DEVELOPMENT AND CONSTRUCT VALIDITY OF SCORES ON THE COMMUNITY SERVICE ATTITUDES SCALE

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This study reports the multistage development of the Community Service Attitudes Scale (CSAS), an instrument for measuring college students' attitudes about community service. The CSAS was developed based on Schwartz's helping behavior model. Scores on the scales of the CSAS yielded strong reliability evidence (coefficient alphas ranging from .72 to .93). Principal components analysis yielded results consistent with the Schwartz model. In addition, the CSAS scale scores were positively correlated with gender, college major, community service experience, and intentions to engage in community service. The CSAS will be useful to researchers for conducting further research on the effects of service learning and community service experiences for students.

Increasingly, community service is being incorporated into the university setting through the integration of service learning in college classrooms (Zlotkowski, 1996). Service learning is an experiential pedagogy requiring students to apply course theory by working on a project for a nonprofit community organization. Educators, researchers, and policy makers believe that community service provides valuable experiences for students (Nathan & Kielsmeier, 1991). In the form of service learning, community service offers the opportunity for students to develop a variety of skills, including team

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building, leadership, conflict resolution, communication, organization, and time management (Tucker, McCarthy, Hoxmeier, & Lenk, 1998). Furthermore, community service prepares students for adulthood and citizenship by sensitizing them to community needs and showing them how their time and talents can make a difference in their community (Smith, 1994). Finally, community service is frequently an important part of the mission of a university and one of the values it endeavors to instill in its students (Cohen, 1994; Markus, Howard, & King, 1993).

Although community service learning holds great promise for higher education classrooms, it has generally been recognized that research into the outcomes and effects of service learning is lacking (Eyler, Giles, & Braxton, 1997; Giles, Honnet, & Migliore, 1991). For such research to occur, attitude instruments need to be developed that accurately measure student attitudes about community service and predict student intentions to engage in community service.

The present study reports the multistage development of the Community Service Attitudes Scale (CSAS), an instrument to measure college students' attitudes about community service. The CSAS items were based on Schwartz's (1977; Schwartz & Howard, 1982, 1984) model of altruistic helping behavior. Altruistic helping behavior describes how aware individuals are of the needs of others and to what degree they want to help others (Schwartz, 1977). The model is composed of cognitive and affective steps through which a person progresses, beginning with the perception of the existence of a need and ending with an overt response of help. In the development of the altruistic helping behavior model, Schwartz (1977) described "helping" primarily in terms of assisting in a one-time, specific situation, such as watching a stranger's parcel in a restaurant or donating blood. For the purposes of the present study, the Schwartz model was recast in more general terms to apply to volunteerism, which usually is directed at helping others in a more general, ongoing basis. The Schwartz model identifies the following sequential steps:

Phase 1. Activation steps: Perception of a need to respond.
1. *Awareness* that others are in need.
2. Perception that there are *actions* that could relieve the need.
3. Recognition of one's own *ability* to do something to provide help.
4. Feeling a sense of responsibility to become involved based on a sense of *connectedness* with the community or the people in need.

Phase 2. Obligation step: Moral obligation to respond.
5. Feeling a moral obligation to help generated through (a) personal or situational *norms* to help and (b) *empathy.*

Phase 3. Defense steps: Reassessment of potential responses.
6. Assessment of (a) *costs* and (b) probable outcomes (*benefits*) of helping.
7. Reassessment and redefinition of the situation by denial of the reality and *seriousness* of the need and the responsibility to respond.

Phase 4. Response step: Engage in helping behavior.
8. *Intention* to engage in community service or not.

Each phase influences the next, such that if Steps 1 through 4 of Phase 1 all have been activated, the individual progresses to Phase 2. Phase 2 then leads to Phase 3. Finally, in Phase 4, the decision whether to help (e.g., to engage in community service) is made.

The present study focuses on the development of an instrument to measure attitudes at each step of the model. First, survey items were constructed for each step, and data were gathered for the purpose of establishing reliability estimates. Then, the survey items were revised, administered to a different group of college students, and analyzed for reliability. A principal components analysis was conducted to determine if the resulting factors were consistent with the Schwartz (1977) model. Finally, construct validity evidence was gathered by assessing the relationship of the scale scores to the demographic and intention variables. A final version of the CSAS is offered for future research.

Participants

The participants were college students enrolled in business, communication, education, and psychology classes at a Western university in the spring of 1997 ($n = 437$) and fall of 1998 ($n = 332$). The demographic profiles of both samples are presented in Table 1. In both samples, 21 was the modal age of the students. Approximately 90% of participants were White, whereas the remaining 10% were Hispanic, Asian, African American, Native American, and multiracial. Most of the students were in their junior or senior year of college and did have previous community service experience. In the first sample, slightly more than half of the participants were male (56%), and the majority were business majors (77%). The second sample was slightly different: 59% were female, 30% were business majors, and 23% were psychology majors.

Scale Development

Community service attitude questions assessing each step of the Schwartz (1977) model were developed, resulting in separate scales that correspond to each step of the model. The first survey contained 70 items: 59 items on community service attitudes, 6 demographic items, and 5 items on intentions to participate in community service projects or to enroll in service-learning classes. For the second survey, items from the first survey were revised, resulting in 31 community service attitude items, 7 demographic items, and 3 items on intentions to participate in community service. Intention items were written as outcome measures, as is often done when actual behaviors are not measured, because intentions have been shown to strongly predict future behavior (Ajzen, 1988). The response choices for the attitude and intention items were 5-point Likert-type scales on the first survey and 7-point Likert-type scales on the second survey.

Table 1
Demographic Profiles of Surveys 1 and 2

Characteristic	Group	Percentage[a] Survey 1	Survey 2
Age	18-20	26	24
	21	27	29
	22	17	15
	23-29	23	25
	30-39	4	4
	40 and above	3	2
Race	African American	1	1
	Hispanic	4	5
	Native American	1	1
	Asian	3	3
	Multiracial	1	2
	White	90	87
	Other	1	1
Gender	Female	44	59
	Male	56	40
College rank	Freshman	1	0
	Sophomore	17	6
	Junior	38	36
	Senior	42	52
	Graduate	2	5
Major	Business	77	30
	Nonbusiness	23	
	Speech communication	—	11
	Recreation and tourism	—	8
	Education	—	8
	Social work	—	2
	Psychology	—	23
	Other	—	19
Previous community service experience	Yes	84	81
	No	16	18
Previous community service frequency	Once per year	—	40
	2-4 times per year	—	25
	Monthly	—	8
	Weekly	—	8
	Not applicable	—	19

Note. Survey 1, $n = 437$; Survey 2, $n = 332$. Dash indicates that these data were not collected for this sample.
a. Percentages may not sum to 100 because of rounding.

Using data from Sample 1 ($n = 437$), we performed reliability analyses on scores from the first survey. Items associated with each step of the model were analyzed as a separate scale. Items were analyzed to determine fit with

the other items on each scale. Items with item-total correlations less than .30 were dropped to increase the homogeneity of each scale. This is consistent with the procedure recommended by Nunnally and Bernstein (1994) for construct validation research. Coefficient alpha indicates item homogeneity based on the scores of each scale. Alpha levels greater than .70 indicate modest reliability, which is acceptable for early stages of research. Alpha levels greater than .80 are considered good (Nunnally & Bernstein, 1994). Scores on five of the revised helping scales (Connectedness, Norms, Empathy, Costs, and Benefits) yielded coefficient alphas at or greater than .80, and alphas for scores on the remaining four (Awareness, Actions, Ability, and Seriousness) ranged from .54 to .67. These scales had only 2 to 5 items per scale, which contributed to the lower alphas. The five scales whose scores yielded alphas greater than .80 had 6 to 10 items each. Scores from the two scales designed to measure intentions to participate in community service and to engage in service-learning activities yielded alphas of .75 and .73, respectively.

These alpha reliability results were used to refine the items for the second survey. Several scales were rewritten to make their content more in keeping with the Schwartz (1977) model or to lengthen them, thereby increasing their reliability. In addition, the items on the first survey about children or schools were rewritten to reflect attitudes about community service in general. Finally, some items were rewritten to change their negative tone.

Table 2 presents the second survey items, coefficient alpha for scores on each scale, item means and standard deviations, and item-scale correlations as well as scale means and standard deviations. Scores on these scales yielded much stronger evidence for internal consistency than the scale scores on the first survey. The item-scale correlations were all greater than .50, and coefficient alphas ranged from .78 to .90. There was no need to revise the scales on the second survey, considering the strong evidence for internal consistency of the scores.

Validity Analyses and Results

Principal Components Analysis

Principal components analysis was conducted on the data from Sample 2 (n = 332) to assess whether linear combinations of the community service attitude items from the second survey conformed to the Schwartz (1977) model. The principal components analysis with varimax rotation resulted in eight factors with eigenvalues greater than one (see Table 3) and communalities ranging from .54 to .79 (average = .68). All pattern coefficients were greater than .40. The eight factors accounted for 65% of the variance. According to Stevens (1996), if N is greater than 250 and the communalities

Table 2
Survey 2 Scale Items, Internal Consistency Reliabilities, Descriptive Statistics, and Item-Total Correlations

	Item Mean	Item *SD*	Item-Scale Correlation
Phase 1: Perceptions			
Awareness[a] (alpha = .78)			
Community groups need our help.	6.02	0.95	.53
There are people in the community who need help.	6.44	0.72	.64
There are needs in the community.	6.28	0.81	.64
There are people who have needs which are not being met.	6.12	0.90	.56
Scale mean = 6.21, *SD* = .66			
Actions[a] (alpha = .83)			
Volunteer work at community agencies helps solve social problems.	5.06	1.24	.63
Volunteers in community agencies make a difference, if only a small difference.	5.92	1.05	.63
College student volunteers can help improve the local community.	5.90	0.98	.70
Volunteering in community projects can greatly enhance the community's resources.	5.60	1.07	.70
The more people who help, the better things will get.	5.59	1.12	.52
Scale mean = 5.61, *SD* = .85			
Ability[a] (alpha = .82)			
Contributing my skills will make the community a better place.	5.46	1.04	.67
My contribution to the community will make a real difference.	5.13	1.21	.70
I can make a difference in the community.	5.67	1.16	.67
Scale mean = 5.42, *SD* = .98			
Connectedness[a] (alpha = .90)			
I am responsible for doing something about improving the community.	5.32	1.29	.74
It is my responsibility to take some real measures to help others in need.	5.12	1.43	.74
It is important to me to have a sense of contribution and helpfulness through participating in community service.	5.13	1.42	.77
It is important to me to gain an increased sense of responsibility from participating in community service.	4.83	1.43	.73
I feel an obligation to contribute to the community.	4.70	1.45	.74
Other people deserve my help.	5.04	1.51	.68
Scale mean = 5.02, *SD* = 1.16			
Phase 2: Moral Obligation			
Norms[a] (alpha = .84)			
It is important to help people in general.	6.28	0.82	.60
Improving communities is important to maintaining a quality society.	6.18	0.99	.68

(continued)

Table 2 Continued

	Item Mean	Item *SD*	Item-Scale Correlation
Phase 2: Moral Obligation			
Norms[a] (alpha = .84)			
Our community needs good volunteers.	6.08	1.00	.67
All communities need good volunteers.	6.14	1.02	.68
It is important to provide a useful service to the community through community service.	5.46	1.20	.59
Scale mean = 6.03, *SD* = .79			
Empathy[a] (alpha = .83)			
When I meet people who are having a difficult time, I wonder how I would feel if I were in their shoes.	5.74	1.33	.58
I feel bad that some community members are suffering from a lack of resources.	5.63	1.25	.75
I feel bad about the disparity among community members.	5.46	1.31	.77
Scale mean = 5.61, *SD* = 1.12			
Phase 3: Reassessment			
Costs[b] (alpha = .85)			
I would have less time for my schoolwork.	5.04	1.53	.65
I would have forgone the opportunity to make money in a paid position.	4.36	1.81	.59
I would have less energy.	3.62	1.65	.61
I would have less time to work.	4.59	1.74	.77
I would have less free time.	5.10	1.57	.69
I would have less time to spend with my family.	4.05	1.86	.54
Scale mean = 4.46, *SD* = 1.29			
Benefits [b] (alpha = .80)			
I would be contributing to the betterment of the community.	5.89	1.03	.55
I would experience personal satisfaction knowing that I am helping others.	6.24	0.94	.52
I would be meeting other people who enjoy community service.	5.70	1.08	.54
I would be developing new skills.	5.44	1.23	.71
I would make valuable contacts for my professional career.	5.08	1.42	.54
I would gain valuable experience for my resume.	5.70	1.22	.51
Scale mean = 5.67, *SD* = .82			
Seriousness[a] (alpha = .86)			
Lack of participation in community service will cause severe damage to our society.	4.56	1.53	.69
Without community service, today's disadvantaged citizens have no hope.	3.76	1.62	.56
Community service is necessary to making our communities better.	5.39	1.21	.74
It is critical that citizens become involved in helping their communities.	5.25	1.18	.77
Community service is a crucial component of the solution to community problems.	5.12	1.22	.73
Scale mean = 4.82, *SD* = 1.10			

Table 2 Continued

	Item Mean	Item *SD*	Item-Scale Correlation
Phase 4: Helping			
Intention to Engage in Community Service[a]			
I want to do this (service-learning) activity.	5.27	1.39	
Intention to Engage in Community Service[a] (alpha = .89)			
I will participate in a community service project in the next year.	4.95	1.77	.80
Would you seek out an opportunity to do community service in the next year.	4.95	1.73	.80
Scale mean = 4.95, *SD* = 1.66			

a. Item responses were on a 7-point Likert-type scale: 1 = *strongly disagree*, 7 = *strongly agree.*
b. Item responses were on a 7-point Likert-type scale: 1 = *extremely unlikely*, 7 = *extremely likely.*

average greater than .65, then retaining all factors with eigenvalues greater than one is appropriate.

Because the "eigenvalue greater than one" criteria may overestimate the number of factors to retain, we conducted a parallel analysis on a randomly generated data matrix (Thompson & Daniel, 1996). The parallel analysis resulted in a five-factor solution. Eigenvalues from the parallel analysis are shown in Table 3. However, the new pattern coefficients for the items that were originally assigned to Factors VI, VII, and VIII ranged from .14 to .36 (on Factors I, II, and IV), resulting in a solution that did not conform with simple structure. In addition, the five-factor solution did not map as well to Schwartz' (1977) theory. Because the goal of this study was to determine whether our data were consistent with Schwartz' theory, we consider the theoretical interpretability of the factors to be the single most important criterion in determining the number of factors. Although the eight-factor solution was not supported by the parallel analysis, it is supported by the theory and by simple structure. For these reasons, we have adopted the eight-factor solution.

Items were assigned to the factor on which the structure/pattern coefficient was largest. We assigned five items that had approximately equal structure/pattern coefficients on two different factors to the factor that had the most items from the original Schwartz (1977) model. Three of these five items were assigned to the factor with a slightly lower coefficient (approximately .05 lower) to retain consistency with the original theoretical model and because the size of the coefficients was so close. Structure/pattern coefficients all exceeded .40. Table 3 presents the rotated factor structure/pattern matrix as well as the original item/scale match for the Schwartz model. Factor I consisted of items from the Actions, Ability, and Norms scales. Factor II

Table 3
Rotated Factor Structure/Pattern Matrix

Item	Schwartz Scale	NOR	CON	COS	AWA	INT	BEN	SER	CAR
Help people	Norms	**.43**	.48	–.01	.32	.13	.13	–.13	.10
Maintaining a quality society	Norms	**.53**	.37	–.04	.23	.10	.31	.10	.06
Make a difference in community	Ability	**.72**	.17	–.02	.13	.11	.15	.13	.06
We need good volunteers	Norms	**.63**	.22	–.08	.33	.06	.09	.02	.20
All need good volunteers	Norms	**.55**	.30	–.07	.36	.07	.15	.07	.07
Helps solve social problems	Actions	**.52**	.18	–.04	.11	.19	.19	.31	.01
Makes a difference	Actions	**.52**	.17	–.10	.27	.19	.40	.09	.05
College students can help	Actions	**.75**	.20	–.06	.11	.11	.21	.13	.00
Enhance the community's resources	Actions	**.71**	.29	–.03	.06	.07	.16	.17	.16
My skills will make community better	Ability	**.63**	.25	–.03	.21	.21	.03	.21	.07
My contribution will make a difference	Ability	**.56**	.29	–.07	.15	.34	.04	.34	.08
I am responsible for doing something	Connected	.44	**.68**	–.04	.10	.18	.07	.01	.05
Real measures to help others in need	Connected	.29	**.74**	–.11	.17	.08	.10	.11	.07
It is important to provide service	Norms	.41	**.60**	–.10	.09	.15	.13	.26	.17
Sense of contribution and helpfulness	Connected	.29	**.66**	–.09	.06	.38	.14	.14	.16
Gain increased sense of responsibility	Connected	.21	**.67**	–.09	.06	.27	.06	.21	.18
Obligation to contribute to community	Connected	.23	**.68**	–.04	.20	.24	.11	.26	–.04
Others deserve my help	Connected	.21	**.65**	–.06	.20	.06	.04	.30	.12
It is critical to be involved	Serious	.35	**.61**	–.01	.16	.18	.11	.39	.08
Less time for schoolwork	Costs	.07	–.07	**.77**	–.04	–.08	.07	.00	–.07
Forgone opportunity to earn money	Costs	–.06	–.04	**.70**	–.12	–.14	–.02	–.07	.04
Have less energy	Costs	–.10	–.07	**.72**	–.09	–.01	–.15	–.06	.07
Less time to work	Costs	–.11	–.03	**.86**	.06	–.09	–.01	–.00	–.03
Less free time	Costs	–.03	–.17	**.79**	.15	–.02	–.01	.04	–.12

Less time to spend with family	Costs	–.03	.07	**.68**	.01	–.04	–.06	.06	–.11
Community groups need our help	Aware	.48	.24	–.07	**.43**	.16	.29	.10	.07
People in the community need help	Aware	.42	.07	–.05	**.68**	.08	.09	.06	.03
How I would feel in their shoes	Empathy	.01	.50	–.10	**.45**	–.03	.18	.18	.02
Feel bad some are suffering	Empathy	.05	.41	–.04	**.65**	.05	.25	.24	–.02
Feel bad about disparity	Empathy	.09	.50	.02	**.59**	.02	.25	.24	–.04
There are needs in the community	Aware	.39	.08	.09	**.66**	.12	–.08	.01	.10
People have needs not being met	Aware	.27	.14	.00	**.64**	.10	.07	.07	.14
I want to do this activity	Intentions	.26	.19	–.20	.10	**.64**	.19	.11	.13
I will participate in community service	Intentions	.19	.26	–.14	.08	**.81**	.04	.04	–.01
Seek out community service opportunity	Intentions	.22	.28	–.15	.13	**.81**	.17	.07	.09
Contributing to community	Benefits	.30	.01	–.04	.18	.17	**.67**	.21	.11
Experience personal satisfaction	Benefits	.18	.13	–.13	.27	.21	**.62**	.10	.09
Meeting others	Benefits	.20	.18	–.00	.00	.02	**.78**	.01	.11
Developing new skills	Benefits	.25	.26	–.02	–.01	–.00	**.58**	.10	.52
Lack of community service will cause severe damage	Serious	.26	.36	.05	.16	.26	.08	**.60**	.01
No hope	Serious	.15	.28	.01	.00	–.11	.11	**.72**	.04
Community service is necessary	Serious	.41	.42	–.08	.24	.23	.13	**.45**	.13
Crucial to solution to problems	Serious	.40	.42	–.06	.19	.15	.12	**.51**	.13
The more who help	Actions	.26	.25	.03	.35	.18	.10	**.55**	.11
Contacts for my professional career	Benefits	.15	.17	–.13	.06	.13	.14	.10	**.77**
Valuable experience for my resume	Benefits	.10	.08	–.06	.14	.03	.13	.03	**.86**
Eigenvalues		17.09	3.62	2.19	1.84	1.68	1.34	1.25	1.05
Eigenvalues from parallel analysis		1.81	1.78	1.67	1.60	1.49	1.46	1.44	1.38

Note. NOR = Normative helping attitudes; CON = Connectedness; COS = Costs; AWA = Awareness; INT = Intentions; BEN = Benefits; SER = Seriousness; CAR = Career Benefits. Pattern coefficients of the assigned factor are shown in bold.

was primarily made up of items from the Connectedness scale. Factors III and IV were made up of items from the Costs scale and the Awareness and Empathy scales, respectively. The outcome measures—intentions to engage in community service and desire to participate in service learning—formed Factor V. Factor VII consisted of items from the Seriousness scale. Items from the Benefits scale were split between Factors VI and VIII. The two Career Benefits items correlated highly with Factor VIII, whereas the remaining four Benefits items were associated with Factor VI. Overall, the factors approximated simple structure, matched very nicely with the theoretical model, and were highly interpretable.

Reliability Analysis

Scores from the eight identified factors were analyzed for internal consistency. Coefficient alphas, scale means and standard deviations, and correlations of the factor scales are presented in Table 4. Alpha reliabilities range from .84 to .93 for scores on all the factors, except for the two Benefits factors. The alpha reliability for scores on the Factor VI and Factor VIII scales were .79 and .72, respectively.

Based on the theoretical interpretability of the eight principal components and strong internal consistencies, additional validity analyses were conducted on scores from the eight scales derived from the principal components analysis. This was done to assess how well the scales were measuring the intended constructs.

Additional Validity Analyses

One way to assess the construct validity of these scales is to analyze the relationships between each scale and other measures that might be expected to be related to them. We expected that the scales would not be correlated with age, race, college rank, and gender. In terms of a relationship between the scales and gender, previous research is not conclusive on whether such a relationship exits. Some studies report that women participate in community service more than men do (*Americans Volunteer*, 1985; Fitch, 1987; Hayghe, 1991; Wandersman, Florin, Friedmann, & Meier, 1987). Other studies (Allen, 1982; Booth, 1972; Verba & Nie, 1972) found no difference between men and women in community service involvement. Given no clear empirical guidance and a lack of theoretical reasoning, we expected that the scales would not be related to gender.

We anticipated that the helping behavior scales would be correlated with previous community service experience and amount of previous community service involvement. We also expected that students who major in the social

Table 4
Scale Correlations, Coefficient Alphas, Means, and Standard Deviations

Scale	*M*	*SD*	NOR	CON	COS	AWA	INT	BEN	SER	CAR
NOR[a]	5.77	0.78	.92							
CON[a]	5.10	1.11	.74	.93						
COS[b]	4.46	1.26	–.16	–.20	.85					
AWA[a]	5.95	0.77	.70	.67	–.11	.85				
INT[a]	5.07	1.45	.55	.58	–.30	.42	.86			
BEN[b]	5.81	0.84	.59	.50	–.16	.50	.40	.79		
SER[a]	4.89	1.05	.71	.77	–.09	.64	.46	.47	.84	
CAR[b]	5.39	1.17	.38	.37	–.18	.30	.28	.47	.31	.72

Note. Reliabilities appear on the diagonal. NOR = Normative helping attitudes; CON = Connectedness; COS = Costs; AWA = Awareness; INT = Intentions; BEN = Benefits; SER = Seriousness; CAR = Career Benefits.
a. Item responses were on a 7-point Likert-type scale: 1 = *strongly disagree*, 7 = *strongly agree*.
b. Item responses were on a 7-point Likert-type scale: 1 = *extremely unlikely*, 7 = *extremely likely*.

sciences and liberal arts would score higher on the scales than business majors, because students often are drawn to these majors out of an interest in helping others. Finally, we expected that scores on the seven helping scales would be related to the intention scale scores, as this latter scale serves as an outcome measure.

Table 5 presents relationships of the eight scales to demographic variables, including age, race, college rank, gender, major, previous community service experience, and amount of community service involvement. Dichotomously coded variables included race: 1 = minority, 0 = White, non-Hispanic; major: 1 = nonbusiness, 0 = business; gender: 1 = female, 0 = male; and previous community service experience: 1 = yes, 0 = no. College rank and frequency of previous community service experience were ordinal categorical scales (college rank: 1 = sophomore, 2 = junior, 3 = senior, 4 = graduate; frequency of community service: 1 = once per year, 2 = 2-4 times per year, 3 = monthly, 4 = weekly). As anticipated, there is no substantial relationship of age, race, or college rank to the scales. However, there is a difference for gender: Female students show a consistent tendency to score higher on all of the scales. Additionally, as predicted, nonbusiness major, previous community service experience, and amount of previous community service involvement were positively related to scores on most of the scales.

Table 4 shows the relationship of the Factor V scale—intentions to engage in community service and desire to participate in a service-learning activity—to the other scales. As expected, all scales correlate positively (except Costs, which is a negative scale) with intentions to engage in community service and desire to participate in a service-learning activity.

Table 5
Scale Correlations With Demographic Variables

Scale	Age	Gender	Race	College Rank	Major	Previous CS Experience	Previous CS Frequency
NOR	.08	.31	.06	.08	.16	.15	.26
CON	.10	.26	.06	.01	.20	.13	.26
COS	.04	–.17	–.06	.06	–.15	–.13	–.14
AWA	.10	.31	.06	.09	.12	.08	.16
INT	.03	.27	.05	.05	.23	.35	.44
BEN	.11	.28	.06	.14	.19	.06	.15
SER	.11	.27	.11	.05	.12	.07	.15
CAR	–.07	.22	.02	.05	.10	.04	.03

Note. Race is coded 1 = minority, 0 = White, non-Hispanic; major is coded 1 = nonbusiness, 0 = business. CS = community service; NOR = Normative helping attitudes; CON = Connectedness; COS = Costs; AWA = Awareness; INT = Intentions; BEN = Benefits; SER = Seriousness; CAR = Career Benefits.

Discussion

The CSAS measures student attitudes toward community service participation. Results of the principal components analysis are consistent with Schwartz's theory of helping behavior (1977; Schwartz & Howard, 1982, 1984) but suggest that there are probably fewer distinct aspects to helping than the Schwartz model proposes. The analysis resulted in eight principal components instead of the 10 intended scales that were based on the Schwartz model. The first principal component combines three of the original Schwartz scales and consists of normative attitudes that people can and should help in the community. The second factor consists of beliefs that one is part of one's community and should help out. The third factor describes costs of helping, the fourth assesses awareness of needs in the community (combining two of the original scales), and the fifth captures a personal desire to participate in community service (and service learning). The sixth and eighth factors describe two types of benefits to the volunteer resulting from helping. Finally, the seventh factor consists of attitudes about the seriousness of the needs of the community. The reliability analyses conducted on scores from the eight scales show strong internal consistencies.

A weakness of research on community service to date is the lack of a well-defined construct of helping behavior, in general, or attitudes about community service, in particular. A thorough and comprehensive understanding of the antecedents, correlates, and consequences of community service is needed. Researchers have investigated a wide variety of motivators such as costs and benefits (Irvine, Biglan, Duncan, & Metzler, 1996; Wandersman et al., 1987), self-efficacy (Eden & Kinnar, 1991; Hofstetter, Sallis, & Hovell, 1990), and other dispositional characteristics that are pre-

dictive of volunteering and helping (Clary & Orenstein, 1991; McClintock & Allison, 1989). The helping behavior model used in the present study shows promise as a way to integrate these various perspectives into a comprehensive theory of volunteerism and community service.

The CSAS will help to provide a framework for further research in this area. The relationships of the seven helping attitude scales to other previous community service experience, college major, and intent to participate in community service show that the scales are tapping into an underlying construct that is affecting interest in performing community service. These results support the construct validity of the CSAS scores.

The relationships of the scales to gender, although interesting, do pose questions. There is currently not enough research in this area to understand why males and females score differently or what the differences mean for actual participation rates in community service. The implications of the gender difference could be important for planning service-learning projects or other service interventions.

Schwartz's (1977) model of helping behavior is a useful framework for understanding how people decide to become involved in community service. Attitude scales that measure helping constructs can be used by researchers in determining what types of interventions might increase participation in community service. The CSAS can help inform and increase researchers' and educators' understanding of students' attitudes toward community service projects performed for college credit or as a course requirement. In addition, it may be used to evaluate interventions aimed at changing students' community service attitudes. University administrators and faculty, researchers, and policy makers will find the CSAS to be a useful tool for understanding students' attitudes toward community service.

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