

# Adolescents' Participation in Service Activities and Its Impact on Academic, Behavioral, and Civic Outcomes

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**Abstract** The National Household Education Survey, a nationally representative data set ( $N = 4,306$  high school students and one parent of each), was analyzed to describe characteristics of adolescents, the nature of their service activities, and academic, behavioral and civic outcomes associated with service (voluntary compared to school-required and by type of service). Participation in any service is associated with positive outcomes whether service is voluntary or required. Adolescents who worked directly with individuals in need had better academic adjustment; those who worked for organizations had better civic outcomes than adolescents who performed other types of service. Findings are discussed in terms of their significance for adolescent development, educational policy, and the use of large national data sets to examine service participation.

**Keywords** Community service · Civic development · Adolescent development

Community service by adolescents has garnered significant attention in both scholarly and policymaking circles. Scholars and practitioners have focused on the potential of adolescents' participation in community service to improve academic and behavioral functioning (Kenny and Gallagher 2003; Parrini 2002; Thomsen 2002) and to enhance citizenship (Flanagan and Faison 2001; Metz et al. 2003; Reinders and Youniss 1999; Youniss et al., 1999; Youniss et al., 1997). Because of these perceived benefits, many states and individual school districts now encourage or require students to participate in community service in order to graduate from high school. Most of the existing research on the benefits of community service provides only a weak basis for policy decisions because such studies typically employ small non-representative local samples of adolescents who engage in service voluntarily.

This study investigates several questions about service activity among a nationally representative sample of U.S. high school students. First, what are the characteristics of adolescents who do service? Second, controlling for background factors related to service, does participation in service activities contribute to adolescents' academic adjustment, behavioral adjustment, and citizenship? Third, do the benefits of service differ depending on whether service was voluntary or required? Finally, what is the impact of the type of service (e.g., working with individuals, community organizations, or the environment/animals)? Do the types of service activity students engage in voluntarily differ from those that students select to fulfill a service requirement? Does type of service differentially contribute to academic, behavioral, and civic outcomes among adolescents?

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Before proceeding it is necessary for us to clarify that in this paper we use the term “service” to refer both to “community service” and to “service learning” activities. The term community service is generally used to refer to voluntary or required non-curriculum-based service activities. Service learning, on the other hand, includes service activities that are integrated into the curriculum and purposefully organized to follow academic content, standards, and learning objectives (see National Commission on Service-learning 2002; Skinner and Chapman 1999 for further discussion of this topic). While this distinction is an important one in many instances, we have relied on a more general definition partly because our analyses are largely descriptive or exploratory, and partly because the data available for this study are coded in such a way that distinguishing between community service and service learning can be done only imperfectly, particularly among students who engage in multiple service activities. Because the data did not allow us to reliably distinguish between these two types of service, we chose to rely on a more general conception of service for the purpose of this study.

#### Impact of service participation on adolescent outcomes

For nearly a century, theorists have argued for the importance of service to the community as an integral part of children’s positive development (Dewey 1916, 1938; Dunn 1907; Putnam 1995). Researchers examining the effects of multiple forms of youth activity have produced empirical evidence suggesting that pro-social activities like community service may have more positive effects on adolescent development than other types of youth activity (Eccles and Barber 1999; Hansen et al. 2003; Larson 1994). Researchers focusing exclusively on service activities rather than the broad range of youth activities have examined whether participation in service promotes positive academic, psychological, and civic outcomes. Results of such studies have been mixed, with some finding beneficial effects and others finding negative or null effects (Eccles and Barber 1999; Melchior 1999; Metz et al. 2003). For example, in a review article of school-based service learning activities, Billig (2000) cites evidence that service activity has positive effects on children’s social development, civic responsibility, academic learning, and aspirations for the future. Similarly, several studies reviewed by Zeldin (2004) point out the benefits of community service participation including increased levels of academic achievement, civic competence, responsibility towards community, and the development of positive social attitudes and behaviors.

The most commonly reported forms of civic outcomes achieved through service participation have been improved civic attitudes, appreciation of diversity, increased responsibility towards the community, increased political-efficacy,

-awareness, -interest and -knowledge, a willingness to volunteer and vote in the future, and a sense of positive contribution to society (Billig 2000; Kenny and Gallagher 2003; Yates and Youniss 1998; Youniss et al. 1997, 1999). Service participation has been found to enhance students’ understanding of socio-historical contexts, and lead them to think more often about political and moral issues and their own roles in bringing about social change (O’Bannon 1999; Yates and Youniss 1998; Youniss and Yates 1997). From a complementary perspective, Zaff et al. (2003) found that civic engagement in organization-based activities (e.g., civic activism, volunteering, tutoring, and involvement in service learning and religious organizations) was a significant predictor of positive citizenship, defined as being altruistic and desiring to be helpful for the common good.

Beyond civic behaviors, several researchers have consistently reported other behavioral gains such that after engaging in service activities students showed a higher sense of personal and social responsibility and self esteem, viewed themselves as more socially competent and self-efficacious, showed gains in moral reasoning, and were more likely to be kind and helpful towards others (Billig 2000; Eyster 2000; Raskoff and Sundeen 1999; Yates and Youniss 1998). Other studies have specifically targeted the effects of service learning participation on reducing or preventing adolescent risk behaviors such as drug and alcohol use, violent behavior, sexual risk taking, and school dropout. For example, Youniss and colleagues found a negative relationship between community service participation and marijuana use (Youniss et al. 1999; Youniss et al. 1997). Others have argued that engaging adolescents in community service can reduce violent youth behavior and other disciplinary problems in school (Billig 2002; Zeldin 2004).

Several small studies and program evaluations on school-based service learning have highlighted the benefits of service activities for students’ academic development. Such benefits include: improved grades and grade point averages (Follman 1998; O’Bannon 1999; Shumer 1994), higher test scores on state standardized tests (Akujobi and Simmons 1997; Morgan 2000), increased attendance (Follman 1998; O’Bannon 1999; Shumer 1994), academic interest (Stephens, 1995), school engagement (Melchior 1999), decreased dropout rates (Duckenfield and Swanson 1992), and stronger classroom task-engagement and skills (Stephens 1995).

On the other hand, a number of studies have reported null or even negative relationships between service participation and many of the outcomes reviewed above. For example, Melchior (1999) found no difference between service-learning participants and control groups on the use of alcohol, illegal drugs, or weapons. Similarly, Eccles and Barber (1999) found that it was primarily church attendance, rather than engagement in community service,

that served as a protective factor against problem behaviors. Metz et al. (2003) found a negative relationship between doing service that does not involve direct interaction with disadvantaged people and measures of social concern. More specifically, they found that students who did tutoring, mentoring, coaching, administrative/office work, or manual labor showed significant decreases on concern for social issues compared to students whose service involved helping the needy or solving other social problems. The authors explained that while this finding should not disparage these commonly performed service activities, it does provide support for the argument that outcomes of service differ depending on the type of service activity performed.

Several researchers have warned that research linking service activity to positive outcomes should be interpreted with caution. For example, in a review article, Eyer (2000) noted the difficulty in attributing gains in school grades to service participation per se because most studies are correlational and cannot confirm this causal link empirically. With regard to civic development, some have reported that increases in civic attitudes have been small at best because students who do service already have these positive dispositions before they begin a service program (Kenny and Gallagher 2003).

A serious shortcoming of much of the prior research is that it is based on relatively small local samples of middle- or upper-middle-class students. We know little about the benefits of participation in service for the range of U.S. secondary school students because few studies have used representative samples. Another complexity is that a number of studies have not controlled for key background factors. For example, examining data from the National Education Longitudinal Study (NELS) from 1988 to 1994, Frisco et al. (2004) noted that while participation in voluntary youth organizations predicted adult voting behavior, results did vary significantly by SES and racial background. Yet another shortcoming of prior studies is that findings pertaining to academic development are neither extensive nor conclusive (Raskoff and Sundeen 1999). The current study seeks to extend current research by testing theorists' speculation that service participation has developmental benefits for adolescents by using a large nationally representative sample and examining the contribution of service participation to multiple aspects of adolescents' adjustment.

#### Required versus voluntary service

The rationale behind school policies that require students to do service has its historical roots in Dunn (1929) and Dewey's (1928) idea emphasizing the value of experiential learning in students' civic education and development. Proponents of required service have argued that the teaching of the civics curricula alone is an incomplete method

of fostering students' civic engagement and responsibility. As noted previously, these arguments have led some states and/or schools to require students to do community service as part of their coursework. For example, the state of Maryland mandates that high school students must complete 75 hours of community service in order to graduate from high school. The governor of Illinois has proposed instituting a similar policy (Blagojevich 2004). Other states support and encourage service learning in various ways. Some permit community service or service learning activities to count toward high school graduation and others encourage it by setting regulations for service learning programs, by including service in the educational standards, and/or by having a policy to authorize and appropriate funding for it (ETS 2006; RMC 2002). Nearly half of the states in the U.S. do not have policies pertaining to service learning. Numerous private and some public school districts require high school students to participate in service; some schools tie the activities to classroom assignments and discussions (as in service learning) whereas others do not.

The practice of requiring service has been debated in state and local communities and among scholars. Some argue that requiring service is a contradiction in that it constitutes enforced servitude, and those students who are not motivated to volunteer on their own will not derive benefits (Raskoff and Sundeen 1999). Opponents of required service also argue that schools should primarily be concerned with fostering students' academic skills and achievement rather than channeling their valuable sources and time into requiring community service (Bandow 1995). Arguments in favor of required service, on the other hand, point to the need, indeed, the responsibility, of schools in a democratic society to instill knowledge of civic principles, habits of civic engagement, and dedication to the public interest in young people, stating that unless service is required by schools, this important opportunity will be lost to those most in need of learning civic responsibility (Barber 1992; Kenny and Gallagher 2003). Understanding participation rates and outcomes associated with voluntary versus required service in a national sample informs the ongoing debates about policy and practice.

Most studies showing benefits of service have examined voluntary rather than required service. Evidence from some small local studies shows that many high school students engage in voluntary service (Hansen et al. 2003; McLellan and Youniss 2003), but few researchers have looked explicitly at required service. In a review article of school-based required service, Billig (2000) reported positive effects on personal/social development, civic responsibility, academic learning, career explorations and aspirations, atmosphere of the school and the community's perception of youth. Billig also noted, however, that although these results seem promising almost all research conducted on school-based re-

quired service were based on program evaluations that lacked control groups, longitudinal designs, hypothesis testing and theoretical frameworks. More recently, Billig et al. (2005) used a national sample of students to compare the civic and academic engagement/knowledge of service-learning participants to nonparticipants. These researchers found that although service-learning participants generally had better scores on civic and academic outcomes than the comparison group, these results were not statistically significant. Service-learning participants did however have significantly higher school enjoyment scores and reported a greater intention to vote than nonparticipants.

Beyond this, we know relatively little about whether there are differences in the background characteristics of students who choose to engage in community service compared to students who are required to do so. In a study of two Catholic high schools with community service requirements, McLellan and Youniss (2003) identified factors that increased the likelihood of students performing voluntary service beyond what was necessary to fulfill their school requirement. In their sample, females were more likely than males to volunteer, as were students who had a helpful nature, attended a school that integrated service into its curriculum, had parents and friends who volunteered, and took part in church and community-based youth groups. Evidence from larger, national surveys suggests that parent education is positively associated with voluntary service but inversely associated with required service participation (Kleiner and Chapman 1999).

Beyond who participates in voluntary versus required service, it is unclear whether required participation in service yields academic, behavioral, and civic benefits similar to those that are often associated with voluntary participation. Metz and Youniss (2005) argued in favor of the benefits of required service on civic outcomes, acknowledging that much awaits further analysis. In a longitudinal study with 486 high school students, these researchers found that while students who were predisposed to do voluntary service scored consistently high on civic measures, they showed no gains due to meeting the service requirement. On the other hand, students who originally had a weaker disposition to serve voluntarily showed significant gains on civic behaviors and attitudes (e.g., likelihood of future voting and an increased interest towards, involvement in, and understanding of civic issues) as a result of their participation in school-based required service. In the current study, we first describe and compare the background characteristics of those high school students who do volunteer service with those who do required service. We examine gender, grade in school, attendance at private/religious or public schools, race/ethnicity, and economic risk factors. We also examine academic, behavioral, and civic outcomes for students who participate in voluntary versus required service to determine whether or not volun-

tary and required service appear to have comparable effects on adolescent functioning.

#### Type of service activity

Another critical question about adolescents' service participation is whether the type of community service matters in fostering desirable adolescent outcomes. According to the Independent Sector Survey of 1996, the most common type of volunteer activity reported by American adolescents aged 12–17 is babysitting (13%) followed by janitorial or cleaning work (9%). Some have raised questions about how meaningful such youth service is likely to be (Hodgkinson and Weitzman 1997). Most research on service has not collected detailed enough information on the types of activities students engage in to be able to examine the differential impacts of type of service on youth outcomes. For example, is working directly with people in need of greater benefit to the adolescent volunteer than working for more general political, social, or environmental causes?

In a series of small studies looking at both voluntary and required service, researchers found that the type of service was indeed associated with different outcomes. For example, as we have mentioned earlier Metz et al. (2003) describe a complex relationship between service and various positive outcomes. While they generally found positive relationships between service and future involvement in civic and service activities, they also found that students who participated in activities that did not involve direct interaction with people in need demonstrated significant decreases in social concern over time, suggesting that type of service matters on civic outcomes. Service involving direct interaction with people in need produced greater self-awareness, social concern, future voting, and other civic outcomes than other activities (Metz et al. 2003; Reinders and Youniss 1999). Highlighting the differential effects of the type of service activity on youth outcomes, McIntosh et al. (2005) noted that both required and voluntary service can be beneficial for adolescent identity formation and that the developmental outcomes of service participation depend more on whether the activity is done for a social cause than whether it is required or not. Much of the research about the type of service examines civic outcomes like voting, social concern, and planning for future service activity. While these are important outcomes to consider, the current study examines the association between type of service and behavioral and academic outcomes as well.

Some have also claimed that the types of service activities adolescents do voluntarily differ qualitatively from the types of service done to fulfill school requirements. For example, in a study of two private religious schools, students who did voluntary service were more likely to engage in activities that fostered citizenship compared with those who were do-

ing service to fulfill a requirement (McLellan and Youniss 2003). Students doing required service were more likely to do functionary tasks with no direct exposure to ideas or to the people they were helping. Differences in activity tasks may reflect differences in commitment to service among those doing voluntary and required service and thus, may have an impact on expected benefits of service. The current study examines whether the types of service activities students do voluntarily differ from those they do to fulfill a school requirement.

### Summary of study goals

Building from the research just described, the current study adds to the body of literature in several respects. First, we begin simply by describing the characteristics of adolescents who participate in service activities. Because we are using a large, nationally representative data set, this descriptive analysis provides a fairly comprehensive picture of youth service participation in the United States, and identifies particular subgroups that are generally less likely to get involved in service. Second, we examine whether service participation contributes to adolescents' academic adjustment, behavioral adjustment or citizenship. Given the current emphasis on service in our society, it is reasonable to examine whether engagement in service has the positive impact on adolescents that many presume it to have. Third, we examine whether the benefits of service participation differ depending on whether service was voluntary or required. The current service climate has prompted many school districts and states to include service in their graduation requirements, but at present there is minimal evidence to conclusively support these practices. Finally, we examine type of service by describing characteristics of students who participate in certain types of service, and examining whether the types of service activity students engage in voluntarily differ from those that students select to fulfill a service requirement. Then, we test to see whether type of service differentially contributes to adolescents' academic, behavioral, and civic outcomes. This final analysis will further contribute to our understanding of the circumstances under which adolescents derive the maximum benefit from service participation.

## Method

### Data source

We analyzed data from the National Household Education Survey of 1999 (*NHES-99*), a publicly accessible data set assembled and maintained by the National Center for Education Statistics (NCES). *NHES* is administered annually, with each administration focusing on a different theme. In 1999 the theme was service participation, reflecting the very

beginning of the service learning movement in the U.S. United States households were sampled by NCES using random digit dialing. Computer-assisted telephone interviews (CATI) were carried out with parents and their adolescent children between January and April 1999. Sampling only one student in grades six through twelve per household, a total of 7,913 students were interviewed after their parents completed the interviews. We employ data from both the parent and youth interviews. The parent interview provided demographic information as well as data about adolescents' academic performance and behavior. The youth interview asked adolescents about their educational environments, service activities and future plans. More information about the interviews and data collection procedures can be found in the *National Household Education Survey of 1999 Data File User's Manual* (U.S. Department of Education 2000). This information, along with the data itself, is also available for free download from the National Center for Education Statistics website (<http://nces.ed.gov/nhes>).

### Sample

The current study uses data from the 4,306 high school respondents who reported attending either public or private schools. Home-schooled adolescents and all children in grades six through eight were excluded from this analysis. The mean age for the adolescents in our sample was 15.87 years ( $SD = 1.25$ ). As can be seen in Table 1, there were an equal number of males and females with the majority of students being European American and attending public schools. European American students comprise a greater percentage of the private school population than the public school population. Seventy-two percent of all students attending private schools were European American, while this group comprised only 62% of all students attending public schools. Further demographic characteristics of the sample are presented in Table 1.

As part of the *NHES-99* protocol, a subsample of high school students who reported participating in service activities was randomly selected to receive a more extensive interview about the specific types of service they engaged in. One set of our analysis is based on data from all 857 adolescents who took part in this longer interview.

### Outcome measures

The outcome measures used in this study were academic adjustment, behavior problems, civic efficacy, and civic knowledge. *Academic adjustment* was measured on a 5-point scale reflecting parents' report of their child's grade point average (GPA) across all subjects (0 = *mostly Fs*, 4 = *mostly As*). The mean GPA for adolescents in the sample can be interpreted as "mostly Bs" ( $M = 2.99$ ,  $SD = 0.90$ ).

**Table 1** Demographic characteristics of the sample

Characteristic	N	%
Gender		
Male	2143	49.8
Female	2163	50.2
Grade		
Ninth	1177	27.3
Tenth	1071	24.9
Eleventh	1035	24
Twelfth	1023	23.8
Race/Ethnicity		
European American	2724	63.3
African American	648	15
Asian	113	2.6
Latino/a	711	16.5
Other	110	2.6
School type		
Private	394	9.2
Public	3912	90.8
Parent/guardian education level		
Less than high school	363	8.4
High school degree or equivalent	1098	25.5
Vocational/technical degree or some college	1293	30
College graduate	697	16.2
Graduate or professional school	855	19.9
Household income range (\$)		
10,000 or less	266	6.2
10,001–30,000	1057	24.6
30,001–50,000	1105	25.6
50,001–75,000	900	20.9
More than 75,000	978	22.7

N = 4306.

To measure adolescents' behavioral adjustment a composite *behavior problems* variable was constructed from 5 items from the parent interview regarding whether teachers had ever contacted the parent about the adolescent's academic and non-academic behavior problems, and whether the adolescent had ever been suspended or expelled from school. The measure had a 5-point scale ranging from 0 = *fewer problems* to 4 = *more problems*. Most parents reported few behavior problems: the sample mean on this measure was 0.57 ( $SD = 0.86$ ). The reliability of this measure as indicated by Cronbach's alpha was relatively low (.51), but this is likely due to the fact that there was so little variation on most of the indicators included in this measure. The measure was retained in spite of low reliability because it makes practical sense to have some record of the number of students' behavior problems, even if the items themselves do not have a high level of internal consistency. Our analyses employ two different civic outcomes: *civic efficacy* and *civic knowledge*. These measures were constructed based on item sets that were part of the original NHES survey design, and

similar items have been employed in previous research (e.g., Niemi et al., 2000). Students' *civic efficacy* was measured by a six-item composite variable comprised of items in which students indicated whether they believed they can/will influence the government or use their rights (e.g., expressing one's opinions freely and confidently in a community meeting, or in a letter to government officials, etc.). The scale for this composite measure ranged from 6 = *less civic efficacy* to 12 = *more civic efficacy*. The mean civic efficacy score for the sample was 10.54 ( $SD = 1.24$ ), and the internal consistency of the measure as indicated by Cronbach's alpha was .41. A five-item *civic knowledge* composite variable was constructed to measure the extent to which students were knowledgeable about government, politics, and national issues (e.g., who the vice president is, the party that has the most members in the U.S. Senate, who decides whether a law is constitutional or not). The measure rated students' knowledge on civic issues on a 6-point scale ranging from 0 = *less civic knowledge* to 5 = *more civic knowledge*. The mean civic knowledge score for the sample was 2.51 ( $SD = .99$ ) and internal consistency as indicated by Cronbach's alpha was .66.

#### Independent/control measures

We explored 4 different measures of service participation. The first measure, *any service*, is simply a dummy variable that is equal to 1 if the participant reported engaging in any service activity in the past year. The second measure indicates the *number of hours* adolescents spend doing service activities. The third measure indicates whether an individual's service participation is *voluntary or required*. The fourth measure indicates the *type of service* activities one engages in. We recoded all activity types into 3 general categories: 1) service that involves direct contact with individuals in need (e.g., assisting the homeless or elderly); 2) service directed toward assisting organizations (e.g., political campaigning, hospital fundraising); and 3) service directed toward benefiting the environment and/or animals. This final service measure was only available for the subsample of 857 adolescents who were selected to participate in the longer interview. Frequency distributions for each of the service variables can be found in Table 2.

Several control variables were used in the analysis including gender, race/ethnicity, type of high school attended (public or private), and a socioeconomic risk indicator. A composite economic risk score was constructed using factor analysis from family income, parent educational level, father absence in household, and percent of children living below the poverty level in the residential neighborhood. The economic risk factor accounted for 51.48 % of the variance.

**Table 2** Frequency distributions for the service variables

Variable	%
Any service ( <i>n</i> = 4306)	
Yes	55.5
No	44.5
Number of hours ( <i>n</i> = 2389)	
Once or twice a year	43.1
1–2 hrs/wk	17.7
3–5 hrs/wk	20.3
6+ hrs/wk	19
Voluntary or required ( <i>n</i> = 2389)	
Voluntary	73
Required	27
Type of service* ( <i>n</i> = 857)	
Direct contact with individuals in need	75.7
Assisting organizations	31.2
Assisting the environment or animals	11.6

\*Note that percentages for these categories do not sum to 100 because some adolescents were involved in multiple types of service. Thus, the categories are not mutually exclusive.

## Results

### Participation in service activities

Of the high school students surveyed, 55% reported participating in some type of community service (see Table 2). As can be seen in Table 3, rates of participation in service activities appear to be related to gender, grade, race/ethnicity, and school type. Girls are more likely to do service than boys. Older students are more likely to do service than their younger peers. European American and Asian American students are most likely to engage in service, as are students who attend private school, and whose parents are highly educated. While these distributional differences are statistically significant, the effect sizes for all these comparisons can be characterized as small to moderate, as indicated by phi coefficients ranging from .12 to .18.

### Outcomes associated with service

Separate multiple regression equations estimated the impact of any community service activity on academic adjustment, behavior problems, civic efficacy, and civic knowledge controlling for background factors (see Table 4). Findings indicate that participation in any service was associated positively and significantly with grades, civic efficacy, and civic knowledge, and negatively with behavior problems. Generally speaking, the magnitude of these associations indicates moderate and meaningful changes in the outcomes of interest. As indicated by the effect sizes presented in the

table, participation in service activity is associated with a 12% increase in student grades, a 15% decrease in behavior problems, and a 16% increase in civic knowledge. Service participation was only associated with a 3% increase in civic efficacy, which, while statistically significant, may not represent a meaningful change. It is important to point out here that our model for civic efficacy generally does not do a very good job of explaining the variance in this outcome (only 6% of the total variance is explained). This issue will be taken up again in the discussion.

We also examined the impact of the hours of service on these outcomes using the survey's existing time categories (i.e., service hours could not be entered as a continuous variable). While for every outcome examined, the regression coefficients for each of the service hours categories was significantly different from no service, individual service hour categories rarely differed significantly from one another. ANOVA's with post-hoc tests contrasting the means for all outcome variables on all service hours categories generally confirmed these results. Because these results essentially replicate the findings presented in Table 4, we have chosen not to present them here.

### Outcomes by required versus voluntary service

Among students who reported participating in any service activities (*n* = 2389), only 27% indicated that they did service in order to fulfill a school requirement. A series of chi-square analyses indicates that participation in voluntary versus required service is significantly related to several demographic characteristics including race/ethnicity, gender, parent education, and type of school attended. Disproportionate numbers of African American, Latino/a, and Asian American students reported attending schools with service requirements ( $\chi^2_{4,2389} = 9.7, p < .05, \phi = .06$ ). There was a small but significant difference in the gender distribution across service participation, with girls being more involved in voluntary service than boys ( $\chi^2_{1,2389} = 3.9, p < .05, \phi = .04$ ). Distributions for parent education showed an interesting pattern, such that students whose parents were at the extreme lowest and extreme highest levels of education were most likely to attend schools where service was required ( $\chi^2_{4,2389} = 33.4, p < .001, \phi = .12$ ). Not surprisingly, students attending private schools (which include religious schools) were much more likely to have service requirements than those attending public schools. Of the private-school adolescents who reported doing service, 60% were doing service to fulfill a school requirement, compared to only 22% of public-school students ( $\chi^2_{1,2389} = 182.1, p < .001, \phi = .28$ ). While the race and gender differences are small, these distributional differences in parent education and school type represent moderate effect sizes.

**Table 3** Who participates: Rates of participation in service activities

	No service ( <i>n</i> = 2390)	Any service ( <i>n</i> = 1916)	Chi-square	Phi <sup>a</sup>
Gender			73.67***	.13
Male	51%	49%		
Female	38%	62%		
Grade			62.82***	.12
Ninth	50.2%	49.8%		
Tenth	49.7%	50.3%		
Eleventh	41.4%	58.6%		
Twelfth	35.8%	64.2%		
Race/Ethnicity			75.09***	.13
European American	40%	60%		
African American	50.9%	49.1%		
Asian American	38.1%	61.9%		
Latino/a	55.7%	44.3%		
Other	53.6%	46.4%		
Parent Education			138.12***	.18
Less than high school	60.6%	39.4%		
H.S. degree or equivalent	51.5%	48.5%		
Voc/tech degree or some college	46.6%	53.4%		
College graduate	37.6%	62.4%		
Graduate/Prof. school	31.1%	68.9%		
School Type			62.62***	.12
Private	25.6%	74.4%		
Public	46.4%	53.6%		

<sup>a</sup>The measure phi is used here as an indication of effect size. We acknowledge that Cramer's V is generally a more accurate indicator for contingency tables larger than 2 × 3 (and thus is more appropriate for analyses involving grade, race/ethnicity and parent education), but estimates of phi and V were identical for all analyses in this table. Thus, for the sake of simplicity, phi is reported throughout the table and text.

\*\*\**p* < 0.001.

A central question of interest to policymakers is whether students still reap the academic, behavioral, and civic benefits of participation in community service if they are required to do it. To answer this question, we ran our regression models only on the sample of students who participated in service, and included a dummy variable for voluntary (versus required) service. Results of this analysis are shown in Table 5. Whereas the purpose of the analyses in Table 4 was to compare the effects of participation in service versus no participation in service, the purpose of these models is to focus in on only those students who are engaging in service activity, and compare whether voluntary participation has different effects than required participation. The coefficient for voluntary service is small and non-significant in each of the regression models, representing a change in the outcome of 3% or less in each case. These results indicate that students who perform service voluntarily do not differ from those doing required service on any of the outcomes of interest. Put simply, voluntary service does not appear to be more beneficial to youth than required service, at least in terms of the outcomes examined here.

#### Outcomes by type of service

Prior to examining how the type of service is related to our outcomes of interest, we examined variation in participation rates for each type of service using the subsample of 857 adolescents who participated in the longer interview. We conducted a series of chi-square analyses to test whether there were differences in participation rates among certain demographic groups. Females were significantly more likely than males to participate in service helping individuals ( $\chi^2_{1,857}$ ,  $p < .05$ ) though this difference represents a relatively small effect (phi = .07). Of all youth whose service helped individuals, 58% were female and only 42% were male. On the other hand, males were more likely than females to engage in service that helped the environment or animals ( $\chi^2_{1,857} = 4.7 = 9.1$ ,  $p < .01$ ). This effect also was relatively small (phi = .10). Fifty-nine percent of youth who did this type of service were male, while only 41% were female. There were no significant distributional differences in participation rates across any of the service types for grade in school, race/ethnicity, parent education level, family income level, or attendance at public versus private school. We also



**Table 4** Regression models estimating the impact of service on adolescent outcomes

Ind. Var	Outcome variable											
	Academic adjustment			Behavioral problems			Civic efficacy			Civic knowledge		
	b <sup>a</sup>	SE b	Beta	b <sup>a</sup>	SE b	Beta	b <sup>a</sup>	SE b	Beta	b <sup>a</sup>	SE b	Beta
Female	.34(.12)	.03	.19***	-.34(.28)	.03	-.20***	-.04(.00)	.04	-.02	-.54(.25)	.04	-.18***
Age	-.11(.00)	.01	-.02	-.02(.02)	.01	-.03*	.11(.01)	.02	.11***	.20(.09)	.02	-.17***
Risk	-.14(.05)	.02	-.16***	.11(.09)	.01	.12***	-.21(.02)	.02	-.17***	.29(.13)	.02	-.19***
African American	-.07(.02)	.04	-.03	.17(.14)	.04	.07***	.02(.00)	.06	.00	-.36(.17)	.06	-.09***
Latino/a	-.02(.01)	.04	-.01	-.02(.02)	.04	-.01	-.08(.01)	.05	-.02	-.51(.24)	.06	-.13***
Asian American	.11(.04)	.08	.02	-.08(.07)	.08	-.02	-.21(.02)	.12	-.03	.01(.01)	.13	.00
Other Race	.18(.06)	.08	.03*	.02(.02)	.08	.00	-.12(.01)	.12	-.02	.17(.08)	.13	.02
GPA			—			—			—	.36(.17)	.02	.22***
Private School	.04(.02)	.05	.01	-.16(.01)	.04	-.01	.05(.01)	.07	.01	.39(.18)	.07	.08***
Any Service	.33(.12)	.03	.18***	-.18(.15)	.03	-.10***	.26(.03)	.04	.11***	.34(.16)	.04	.12***
Adj. R <sup>2</sup>		.12			.09			.06			.24	

N = 4306.

<sup>a</sup>Numbers in parentheses indicate the effect size for each coefficient, computed as the proportional change in the unstandardized coefficient from the intercept.

\*p < 0.05; \*\*p < 0.01; \*\*\*p < 0.001.

**Table 5** The impact of voluntary vs. required service among participants doing service

Ind. Var	Outcome variable											
	Academic adjustment			Behavioral problems			Civic efficacy			Civic knowledge		
	b <sup>a</sup>	SE b	Beta	b <sup>a</sup>	SE b	Beta	b <sup>a</sup>	SE b	Beta	b <sup>a</sup>	SE b	Beta
Female	.33(.12)	.03	.20***	-.33(.25)	.03	-.21***	-.05(.00)	.05	-.02	-.56(.24)	.06	-.18***
Age	.02(.01)	.01	.03	-.04(.03)	.01	-.07***	.13(.01)	.02	.14***	.22(.09)	.02	.18***
Risk	-.13(.05)	.02	-.15***	.09(.07)	.02	.11***	-.21(.02)	.03	-.17***	-.30(.13)	.03	-.19***
African American	-.17(.06)	.05	-.07***	.18(.14)	.05	.08***	.02(.00)	.08	.01	-.38(.16)	.09	-.09***
Latino/a	-.10(.04)	.05	-.04	.10(.07)	.05	.04*	-.12(.01)	.08	-.04	-.53(.23)	.09	-.12***
Asian American	-.01(.00)	.10	.00	.00(.00)	.09	.00	-.33(.04)	.14	-.05*	.08(.03)	.16	.01
Other Race	.15(.06)	.11	.03	-.06(.05)	.11	-.01	-.03(.03)	.16	.00	.10(.04)	.19	.01
GPA			—			—			—	.43(.19)	.03	.24***
Private School	.04(.01)	.05	.01	.04(.03)	.05	.02	.01(.00)	.08	.00	.40(.17)	.09	.09***
Voluntary Service	.04(.02)	.04	.02	-.41(.03)	.04	-.02	.03(.00)	.06	.01	.04(.02)	.06	.01
Adj. R <sup>2</sup>		.08			.08			.05			.22	

N = 2389.

<sup>a</sup>Numbers in parentheses indicate the effect size for each coefficient, computed as the proportional change in the unstandardized coefficient from the intercept.

\*p < 0.05; \*\*p < 0.01; \*\*\*p < 0.001.

found no distributional differences across activity types in whether the adolescent was participating as a volunteer or to fulfill a requirement.

A series of independent *t* tests was conducted to examine the relationship between type of service and the outcomes of interest for the 857 adolescents who completed the longer interview. Independent *t* tests were used rather than regressions because the service type categories were not mutually exclusive. Compared to adolescents who did other types of service, adolescents whose service involved direct contact with individuals in need earned higher grades ( $t = 2.92$ ,  $p < .01$ ), but other outcomes did not differ. The effect size for grades, as indicated by Cohen's *d* is small to moderate ( $d = .35$ ). Adolescents who helped organizations reported more civic efficacy ( $t = 2.86$ ,  $p < .01$ ) and had more civic knowledge ( $t = 1.94$ ,  $p < .05$ ) than adolescents who engaged in other types of service, though the effect size for both comparisons was relatively small ( $d = .21$  and  $.15$ , respectively). Adolescents who helped the environment/animals did not differ from adolescents who did other types of service with respect to any of the outcomes of interest.

## Discussion

The results of this study make several important contributions to our understanding of youth development. Because the data are nationally representative, we can draw some well-informed conclusions about the types of adolescents who participate in service, the types of service activities they engage in, the impact service participation has on youth development, and whether or not requiring service reduces or eliminates any of its potentially positive impacts. The findings add to the national conversation in the United States about whether community service should become a required component of school curricula.

An encouraging finding is that participation in service activities among adolescents is generally high—more than half of all the high school students surveyed reported having engaged in some type of service activity in the past year. This number is even more impressive given that the overwhelming majority of service reported by adolescents was voluntary rather than mandatory. It appears that by and large, adolescents in the United States are voluntarily making some commitment to give back to others. This seems an important message to send about teenagers, who are often viewed in society as self-centered and hedonistic.

This general trend toward participation might lead one to question whether debating the establishment of community service requirements is necessary at all: If most students are participating already, why bother requiring it? A closer look at the data suggests that there are still a number of reasons we might want to consider service requirements. First, while most students report having done some service in the past

year, the amount of actual time adolescents spend engaged in service is very small. Among adolescents reporting any service, 40% participated only once or twice a year and an additional 20% spent only one to two hours a week doing service. One could argue that requiring students to do service would guarantee that service would become a more routine part of their lives, rather than an activity one engages in only once or twice a year. A second reason to consider requiring service even when participation rates are high is that not all groups of adolescents participate in service with the same frequency. Specifically, African American and Latino/a adolescents, and students whose parents have little education are the least likely to participate in service in general, and they are particularly unlikely to participate in service voluntarily. Such individuals are likely to face social, economic, and educational disadvantages that might put them at risk for academic failure and other maladaptive behaviors. If participation in service activities does indeed have a positive impact on adolescent development as so many have argued, these benefits will be largely unavailable to these populations. Consistent with other studies (Barber 1992; Kenny and Gallagher 2003), our findings suggest that requiring students to do service might ensure that the benefits of service participation like academic success, positive behavior, and civic responsibility will not be lost to those most in need of them. Unfortunately, there may be a number of factors that mitigate against these students participating including little funding and few adults available to organize and supervise service activities (Atkins and Hart 2002), the need for paid employment to help with family expenses, and parental restrictions from neighborhood activities for safety reasons. Future research should investigate means for overcoming these restrictions.

Of course, this line of argument merits the question as to whether there really are measurable benefits to adolescent participation in service activities. These data suggest that there are. Students who participate in service earn higher grades, have fewer behavioral problems, know more about the society in which they live, and may feel slightly more empowered to effect change, even after controlling for demographic and socioeconomic characteristics. It appears that participation in service may contribute to adolescent development in a variety of ways, enhancing academic, behavioral, and civic outcomes.

Before moving into further discussion of the potential benefits of community service participation, we must qualify these findings in several ways. First, we must note that none of our regression models fully explain the variance in our outcome measures: The amount of variance explained by each model is relatively small, ranging from 6 to 24 percent. There are certainly factors beyond the ones studied here that contribute to each of the outcomes under investigation. It was not our intention to provide a comprehensive exploration of

all factors contributing to adolescents' academic, behavioral, and civic outcomes. Rather, we were interested in exploring whether participation in service activities was meaningfully related to these outcomes. While service participation may not be the single largest influence on adolescent outcomes, it clearly appears to have a measurably positive impact. The independent variables we investigated were least effective in explaining the variance in behavioral problems and civic efficacy. Our relative inability to explain the variance in these two outcomes is likely due to the fact that our measures of these two constructs were not that strong: Internal consistency for these two measures was relatively low, indicating that taken together, the items asked on the NHES survey may not have been very good indicators of behavior problems and civic efficacy. Before we rush to conclude that service participation has a weak or null impact on behavior problems and civic efficacy, future research should aim to develop stronger measures of these constructs.

A second important qualification that must be made immediately is that these data are cross-sectional. Thus, causal links between service participation and the outcomes of interest may not be made conclusively. Eyler (2000) has argued specifically that it is difficult to attribute academic gains to service participation per se, because there is an evident possibility that students who choose to participate in service have better grades to begin with. While it is certainly possible that the associations identified in our analyses represent selection effects rather than the effects of service (i.e., that students with good grades, good behavior, high civic efficacy, and more civic knowledge are simply the ones who choose to do service), there is some evidence to suggest our results are not entirely attributable to selection effects. Perhaps most convincing are the results of our analysis of required versus voluntary service presented in Table 5. Among those students who participate in service, there is no appreciable impact of voluntary versus required service on any of the outcomes of interest, indicating that gains in academic and behavioral adjustment, civic efficacy, and civic knowledge are the same regardless of whether one's service participation was voluntary or required. If the association between service and the outcomes of interest were due entirely to selection effects, one would expect greater associations for voluntary service participation compared to required participation. Because this is not the case, there is some support for the notion that participation in service contributes to better academic, behavioral, and civic outcomes, rather than the converse.

While the null findings regarding voluntary versus required service provide some evidence against selection effects, they will also be of interest to policymakers and school administrators who are considering the establishment of service requirements. These data suggest that students who do service to fulfill a requirement reap the same benefits from

service participation as those who engage in service voluntarily, and voluntary participation does not provide any additional academic, behavioral, or civic benefits. It is important to note here that the models for voluntary vs. required service (Table 5) explain an even smaller proportion of the variance in the outcomes than our service vs. no-service models (Table 4). The removal from analysis of adolescents who did not participate in service at all essentially eliminated any variance that could be explained by service participation: Knowing whether the service was voluntary or required did not explain any additional variance. These null findings are particularly interesting given that students who volunteer tend to have a distinct socio-demographic profile from those whose schools require them to do service. Volunteers tend to be European American, upper class, and attend public schools, while those mandated to do service tend to be African American or Latino/a, of lower socioeconomic class, and generally attend private schools (including religious schools). Although these data cannot answer the question of why mandated service is instituted more often in schools serving minority and lower income students, some public policy analysts have argued that community service and service learning programs are important educational strategies for at-risk youth because they typically address many of the factors that contribute to students' risk of academic failure (Vandegrift and Sandler 1993). Duckenfield and Swanson (1992) note that by its very nature, service activity involves several practices such as mentoring, community collaboration, hands on activity, and working with responsible adults all of which have been shown to be particularly effective for working with at-risk students. Based on data from a large, nationally representative sample, our results suggest that whether service participation is voluntary or required, it can have a positive developmental impact on adolescents with diverse backgrounds. A future study could examine more specifically the association between the beneficial practices posited by Duckenfield and Swanson (1992) and positive outcomes.

We also found no substantial difference between the types of service activities students do voluntarily and those they do to fulfill a requirement. This finding further supports the contention that mandatory service has the potential to be just as meaningful to students as voluntary service. These findings contradict those of McLellan and Youniss (2003) who found that students doing required service were less likely to get direct exposure to the people they were helping. It is however difficult to make direct comparisons between their study and the current one, as the service type categories in the two studies differ slightly from one another, and the sample for the McLellan and Youniss study was comprised of students in two private religious schools.

If we are to accept the argument that required service has the potential to be as beneficial to students as voluntary

service, the obvious next question is, “How much service participation will achieve optimal results?” While our findings clearly support the idea that requiring service might benefit students, further research may be necessary to determine how much service is recommended. Essentially, our results suggest that any service is better than none at all—even students who report doing service once or twice a year had significantly more positive outcomes than students who did no service at all. We did not, however, find convincing evidence to suggest that students who engage in service more regularly show greater gains relative to those who do infrequent service. It may be the case that simply requiring students to do a few hours of service a few times a year is all that is necessary. We feel that such conclusions are premature though, as limitations in the dataset may have prevented us from making a more nuanced analysis of the impact of hours of service on the outcomes of interest. Because the majority of participants in this study engaged infrequently in service activities, the sample of students with high levels of participation in service may have been too small to produce robust results about the effects of service hours. Further, the nature of the NHES questionnaire made it difficult to discern whether service activities occurred regularly (e.g., on a weekly basis), or in spurts (e.g., by doing full days of service on only a few occasions throughout the year). Future research should examine the impact of total number of hours of service as well as the regularity of service participation in greater detail.

One explanation for the limited levels of participation is that the data were collected just as the current service learning movement was starting. Thus, it is possible that adolescents’ participation in service has increased since 1999. Future national studies detailing service participation will be necessary to ascertain whether the increased attention to service by school administrators has indeed resulted in increased participation among students.

As we have alluded to at several points in the paper, studying service involvement using a large national database has several advantages, but has numerous limitations as well. The advantages include national representation, generalizability, and sample sizes that are large enough to allow for meaningful examination of subsets of the general population (e.g., those attending private versus public schools) and service activities that may not be very common (e.g., service to the environment). The NHES-99 data carry the additional advantage of including information from parents as well as their adolescent children. This was advantageous for the current study in that many of the adolescent outcome measures were based on parent reports, which may be less susceptible to distortion than adolescent reports alone. As this data set contains parent information, future research could examine the role that various parental characteristics play in adolescents’ service participation.

One of the most serious limitations of using large national surveys for answering any research question is that national surveys are designed to be general: They regularly lack the precision, detail, and elaboration that are achievable in smaller studies. As a result it is often challenging for researchers analyzing the data to construct reliable measures of constructs that the original survey may not have been designed to assess. Due to the more general nature of the NHES data and to the fact that it was collected just as the interest in engaging adolescents in civic activity was garnering the attention of policy makers and researchers, we were unable to take into account certain factors like predisposition toward voluntary service, which has been shown in smaller studies to mediate the potential benefits of required service (Metz and Youniss, 2005). As was mentioned previously, the NHES data allow researchers to make only very imperfect distinctions between community service and service learning. Because of the structure of the survey questions, the data may underestimate the number of schools that require service. When a certain level of depth is achieved in national surveys, it often comes at a price. For example, the NHES-99 survey collected relatively detailed information about the types of service activities students did, but this information was only collected for a small subsample of the total survey population. In order to analyze the data in any detail, we are forced to exclude the majority of the full sample from our analysis. A final limitation is that many large national surveys are cross-sectional by design, and as such it is difficult to draw any firm conclusions about the direction and causality of any relationships that are identified. This limitation prevents us from a deeper understanding of the long-term effects of service participation. Several researchers have argued that more experimental and longitudinal studies are needed to speak more confidently about the effects of service on student outcomes (Raskoff and Sundeen, 1999; Yates and Youniss, 1996). While NHES is not a longitudinal survey, the themes covered in the survey (like service participation) are often revisited every few years, enabling the examination of national trends. A significant challenge for analysts, however, is that survey items are often changed from one administration to the next, making it difficult for researchers to replicate findings across assessments or to validly document change.

Despite the limitations of this study, the findings do indicate that service activity is one way for schools to foster academic adjustment and civic development among adolescents attending high schools. When John Dewey (1916) defined democracy as “primarily a mode of associated living, of conjoint communicated experience” (p. 93) and the understanding of communicated experience as developing shared “ways of responding to expectations and requirements” (p. 7) he anticipated the value of service as an aspect of education in a democratic society. The combination of the-

oretical and empirical support for service activity warrants the policy and practice of encouraging service by high school students and continued research in this area.

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