethnicity, income level, and institution type?

Method

The dataset for this study was derived from the 2004/09 Beginning Postsecondary Students Longitudinal Study (BPS:04/09) conducted by the U.S. Department of Education's National Center for Education Statistics (see Wine, Janson, & Wheeless, 2011). The sample for the analysis included all BPS:04/09 respondents who affirmed participating in community service in response to the following question in 2004 and 2006: "Did you perform any community service or volunteer work during the past year? Please exclude charitable donations (such as food, clothing, money, etc.), paid community service, and court-ordered service." The majority of the sample of approximately 4,470 community service participants was female (61%), and the racial and ethnic breakdown was as follows: White (72.9%), African American/Black (9.6%), Hispanic/Latino/a (7.7%), Asian/Asian American (5.1%), Native American/Alaska Native (0.5%), and Native Hawaiian/Pacific Islander (0.1%). Another 1.2% of the sample identified as "other," and 2.9% identified as multiracial. The socio-economic status of community service participants ranged from low to high income, with 17.0% in the low-income quartile, 21.5% in the low-middle-income quartile, 26.1% in the high-middle-income quartile, and 35.4% in the high-income quartile. A full 54.9% of participants attended public institutions, 25.1% attended private religious institutions, 17.0% attended private non-sectarian institutions, and 3.0% attended institutions in the for-profit sector.

Variables

Based on the relevant dimensions of service work identified in the literature, the Enduring Community Service Engagement Model includes three latent constructs and nine observed variables. The dependent variable, intensity of service work six years after college entry, has a range of 0 to 30 hours per month. One of the intermediate outcomes, *Life Goals Oriented Toward Meaning*, *Purpose*, *and Citizenship (2006)*, is a latent construct consisting of four items that students could report as being "very important" to them: Being a leader in the community, helping others, influencing the political structure, and finding meaning and a sense of purpose in life (Chi-square=44.373, df<10, p=0.000; CFI=0.951; TLI=0.853; RMSEA=0.069). Two of the items in the *Life Goals* measure— being a leader in the community and influencing the political structure—were asked of students in 2004 and summed to create the observed composite variable, *Citizenship Life Goals (2004)*, designed to control for student inclinations toward citizenship at the beginning of college.

The *Intensity of Volunteer Work* performed during college is an observed variable measured in both 2004 and 2006. The measure represents the average hours of service per month (0 to 50 hours) in both academic years. *Required Service* (two items), reflects the extent to which students volunteered as a result of a class or program requirement. A score of "0" indicates no required service in either 2004 or 2006, "1" represents required service in one of the years (2004 or 2006), and "2" reflects required service in both 2004 and 2006. Four observed variables, measured in 2004 and 2006, are indicative of the *type of service* in which students participated: *Tutoring*, *Mentoring*, *or Other Work with Kids* (four items); *Helping People and Communities in Need* (6 items, e.g., helping in homeless shelter/soup kitchen, hospital/nursing home; neighborhood improvement); *Service to Church or Other Religious Organizations* (two items); and *Fundraising* (two items). Scores on each of the four "type" variables were derived by summing individual items included within each variable. *Hours Worked Weekly*, a continuous measure that reflects the time devoted to employment in 2009, controls for career engagement that may preclude an individual from participating in community service.

Lastly, confirmatory factor analyses supported a two-factor model representing two additional intermediate outcomes that reflect the benefits students may experience in relation to their service participation (Chi-square=14.048, df=10, p=0.081; CFI=0.999; TLI=0.997; RMSEA=0.013). *Vocational Clarity and Advancement* consists of "external" benefits such as furthering one's career and academic major choice, building one's resume, and expanding one's skills. "Internal" benefits, by contrast, are those associated with *Consciousness and Compassion*, including learning how to apply knowledge, skills, and/or interests to real world issues; increasing awareness of social issues; and becoming a more compassionate person. Descriptive details regarding the measures can be found in Rockenbach, Hudson, and Tuchmayer (2014). The model tested by Rockenbach, Hudson, and Tuchmayer (2014) met the basic assumptions of SEM, including sample size, multivariate normality, and absence of multicollinearity (see Schumacker & Lomax, 1996). Missing data for continuous variables were replaced using the Missing Values Analysis procedure with the expectation-maximization (EM) method in SPSS.

Analytic Techniques

A multiple group analysis of model invariance was performed in AMOS via a two-step process to examine whether the Enduring Community Service Engagement Model adequately reflects the experiences of students of diverse genders, races and ethnicities, income levels, and institutional types. The first step entailed conducting separate SEM analyses for each group to ensure model fit for 13 subgroups: women, men, African American/Black students, Asian/Asian American students, Latino/a students, White students, low-income students, low-middle-income students, high-middle-income students, high-income students, students attending public institutions, students attending private non-sectarian institutions, and students attending private religious institutions. To equalize

sample sizes, samples of the same size were randomly drawn for each demographic/institutional comparison. Due to small sample sizes, Native American/Alaska Native students, Native Hawaiian/Pacific Islander students, multi-racial students, and students attending for-profit institutions could not be included in the subgroup comparisons. Traditional measures of fit were considered in assessing the model-data fit for each subgroup. Specifically, Chi-square (X^2), the Comparative Fit Index (CFI), the Tucker-Lewis Index (TLI), and RMSEA, a measure of error, were examined (L. Hu & Bentler, 1999; Schumacker & Lomax, 1996).

The second step involved performing tests of measurement invariance to reveal whether model parameters differed significantly between groups. Testing for measurement invariance involves comparing the unconstrained model for pooled comparison groups with models in which certain parameters are constrained to be equal between the groups. For the purposes of this study, unconstrained models were compared to models in which (1) measurement weights (latent construct factor loadings) were constrained to be equal and (2) structural weights (regression coefficients) were constrained to be equal. The Chi-square difference statistic was used to assess whether there were significant differences between the unconstrained and the constrained-equal models. A nonsignificant difference between the unconstrained and constrained-equal models suggests invariance (i.e., applicability of the model across groups). Parameter differences were further examined when significant changes in Chi-square suggested non-invariance. In the case of non-invariance, unstandardized measurement weights (factor loadings) and structural weights (regression coefficients) were compared across groups using a t-test statistic, a procedure consistent with Sax (2008) and Bryant (2011).

Results

With some exceptions, the Enduring Community Service Engagement Model is a sufficient representation of the experiences of students from diverse genders, races and ethnicities, income levels, and institution types. As shown in Table 1, although the Chi-square is significant for all groups, this indication of poor model-data fit is due to sample size. Smaller sample sizes would likely have yielded nonsignificant Chi-square estimates (see L. Hu & Bentler, 1999). The CFI estimates range from 0.842 to 0.953, TLI from 0.776 to 0.934, and RMSEA from 0.031 to 0.049. Whereas the model appears to best represent the experiences of Asian/Asian American students relative to other groups, the poorest fit is evident among Latino/a students. A closer look at the path estimates for Latino/a students reveals that only six paths reached statistical significance. Following Latino/a students, the high-middle-income group shows poorer model-data fit than other groups; however, 15 paths in the model are statistically significant (and in the expected direction).

Tests for measurement invariance revealed that the model's structural paths and factor loadings are equivalent when comparing students attending different types of institutions (public, private non-sectarian, and private religious). Differences in structural path coefficients and factor loadings are apparent, however, for students of different genders, races and ethnicities, and income levels, as we describe in the sections that follow. Table 2 displays the structural paths that differ significantly between groups.

Gender

Although the model is non-invariant by gender, the differences are relatively minor. Three factor loadings differ between women and men, and in each case the relationship in question is stronger for men. One of the benefits of service (expanded skills) has a higher loading on the factor "vocational clarity and advancement benefits" for men relative to women. Similarly, the item "increased awareness of social issues" is a stronger indicator of consciousness and compassion benefits for men

than women, and the item "helping others" is more closely associated with men's life goals oriented toward meaning, purpose, and citizenship in 2006 than women's.

Table 1. Fit Indices by Group

Group	N	X^2 (*df*, p)	CFI	TLI	RMSEA (confidence interval)
Women	1,740	493.230 (134, 0.000)	0.894	0.850	0.039 (0.036, 0.043)
Men	1,740	501.121 (134, 0.000)	0.901	0.859	0.040 (0.036, 0.043)
African American/Black	230	180.029 (134, 0.005)	0.888	0.842	0.039 (0.022, 0.053)
Asian/Asian American	230	163.176 (134, 0.044)	0.953	0.934	0.031 (0.006, 0.047)
Latino/a	230	208.866 (134, 0.000)	0.842	0.776	0.049 (0.036, 0.062)
White	230	178.196 (134, 0.006)	0.894	0.850	0.038 (0.021, 0.052)
Low-Income	760	235.137 (134, 0.000)	0.930	0.900	0.032 (0.025, 0.038)
Low-Middle Income	760	242.063 (134, 0.000)	0.932	0.904	0.033 (0.026, 0.039)
High-Middle Income	760	333.817 (134, 0.000)	0.861	0.802	0.044 (0.038, 0.050)
High Income	760	310.237 (134, 0.000)	0.88	0.830	0.042 (0.036, 0.048)
Public Institution	760	251.229 (134, 0.000)	0.921	0.888	0.034 (0.027, 0.040)
Private Non-Sectarian Institution	760	228.518 (134, 0.000)	0.935	0.907	0.031 (0.024, 0.037)
Private Religious Institution	760	270.439 (134, 0.000)	0.902	0.862	0.037 (0.030, 0.043)

Race and Ethnicity

Comparisons of the following racial and ethnic groups revealed model invariance: African American/Black and Latino/a, White and Latino/a, and Asian/Asian American and Latino/a. Factor loading and/or structural path differences are evident, however, in three other racial and ethnic comparisons.

The 2006 life goals construct appears to have different meaning for African American/Black students relative to White students. Two items ("helping others" and "finding meaning and a sense of purpose in life") load on the life goals factor for White students but not for African American/Black students. Conversely, "influencing the political structure" has a stronger factor loading on life goals for African American/Black students compared to White students. Also, one of the structural paths in the model is distinctive between the two groups: The 2006 life goals construct is not related to the intensity of service in 2009 among African American/Black students, but this relationship is significant and positive among White students. Specifically, for White students, a one-unit increase on the 2006 life goals scale yields a 7.25-hour increase in time devoted to service three years later (*p* < 0.01).

Five structural paths differ between African American/Black and Asian/Asian American students. In each instance, the path is statistically significant among Asian/Asian American students but not among African American/Black students. For Asian/Asian American students only, the intensity of service in 2004/06 predicts vocational clarity and advancement benefits, while required service predicts both sets of benefits (vocational and consciousness/compassion). In addition, serving people and communities in need as well as fundraising are positively related to consciousness and

Table 2. Structural Paths Between Groups

Path	Group 1 b	S.E.	Sig.	Group 2 b	S.E.	Sig.	t	Sig.
African American/Black (Group 1) and White (Group 2)								
Life Goals: Meaning, Purpose, Citizenship 2006 --> Intensity of Service in 2009	0.49	2.17		7.25	2.59	**	-2.00	*
African American/Black (Group 1) and Asian/Asian American (Group 2)								
Intensity of Service in 2004/06 --> Vocational Clarity & Advancement Benefits	0.00	0.00		0.01	0.00	***	-3.13	**
Required Service --> Vocational Clarity & Advancement Benefits	0.00	0.03		0.12	0.04	**	-2.62	**
Required Service --> Consciousness & Compassion Benefits	-0.02	0.04		0.16	0.05	**	-2.60	**
Helping People & Communities in Need --> Consciousness & Compassion Benefits	-0.01	0.02		0.05	0.02	**	-2.20	*
Fundraising --> Consciousness & Compassion Benefits	0.02	0.04		0.12	0.04	**	-2.51	*
White (Group 1) and Asian/Asian American (Group 2)								
Required Service --> Vocational Clarity & Advancement Benefits	0.01	0.02		0.12	0.04	**	-2.43	*
Required Service --> Consciousness & Compassion Benefits	-0.02	0.05		0.16	0.05	**	-2.31	*
Low Income (Group 1) and Low-Middle Income (Group 2)								
Citizenship Life Goals 2004 --> Service to Religious Organizations	-0.10	0.04	**	0.09	0.04	*	-3.56	***
Low Income (Group 1) and High-Middle Income (Group 2)								
Citizenship Life Goals 2004 --> Helping People & Communities in Need	0.02	0.05		0.18	0.06	***	-2.12	*
Citizenship Life Goals 2004 --> Service to Religious Organizations	-0.10	0.04	**	0.01	0.04		-2.06	*
Citizenship Life Goals 2004 --> Fundraising	0.01	0.03		0.1	0.03	**	-2.09	*
Fundraising --> Consciousness & Compassion Benefits	0.04	0.02	*	-0.03	0.02		2.41	*
Low Income (Group 1) and High Income (Group 2)								
Citizenship Life Goals 2004 --> Intensity of Service in 2004/06	0.36	0.50		1.67	0.42	***	-2.02	*
Citizenship Life Goals 2004 --> Helping People & Communities in Need	0.02	0.05		0.19	0.06	**	-2.12	*
Citizenship Life Goals 2004 --> Service to Religious Organizations	-0.10	0.04	**	0.02	0.04		-2.21	*
Citizenship Life Goals 2004 --> Fundraising	0.01	0.03		0.10	0.03	**	-2.03	*
Low-Middle Income (Group 1) and High Income (Group 2)								
Required Service --> Consciousness & Compassion Benefits	0.07	0.02	**	0.00	0.03		2.06	*
Helping People & Communities in Need --> Vocational Clarity & Advancement Benefits	0.00	0.01		0.02	0.01	**	-2.63	**
Life Goals: Meaning, Purpose, Citizenship 2006 --> Intensity of Service in 2009	2.88	1.19	*	8.83	1.66	***	-2.91	**

***p<.001; **p<.01; *p<.05

compassion benefits among Asian/Asian American students. In each instance, a one-unit increase in service intensity, required service participation, helping people and communities in need, and fundraising yields corresponding increases for Asian/Asian Americans on the two benefits measures that range from 0.01 to 0.16 scale points.

Finally, the model is slightly different for Asian/Asian American students and White students in that required service predicts both vocational and consciousness/compassion benefits for Asian/Asian American students, but (as with African American/Black students) these paths are not significant for White students.

Income Level

Whereas gender and racial and ethnic differences in factor loadings and structural paths are quite modest, non-invariance is somewhat more apparent by income level. The model is invariant in comparisons of low-middle- to high-middle-income students and high-middle- to high-income students, but generally differential patterns exist between lower and higher income groups.

Regarding factor loadings, most comparisons yielded no group differences. However, one loading differs between low- and high-middle-income students. "Influencing the political structure" loads more strongly on life goals oriented toward meaning, purpose, and citizenship in 2006 for low-income students than for high-middle-income students.

Table 2 displays 12 instances in which the structural paths differ between students of varying income levels. Three noteworthy patterns surfaced. First, citizenship life goals in 2004 (i.e., commitment at college entry to being a leader in the community and influencing the political structure) are predictive of service experiences in ways that differ by income level. For example, existing proclivities toward citizenship are related to the type of service performed in college. Higher-income students with inclinations toward citizenship opt to fundraise and help people and communities in need more so than low-income students with similar citizenship inclinations. In fact, a one-unit increase on the 2004 citizenship life goals measure results in a 0.10- to 0.19-point increase among higher income students on the fundraising and helping people and communities in need measures. By contrast, low-income students who aspire to citizenship tend *not* to engage in service with religious organizations (b = -0.10, $p < 0.01$). The relationship between citizenship and service to religious organizations is weaker (but positive) or nonsignificant among more affluent students. Finally, citizenship life goals are predictive of the intensity of service among high-income students but not low-income students. That is, for high-income students, a one-unit increase on the 2004 citizenship life goals scale yields a 1.67-hour increase in service work in 2004/06 ($p < 0.001$).

Second, the relationship between the type of service performed and subsequent benefits varies by income level. Whereas fundraising is associated with compassion and consciousness benefits among low-income students (b = 0.04, $p < 0.05$), the relationship is not significant among their high-middle-income peers. Likewise, required service is uniquely related to consciousness and compassion benefits among low-middle-income students (b = 0.07, $p < 0.01$), and the relationship is nonsignificant for high-income students. By contrast, high-income students derive vocational benefits from helping communities and people in need (b = 0.02, $p < 0.01$)—but low-middle-income students do not experience vocational gains from this type of service.

Third, life goals oriented toward meaning, purpose, and citizenship in 2006 predict the intensity of service in 2009 for both low-middle-income and high-income students; however, the relationship is stronger among more affluent students. Paralleling the findings pertaining to citizenship dispositions at college entry, values appear to be more predictive of higher-income students' service behaviors relative to their lower income peers: A one-unit increase on the 2006 life goals scale corresponds to an 8.83-hour increase in service intensity in 2009 ($p < .001$)

Discussion

This study explored the extent to which gender, race and ethnicity, income level, and institution type function as moderators of the relationships among variables in the Enduring Community Service Engagement Model. The findings point to model invariance—equivalent factor loadings and regression coefficients—in the case of institution type. In previous research, institutional characteristics have been modeled as predictors of community service engagement, and attendance at private colleges—particularly religious private colleges—has been linked to higher rates of service engagement relative to attendance at public institutions (Cruce & Moore, 2007; Griffith & Hunt-White, 2007; Serow & Dreyden, 1990). However, when the moderating effects of institutional type are considered, the mechanisms for developing citizens committed to service as indicated by the Enduring Community Service Engagement Model are the same for students attending public, private non-sectarian, and private religious institutions. Although the relationships in the conceptual model are not conditional on institution type, some relationships are dependent on gender, race and ethnicity, and income level.

With respect to gender, differences exist but are rather minimal: Three factor loadings are stronger for men than women, which may indicate the benefits and life goals constructs emphasize different aspects that depend on gender (e.g., "helping others" is a more central component of the life goals construct among men). Beyond factor loadings, the path relationships in the model are equivalent for women and men. According to prior empirical research, most scholars have noted higher rates of community service participation among women than men (Cruce & Moore, 2007; Dote et al., 2006; Marcelo et al., 2007; Marks & Jones, 2004; Metz & Youniss, 2005; Oesterle et al., 2004; Planty et al., 2006; Sax, 2004) and identified gender differences in the types of service performed (e.g., caring and relational service for women and political, competitive, and sports-related service for men; Jones & Hill, 2003; Trudeau & Devlin, 1996; Vogelgesang & Astin, 2005; Wilson, 2000). Other scholars have indicated different motivational factors at work in men's and women's service participation, with women participating for intrinsic reasons more so than men (Chesbrough, 2011). Whereas the common theme in much of the literature on men's and women's service participation is gender difference, our study highlights similarities in examining the moderating function of gender. Although nonsignificant findings are often deemed undesirable in quantitative research, in this instance the absence of significant differences is noteworthy because of the implication that the model has utility for both women and men. In practice, the service experiences that lead to favorable outcomes—including tutoring and mentoring children, helping people and communities in need, serving religious organizations, voluntary service, and encouraging compassion and consciousness benefits rather than purely vocational benefits—are relevant to all students regardless of gender.

Turning to the role of race and ethnicity in community service participation, the empirical literature is inconclusive, with some studies indicating higher participation rates among Whites (Eyler et al., 2001; Musick et al., 2000; Planty & Regnier, 2003; Wilson, 2000) and others finding higher rates of service among people of color (Cruce & Moore, 2007) or no differences by race and ethnicity (Hart et al., 2007; Marks & Jones, 2004; Oesterle et al., 2004). Other scholarship underscores how race and ethnicity shape perceptions of what constitutes service and the significance of service work (Jones & Hill, 2003). In many of the existing studies, the research question has primarily considered how race affects service engagement, rather than the question posed in this study: How does race affect the way multiple dimensions of service work relate to one another? It turns out that race and ethnicity do indeed play a role in the relationships among constructs in the model. For Latino/a students, the model is less representative of service perceptions, experiences, and outcomes relative to other groups, as only six paths in the model reached statistical significance and fit indices are less than adequate. We are left with only a vague conceptual understanding of the service experiences and outcomes of Latino/a students, which may be rich ground for continued scholarship examining race and community service participation. By contrast,

the model reflects the service engagement of Asian/Asian American students rather well. Many of the group differences, in fact, indicated paths that were significant for Asian/Asian American students but not for the comparison group (e.g., African American/Black students, White students). The time devoted to service, the type of service (helping people and communities in need and fundraising), and engaging in required service as part of a class or program all benefit Asian/Asian American students both in terms of their vocational clarity and advancement and levels of compassion and social consciousness. The relationships are much less consistent for other racial and ethnic groups.

It is well-established in the empirical literature that there is a positive relationship between socioeconomic status and volunteering, and the relationship is apparent in studies focused on individual and parental education levels (Cruce & Moore, 2007; Davila & Mora, 2007b; Griffith & Hunt-White, 2007; Handy et al., 2009; S. Hu, 2008; Lopez et al., 2006; Planty et al., 2006; White, 2006), individual and family income (Griffith & Hunt-White, 2007; Handy et al., 2009; Vogelgesang, 2005), and general social class (Hart et al., 2007; Planty et al., 2006). The most complex and compelling findings of the present study concern the moderating effects of income level, and these extend the empirical knowledge base by demonstrating that social class is not merely a predictor of service engagement but has implications for how students perceive and experience their citizenship and service. Whereas analysis of factor loading invariance produced just one significant difference ("influencing the political structure" drives the 2006 life goals construct more so for lower income students than higher income students), 12 structural paths differed by income level.

The first notable pattern we identified concerns the relationship between values and subsequent behaviors. Citizenship life goals in 2004 (i.e., commitment at college entry to being a leader in the community and influencing the political structure) predict the type and intensity of service engagement in a manner that is conditional on income. Specifically, commitment to citizenship at the outset of college is linked to helping people and communities in need and fundraising among higher income students, and to the tendency to avoid service to religious organizations among lower income students. Similarly, citizenship life goals in 2004 are associated with the intensity of service in 2004/06 among high-income students but not low-income students. Further, life goals oriented toward meaning, purpose, and citizenship in 2006 are associated with the intensity of service in 2009 for both low-middle-income and high-income students, but the relationship is stronger among the more affluent. As Rockenbach, Hudson, and Tuchmayer (2014) suggest, instilling citizenship values in students prior to and during college shapes how and to what extent they serve later on. Importantly, though, this study reveals that citizenship values are more predictive of the service behaviors of higher income students than lower income students. Perhaps lower income students are committed to community service regardless of their citizenship predispositions because "giving back" to their communities (Lee, 2004) supersedes motivations to serve that are driven by leadership or political inclinations and/or the desire to live a life of meaning and purpose. The negative relationship between citizenship life goals and service to religious organizations among lower income students needs further investigation. Given the political dimension associated with citizenship among lower income students that we discussed earlier, it may be that service to religious organizations is perceived by those with citizenship proclivities as an ineffectual avenue for social change in the public sphere.

The second major pattern involving income level underscores variations in the relationship between the type of service performed and subsequent benefits. Both fundraising and required service are uniquely related to consciousness and compassion benefits among lower income students, but these relationships are not statistically significant in the model for all students, nor did higher income students experience benefits from required and fundraising service engagements. Previous studies warn that required service work may reinforce external motivations for serving and diminish the intended outcomes of service (Marks & Jones, 2004; Stukas et al., 1999), but here we find that lower income students may actually experience personal transformation from these experiences,

growing in their social awareness and compassion for others. On the other hand, high-income students derive vocational benefits from helping people and communities in need in a way that lower income students do not. Perhaps lower income students do not reap the vocational benefits of service to the same extent as higher income students because they enter into service work with different motivations and expectations that may have little to do with how they will benefit personally from the experience.

Limitations and Future Research

There are three critical limitations of this study that provide a foundation for future inquiry on the community service experiences of diverse college students. First, the tests for model invariance on the basis of race and ethnicity did not include Native American/Alaska Native students, Native Hawaiian/Pacific Islander students, or multi-racial students, as the sample sizes of these groups were too small to allow for adequate disaggregation. Thus, we are left with remaining questions regarding how these groups in particular experience and perceive community service engagement. Further research using larger samples of community service participants is a necessary next step to test the model for a wider range of racial subpopulations.

Secondly, some of the gender, racial and ethnic, and income-level differences identified are difficult to interpret with certainty. Future research might involve interviews with students of different genders, cultures, and social classes regarding their motivations, experiences, benefits, perceptions of service, and continued commitments. The Enduring Community Service Engagement Model provides a frame for initial attempts to understand and interpret diverse students' community service narratives—but the model does not embody the narratives themselves.

Finally, regarding analytic and measurement issues, future research needs to more effectively account for potential confounding factors not included in our model for the sake of parsimony (e.g., other demands on time beyond hours worked, such as parenting and attending graduate school). Moreover, researchers conducting studies of college students' service participation should also ensure they are familiar with previous ways in which community service has been operationalized and measured and design their studies so that results may be comparable to previous evidence. On this note, we recommend studies that seek to replicate previous work by using consistent definitions, as well as studies that extend research in new directions. Our study was based on BPS:04/09, which considers only service work outside of one's paid occupation. Students who engage in service during college may be inspired to seek occupations that embody an ethic of service (e.g., social work, political activism, public policy), but these indicators of service are not captured by the variables included in BPS or the Enduring Community Service Engagement Model.

Conclusion

Johnson (2004) notes, "The relationship between collegiate participation in activities and alumni behavior is substantially stronger than the relationship between precollege variables and alumni behavior. What happens during college, then, does make a difference" (p. 180). The transformative potential of community service participation for college students' post-graduation civic participation makes it imperative to understand how multiple dimensions of service participation relate to subsequent citizenship values and service behaviors. Furthermore, as higher education scholars seek to elucidate the conditional effects of college on students, we become further informed about the inadequacy of the assumption of universality present in many of our models of college impact and student development, making it essential to understand how student characteristics such as gender, race and ethnicity, and income level affect service behaviors in college as well as the downstream outcomes resulting from college service.

Like the models that have come before it, the Enduring Community Service Engagement Model

is not a panacea, as its projected relationships among service work dimensions differ to a certain extent by gender, race and ethnicity, and income level. Taken together, the findings of this study demonstrate the importance of moving beyond the use of student characteristics as mere control variables in studies of community service engagement to considering how relationships among community service dimensions depend on student characteristics.

Note

1. See Rockenbach, Hudson, and Tuchmayer, 2014.

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