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**The Civic Development of
9th- Through 12th-Grade Students
in the United States: 1996**

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Executive Summary

This report provides an extensive picture of factors often thought to be associated with promoting good citizenship among youth. In particular, it focuses on the civic development of 9th- through 12th-grade students. Broadly speaking, student characteristics, family influences, the role of schools, media factors, and the possible benefits of participation in community service activities are related to civic development. Initial analyses study how these factors relate to civic development in isolation from one another while the latter part of the report studies their relationship to civic development in conjunction with one another.

Civic development, as defined in this report, consists of five dimensions: political knowledge, attention to politics, political participation skills, political efficacy, and tolerance of diversity. Information about civic development was collected from a nationally representative sample of 4,212 9th- through 12th-grade students and their parents and is based on responses to over a dozen questions. Both the students and their parents were given a short political knowledge quiz. They were also asked how often they paid attention to politics through various news media and how often they interacted with one another on political issues garnered from news media. Political participation skills were tapped through questions asking how confident respondents felt about writing officials letters or speaking at public meetings. Responses to questions about how well the respondent understood politics and how much say the respondent's family had in government were used to tap political efficacy, and tolerance of diversity was studied based on answers to questions about tolerating controversial books in public libraries and about allowing speech against religion. The data were collected from January through April 1996 as part of the National Household Education Survey.

Some of the more important questions and relevant results presented in the report are summarized below.

Are there any differences between 9th- through 12th-grade students and their parents on key dimensions of civic development?

The answer to this question is yes for two of the dimensions of civic development under study. Parents tend to know more about politics than do students. For instance, 17 percent of parents were able to answer all five of the political knowledge questions correctly while only 8

percent of the students could do so. The knowledge disparity may be due in part to the fact that parents are more likely than students to pay attention to politics. Over one-third of parents read about the news almost every day compared to only one in ten students and parents are also more likely to watch or listen to the news than are students. The disparity in political knowledge scores is reflected in one of the political efficacy questions. Approximately 61 percent of parents believe they understand politics compared with 55 percent of students. However, students are more likely to believe that their family has a say in government than are parents. There are no notable differences between parents and youth in terms of political participation skills or tolerance of diversity; 57 percent of both groups would allow a controversial book to be included in a public library.

Do students, as they progress through the education system, have better civic development scores? Are there other student characteristics that are related to civic development?

A student's grade in school, controlling for other factors such as the student's race-ethnicity, activities, and family and school characteristics, is positively related to all dimensions of civic development. Students in higher grades are more likely to be knowledgeable about politics, pay attention to politics, trust their participatory skills, be politically efficacious, and be tolerant of diversity than are students in lower grades.

Other student characteristics tend to present a less consistent picture. For instance, when controlling for other factors, white students are generally more knowledgeable about politics than are minority students and more tolerant of diversity in terms of allowing controversial books in a public library; minority students are about as likely to trust in their participation skills as white students and are more efficacious in terms of believing that their family has a say in what government does.

Does attention to politics translate into higher levels of civic development?

For the most part, the answer is yes. Those students who pay more attention to politics through the print media and/or television and radio tend to be more knowledgeable about politics. They also tend to have greater trust in their political participation skills, and tend to be more efficacious, at least in terms of feeling as though they understand politics. These relationships hold even after controlling for a large number of student characteristics, other student activities, and various family and school traits. One dimension of civic development not associated with attention to politics is tolerance of diversity. Apart from suggesting students should be

encouraged to pay attention to politics, the results also suggest that the media may have a positive role to play in civic development.

What types of activities in which students engage are associated with higher levels of civic development?

Both participation in student government and regular participation in community service activities are related to a number of dimensions of civic development. Those students who participate in student government tend to be more knowledgeable about politics, more confident in their participation skills, more confident that they understand politics, and more tolerant of such things as public libraries carrying controversial books than students who do not participate in student government. These results held even after controlling for student characteristics, other kinds of student activities, and family and school characteristics.

Many of the same relationships are found between regular participants (35 hours or more during the school year) in community service and civic development. Generally, regular participants have higher levels of civic development than do students who participate less often or not at all. The only exceptions are that regular participants, while having more confidence in their ability to make statements at public meetings, are not more likely to have confidence in their ability to write the government or to tolerate controversial books in public libraries than are other students.

What role does the family play in student civic development?

Much of the research of the 1960s and 1970s suggested that the family, or at least parents, had only limited influence on the civic development of students. Findings in this report provide a somewhat different picture. After controlling for a large number of other potential factors, parent responses to given questions about civic development are positively related to student responses on the same items in almost every instance. Students of parents with high political knowledge scores tend to have high political knowledge scores, students of parents who regularly read the news also tend to read the news on a regular basis, and so forth. The only exception is for the item on writing a letter to a government official.

Do students attending public and private schools have similar levels of civic development?

Of the eleven indicators of civic development used in the report, private school students score notably better on four indicators. After controlling for a host of other factors described

above, private school students tend to have higher political knowledge scores, are more likely to have confidence in their ability to speak at public meetings, are more likely to feel as though they understand politics, and are more likely to accept the presence of controversial books in public libraries than are public school students. On the other indicators of civic development, public and private school students look similar.

Summary

This report fills a number of voids on research focusing on younger Americans and their civic development. Perhaps the biggest is simply the time lag between a series of studies conducted in the 1960s and early 1970s and the present. There have been few extensive studies of youth civic development since that time. Findings in this report suggest that the current generation of American youth may have different correlates of civic development than the youth of the 1960s and 1970s. For instance, earlier research suggests that parents play only a very limited role in youth civic development, but this report indicates that parents may now have a stronger influence on the civic development of youth.

Some of the differences that appear to exist between earlier research and this report on such issues as the relationship between parents and youth civic development may in part be due to the fact that this report focuses on students in grades 9 through 12. Much of the earlier research focused solely on 12th-grade students or college students. However, results presented here indicate that there are important differences between students in higher and lower grades that deserve more attention.

The report also looks at the possible relationships between community service activity and civic development. While there have been many benefits accredited to community service including higher levels of civic development, little research has been done to study the relationship between the two. Community service activity does appear to be associated with some components of civic development such as increased political knowledge, increased confidence in the ability to speak at public meetings, and a stronger sense that one understands politics. It should be kept in mind, however, that community service in general does not seem to promote several factors associated with good citizenship. For instance, there does not appear to be a correlation between community service per se and tolerance of diversity. It is important to explore the relationship between community service and civic development further, since data collected for this report do not allow for an analysis of different types of community service. If such factors as the type of activity the service entailed, who was assisted, who sponsored the service, and so on, are taken into account, community service might be more closely related to other dimensions of civic development.

Research on the topic of youth civic development has pointed to a number of agents that are typically related to civic development. These agents include the family, schools, and the media. Apart from these agents, student characteristics and activities have also been studied. Seldom have all of these agents, characteristics, and activities been studied at the same time. By simultaneously analyzing these factors, this report helps sort out their relative roles in the civic development of American youth.

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Table of Contents

	Page
Executive Summary	iii
Acknowledgments	viii
List of Tables	xi
List of Figures	xiii
Introduction	1
Previous Research	3
Individual Factors	3
Family Factors	4
School-Related Factors	5
Community Involvement/Service Learning	6
Scope of the Present Study	9
Data Sources and Indicators	11
Student and Parent Levels of Civic Development	15
Variations in Civic Development	23
Student Characteristics	23
Student Activities	30
Family and School Characteristics	37
Multivariate Tests of the Relationship Between Student, Family, and School Characteristics and Civic Development	45
Political Knowledge	46
Attention to Politics	48
Political Participation Skills	50
Political Efficacy	52
Tolerance of Diversity	54
Community Service and Service Learning	57
Summary and Conclusions	61

	Page
Survey Methodology and Data Reliability	63
Response Rates	64
Data Reliability	64
Weighting and Sampling Errors	65
Nonsampling Errors.....	66
Derived Variables	67
Statistical Tests	70
Multivariate Analysis	70
References	73

List of Tables

Table	Page
1a Political knowledge of students in grades 9 through 12, by student characteristics: 1996.....	24
1b Attention to politics of students in grades 9 through 12, by student characteristics: 1996.....	25
1c Participation skills of students in grades 9 through 12, by student characteristics: 1996.....	26
1d Political efficacy of students in grades 9 through 12, by student characteristics: 1996.....	27
1e Tolerance of students in grades 9 through 12, by student characteristics: 1996.....	28
2a Political knowledge of students in grades 9 through 12, by student activities: 1996.....	30
2b Attention to politics of students in grades 9 through 12, by student activities: 1996.....	31
2c Participation skills of students in grades 9 through 12, by student activities: 1996.....	34
2d Political efficacy of students in grades 9 through 12, by student activities: 1996.....	35
2e Political tolerance of students in grades 9 through 12, by student activities: 1996.....	36
3a Political knowledge of students in grades 9 through 12, by family and school characteristics: 1996.....	39
3b Attention to politics of students in grades 9 through 12, by family and school characteristics: 1996.....	40
3c Participation skills of students in grades 9 through 12, by family and school characteristics: 1996.....	41
3d Political efficacy of students in grades 9 through 12, by family and school characteristics: 1996.....	42
3e Political tolerance of students in grades 9 through 12, by family and school characteristics: 1996.....	43

Table		Page
4	OLS regression predicting the political knowledge of students in grades 9 through 12: 1996.....	47
5	OLS or logistic regression predicting the attention to politics of students in grades 9 through 12: 1996.....	49
6	Logistic regression predicting the participation skills of students in grades 9 through 12: 1996.....	51
7	Logistic regression predicting the political efficacy of students in grades 9 through 12: 1996.....	53
8	Logistic regression predicting the political tolerance of students in grades 9 through 12: 1996.....	55
9	Comparison of select community service regression coefficients between all 9th-through 12th-grade students and 9th- through 12th-grade students whose service was required or arranged by schools: 1996.....	58

List of Figures

Figure		Page
1	Political knowledge of students in grades 9 through 12 and of their parents: 1996.....	15
2	Political attentiveness of students in grades 9 through 12 and of their parents: 1996.....	17
3	Participation skills of students in grades 9 through 12 and of their parents: 1996.....	18
4	Political efficacy of students in grades 9 through 12 and of their parents: 1996.....	19
5	Political tolerance of students in grades 9 through 12 and of their parents: 1996.....	20
6	Percent of students in grades 9 through 12 who reported selected aspects of civic development, by academic performance: 1996	29
7	Percent of students in grades 9 through 12 who reported selected aspects of civic development, by participation in student government: 1996.....	32
8	Percent of students in grades 9 through 12 who reported selected aspects of civic development, by highest level of parental education: 1996.....	38

Introduction

Ironically, as an ever-larger portion of the world embraces democratic systems and values (Huntington 1996), concern about the vitality of democracy in the United States has reemerged. A number of developments have helped fuel this concern, including voter turnout rates that have declined steadily since 1960 (Teixera 1992; Stanley and Niemi 1998), falling levels of involvement in nonpolitical civic associations and other communal activities (Putnam 1995), stubbornly low levels of political knowledge and tolerance of diversity despite rising education levels (Delli Carpini and Keeter 1996; Nie et al. 1996), widespread distrust of government and societal leaders (Nye et al. 1997; Blendon et al. 1997; Stanley and Niemi 1998), and growing incivility within political institutions (Mahtesian 1997).

Perhaps more significantly, there is a sense that the next generation of Americans is especially affected by these societal changes and, in response, has “opted out” of politics (*Democracy’s Next Generation* 1989). Frequently cited as evidence is the low level of interest in keeping up with politics or in discussing politics expressed by college freshmen in recent nationwide surveys (CIRP 1997), though others cite youths’ general pessimism about the future and the loss of a sense of community (“Selected Review” n.d. 18–20). While declining civic involvement and heightened disengagement among youths are debatable,¹ what has become clear is that democratic predispositions need to be nurtured—that they do not develop so spontaneously that it can be taken for granted that every new generation will be as supportive of America’s political and civic traditions and institutions as were previous generations.

The knowledge that good citizenship does not just happen but is something to be developed, combined with growing concern about the future of American democracy, has helped propel the issue of developing good citizens back onto the education agenda. It led the National Education Goals Panel to recommend that “. . . every school in America will ensure that all students learn to use their minds well, so that they may be prepared for responsible citizenship. . . .” (National Education Goals Panel 1997). Using schools to promote good citizenship is not new; the idea has roots extending back to late 18th-century conceptualizations of the American

¹Braungart and Braungart (forthcoming) paint a very upbeat picture of the current younger generation based on a number of national youth surveys conducted in the 1990s. Among other things, they cite high rates of community involvement, the possible effects of which are a major concern in this analysis. Based on a 1997 poll, the Ford Foundation reports that more young Americans (18–29-year-olds) are considering working for government and are doing so for more altruistic reasons than in 1995. More generally, Ladd (1998) argues that civic engagement among adults in the United States is currently high and is in fact increasing.

education system (many of which were based on even earlier works such as Plato and Aristotle) (Cremin 1980; Butts 1981). Then, as now, schools are being called upon to help instill a sense of civic duty and to provide the intellectual tools necessary for political participation.

In order to better understand what factors may lead to the development of better citizens, this report examines data from two components of the 1996 National Household Education Survey (NHES): Youth Civic Involvement, and Parent and Family Involvement in Education and Civic Involvement. From these data, it is possible to determine student levels of political knowledge, self-reported attention to politics, political participatory skills, degrees of political efficacy, and tolerance of diversity, which we refer to collectively as “measures of civic development.” As we will make clear below, all of these components (though not the specific measures) are found in the new voluntary standards for civic education and the 1998 National Assessment of Educational Progress (NAEP). The relationship between student characteristics, activities in school, family and school backgrounds, and these measures of civic development will also be examined. Of particular interest, because of its prominence in recent educational theory and national dialogues and legislation, is the relationship between students’ participation in community service and their civic development.

Previous Research

Awareness of government and politics, and even rudimentary political participation, begins at an early age, but an adult-like understanding of politics develops only in late adolescence (Hyman 1959; Adelson and O’Neil 1966; Jennings and Niemi 1974). It is at this point that society attempts to educate youth for citizenship roles through civics and government courses in school along with the “practice” of democracy in school organizations. In addition to studying the role of schools, a long tradition of research on political socialization has identified individual and family characteristics that appear to be significant in the development of democratic attitudes, knowledge, and behavior.²

Individual Factors

The most obvious factors are the characteristics of individuals themselves. Paralleling the enormous difference that education level makes in adult surveys, achievement levels of students—denoted, for example, by their grade point averages in school or their academic programs—are important in the process of civic development. Apart from being positively related to political knowledge (Jennings and Niemi 1974; Anderson et al. 1990; Niemi and Junn 1998), achievement levels have also been associated with political trust (Niemi and Junn 1998) and community participation (Nolin et al. 1997). Acting as a proxy for the accumulation of experience a child attains through longer and longer exposure to education, it is also expected that a child’s grade level in school will influence key political skills as well as attitudes such as political efficacy and tolerance of diversity.

Because of their association with important life experiences, certain characteristics established at birth are also significant correlates of civic development. One such factor, race–ethnicity, is related to a variety of components that go into civic development. Some early research suggested that black and Hispanic youths had *more* positive attitudes toward the political system early in their lives than did whites, though black and Hispanic disenchantment was much more precipitous through the teen years (Dawson et al. 1977). By the 1970s, however, Abramson concluded that, on balance, both black and Hispanic preadults had lower political efficacy than whites and that blacks also expressed less trust in the political system than whites (Abramson 1983).

²This line of research emerged in the 1950s and waned in the 1970s. There has been a resurgence in the field that is, in part, attributable to the increasing concerns about the future of American democracy referred to in the Introduction.

With respect to participation, some research indicates that Hispanic teenagers claim to have undertaken less volunteer activity (Hodgkinson and Weitzman 1997), but race–ethnicity was not a significant factor in volunteer activity according to a recent multivariate analysis (Nolin et al. 1997). In addition, black and Hispanic high school seniors in the 1988 NAEP expressed slightly *greater* interest in civics and government than did white students, though their knowledge of this subject was significantly less (Niemi and Junn 1998).

Early studies also suggested that young females were less knowledgeable than young males about politics and less likely to participate in campaign-like activities (Hess and Torney 1967; Jennings and Niemi 1981). More recent research supports this notion with respect to knowledge, although with some qualifications (Niemi and Junn 1998; Ravitch and Finn 1987). As to participation, a recent adult survey shows that women participate slightly less in political activities than men but are as active or more active in other community activities (Verba et al. 1995). Similarly, among teenagers, volunteer activity is slightly greater among girls than boys (Hodgkinson and Weitzman 1997; Nolin et al. 1997).

Family Factors

Family background and other characteristics of the family play an important role in civic development. Most prominent by far is parental education level and its effect on student political knowledge levels. So pervasive is this connection that parental education is a standard reporting criterion in NAEP report cards (Anderson et al. 1990; Beatty et al. 1996). Even when included in multivariate analyses along with numerous other factors, parental education makes a difference (Verba et al. 1995; Niemi and Junn 1998).³ Likewise, parental education is related to youths' participatory attitudes and behavior, including their voluntary community service (Verba et al. 1995; Nolin et al. 1997). Parental education may also play a role in the development of attitudes such as political efficacy (Jennings and Niemi 1974), though the evidence is not as conclusive.⁴

Less clear is the role played by parental attitudes and behaviors themselves. One might hypothesize that parental values would greatly affect the same values in their children. And so it seems with respect to political partisanship, though even partisan ties develop a life of their own as young people move into middle adulthood (Niemi and Jennings 1991; Miller and Shanks 1996; Sears and Valentino 1997). In addition, parental participation seems to have an effect on offspring behavior, including community voluntarism among youths (Verba et al. 1995; Nolin et al. 1997).

³Parental education is to some extent a proxy for social class. Typically, no effort is made to determine exactly what it is about parent education levels that affects their offspring.

⁴Jennings and Niemi (1974), using a sample of high school seniors, found no relationship between parent education and political trust. Verba et al. (1995), relying on an adult sample, found no connection between parent education and civic skills.

With respect to attitudes, however, the picture is less straightforward. For example, parent-offspring correlations for political efficacy have been described as “weak” (Abramson 1983), and it has been remarked that parental influence in general (apart from partisanship) is “meager” (Beck 1977). On the other hand, when two parents share the same attitudes, or when parents and children discuss politics moderately often, similarity in parent and child values is heightened considerably (Jennings and Niemi 1974, 1981).

Finally, families, like schools, have different modes of decision making, which may influence student attitudes such as political efficacy if not factual political knowledge (Almond and Verba 1963; Chaffee et al. 1973). Early research indicated that children who grew up in households where their input into decisions was not encouraged tended to have lower interest in becoming involved politically and socially.

School-Related Factors

Opinion is virtually unanimous that formal education is the strongest, most consistent correlate of political knowledge among individuals (Hyman et al. 1975; Delli Carpini and Keeter 1996; Nie et al. 1996). There is far less certainty, however, about what components of formal education make citizens more knowledgeable. For example, for many years, the accepted wisdom in the political science profession was that civics classes have little or no effect on the vast majority of students (Beck 1977). In fact, recent research suggests that schools and individual classes do have significant effects on student learning (Berliner and Biddle 1995). For instance, an analysis of the 1988 NAEP civics assessment (Niemi and Junn 1998) concludes that the amount and recency of civics coursework as well as the nature of classroom activities contribute a meaningful amount to young people’s knowledge of civics and government. Students in classes that deal with current events have also been shown to be more interested in acquiring knowledge about current events (news attentiveness) than their counterparts not exposed to such classroom experiences (Chapman et al. 1997).

Studies of the curriculum and other school characteristics have tended to find fewer positive effects on attitudes than on knowledge. Hyman and Wright (1979, 65–67), for example, explain in much detail why the effects of education on values are significant even though “their cumulative weight in the mind’s scales does not appear as great as that observed in the realm of knowledge.” Ferguson (1991, 392) notes that social studies instruction has few effects, and where there is an effect, it is “more instrumental in promoting knowledge . . . [than] participatory attitudes and skills.” In addition, studies by political scientists have often found only limited effects on student values (e.g., Langton and Jennings 1968; Merelman 1971). Nevertheless, even here the studies

have been anything but uniformly negative, leaving open the possibility that civics instruction influences attitudes such as political efficacy and tolerance of diversity.

Participation in school activities is also a relevant factor, though broad-ranging, multivariate analyses have been relatively infrequent. What is variously referred to as the context of instruction, or the hidden curriculum (Patrick 1977; Patrick and Hoge 1991), may be a major force in the development of civic attitudes such as “internal” political efficacy (for a contrary view, see Merelman 1980). The relevant context includes not only the method of interaction and discourse in the classroom (Wilensky and White 1991), but also the overall “school climate” (Jennings, Ehman, and Niemi 1974; Ehman 1980; Leming 1985). Likewise, participation in student government and in extracurricular activities has sometimes been cited as a contributor to more participatory attitudes and behavior, and also as a factor behind participatory skills (Beck and Jennings 1982; Holland and Andre 1987; Verba et al. 1995). While the effects of school climate and policies are usually thought to be attitudinal, a few studies suggest that they may be related to knowledge levels as well, especially if one conceives of knowledge as the acquisition of certain kinds of conceptual frameworks and skills as opposed to the accumulation of basic facts (Patrick 1977; Verba et al. 1995; Niemi and Junn 1998).

Finally, the type of school—whether public, church-related private, or other private—is widely thought to be significant to a variety of cognitive and attitudinal outcomes. Observed differences, of course, may be due to selection factors as well as school influence per se. In any event, it is relevant here to note that in a recent study, it was found that students in church-related schools were considerably more likely to be involved in community service (Nolin et al. 1997).

Community Involvement/Service Learning

In addition to the individual, family, and school factors cited above, there has been a recent focus on the value to students of community involvement and service learning. Service learning in one form or another has been promoted vigorously since the turn of the century in an effort to promote civic education and social responsibility (Wade and Saxe 1996; Hepburn 1997). In the 1970s, “experiential learning” was viewed as a means to extend civic education beyond abstract principles to include concrete community involvement, and in the mid-1980s, the National Commission on Youth (1980) and the Commission on Work, Family, and Citizenship (W.T. Grant 1988) endorsed major efforts to assess and promote the potential for advancing school citizenship education through service learning.

It is in recent years, however, that community involvement has been promoted most vigorously. The call to action has come from many sources and has taken many forms. At the national

level, for example, presidential backing and bipartisan support in Congress in 1990 produced the National and Community Service Trust Act, and under the first Clinton administration, the AmeriCorps and Learn and Serve America programs were established.⁵ In 1997, a wide-ranging group of nonprofit organizations, universities, schools, and government organizations established the “Partnering Initiative on Education and Civil Society” to help build service learning opportunities into elementary, secondary, and postsecondary classroom curricula.

There are at least two competing views of the purpose of service learning (Kahne and Westheimer 1996). One is tied closely to notions of altruism and volunteerism and has as its main purpose helping those in need and thereby fulfilling and perhaps increasing the participants’ sense of social responsibility. The other is more closely tied to academic learning, including the acquisition of knowledge, skills, and attitudes supportive of democratic society. The belief that community service can increase civic development is central to the second view of service learning (Alt and Medrich 1994; Calhoun 1993). The fact remains, however, that little research has been done linking community service to the development of good citizenship skills and attitudes among adolescents (Conrad and Hedin 1991; Wade and Saxe 1996). Political efficacy has been most frequently studied; insofar as one can judge from the variety of research designs and measuring instruments, the findings are mixed. (For a review and assessment of these studies, see Wade and Saxe 1996.)⁶

At a general level, research suggests that building the service experience into a classroom setting through class discussions, reports, and so on enhances its positive effects (Conrad and Hedin 1991; Dewsbury-White 1993). It is also suggested that knowledge is most likely to increase when the service is academically oriented, as with tutoring (Cohen et al. 1982; Hedin 1987). General knowledge is often thought to be neither increased nor decreased by service experiences (Alt and Medrich 1994), but there may be gains in knowledge related specifically to the tasks performed (Hamilton and Zeldin 1987). Recent research has also raised the question of whether there is a difference in the effect of voluntary activities and those promoted by or required by a school (Hodgkinson and Weitzman 1996).

⁵The number and scope of activities have become so large that the National Service-Learning Clearinghouse was established at the University of Minnesota to foster communication and offer mutual assistance among the many programs. For a brief description of the clearinghouse, see Shumer and Belbas (1996).

⁶At the college level, Markus et al. (1993) report on the basis of a carefully crafted experimental study of a first-year political science course that community involvement was strongly related to both attitudinal change and knowledge acquisition. Among adults, research from the 1950s and the 1990s shows that participation in community groups is associated with enhanced participatory skills (Almond and Verba 1963; Verba et al. 1995).

Scope of the Present Study

No recent study has contained all of the individual, family, school, and participation items described above. The 1988 NAEP civics assessment afforded a wide-ranging study of political knowledge (Niemi and Junn 1998), but it did not contain parental reports or any information on voluntary activities. Studies of community service have become more frequent, such as those by Independent Sector (Hodgkinson and Weitzman 1997) and an earlier report using the NHES:96 data (Nolin et al. 1997), but they have concentrated on the extent of participation and not on its possible effects. In response to this situation, the present report contains a full complement of such factors.

This report assesses the current level of high school students' political knowledge, attention to politics, political participatory skills, political efficacy, and tolerance of diversity and documents the personal, family, and school correlates that possibly account for their development. It is not suggested that the five elements considered here are a complete description of civic development, only that these are among the civic values and dispositions that ought to be encouraged among American students. As mentioned earlier, each of these elements and others are cited in the voluntary national standards for civics and American government (Center for Civic Education 1994), though the specific indicators used in this report were developed independently. The standards also contain a number of elements not addressed by NHES and that are not dealt with in this report. See also the Civics Framework for the 1998 NAEP, which has three interrelated components: knowledge, intellectual and participatory skills, and civic dispositions.

It is not expected that all students or all parents will rank highly on each of the components, nor is it implied that all students or parents *should* score the same. Nonetheless, citizens in democratic societies are generally expected to be reasonably knowledgeable about their government and how it operates (political knowledge); to be interested in and aware of politics and government (attention to politics); to have the ability to participate in the governing of their community, state, and nation (political participatory skills); to feel that they can influence what the government does and that the government responds to their wishes (political efficacy); and to be tolerant of different opinions (tolerance of diversity). It is how these values and dispositions develop among high school students that is of interest here.

Data Sources and Indicators

The National Household Education Survey (NHES), a large national study of adults and youth conducted by Westat for the National Center for Education Statistics, provides data to meet this research need. In 1996, following screening interviews conducted in 55,708 randomly selected households, telephone interviews were completed with 20,792 parents of children age 3 through 12th grade (the parent most knowledgeable about the child's education was interviewed). Approximately 8,000 interviews were conducted with the 6th- through 12th-grade children of these parents. A more detailed discussion of survey methodology, including response rates and data reliability, can be found in the section on survey methodology and in Collins et al. (1997).

This report is based on interviews conducted with 4,212 9th- through 12th-grade students and their parents from the 6th- through 12th-grade sample.⁷ It is important to keep in mind that the unit of analysis in the 1996 NHES is the child and not the parent.⁸ When parent-reported data are presented in this report, they are in reference to the children. Technically, “the percentage of parents who answered five political knowledge questions correctly” is “the percentage of students whose parents answered five political knowledge questions correctly.” Grades 9–12 are chosen for analysis because, by this time in students' lives, they are developing an adult-like understanding of politics.⁹

The student and parent interviews contained a number of items that allowed the study of the five dimensions of civic development discussed earlier (political knowledge, attention to politics, political participation skills, political efficacy, and tolerance of diversity). Students were asked

⁷One student whose grade could not be determined was dropped from the analyses, as were children who were home schooled. Home-schooled children were not included because they were not asked the school-related questions central to this report.

⁸The adult household member most knowledgeable about the student respondent (usually the mother) provided answers to the “parent” questionnaire. When discussing parent responses and characteristics, “parent” is used for stylistic purposes in lieu of “household adult most knowledgeable about the student.” For the same reason, instead of saying “parents or other adults” when discussing student reports of activities with parents or other adults, only “parent” is used. Correlations of the attitudes and behavior of students with those of their mothers and their fathers are relatively similar (Jennings and Niemi 1974), so that the oversampling of mothers should not substantially influence the findings. Tests indicate interviewing mothers or fathers had no substantive effect on the analyses in this report.

⁹Young children find many political concepts overly complicated or simply outside their sphere of interest; between about ages 13 and 15, however, youths become remarkably adult-like in their capacity to understand and critically evaluate political processes (Adelson and O'Neil 1966; Adelson, Green, and O'Neil 1968). To confirm that the inclusion of 9th and 10th graders (14–15-year-olds) did not bias results, analyses were conducted using 11th and 12th graders only, with results similar to those reported below.

sixteen different questions that were used to measure civic development and parents were asked fifteen.

To ascertain the level of political knowledge held by a respondent, the questionnaire included two sets of standard-knowledge test questions. Each set was composed of five questions that focused on constitutional issues along with the political setting as it stood in 1996. Two sets were used so that student and parent would not be asked identical questions. Students were always asked the questions not asked of their parents. A knowledge index was constructed by tallying how many of the five questions the respondent answered correctly. The index had a range of values from zero to five.

The first question of the first set asked what job or political office was held by Al Gore. The second asked whose responsibility it is to determine if a law was constitutional. The third asked which party had the most members in the House of Representatives. The fourth question asked what majority is needed to override a presidential veto in both the Senate and the House of Representatives. The fifth asked which party was more conservative at the national level.

The first question of the second set asked what position Newt Gingrich held. The second asked whose job it is to nominate judges to the federal courts. The third asked which party had the most members in the Senate. The fourth asked what the first ten amendments to the Constitution are called. The fifth asked which of the two parties favored a larger defense budget.

Attention to politics was measured using four different items from the survey. The first asked respondents how often they read about national political issues in a newspaper or news-magazine. The second followed up with how often respondents watched the national news on television or listened to it on the radio. After information was collected about the respondents' use of the media to follow the national news, students were asked how often they watched or listened to the news with their parents or other household adults and parents were asked how often they did the same with the student respondent. Students were also asked how often they discussed the news with their parents or other household adults.

Two items were used to tap political participation skills. The first question asked respondents if they felt they could write a letter to someone in government to express a clear opinion. The second asked whether respondents felt as though they could make a statement at a public meeting.

Political efficacy was also studied using two questions. Respondents were asked if they felt that politics and government were too confusing to understand. They were also asked if they thought their family had a say in what the federal government does.

The fifth component of civic development, tolerance of diversity, was studied using two items. Focusing on their own community, respondents were asked if people should be allowed to make public speeches against churches and religion. They were then asked whether or not a book of which most people disapproved should be kept out of a public library.

Throughout the report, the knowledge index based on the ten political knowledge questions will be used to study political knowledge. The other items used to look at attention to politics, political participation skills, political efficacy, and tolerance of diversity, will be looked at as individual indicators. This approach was taken because each item taps different dimensions of the concept under which it is grouped. For example, the two political efficacy items tap what are referred to by political scientists as “internal efficacy,” the feeling that one personally understands politics, and “external efficacy,” the feeling that authorities are responsive to people (Balch 1974; Niemi et al. 1991).

Two exceptions about studying each indicator of civic development separately occur when possible relationships between student attention to news and student attention to news with parents, and the other four components of civic development are explored. When this occurs, two indexes are used. One combines the two indicators of how often the student reads about the national news and watches/listens to the national news. The other combines the two indicators measuring how often the student watches/listens to the national news with parents and how often they talk about the national news with their parents.

Along with the parent versions of the civic development indicators discussed above, indicators for the other factors related to student civic development were also taken from the student and parent interviews. These factors include the student’s demographic characteristics, grade in school, grade performance, participation in school government, participation in other school activities, participation in out-of-school activities, involvement in community service, role in family decisions, perception of school openness, and type of school. They also include the highest level of education attained by parents in the household. A full set of the questionnaires is available in Chandler (1997).

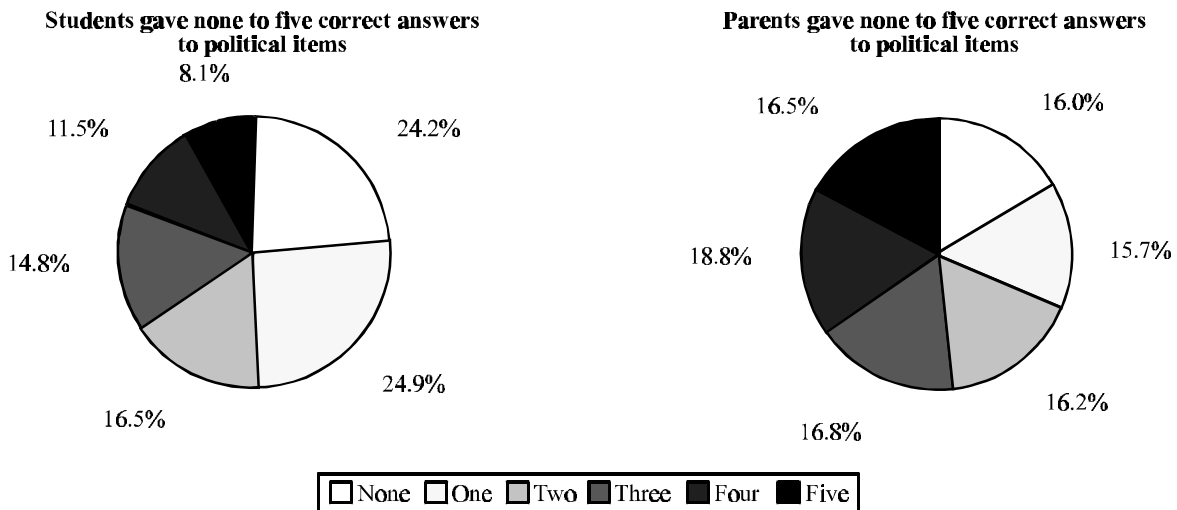
As with political knowledge, many of the variables used in the report were developed by combining items from the questionnaire. For a discussion of these variables, please refer to the “Survey Methodology and Data Reliability” section of this report.

Student and Parent Levels of Civic Development

Fewer students than parents were able to correctly answer all five of the political knowledge questions (figure 1) (8.1 percent versus 16.5 percent). Some of the difference can probably be explained by the fact that parents have been exposed to the political system for a longer period of time than their children. However, it is also the case that six of the ten questions (of which each respondent answered five) address contemporary issues such as which party now has the most members in the House of Representatives, while four were about constitutional provisions such as whose responsibility it is to determine whether a law is constitutional.

Because parents pay more attention to news, they are likely to have the advantage on “contemporary” items. This advantage may not be as noticeable when it comes to questions regarding constitutional issues because many students will be taking civic courses or just completing them.

Figure 1—Political knowledge of students in grades 9 through 12 and of their parents: 1996



NOTE: Standard errors are as follows: Number of correct answers given by students—none, 0.9; one, 0.9; two, 0.7; three, 0.7; four, 0.6; five, 0.5. Number of correct answers given by parents—none, 0.8; one, 0.7; two, 0.7; three, 0.7; four, 0.8; five, 0.7.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Survey, Spring 1996, Youth Civic Involvement Component and Parent and Family Involvement in Education and Civic Involvement Component.

In fact, on the individual items in this study, parents do considerably better on questions about contemporary politics than do students, while the differences on items regarding constitutional questions are not as large (students even do better on one of the constitutional questions). In any event, as measured, students were somewhat less knowledgeable about politics than were their parents.¹⁰

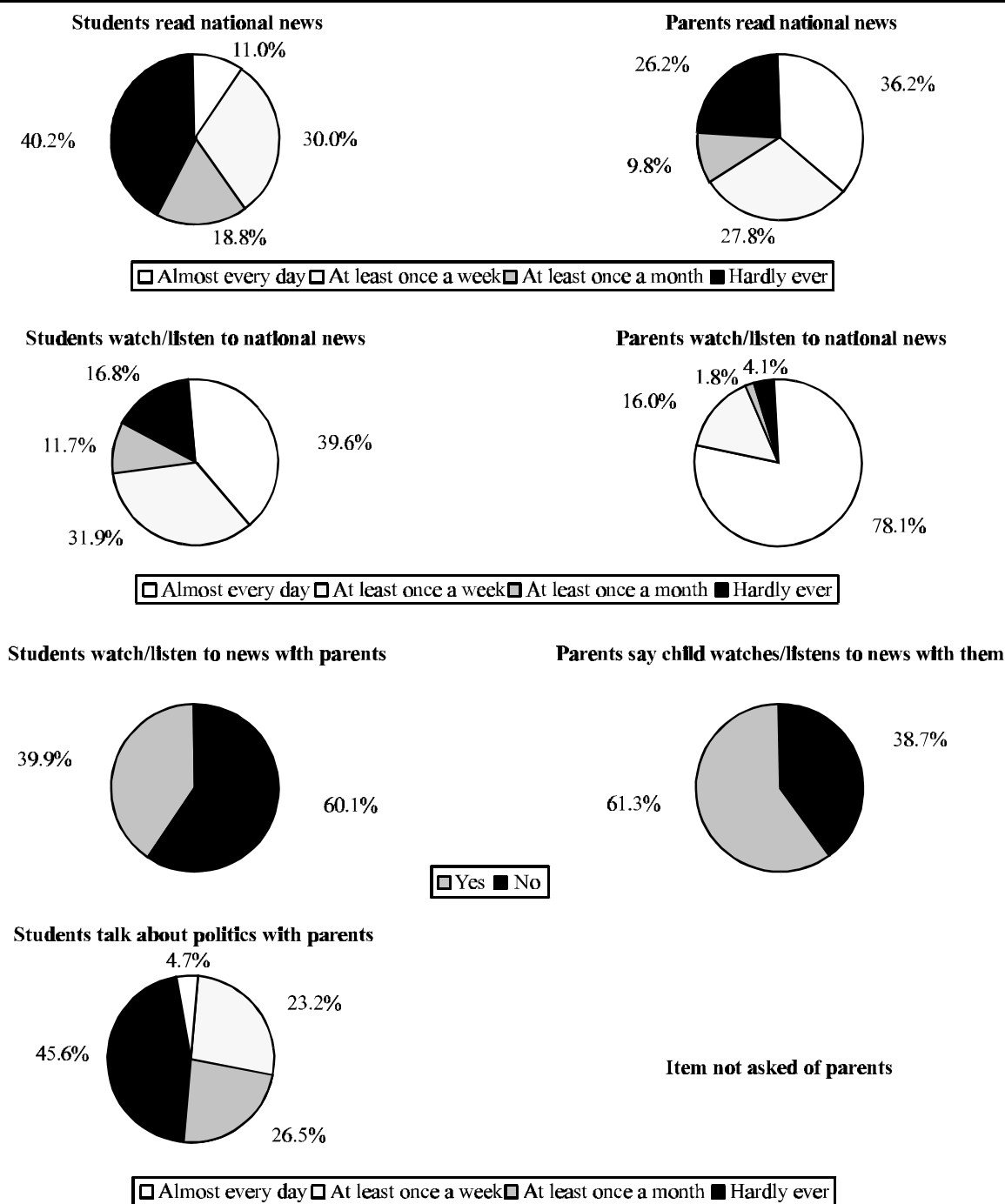
The fact that students pay less attention to politics than their parents is evident in the answers to questions about reading the news and watching/listening to the news (figure 2). More specifically, the questions asked respondents about their attention to the political aspects of the national news. Though only one in ten students read about the news almost every day, more than one-third of their parents do, and while 40 percent of students watch or listen to the news on a daily basis, nearly 80 percent of their parents do. Inasmuch as attention to news grows well into adulthood, this difference is expected and will probably narrow as these students age.¹¹

Reading about and watching or listening to national news is not the only source of student political information and perspectives. Most high school students talk about politics with their parents at least monthly, and joint watching or listening to the news with parents is also fairly common (39.9 percent in the past week according to student reports and 61.3 percent according to parent reports). Talking with parents even once a month, if carried out over a period of years, may be sufficient for youths to understand parental perspectives and possibly to be influenced by them. Moreover, the reported frequency of conversations may underestimate the amount of interaction over political matters, as some exchange of ideas may occur when youths and parents watch the news together.

¹⁰A recent review of a large number of factual items about politics on adult surveys found positive correlations with age even after controlling for education (Delli Carpini and Keeter 1996, 200–3).

¹¹In recent decades, newspaper readership has declined greatly in favor of watching television, and the trend is continuing (Stanley and Niemi 1998, 163–64, 167–70). Thus, students are more likely to reach parental levels of television viewing than of newspaper readership.

Figure 2—Political attentiveness of students in grades 9 through 12 and of their parents: 1996

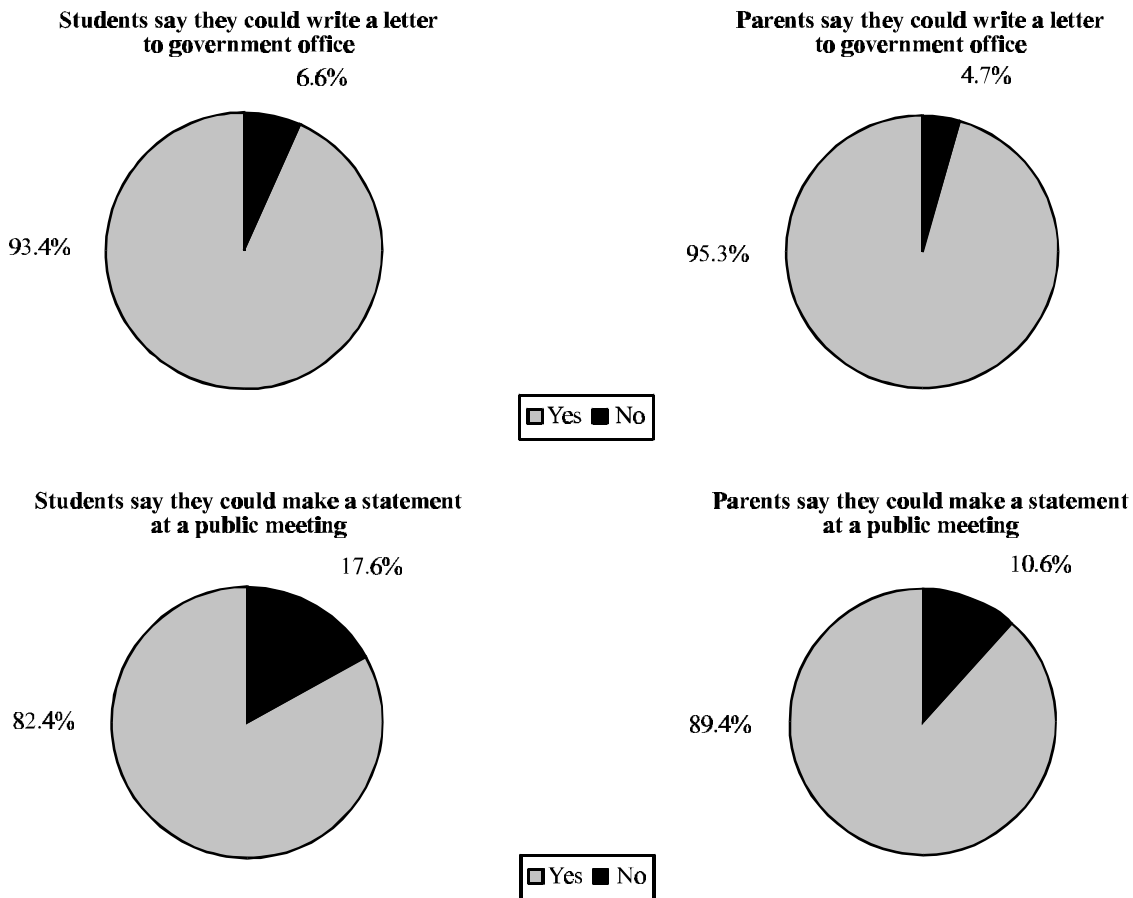


NOTE: Standard errors are as follows: Students read news—almost every day, 0.6; at least once a week, 0.9; at least once a month, 0.8; hardly ever, 1.0. Students watch/listen to national news—almost every day, 1.0; at least once a week, 0.9; at least once a month, 0.6; hardly ever, 0.7. Students talk with parents—almost every day, 0.4; at least once a week, 0.8; at least once a month, 0.9; hardly ever, 1.0. Students watch/listen with parents—yes, 1.0; no, 1.0. Parents read news—almost every day, 0.9; at least once a week, 0.9; at least once a month, 0.6; hardly ever, 0.9. Parents watch/listen to national news—almost every day, 0.8; at least once a week, 0.7; at least once a month, 0.3; hardly ever, 0.4.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Survey, Spring 1996, Youth Civic Involvement Component and Parent and Family Involvement in Education and Civic Involvement Component.

The differences between student and parent responses to questions about political participation skills are generally less pronounced than those for political knowledge and news attentiveness. Though parents are more confident of these skills than students, more than 90 percent of both groups are confident of their ability to write a letter to a government office and over 80 percent of both groups are confident of their ability to speak at a public meeting (figure 3).¹²

Figure 3—Participation skills of students in grades 9 through 12 and of their parents: 1996



NOTE: Standard errors are as follows: Students say they could write a letter to government office—yes, 0.5; no, 0.5. Students say they could make a statement at a public meeting—yes, 0.7; no, 0.7. Parents say they could write a letter to government office—yes, 0.4; no, 0.4. Parents say they could make a statement at a public meeting—yes, 0.7; no, 0.7.

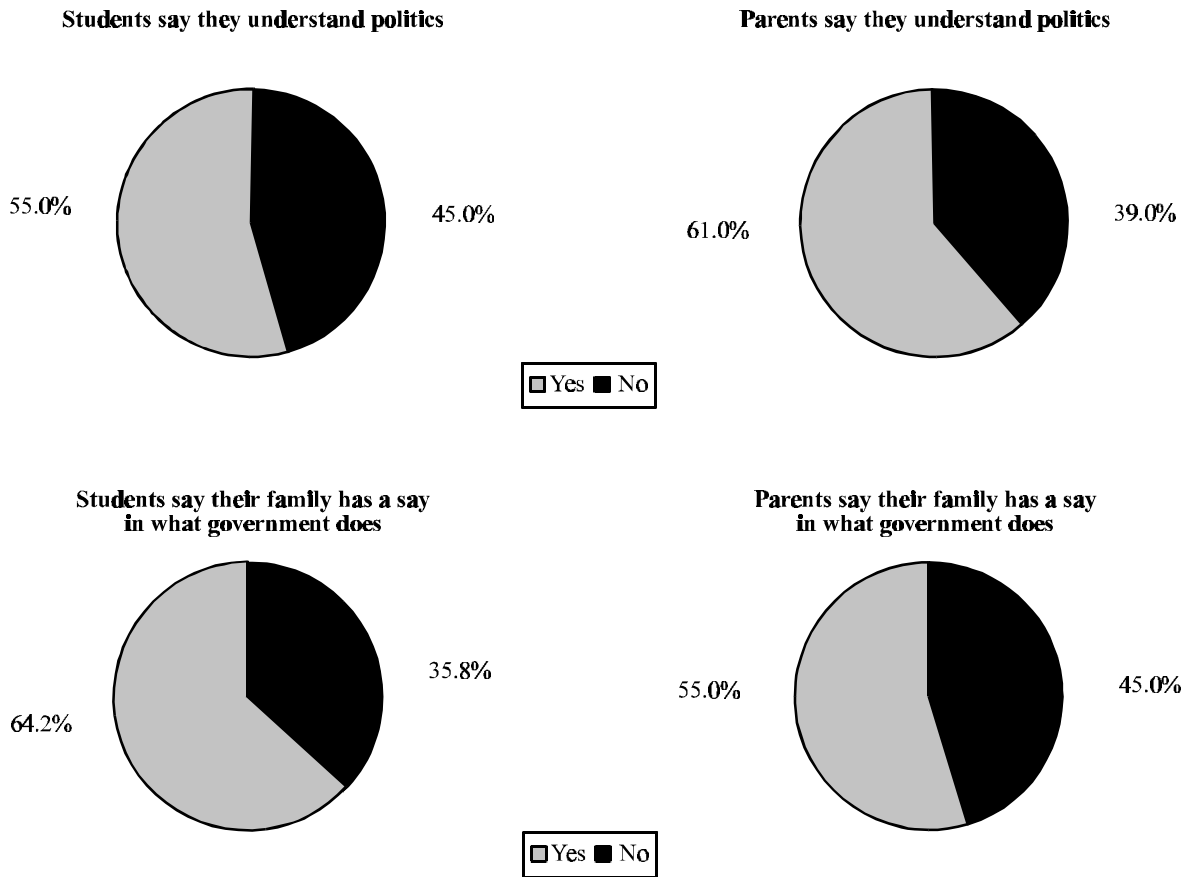
SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Survey, Spring 1996, Youth Civic Involvement Component and Parent and Family Involvement in Education and Civic Involvement Component.

¹²A partial explanation for the very high percentage of students who feel able to write a letter to a public official is that this is a typical assignment in 9th-grade civics or government classes.

Differences in political efficacy are also smaller than those found in political knowledge and attention to politics, though the differences are not consistent in terms of direction (figure 4). Approximately 55 percent of students believe that they understand politics compared to 61 percent of their parents, though 64 percent of students feel as though their family has a say in government compared to just 55 percent of their parents.¹³

¹³The question about understanding politics measures “internal efficacy,” the feeling that one personally can understand politics, and the question about family say in government taps “external efficacy,” the feeling that authorities are responsive to people.

Figure 4—Political efficacy of students in grades 9 through 12 and of their parents: 1996

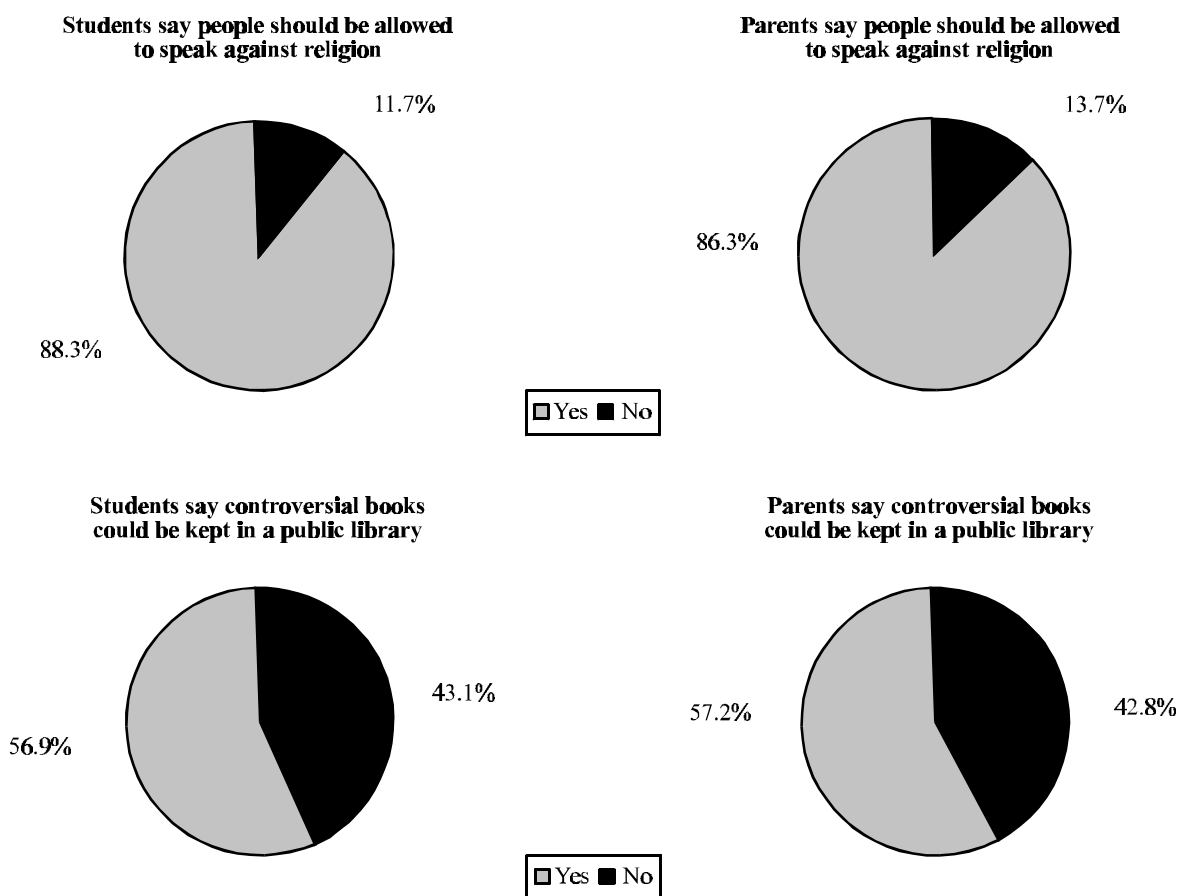


NOTE: Standard errors are as follows: Students say they understand politics—yes, 1.0; no, 1.0. Students say their family has a say in what government does—yes, 1.0; no, 1.0. Parents say they understand politics—yes, 1.0; no, 1.0. Parents say their family has a say in what government does—yes, 1.0; no, 1.0.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Survey, Spring 1996, Youth Civic Involvement Component and Parent and Family Involvement in Education and Civic Involvement Component.

Finally, with respect to tolerance of diversity, there are no notable differences between students and parents. Eighty-five percent or more of students and of parents are tolerant of speech against religion, and about 57 percent of both groups support the notion of allowing a controversial book in a public library (figure 5).

Figure 5—Political tolerance of students in grades 9 through 12 and of their parents: 1996



NOTE: Standard errors are as follows: Students say people should be allowed to speak against religion—yes, 0.6; no, 0.6. Students say controversial books could be kept in a public library—yes, 1.0; no, 1.0. Parents say people should be allowed to speak against religion—yes, 0.7; no, 0.7. Parents say controversial books could be kept in a public library—yes, 1.0; no, 1.0.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Survey, Spring 1996, Youth Civic Involvement Component and Parent and Family Involvement in Education and Civic Involvement Component.

In the cases of political participation skills, political efficacy, and tolerance of diversity, there is little reason to expect much change after high school. Students are very confident about their participation skills, and, if anything, one would expect them to become more confident with age (Schlozman et al. 1998). With respect to efficacy and tolerance, there is a fairly complex set of relationships to age, education, and generational replacement, but little evidence of a direct connection to life cycle changes beyond adolescence (at least until individuals are in their 60s) (Jennings and Niemi 1981; Abramson 1983).

Variations in Civic Development

As discussed in the section on previous research, student levels of civic development are likely to be related to characteristics of students, their activities in and out of school, and family and school characteristics. These patterns may vary from one attribute to another. Academic performance, for example, may be strongly related to student knowledge levels, but only weakly related or not at all related to their degree of tolerance. This suggests a strategy of analyzing the predictors of each component of civic development separately. However, with five different components (political knowledge, attention to politics, political participation skills, political efficacy, and tolerance of diversity) measured using eleven different indicators, the most comprehensive strategy may also be the most comprehensible—i.e., using a series of standard tables to show how each of the large number of possible correlates is related to each of the five components of civic development. A brief discussion, highlighting and explaining the most important variations in relationships in the tables, is followed by a multivariate analysis that unites all of the correlates into one model for each indicator.

Student Characteristics

The current study confirms that there are clear but variable relationships between the student characteristics described above and student civic development (tables 1a–1e). Student grade in school illustrates this point. With the exceptions of listening or watching the news and external efficacy, 11th- and 12th-grade students fared better on the civic development indicators than did 9th- and 10th-grade students. Students in higher grades (27.3 percent) were more likely to answer four or five political knowledge questions correctly than were students in lower grades (12.5 percent), were more likely to read the news at least once a week (44.9 percent) than students in lower grades (37.6 percent), and had more confidence in their ability to speak at a meeting (86.0 percent) than students in lower grades (79.2 percent). Students in 11th and 12th grades were also more confident of their understanding of politics (61.0 percent versus 49.6 percent), and were more likely to tolerate speech against religion (90.3 percent versus 86.4 percent) and controversial books in libraries (63.1 percent versus 51.3 percent).

The differences between students in lower and higher grades can be interpreted in terms of maturation generally and with respect to political concerns specifically. Thus, because 9th and

Table 1a—Political knowledge of students in grades 9 through 12, by student characteristics: 1996

Student characteristics	Number of students	Students who gave correct answers to political items					
		None to one		Two to three		Four to five	
		Percent	s.e.	Percent	s.e.	Percent	s.e.
Total	14,189,435	49.1	1.0	31.3	0.9	19.6	0.8
Grade in school							
9–10	7,429,457	58.8	1.3	28.7	1.2	12.5	0.9
11–12	6,759,978	38.5	1.4	34.2	1.4	27.3	1.3
Gender							
Male	7,316,619	43.4	1.4	32.1	1.3	24.5	1.2
Female	6,872,816	55.1	1.4	30.5	1.3	14.3	1.0
Race–ethnicity							
White, non-Hispanic	9,688,268	43.0	1.2	32.9	1.1	24.2	1.0
Black, Hispanic, or other	4,501,167	62.3	1.8	28.0	1.6	9.7	1.0
Academic performance							
A	4,399,420	32.9	1.6	35.2	1.7	31.9	1.6
B	5,577,888	50.0	1.5	33.0	1.4	17.0	1.1
C	3,473,951	63.7	1.9	25.2	1.7	11.1	1.3
D–F	738,176	70.5	4.4	24.5	4.3	5.0	1.9
Language spoken most at home by student							
English	13,332,729	47.8	1.0	31.8	0.9	20.4	0.8
Other	856,706	68.7	3.8	24.4	3.4	7.0	2.3

NOTE: s.e. is standard error. Percentages may not sum to 100 due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Survey, Spring 1996, Youth Civic Involvement Component and Parent and Family Involvement in Education and Civic Involvement Component.

10th graders have only recently begun to comprehend the political world, it is to be expected that they know less about it and that they pay less attention to it. Similarly, given the cognitively more demanding nature of reading and discussing as compared with watching the news, it is not surprising that younger students rely more on watching the news than older students do, and older students rely more on reading the news. It is also consistent with a developmental explanation that when younger students do pay attention to the news, it is more often along with their parents. The differences with respect to internal efficacy might also be understood as a reaction to growing comprehension of the adult world of politics, while increases in tolerance may be due to a growing awareness of the possible merits of other points of view. Importantly, however, the differences are also consistent with the notion that students are learning both facts and values from

Table 1b—Attention to politics of students in grades 9 through 12, by student characteristics: 1996

Student characteristics	Number of students	Read national news at least once a week		Watch/listen to news almost daily		Talk about news with parents at least once a week		Watch/listen to news with parents		
		Percent	s.e.	Percent	s.e.	Percent	s.e.	Percent	s.e.	
Total	14,189,435	41.1	1.0	39.6	1.0	27.9	0.9	39.9	1.0	
Grade in school										
9–10	7,429,457	37.6	1.3	40.7	1.3	25.8	1.2	42.3	1.3	
11–12	6,759,978	44.9	1.4	38.4	1.4	30.1	1.3	37.2	1.4	
Gender										
Male	7,316,619	45.7	1.4	42.9	1.4	29.6	1.2	40.0	1.3	
Female	6,872,816	36.2	1.4	36.1	1.4	26.0	1.2	39.8	1.4	
Race–ethnicity										
White, non-Hispanic	9,688,268	43.4	1.2	37.6	1.1	29.7	1.0	38.9	1.1	
Black, Hispanic, or other	4,501,167	36.1	1.7	43.8	1.8	23.9	1.6	42.1	1.8	
Academic performance										
A	4,399,420	46.2	1.7	41.7	1.7	34.0	1.6	43.5	1.7	
B	5,577,888	38.7	1.5	38.2	1.5	26.5	1.3	38.5	1.5	
C	3,473,951	39.9	2.0	40.7	2.1	23.4	1.8	39.3	2.0	
D–F	738,176	34.4	4.5	31.7	4.0	22.2	3.9	32.1	4.1	
Language spoken most at home by student										
English	13,332,729	41.5	1.0	39.4	1.0	28.3	0.9	39.7	1.0	
Other	856,706	34.4	3.8	42.5	3.9	21.1	3.4	43.4	4.0	

NOTE: s.e. is standard error.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Survey, Spring 1996, Youth Civic Involvement Component and Parent and Family Involvement in Education and Civic Involvement Component.

their history, civics, and other classes and from their involvement in school activities. For example, increases in tolerance scores may be associated with increased attention in 12th-grade American government courses to such important works on civil liberties as the Bill of Rights.¹⁴

Males and females also differ in a variety of ways with respect to civic development. As expected, male students know more political facts than female students (24.5 percent versus 14.3

¹⁴Technically, of course, it is also possible that differences between 9th–10th graders and 11th–12th graders are due to dropouts changing the underlying population. However, the multivariate tests below will show that grade in school continues to matter even after controlling for variables that are closely associated with a tendency to stay in school or to drop out. Thus, it is very unlikely that the grade differences are due exclusively to differential dropout of students with lower knowledge, skills, and motivation.

percent),¹⁵ which, judging from differences in weekly news reading (45.7 percent versus 36.2 percent) and daily news watching (42.9 percent versus 36.1 percent) habits, may reflect the higher level of attention given to politics among males than females. It is also consistent with the finding that more male students say they understand politics (58.5 percent) than do female students (51.4 percent). Yet females, perhaps as a reflection of generally better writing skills as indicated by NAEP assessments, tend to have more confidence in their ability to write to government officials than males and are about as confident in their ability to speak at a public meetings (table 1c). Female students are also about as likely to say they believe their families have a say in what the government does (table 1d). Female and male students are also similar in respects to tolerating diversity (table 1e).

Table 1c—Participation skills of students in grades 9 through 12, by student characteristics: 1996

Student characteristics	Number of students	I could write a letter to government office				I could make a statement at a public meeting			
		Yes		No		Yes		No	
		Percent	s.e.	Percent	s.e.	Percent	s.e.	Percent	s.e.
Total	14,189,435	93.4	0.5	6.6	0.5	82.4	0.7	17.6	0.7
Grade in school									
9–10	7,429,457	91.9	0.7	8.1	0.7	79.2	1.1	20.8	1.1
11–12	6,759,978	94.9	0.6	5.1	0.6	86.0	1.0	14.0	1.0
Gender									
Male	7,316,619	92.0	0.7	8.0	0.7	80.7	1.1	19.3	1.1
Female	6,872,816	94.8	0.6	5.2	0.6	84.3	1.0	15.7	1.0
Race–ethnicity									
White, non-Hispanic	9,688,268	93.5	0.6	6.5	0.6	82.3	0.9	17.7	0.9
Black, Hispanic, or other	4,501,167	93.1	0.9	6.9	0.9	82.8	1.4	17.2	1.4
Academic performance									
A	4,399,420	95.6	0.7	4.4	0.7	86.2	1.2	13.9	1.2
B	5,577,888	93.1	0.8	6.9	0.8	80.7	1.2	19.3	1.2
C	3,473,951	91.3	1.1	8.8	1.1	81.1	1.6	18.9	1.6
D–F	738,176	91.3	2.2	8.7	2.2	79.4	3.7	20.6	3.7
Language spoken most at home by student									
English	13,332,729	93.5	0.5	6.5	0.5	82.6	0.8	17.5	0.8
Other	856,706	91.2	2.2	8.8	2.2	80.6	3.0	19.5	3.0

NOTE: s.e. is standard error. Percentages may not sum to 100 due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Survey, Spring 1996, Youth Civic Involvement Component and Parent and Family Involvement in Education and Civic Involvement Component.

¹⁵Analysis of the NAEP data, which contains a more extensive set of knowledge items, confirms that males are slightly more knowledgeable about politics than are females (Niemi and Junn 1998).

Table 1d—Political efficacy of students in grades 9 through 12, by student characteristics: 1996

Student characteristics	Number of students	I understand politics or government				My family has a say in what government does			
		Yes		No		Yes		No	
		Percent	s.e.	Percent	s.e.	Percent	s.e.	Percent	s.e.
Total	14,189,435	55.0	1.0	45.0	1.0	64.2	1.0	35.8	1.0
Grade in school									
9–10	7,429,457	49.6	1.3	50.4	1.3	63.7	1.3	36.3	1.3
11–12	6,759,978	61.0	1.4	39.0	1.4	64.8	1.4	35.2	1.4
Gender									
Male	7,316,619	58.5	1.3	41.5	1.3	62.4	1.3	37.7	1.3
Female	6,872,816	51.4	1.4	48.6	1.4	66.2	1.3	33.8	1.3
Race–ethnicity									
White, non-Hispanic	9,688,268	58.1	1.2	41.9	1.2	64.5	1.1	35.6	1.1
Black, Hispanic, or other	4,501,167	48.4	1.8	51.6	1.8	63.8	1.7	36.2	1.7
Academic performance									
A	4,399,420	64.8	1.7	35.3	1.7	70.0	1.6	30.0	1.6
B	5,577,888	53.6	1.2	46.4	1.2	63.3	1.5	36.7	1.5
C	3,473,951	46.9	2.0	53.2	2.0	60.2	2.0	39.9	2.0
D–F	738,176	47.2	4.6	52.8	4.6	56.3	4.5	43.7	4.5
Language spoken most at home by student									
English	13,332,729	56.1	1.0	43.9	1.0	64.7	1.0	35.3	1.0
Other	856,706	38.6	3.9	61.5	3.9	56.5	4.0	43.5	4.0

NOTE: s.e. is standard error. Percentages may not sum to 100 due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Survey, Spring 1996, Youth Civic Involvement Component and Parent and Family Involvement in Education and Civic Involvement Component.

Large differences also exist between white, non-Hispanic students and other students.¹⁶ White students (24.2 percent) are much more likely to answer four or five political knowledge items correctly than minority students (9.7 percent), which may in part be due to the fact that more white students (43.4 percent) read news at least once a week than do minority students (36.1 percent). White students are also generally more confident in their ability to understand politics than those from other racial–ethnic groups (58.1 percent versus 48.4 percent) (tables 1a, 1d). When it comes to allowing controversial books in public libraries, 60.2 percent of whites accept the notion

¹⁶For ease of presentation, white will be used in place of white, non-Hispanic. Preliminary analyses did not reveal major differences between black and Hispanic students, so they are combined here along with a small number of students from other minority groups.

Table 1e—Tolerance of students in grades 9 through 12, by student characteristics: 1996

Student characteristics	Number of students	People should be allowed to speak against religion or church				Controversial books could be kept in a public library			
		Yes		No		Yes		No	
		Percent	s.e.	Percent	s.e.	Percent	s.e.	Percent	s.e.
Total	14,189,435	88.3	0.6	11.7	0.6	56.9	1.0	43.1	1.0
Grade in school									
9–10	7,429,457	86.4	0.9	13.6	0.9	51.3	1.3	48.7	1.3
11–12	6,759,978	90.3	0.8	9.7	0.8	63.1	1.4	37.0	1.4
Gender									
Male	7,316,619	88.2	0.9	11.8	0.9	59.0	1.4	41.0	1.4
Female	6,872,816	88.3	0.9	11.7	0.9	54.7	1.4	45.3	1.4
Race–ethnicity									
White, non-Hispanic	9,688,268	89.9	0.7	10.1	0.7	60.2	1.1	39.8	1.1
Black, Hispanic, or other	4,501,167	84.8	1.3	15.2	1.3	49.7	1.8	50.3	1.8
Academic performance									
A	4,399,420	88.3	1.1	11.7	1.1	59.8	1.7	40.2	1.7
B	5,577,888	88.9	0.9	11.1	0.9	56.5	1.5	43.5	1.5
C	3,473,951	86.7	1.4	13.3	1.4	54.6	2.0	45.4	2.0
D–F	738,176	90.3	2.4	9.7	2.4	53.2	4.6	46.8	4.6
Language spoken most at home by student									
English	13,332,729	89.1	0.6	10.9	0.6	57.6	1.0	42.4	1.0
Other	856,706	74.4	3.5	25.6	3.5	46.0	4.0	54.0	4.0

NOTE: s.e. is standard error. Percentages may not sum to 100 due to rounding.

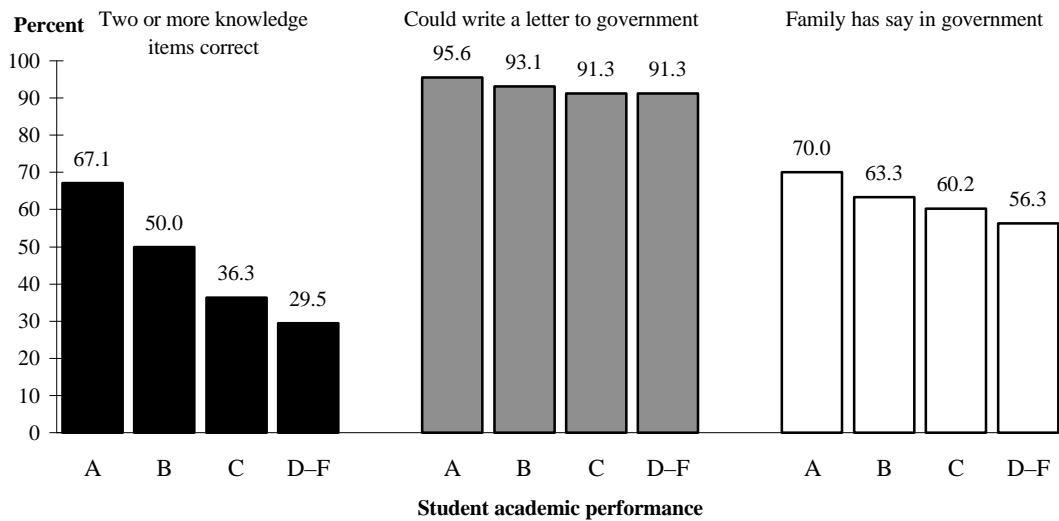
SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Survey, Spring 1996, Youth Civic Involvement Component and Parent and Family Involvement in Education and Civic Involvement Component.

compared with 49.7 percent of minorities. Whites (89.9 percent) are also more likely to tolerate speech against religion than Hispanics (81.5 percent), though they are about as likely as blacks (88.4 percent) to tolerate such speech.¹⁷ Minorities are about as likely to trust in their participatory skills (table 1c) and just as often think their families have a say in what the government does.

¹⁷Blacks refers to black, non-Hispanics. This finding is an exception to the general finding of small differences between black and Hispanic students. For an interpretation, see the discussion below of the results of the multivariate model for this item. The standard errors for the estimates are: white, 0.7; black, 1.6; Hispanic, 2.7.

Finally, there are the expected positive relationships between student academic performance on the one hand and political knowledge, news reading, discussing politics with parents, and efficacy on the other.¹⁸ However, the relationship to participatory skills, though positive, is relatively weak, and no clear relationship to tolerance of diversity appears to exist (figure 6 and table 1e).

Figure 6—Percent of students in grades 9 through 12 who reported selected aspects of civic development, by academic performance: 1996



NOTE: The standard errors for student academic performance level by answering two or more knowledge items correctly are: A, 1.8; B, 1.6; C, 2.0; D-F, 4.4.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Survey, Spring 1996, Youth Civic Involvement Component and Parent and Family Involvement in Education and Civic Involvement Component.

¹⁸Academic performance is based on questions given to parents asking them how well they thought their child was doing in school. They could respond that their child received mostly A's, mostly B's, mostly C's, mostly D's, or mostly F's. The mostly D's and F's were combined for this report.

Student Activities

Personal interests, along with activities that result from these interests, ought to play an important role in how much students know about politics and, possibly, in how their civic attitudes develop. Of the measures available in the NHES:96, the ones that come closest to assessing students' personal interests and activities are those that inquire about their news-gathering activities or attention to politics. Thus, in the next set of tables (tables 2a–2e), the first two variables are constructed from items we have already used as “dependent” or “column” variables in table 1b.

Table 2a—Political knowledge of students in grades 9 through 12, by student activities: 1996

Student activities	Number of students	Students who gave correct answers to political items					
		None to one		Two to three		Four to five	
		Percent	s.e.	Percent	s.e.	Percent	s.e.
Total	14,189,435	49.1	1.0	31.3	0.9	19.6	0.8
Attention to news							
Low	3,031,538	66.9	2.0	25.5	1.8	7.6	1.1
Medium	5,034,699	52.6	1.7	32.9	1.6	14.5	1.2
High	6,123,198	37.4	1.5	32.9	1.4	29.7	1.3
Attention to news with parents							
Low	8,767,041	56.6	1.2	30.5	1.2	12.9	0.9
Medium	4,979,309	37.0	1.6	33.7	1.5	29.3	1.4
High	443,085	35.6	6.1	21.2	4.4	43.2	5.8
Participation in school government							
No school government	1,481,575	68.1	2.8	24.9	2.6	7.0	1.6
Did not participate	10,547,186	48.3	1.1	31.8	1.1	19.9	0.9
Participated	2,160,674	40.2	2.5	33.4	2.3	26.4	2.1
Participation in in-school or out-of-school activities							
None	2,687,445	70.7	2.1	21.0	1.8	8.3	1.2
One	4,534,460	53.6	1.7	30.5	1.6	15.9	1.2
Both	6,967,530	37.8	1.4	35.9	1.3	26.3	1.2
Participation in community service							
No participation	7,024,634	57.7	1.4	28.9	1.2	13.3	0.9
Once or twice	3,221,479	43.2	2.0	34.2	1.9	22.6	1.8
Regular/under 35 hours	1,890,785	40.7	2.7	34.3	2.6	25.0	2.2
Regular/35 hours or above	2,052,537	36.5	2.5	32.4	2.4	31.1	2.4

NOTE: s.e. is standard error. Percentages may not sum to 100 due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Survey, Spring 1996, Youth Civic Involvement Component and Parent and Family Involvement in Education and Civic Involvement Component.

Table 2b—Attention to politics of students in grades 9 through 12, by student activities: 1996

Student activities	Number of students	Read national news at least once a week		Watch/listen to news almost daily		Talk about news with parents at least once a week		Watch/listen to news with parents	
		Percent	s.e.	Percent	s.e.	Percent	s.e.	Percent	s.e.
Total	14,189,435	41.1	1.0	39.6	1.0	27.9	0.9	39.9	1.0
Attention to news									
Low	3,031,538	(†)	(†)	(†)	(†)	7.9	1.2	6.2	1.0
Medium	5,034,699	(†)	(†)	(†)	(†)	18.8	1.3	36.7	1.6
High	6,123,198	(†)	(†)	(†)	(†)	45.2	1.5	59.2	1.4
Attention to news with parents									
Low	8,767,041	28.3	1.1	28.4	1.1	(†)	(†)	(†)	(†)
Medium	4,979,309	60.5	1.6	55.8	1.6	(†)	(†)	(†)	(†)
High	443,085	75.1	5.3	79.2	4.6	(†)	(†)	(†)	(†)
Participation in school government									
No school government	1,481,575	30.6	2.8	39.0	3.0	19.2	2.4	36.3	3.0
Did not participate	10,547,186	41.1	1.1	38.8	1.1	27.0	1.0	39.5	1.1
Participated	2,160,674	48.0	2.5	44.0	2.5	38.1	2.4	44.3	2.5
Participation in in-school or out-of-school activities									
None	2,687,445	31.5	2.1	37.0	2.2	17.2	1.7	34.5	2.2
One	4,534,460	40.0	1.7	38.9	1.7	25.6	1.5	38.2	1.7
Both	6,967,530	45.5	1.4	41.0	1.4	33.5	1.3	43.1	1.4
Participation in community service									
No participation	7,024,634	37.7	1.4	38.3	1.4	22.4	1.2	38.5	1.4
Once or twice	3,221,479	39.4	2.0	37.3	2.0	28.1	1.8	39.0	2.0
Regular/under 35 hours	1,890,785	47.6	2.7	42.0	2.6	34.3	2.5	42.1	2.7
Regular/35 hours or above	2,052,537	49.4	2.6	45.6	2.6	40.3	2.5	44.1	2.6

†Not applicable.

NOTE: s.e. is standard error.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Survey, Spring 1996, Youth Civic Involvement Component and Parent and Family Involvement in Education and Civic Involvement Component.

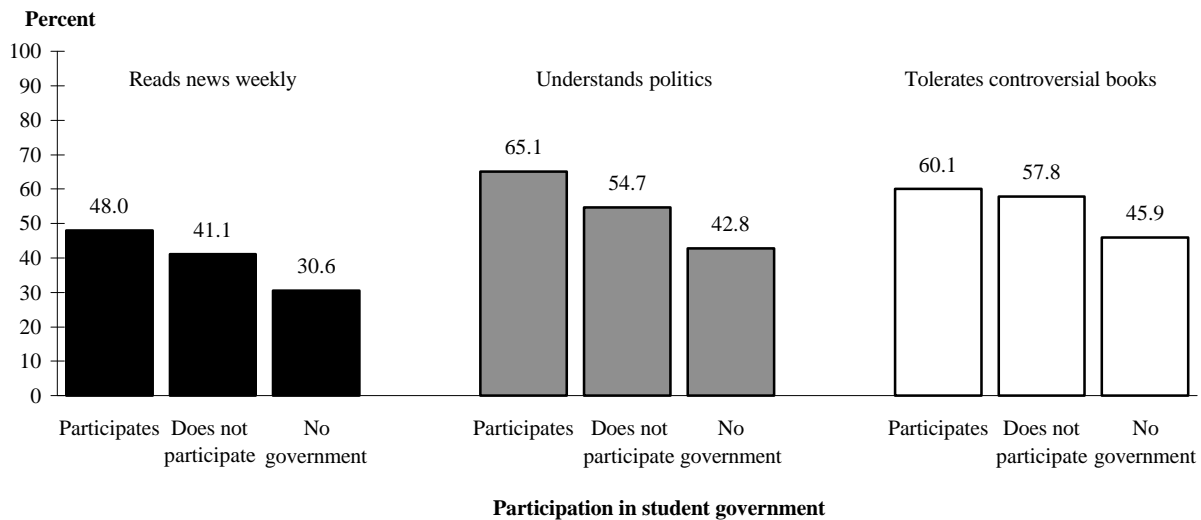
The first variable, attention to news, was derived by combining questions asking how often the student reads the news and how often he or she watches/listens to the news. The second variable, attention to news with parents, was derived by combining questions asking students how often they watch/listen to the news with parents and how often they discuss politics with their parents.

As it turns out, both how much overall attention students devote to the news and how much they interact with parents over the news make dramatic differences in student political

knowledge and participation skill levels. Note, for example, that 99 percent of those who interacted most with their parents said they could write a letter to a government office, compared with 91 percent of those who interacted the least, and 96 percent said they could make a statement at a public meeting, compared with 78 percent of those who interacted the least (table 2c).¹⁹ At the same time, attention to the news and discussing news with parents are also related to efficacy (table 2d). However, they are related to increased tolerance only through their association with accepting controversial books in public libraries (table 2e).

Student activities in a more conventional sense—i.e., student government and other in-school and out-of-school activities—are also related to civic development among high school students. The relationship to student government is unsurprising, yet one aspect of it deserves comment. When students report that there is no student government, they rank especially low on almost every civic development item, sometimes even when compared with students who have the opportunity to participate in student government, but do not (figure 7). It appears as though having a student government enhances civic dispositions even among students who choose not to

Figure 7—Percent of students in grades 9 through 12 who reported selected aspects of civic development, by participation in student government: 1996



SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Survey, Spring 1996, Youth Civic Involvement Component.

¹⁹Of course, the two attention variables are themselves closely related (table 2b), raising the question for later as to whether they have independent effects even on knowledge levels.

participate. Participation in other kinds of school activities such as sports, or non-school activities such as scouting, even though it may not be related to politics, is also associated with greater political knowledge, political attentiveness, participatory skills, and political efficacy.

Writing letters, speaking in front of groups, and debating are activities that are often included in classroom experiences. As expected, writing a letter in class is positively associated with confidence in the ability to write a letter to a government office. Also as expected, making a speech in class and engaging in class debates are positively related to confidence in the ability to make a statement at a public meeting (table 2c).

As suggested by proponents of community service and by the relationships found for student activities, participation in community service is also positively related to civic development—again, with the exception of tolerance.²⁰ The relationship between community service and political knowledge is noteworthy given theoretical expectations. Earlier theoretical work suggested that there should be no connection between general community service and political knowledge. Like political knowledge, increases in community service participation are also associated with increases in personal efficacy as measured by the question asking if the respondent understands politics. Part of the explanation as to why community service is related to increased political knowledge may be due in part to the fact that those who participate more are also those who pay the most attention to the news. The multivariate models that follow will help to begin to untangle some of these relationships as well as help test some of the less pronounced relationships between community service and civic development evident in the bivariate tables.

²⁰Though related to three of the four variables used to study attentiveness, community service does not show a clear relationship to watching the news with parents.

Table 2c—Participation skills of students in grades 9 through 12, by student activities: 1996

Student activities	Number of students	I could write a letter to government office				I could make a statement at a public meeting			
		Yes		No		Yes		No	
		Percent	s.e.	Percent	s.e.	Percent	s.e.	Percent	s.e.
Total	14,189,435	93.4	0.5	6.6	0.5	82.4	0.7	17.6	0.7
Attention to news									
Low	3,031,538	88.2	1.3	11.8	1.3	74.0	1.8	26.0	1.8
Medium	5,034,699	92.6	0.8	7.4	0.8	83.0	1.2	17.0	1.2
High	6,123,198	96.5	0.5	3.5	0.5	86.2	1.1	13.8	1.1
Attention to news with parents									
Low	8,767,041	91.2	0.7	8.8	0.7	78.3	1.0	21.8	1.0
Medium	4,979,309	96.6	0.6	3.4	0.6	88.6	1.0	11.4	1.0
High	443,085	99.1	0.7	0.9	0.7	95.8	2.3	4.2	2.3
Participation in school government									
No school government	1,481,575	90.7	1.6	9.3	1.6	73.3	2.6	26.7	2.6
Did not participate	10,547,186	92.8	0.6	7.2	0.6	82.1	0.9	17.9	0.9
Participated	2,160,674	97.8	0.8	2.2	0.8	90.3	1.5	9.7	1.5
Participation in in-school or out-of-school activities									
None	2,687,445	89.0	1.5	11.0	1.5	76.9	1.9	23.1	1.9
One	4,534,460	92.7	0.9	7.3	0.9	79.9	1.4	20.1	1.4
Both	6,967,530	95.5	0.5	4.5	0.5	86.2	1.0	13.8	1.0
In school, wrote letter to someone you did not know									
No	9,841,030	92.1	0.6	7.9	0.6	(†)	(†)	(†)	(†)
Yes	4,348,405	96.2	0.6	3.8	0.6	(†)	(†)	(†)	(†)
In school, gave a speech or oral report									
No	3,483,559	(†)	(†)	(†)	(†)	74.2	1.8	25.8	1.8
Yes	10,705,876	(†)	(†)	(†)	(†)	85.1	0.8	14.9	0.8
In school, took part in a debate or discussion									
No	5,514,606	(†)	(†)	(†)	(†)	75.4	1.4	24.6	1.4
Yes	8,674,829	(†)	(†)	(†)	(†)	86.9	0.9	13.1	0.9
Participation in community service									
No participation	7,024,634	91.4	0.8	8.6	0.8	77.2	1.2	22.8	1.2
Once or twice	3,221,479	95.4	0.7	4.6	0.7	85.1	1.5	14.9	1.5
Regular/under 35 hours	1,890,785	95.1	1.1	4.9	1.1	88.8	1.5	11.2	1.5
Regular/35 hours or above	2,052,537	95.4	1.1	4.6	1.1	90.1	1.5	9.9	1.5

†Not applicable.

NOTE: s.e. is standard error. Percentages may not sum to 100 due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Survey, Spring 1996, Youth Civic Involvement Component and Parent and Family Involvement in Education and Civic Involvement Component.

Table 2d—Political efficacy of students in grades 9 through 12, by student activities: 1996

Student activities	Number of students	I understand politics or government				My family has a say in what government does			
		Yes		No		Yes		No	
		Percent	s.e.	Percent	s.e.	Percent	s.e.	Percent	s.e.
Total	14,189,435	55.0	1.0	45.0	1.0	64.2	1.0	35.8	1.0
Attention to news									
Low	3,031,538	42.8	2.1	57.2	2.1	57.6	2.1	42.4	2.1
Medium	5,034,699	51.0	1.7	49.0	1.7	63.1	1.6	36.9	1.6
High	6,123,198	64.4	1.4	35.6	1.4	68.5	1.4	31.6	1.4
Attention to news with parents									
Low	8,767,041	49.2	1.3	50.8	1.3	60.7	1.2	39.3	1.2
Medium	4,979,309	64.0	1.6	36.0	1.6	69.7	1.5	30.3	1.5
High	443,085	70.3	5.9	29.7	5.9	72.9	5.6	27.1	5.6
Participation in school government									
No school government	1,481,575	42.8	3.0	57.2	3.0	60.3	3.0	39.7	3.0
Did not participate	10,547,186	54.7	1.1	45.3	1.1	62.7	1.1	37.3	1.1
Participated	2,160,674	65.1	2.4	34.9	2.4	74.3	2.2	25.7	2.2
Participation in in-school or out-of-school activities									
None	2,687,445	41.3	2.3	58.7	2.3	55.0	2.3	45.0	2.3
One	4,534,460	53.3	1.7	46.7	1.7	61.9	1.7	38.1	1.7
Both	6,967,530	61.5	1.4	38.5	1.4	69.3	1.3	30.7	1.3
Participation in community service									
No participation	7,024,634	48.5	1.4	51.5	1.4	60.6	1.4	39.4	1.4
Once or twice	3,221,479	56.6	2.1	43.4	2.1	65.8	2.0	34.2	2.0
Regular/under 35 hours	1,890,785	63.5	2.6	36.5	2.6	69.1	2.5	30.9	2.5
Regular/35 hours or above	2,052,537	67.2	2.4	32.8	2.4	69.6	2.4	30.4	2.4

NOTE: s.e. is standard error. Percentages may not sum to 100 due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Survey, Spring 1996, Youth Civic Involvement Component and Parent and Family Involvement in Education and Civic Involvement Component.

Table 2e—Political tolerance of students in grades 9 through 12, by student activities: 1996

Student activities	Number of students	People should be allowed to speak against religion or church				Controversial books could be kept in a public library			
		Yes		No		Yes		No	
		Percent	s.e.	Percent	s.e.	Percent	s.e.	Percent	s.e.
Total	14,189,435	88.3	0.6	11.7	0.6	56.9	1.0	43.1	1.0
Attention to news									
Low	3,031,538	87.9	1.3	12.1	1.3	55.6	2.1	44.4	2.1
Medium	5,034,699	86.9	1.1	13.2	1.1	51.2	1.7	48.8	1.7
High	6,123,198	89.6	0.9	10.4	0.9	62.2	1.4	37.8	1.4
Attention to news with parents									
Low	8,767,041	87.8	0.8	12.2	0.8	54.3	1.3	45.7	1.3
Medium	4,979,309	89.1	1.0	10.9	1.0	60.7	1.6	39.3	1.6
High	443,085	88.4	3.4	11.6	3.4	66.1	5.7	33.9	5.7
Participation in school government									
No school government	1,481,575	85.8	2.0	14.2	2.0	45.9	3.0	54.1	3.0
Did not participate	10,547,186	88.5	0.7	11.5	0.7	57.8	1.1	42.2	1.1
Participated	2,160,674	88.8	1.5	11.2	1.5	60.1	2.4	39.9	2.4
Participation in in-school or out-of-school activities									
None	2,687,445	86.1	1.7	13.9	1.7	56.3	2.3	43.7	2.3
One	4,534,460	88.6	1.1	11.5	1.1	53.2	1.7	46.9	1.7
Both	6,967,530	88.9	0.8	11.1	0.8	59.6	1.4	40.4	1.4
Participation in community service									
No participation	7,024,634	87.1	1.0	12.9	1.0	55.7	1.4	44.3	1.4
Once or twice	3,221,479	89.8	1.2	10.2	1.2	55.3	2.0	44.7	2.0
Regular/under 35 hours	1,890,785	88.4	1.7	11.6	1.7	60.6	2.6	39.4	2.6
Regular/35 hours or above	2,052,537	89.5	1.4	10.5	1.4	60.0	2.5	40.0	2.5

NOTE: s.e. is standard error. Percentages may not sum to 100 due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Survey, Spring 1996, Youth Civic Involvement Component and Parent and Family Involvement in Education and Civic Involvement Component.

Family and School Characteristics

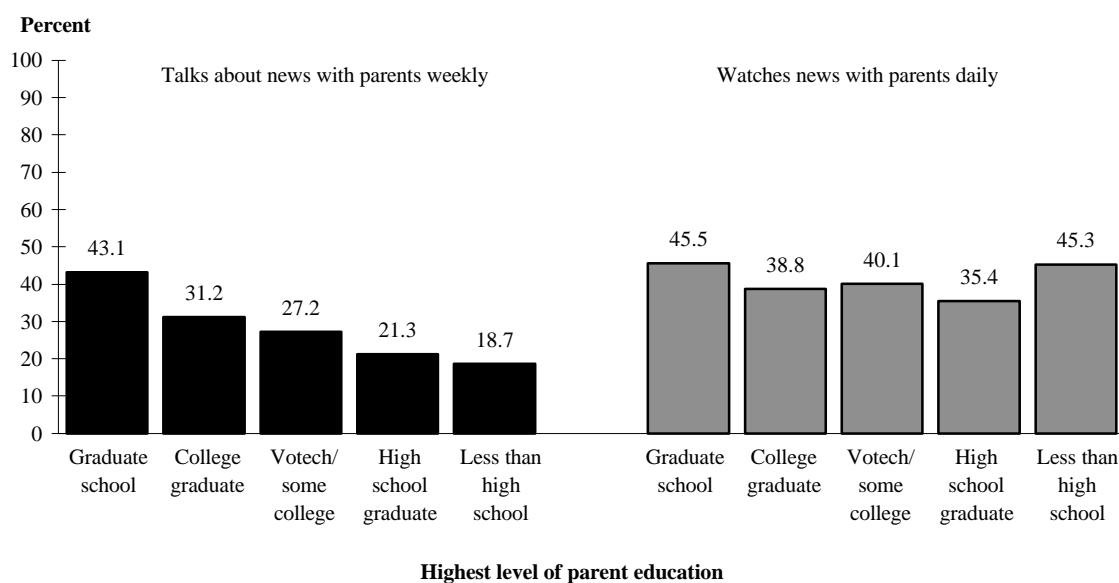
The correlates of civic development noted above are attributes of the students themselves. Additional correlates are found in the students' families and schools (tables 3a–3e). These tables require a slightly different structure. The first one to three characteristics in each table are the parent version of the student variable(s) shown in that table, and the relationship is shown only for like items. Thus, for example, the first entry in table 3b is how often parents say they read the national news, and the only relationship shown is that with the identical student item.

What is of interest in this part of the tables is that in every case, with the exception of writing a letter to a government official, parental traits and dispositions are positively associated with those of their offspring. Among parents who hardly ever read the national news, for example, only 29.5 percent of their high school-aged children read the news at least once a week; among parents who themselves read the paper that frequently, the percentage among students jumps to roughly 40. For the most part, other aspects of attentiveness are similar. In addition to parents' attention to politics, parental knowledge, participation skills, efficacy, and tolerance are positively related to the same traits in students. Yet it should also be noted that the relationships are not exceedingly strong. For example, among parents who say that a controversial book should be kept in a public library, 63 percent of their children agree; among parents who would remove the book, 49 percent—just 14 percent fewer—would opt for keeping the book (table 3e).

Relationships of this magnitude led socialization researchers in the 1960s and 1970s to conclude that parental influence, aside from its effect on political partisanship, was rather weak, or that it existed only in limited circumstances, such as when parents felt especially strongly about some concern (Beck 1977, 122–27). It will be important to return to this point in the multivariate section.

Student civic development appears to be highest among students with the most highly educated parents, and lowest among students with the least educated parents. It should not be surprising if parents who are more highly educated have children who are more knowledgeable about politics, more attentive to political information, more confident in their participatory skills, and more efficacious politically. For the most part, these relationships do hold, with two exceptions. With respect to student attention to politics, there is a positive relationship with reading national news, as one might expect, but students with less educated parents are about as likely as those with more highly educated parents to watch the news and to do so with their parents (figure 8 and table 3b). As noted earlier, the latter form of news attentiveness does not require the same level of cognitive development that reading and discussing news does, so the link between

Figure 8—Percent of students in grades 9 through 12 who reported selected aspects of civic development, by highest level of parental education: 1996



SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Survey, Spring 1996, Youth Civic Involvement Component and Parent and Family Involvement in Education and Civic Involvement Component.

parental education and student behavior might be expected to be weaker. Parent education is also related to both tolerance items (table 3e).

As parent attention to news, a combined measure of the items about reading and watching the news, improves, so too do most of the student measures (speaking against religion being an exception). In particular, parental news attentiveness shows relatively strong positive relationships to student news attentiveness, political knowledge, and student confidence in their ability to understand politics.

The student's role in family decisions is most closely related to student dispositions that involve the family itself and to student confidence in public speaking.²¹ With respect to attentiveness to politics, for example, student feelings about their role in the family are highly correlated with the frequency of discussions about news with parents (table 3b). In contrast, the perceived openness of the school is generally uncorrelated with civic development.²²

²¹Student perceptions of their role in family decisions also show positive correlations with the other measures of civic development with the exception of tolerating controversial books in public libraries.

²²It should be pointed out that the measure of school openness does not emphasize students' involvement in school decision making (see the Survey Methodology and Data Reliability section for a full description of this variable).

Finally, there are significant differences in the civic development of students in various types of schools. For instance, students in public schools are less knowledgeable about politics, report lower participatory skills, feel less politically efficacious, and are less tolerant (at least in terms of tolerating controversial books in public libraries). Students in public schools are similar to private school students only in the extent to which they follow national news and discuss the news with their parents.

Table 3a—Political knowledge of students in grades 9 through 12, by family and school characteristics: 1996

Family and school characteristics	Number of students	Students who gave correct answers to political items					
		None to one		Two to three		Four to five	
		Percent	s.e.	Percent	s.e.	Percent	s.e.
Total	14,189,435	49.1	1.0	31.3	0.9	19.6	0.8
Number of correct answers given by parents to political items							
None to one	4,495,588	67.4	1.8	25.0	1.6	7.6	1.1
Two to three	4,686,730	51.5	1.8	31.6	1.5	16.9	1.2
Four to five	5,007,117	30.4	1.5	36.8	1.5	32.7	1.5
Parents' education							
Less than high school	1,375,087	75.1	3.1	20.0	2.8	4.9	1.7
High school only	4,189,293	61.4	1.8	27.5	1.7	11.1	1.1
Votech/some college	4,081,565	48.9	1.8	34.4	1.7	16.7	1.3
College graduate	2,188,477	34.9	2.3	36.5	2.4	28.7	2.2
Graduate school	2,355,013	25.7	2.0	34.7	2.1	39.6	2.2
Parents' attention to news							
Low	578,417	69.5	4.7	28.0	4.7	2.5	1.1
Medium	3,697,447	59.0	1.9	26.4	1.7	14.6	1.4
High	9,913,571	44.2	1.2	33.4	1.1	22.4	0.9
Student role in family decisions							
Hardly ever	944,790	54.9	3.8	31.5	3.5	13.7	2.5
Sometimes	7,114,055	52.1	1.4	30.4	1.3	17.5	1.1
Often	6,130,590	44.7	1.5	32.4	1.4	22.9	1.2
School type							
Public	12,886,023	50.7	1.0	30.8	0.9	18.6	0.8
Private	1,303,412	33.4	3.0	37.2	3.1	29.4	2.7
Student perception of school openness							
Low	937,381	50.7	4.0	31.4	3.7	17.9	2.8
Medium	11,009,465	49.2	1.1	31.2	1.0	19.6	0.9
High	2,242,589	47.8	2.5	32.0	2.3	20.3	1.9

NOTE: s.e. is standard error. Percentages may not sum to 100 due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Survey, Spring 1996, Youth Civic Involvement Component and Parent and Family Involvement in Education and Civic Involvement

Table 3b—Attention to politics of students in grades 9 through 12, by family and school characteristics: 1996

Family and school characteristics	Number of students	Read national news at least once a week		Watch/listen to news almost daily		Talk about news with parents at least once a week		Watch/listen to news with parents	
		Percent	s.e.	Percent	s.e.	Percent	s.e.	Percent	s.e.
Total	14,189,435	41.1	1.0	39.6	1.0	27.9	0.9	39.9	1.0
Parents read national news									
Hardly ever	3,718,468	29.5	1.8	(†)	(†)	(†)	(†)	(†)	(†)
At least once a month	1,393,119	34.0	3.1	(†)	(†)	(†)	(†)	(†)	(†)
At least once a week	3,941,653	40.2	1.8	(†)	(†)	(†)	(†)	(†)	(†)
Almost everyday	5,136,195	52.1	1.6	(†)	(†)	(†)	(†)	(†)	(†)
Parents watch/listen to news									
Hardly ever	581,798	(†)	(†)	26.5	4.6	(†)	(†)	(†)	(†)
At least once a month	260,374	(†)	(†)	33.8	6.7	(†)	(†)	(†)	(†)
At least once a week	2,271,950	(†)	(†)	29.6	2.2	(†)	(†)	(†)	(†)
Almost everyday	11,075,313	(†)	(†)	42.5	1.1	(†)	(†)	(†)	(†)
Parents say child watches/ listens to news with parents									
No	5,492,120	(†)	(†)	(†)	(†)	(†)	(†)	26.1	1.4
Yes	8,697,315	(†)	(†)	(†)	(†)	(†)	(†)	48.6	1.3
Parents' education									
Less than high school	1,375,087	32.1	3.3	42.8	3.5	18.7	2.7	45.3	3.6
High school only	4,189,293	35.6	1.8	38.7	1.8	21.3	1.5	35.4	1.8
Votech/some college	4,081,565	39.8	1.8	38.1	1.8	27.2	1.6	40.1	1.8
College graduate	2,188,477	46.2	2.4	38.8	2.4	31.2	2.2	38.8	2.4
Graduate school	2,355,013	53.5	2.2	42.6	2.2	43.1	2.2	45.5	2.2
Parents' attention to news									
Low	578,417	23.7	4.8	25.0	4.6	10.9	2.9	20.5	4.4
Medium	3,697,447	30.9	1.8	39.4	1.9	22.9	1.7	37.9	1.9
High	9,913,571	45.9	1.2	40.5	1.1	30.7	1.1	41.8	1.1
Student role in family decisions									
Little	944,790	33.1	3.5	37.4	3.7	12.5	2.2	30.8	3.5
Some	7,114,055	37.8	1.4	39.0	1.4	23.9	1.2	37.7	1.4
A lot	6,130,590	46.1	1.5	40.6	1.4	34.8	1.4	43.8	1.5
School type									
Public	12,886,023	40.8	1.0	39.3	1.0	27.7	0.9	40.2	1.0
Private	1,303,412	43.6	3.1	42.9	3.1	29.5	2.8	36.7	3.0
Student perception of school openness									
Low	937,381	38.9	3.8	37.6	3.8	24.7	3.3	31.3	3.6
Medium	11,009,465	40.9	1.1	38.8	1.1	27.4	1.0	39.7	1.1
High	2,242,589	43.1	2.4	44.5	2.4	31.6	2.2	44.4	2.5

†Not applicable.

NOTE: s.e. is standard error.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Survey, Spring 1996, Youth Civic Involvement Component and Parent and Family Involvement in Education and Civic Involvement Component.

Table 3c—Participation skills of students in grades 9 through 12, by family and school characteristics: 1996

Family and school characteristics	Number of students	I could write a letter to government office				I could make a statement at a public meeting			
		Yes		No		Yes		No	
		Percent	s.e.	Percent	s.e.	Percent	s.e.	Percent	s.e.
Total	14,189,435	93.4	0.5	6.6	0.5	82.4	0.7	17.6	0.7
Parents say they could write a letter to government office									
No	674,224	88.4	2.8	11.6	2.8	(†)	(†)	(†)	(†)
Yes	13,515,211	93.6	0.5	6.4	0.5	(†)	(†)	(†)	(†)
Parents say they could make statement at a public meeting									
No	1,509,022	(†)	(†)	(†)	(†)	72.8	2.7	27.2	2.7
Yes	12,680,413	(†)	(†)	(†)	(†)	83.6	0.8	16.4	0.8
Parents' education									
Less than high school	1,375,087	91.5	1.8	8.5	1.8	77.9	2.9	22.1	2.9
High school only	4,189,293	91.5	1.0	8.6	1.0	80.1	1.5	20.0	1.5
Votech/some college	4,081,565	93.6	0.8	6.4	0.8	83.7	1.3	16.3	1.3
College graduate	2,188,477	95.3	1.0	4.8	1.0	83.4	1.9	16.6	1.9
Graduate school	2,355,013	95.7	0.9	4.3	0.9	86.2	1.6	13.8	1.6
Parents' attention to news									
Low	578,417	88.2	3.2	11.8	3.2	72.8	4.6	27.3	4.6
Medium	3,697,447	91.3	1.1	8.7	1.1	80.4	1.5	19.6	1.5
High	9,913,571	94.4	0.5	5.6	0.5	83.8	0.9	16.2	0.9
Student role in family decisions									
Hardly ever	944,790	88.8	2.2	11.3	2.2	71.2	3.4	28.8	3.4
Sometimes	7,114,055	92.1	0.7	7.9	0.7	79.8	1.1	20.2	1.1
Often	6,130,590	95.6	0.6	4.4	0.6	87.2	1.0	12.8	1.0
School type									
Public	12,886,023	93.1	0.5	6.9	0.5	81.7	0.8	18.3	0.8
Private	1,303,412	96.4	1.0	3.6	1.0	89.6	1.8	10.4	1.8
Student perception of school openness									
Low	937,381	94.3	1.4	5.7	1.4	86.6	2.2	13.4	2.2
Medium	11,009,465	93.1	0.6	6.9	0.6	81.4	0.9	18.6	0.9
High	2,242,589	94.3	1.2	5.7	1.2	85.9	1.7	14.1	1.7

†Not applicable.

NOTE: s.e. is standard error. Percentages may not sum to 100 due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Survey, Spring 1996, Youth Civic Involvement Component and Parent and Family Involvement in Education and Civic Involvement Component.

Table 3d—Political efficacy of students in grades 9 through 12, by family and school characteristics: 1996

Family and school characteristics	Number of students	I understand politics or government				My family has a say in what government does			
		Yes		No		Yes		No	
		Percent	s.e.	Percent	s.e.	Percent	s.e.	Percent	s.e.
Total	14,189,435	55.0	1.0	45.0	1.0	64.2	1.0	35.8	1.0
Parents say they understand politics									
No	5,535,925	46.0	1.6	54.0	1.6	(†)	(†)	(†)	(†)
Yes	8,653,510	60.9	1.2	39.2	1.2	(†)	(†)	(†)	(†)
Parents say their family has a say in what government does									
No	6,389,819	(†)	(†)	(†)	(†)	57.8	1.5	42.2	1.5
Yes	7,799,616	(†)	(†)	(†)	(†)	69.5	1.2	30.5	1.2
Parents' education									
Less than high school	1,375,087	40.6	3.5	59.4	3.5	52.4	3.6	47.7	3.6
High school only	4,189,293	48.4	1.9	51.6	1.9	58.0	1.9	42.0	1.9
Votech/some college	4,081,565	54.4	1.8	45.6	1.8	65.9	1.7	34.1	1.7
College graduate	2,188,477	59.2	2.4	40.8	2.4	68.9	2.2	31.1	2.2
Graduate school	2,355,013	72.6	2.0	27.4	2.0	75.1	1.9	24.9	1.9
Parents' attention to news									
Low	578,417	40.5	5.0	59.5	5.0	49.6	5.2	50.4	5.2
Medium	3,697,447	49.2	2.0	50.8	2.0	60.1	1.9	39.9	1.9
High	9,913,571	58.1	1.1	41.9	1.1	66.6	1.1	33.4	1.1
Student role in family decisions									
Hardly ever	944,790	49.0	3.8	51.0	3.8	50.6	3.8	49.4	3.8
Sometimes	7,114,055	51.9	1.4	48.1	1.4	61.3	1.4	38.7	1.4
Often	6,130,590	59.6	1.4	40.4	1.4	69.8	1.3	30.2	1.3
School type									
Public	12,886,023	53.8	1.0	46.2	1.0	63.3	1.0	36.7	1.0
Private	1,303,412	67.0	2.9	33.0	2.9	73.3	2.8	26.7	2.8
Student perception of school openness									
Low	937,381	58.5	3.9	41.5	3.9	56.1	4.0	43.9	4.0
Medium	11,009,465	55.0	1.1	45.0	1.1	64.7	1.1	35.4	1.1
High	2,242,589	53.7	2.5	46.3	2.5	65.6	2.4	34.4	2.4

†Not applicable.

NOTE: s.e. is standard error. Percentages may not sum to 100 due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Survey, Spring 1996, Youth Civic Involvement Component and Parent and Family Involvement in Education and Civic Involvement Component.

Table 3e—Political tolerance of students in grades 9 through 12, by family and school characteristics: 1996

Family and school characteristics	Number of students	People should be allowed to speak against religion or church				Controversial books could be kept in a public library			
		Yes		No		Yes		No	
		Percent	s.e.	Percent	s.e.	Percent	s.e.	Percent	s.e.
Total	14,189,435	88.3	0.6	11.7	0.6	56.9	1.0	43.1	1.0
Parents say people should be allowed to speak against religion									
No	1,937,630	77.3	2.3	22.7	2.3	(†)	(†)	(†)	(†)
Yes	12,251,805	90.0	0.6	10.0	0.6	(†)	(†)	(†)	(†)
Parents say controversial books could be kept in a public library									
No	6,068,505	(†)	(†)	(†)	(†)	49.3	1.5	50.7	1.5
Yes	8,120,930	(†)	(†)	(†)	(†)	62.6	1.2	37.5	1.2
Parents' education									
Less than high school	1,375,087	80.1	3.0	19.9	3.0	47.0	3.6	53.0	3.6
High school only	4,189,293	88.6	1.1	11.4	1.1	52.6	1.9	47.4	1.9
Votech/some college	4,081,565	87.4	1.2	12.6	1.2	54.4	1.8	45.6	1.8
College graduate	2,188,477	90.3	1.4	9.7	1.4	65.5	2.3	34.5	2.3
Graduate school	2,355,013	92.1	1.1	7.9	1.1	66.6	2.1	33.4	2.1
Parents' attention to news									
Low	578,417	91.9	2.5	8.1	2.5	38.5	4.8	61.6	4.8
Medium	3,697,447	85.5	1.4	14.5	1.4	53.8	2.0	46.2	2.0
High	9,913,571	89.1	0.7	10.9	0.7	59.1	1.1	40.9	1.1
Student role in family decisions									
Hardly ever	944,790	86.6	2.5	13.4	2.5	57.5	3.7	42.5	3.7
Sometimes	7,114,055	86.7	1.0	13.3	1.0	55.4	1.4	44.6	1.4
Often	6,130,590	90.3	0.8	9.7	0.8	58.5	1.5	41.5	1.5
School type									
Public	12,886,023	88.0	0.7	12.0	0.7	56.0	1.0	44.0	1.0
Private	1,303,412	90.9	1.6	9.1	1.6	65.4	3.0	34.7	3.0
Student perception of school openness									
Low	937,381	85.4	2.7	14.6	2.7	59.0	3.9	41.0	3.9
Medium	11,009,465	88.6	0.7	11.4	0.7	57.8	1.1	42.3	1.1
High	2,242,589	87.7	1.7	12.3	1.7	51.8	2.5	48.2	2.5

†Not applicable.

NOTE: s.e. is standard error. Percentages may not sum to 100 due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Survey, Spring 1996, Youth Civic Involvement Component and Parent and Family Involvement in Education and Civic Involvement Component.

Multivariate Tests of the Relationship Between Student, Family, and School Characteristics and Civic Development

Having discovered a large number of student, family, and school characteristics and activities that are related to civic development, it is important to see whether some of these associations are reduced or disappear altogether when several factors are considered at once. Because of the pervasive, though modest, relationships between student measures of civic development and those of their parents, along with earlier research findings indicating a limited role for parents in student civic development, these relationships are of particular interest. For similar reasons, the relationship between student development and their school experiences deserves attention. Finally, though there have been claims that a strong relationship should exist between community service and student civic development, only limited studies of the possible relationship exist. Hence, a third area of special interest is whether or not participation in community service continues to show a relationship with some of the measures of civic development.

To examine these possibilities, multivariate analyses were performed—multivariate logistic regression when the civic development variable was dichotomous, and ordinary least squares when the dependent variable was an ordered, multcategory variable.²³ The results of these multivariate models are shown in tables 4–8. It is easiest to interpret the results in terms of broad patterns, and to do this, it makes most sense to group the findings in terms of the dependent variables, beginning with political knowledge (table 4). Table 5 focuses on attention to politics, table 6 presents results for political participation skills, table 7 shows regressions for political efficacy, and table 8 looks at factors associated with tolerance of diversity. In order to assist readers in understanding this more complex methodology, the Survey Methodology and Data Reliability

²³For ease of presentation, the political knowledge item was presented using three categories in tables 1a, 2a, and 3a. In the regression analyses, all six categories were used (0 correct, 1 correct, 2 correct, 3 correct, 4 correct, or 5 correct). The questions about reading the news, watching the news, and discussing the news with parents were displayed using two categories in tables 1b, 2b, and 3b for the same reason. In the regression analyses, all four response categories were used (almost every day, at least once a week, at least once a month, or hardly ever).

With one exception, all of the independent variables are scored 0,1 if a dichotomy, or as a numerical variable if ordered and multcategory. The exception is community service. In order to identify as precisely as possible the nature of potential effects, this variable was entered as a series of 0,1 variables for each of three levels of participation. Of necessity, one category is excluded. This is the category representing no participation; it serves as a baseline against which the other categories are judged. To facilitate a succinct table presentation, grade in school was shown using two categories in tables 1a through 1e. All four grades are tested separately in the regression analyses.

section contains a discussion regarding how to interpret multivariate analyses. This discussion is referred to at appropriate places below.

Political Knowledge

As the tables in the previous section showed, numerous variables are related to the student ability to answer factual questions about politics. That remains the case in the multivariate analysis as well. First of all, most of the student characteristics discussed above are related to student political knowledge after other factors are taken into account. Both student grade in school and academic performance are strongly and positively related to knowledge (table 4). While perhaps expected, it is important to see confirmation of this given criticism of schools in general and of civics classes in particular (see above). Though this level of analysis does not permit precise identification of the sources of grade and performance differences, the results do suggest that schools can play a positive role in developing good citizens, and in this sense is consistent with recent research based on NAEP (Niemi and Junn 1998). In addition to these characteristics, other background factors that are related to knowledge levels include gender and race-ethnicity. Confirming earlier research, males remain more knowledgeable than females even after controlling for characteristics such as the amount of attention paid to the news. White students are also more knowledgeable about the facts of government.²⁴

Student activities and behavior are positively correlated with political knowledge levels. For instance, paying attention to the news is clearly related to greater knowledge, which is understandable when one recalls that three of the five factual questions addressed contemporary politics. Note as well that, independent of overall levels of attention, the more often students discuss or watch the news with parents, the more they know about politics. Increased exposure to student government is also associated with higher knowledge scores, as is participation in other in- and out-of-school activities.

The evidence regarding participation in community service is suggestive, but only sustained participation is clearly associated with greater political knowledge. Those who participated regularly for more than 35 hours altogether were more knowledgeable on the objective knowledge test. Though some earlier research suggests that student participation in community service

²⁴Civics classes and other features of the school may have differential effects on various kinds of students and subject matter. This possibility is explored in some detail in Niemi and Junn (1998).

should have only the effect of increasing knowledge related to the service activity, this finding indicates that participation may have broader educational effects than once considered.²⁵

Table 4—OLS regression predicting the political knowledge of students in grades 9 through 12: 1996

Independent variables	Number of correct answers student gave to political items	
	b	s.e.
Intercept	-1.61*	0.25
Student characteristics		
Grade in school	0.27*	0.02
Male	0.53*	0.05
Black, Hispanic, or other	-0.28*	0.06
Academic performance	0.32*	0.03
English spoken most at home by student	0.13	0.10
Student activities		
Attention to news	0.24*	0.04
Attention to news with parents	0.25*	0.05
Participation in school government	0.16*	0.05
Participation in in-school/out-of-school activities	0.15*	0.04
Participation in community service		
Once or twice	0.09	0.07
Regular/under 35 hours	0.11	0.08
Regular/35 hours or more	0.23*	0.09
Family and school characteristics		
Political knowledge of parents	0.15*	0.02
Parents' education	0.16*	0.03
Student role in family decisions	-0.02	0.04
Public school	-0.20*	0.09
Student perception of school openness	-0.06	0.06
R ²	0.34*	

*p<0.05

NOTE: For an explanation of the coefficients, see the section on Survey Methodology and Data Reliability.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Survey, Spring 1996, Youth Civic Involvement Component and Parent and Family Involvement in Education and Civic Involvement Component.

²⁵Readers should keep in mind that the tests conducted in this report are not sufficient to support statements of causality. It is possible that students with more political knowledge tend to be those most likely to volunteer most regularly. One effort to control for the effects of volunteering is made below in the section on service incorporated into the curriculum.

Several family and school characteristics also remain associated with the political knowledge item in the multivariate test. For example, student knowledge rises with increases in the highest level of education obtained by parents. Even after controlling for parental education, higher parental knowledge scores are related to higher student knowledge scores. This attests to the importance of parents in the political socialization process. Finally, table 4 shows that even after accounting for so many other variables, public school students were significantly below private school students in their levels of knowledge.

In assessing the relative contributions of the various predictors of political knowledge (and of the other measures of civic development that follow), it is important to note the magnitude of the relationships in addition to their statistical significance. To do so, one needs to take into account the measurement of the independent variables. Thus, for example, one needs to recall that attention to the news (by itself and with parents), participation in student government and other activities, political knowledge of parents, and parental education all have multiple categories. While the largest coefficient in table 4 is for gender, other characteristics are actually associated with similar or even greater variations in knowledge. For example, in comparing students with low (0) versus high (2) levels of attention to the news, the difference is double the .24 coefficient, or nearly as large as that between males and females.²⁶ With this in mind, note especially the coefficients associated with parents' knowledge. Even though parents' knowledge has one of the lowest coefficients in the table, when one multiplies the coefficient by the number of increments in levels of knowledge (5), it suggests a relationship to student knowledge that is as equal to that of most of the other variables in the model. (For a fuller discussion of how to interpret the OLS results, please see the multivariate analysis description in the Survey Methodology and Data Reliability section of this report.)

Attention to Politics

The relationships between attentiveness to news and the various predictors are, in some respects, similar to those for political knowledge (table 5). They are complicated, however, by differences between newspapers and television and differences between attention per se and attention with parents. Thus, for example, students in higher grades read more about national news than do students in lower grades. But students in all grades under study are about as likely to follow the news on television and talk with their parents about it, and students in higher grades are actually less likely to report watching news with their parents than students in lower grades. As discussed earlier, many of the differences between news reading and news watching may be

²⁶See the Survey Methodology and Data Reliability section for a brief description of how to interpret coefficients in the multivariate models.

due to the nature of the media and to how these interact with the cognitive development of students. It is noteworthy, however, that student academic performance and parental education clearly do not capture much variation in news reading and news watching/listening.

Student activities—apart from those related to attentiveness itself—do not seem to have an across-the-board relationship to newsgathering. Yet participation in activities other than student government does appear to stimulate discussions with parents about the news. In particular, regular community service, even of moderate duration (less than 35 hours), shows a clear relationship to such discussions. Though seldom alluded to in literature studying the possible effects of community service, such service may generate new kinds of experiences for students, ones that are unlike day-to-day activities in school and with peers and more likely to involve adult activities. In confronting these kinds of activities, students may feel a greater need for discussion with their parents or simply find that they have more in common to talk about. In any event, given the relationships between attention to the news with parents and other indicators (especially knowledge and participatory skills), student community service could have indirect relationships in addition to the direct relationships observed here.

As with political knowledge, student attention to politics is linked to corresponding parental traits. If parents often read the national news, so do their children; if parents watch the news, so do their offspring. And, as shown in the “student activity” part of table 5, general attentiveness to the news and talking about it with parents or watching it with them are themselves related.²⁷

Political Participation Skills

As might be expected, the relationships between independent variables and political participation skills practically mirror those associated with political knowledge (table 6). But what differences do exist are striking, both for their conformance to theoretical expectations and for their implications with respect to democratic participation. Grade in school, for example, makes an important difference to skills, as it did for knowledge; students in higher grades are more likely to trust their ability to write letters and to make statements at public meetings. In contrast to the case of knowledge, however, academic performance and minority status are unrelated to both of these skills, as is parental education. The fact that minority status, academic performance, and parental education are *not* significantly related to perceived skill levels suggests that minorities, students who perform poorly, and students from less educated families see themselves as just as able as others to express their views to the government and at public meetings. Female students, though

²⁷One relationship in table 5 is of a different sort. The strong coefficient for “parents say their child watches/listens to news with parents” is really a measure of the extent to which parents and children agree about the child’s behavior, and it suggests that parent and student perceptions of interaction match fairly well. In this one instance, the parents’ reports are about the students, not about themselves.

less knowledgeable about politics than males, tend to feel more comfortable writing to government officials. (For a fuller discussion of how to interpret the logistic regression results, please refer to the Survey Methodology and Data Reliability section of this report.)

Student activities also show similar relationships to participation skills as they did to political knowledge. The more attention students paid to national news, the more they followed the news along with their parents, and the more they participated in student government, the greater their self-reported ability to make statements at public meetings. In addition, student classroom experiences with letter writing, public speaking, and debates were positively related to confidence in writing public officials and speaking at meetings.

Participation in community service is unrelated to skill level in one instance and notably related in the other. The difference between the items may reflect a meaningful distinction. Writing a letter is relatively easy to do (witness the high proportion of students claiming to be able to do so) so involvement in community service may not contribute to an already well developed skill. Speaking in public is more difficult for some people, and community involvement may give students some experience in expressing their opinions in front of adults other than those with whom they normally interact. It is perhaps safest, however, to conclude that the evidence is suggestive of a connection between community service and participatory skills, but that it is not definitive.²⁸

With respect to family characteristics, existing theories are unsupported in that there is no noticeable relationship between parental education and student participatory confidence. However, to the extent that more educated parents tend to have more open communication in their households, student participatory confidence may be indirectly influenced by parental education in that students who are given a voice in household decision making have more confidence in their ability to communicate effectively than other students. In addition, the perceived ability of students to make a statement at a public meeting is positively related to the same perception among their parents.²⁹ Public school students rank below private school students with respect to one skill, making a public statement, but not the other.

Political Efficacy

The predictors of political efficacy reveal similar patterns along with some important differences. First of all, one of the indicators of political efficacy behaves in much the same way as political knowledge, for readily apparent reasons (table 7). The efficacy item, "Do you understand politics?" taps student subjective confidence in the ability to understand what is happening

²⁸The fact that perceived ability to write a letter was so highly skewed might artificially reduce its relationship with other variables. But observing the number of variables that are related to letter-writing skills calls such an explanation into question for any one variable.

²⁹Letter writing is the *only* instance in this study in which the parent version of a variable is not significantly related to the corresponding student variable. The overall pattern of associations indicates a positive relationship between parent and student attitudes and behavior.

in the political world. There should be a connection between students' objective knowledge of a subject, politics in this case, and how they assess their understanding of it (subjective knowledge). And so it is that the predictors of objective and subjective knowledge are very similar including, importantly, parents' subjective knowledge and extensive student participation in community service. One exception is also noteworthy: minority students are about as likely as white students to believe that they understand politics, perhaps contributing to their perceived equality in participatory skills.

In contrast to the result for internal efficacy, the item about student perceptions of family say in politics generally shows a limited relationship with the array of student characteristics and activities (table 7, right-hand column). Given that the item inquires about a family-level attribute, the lack of connection to most student characteristics is understandable. Yet two points are worth making about this result. First, the student's role in family decisions is positively related to this aspect of political efficacy; as discussed above, modes of interaction within the family may have spillover effects into the political world. Second, a substantively significant relationship between parent responses and those of their offspring is evident here as elsewhere. The level of the parents' education is an important predictor of whether students think their family has much say in governmental decisions, but even after controlling for that factor, whether parents think they have a say makes a difference in how students feel.

Tolerance of Diversity

A quite different set of results holds for student tolerance of diversity (table 8). First, even discounting somewhat the item about speaking against religion because of its skewed distribution, relatively few significant relationships exist. Even the relationships that are evident may be somewhat misleading. Consider the variable denoting whether English is the language spoken most at home. The variable is significant *only* for the item about speeches against religion; it may be that Hispanic students, who are more likely to speak a language other than English at home, are more sensitive to criticism of religion because of the role of the church in countries with a Hispanic heritage. This, rather than any lower tolerance levels per se among students who do not speak English at home, may account for the result on this measure.³⁰ In another instance, the significant coefficient for student perception of school openness, the sign of the coefficient is opposite what one might expect, and it is hard to provide a rationale for such a result.

³⁰As noted earlier, this is one instance in which black and Hispanic students give very different responses. Black students are very similar to white students on this item; 88.4 and 89.9 percent, respectively, agree that people should be allowed to speak against religion. Among Hispanic students, the comparable percentage is 81.5 percent, an important drop in this largely consensual item.

What remain as predictors of tolerance are consistent relationships with grade in school (students in higher grades are more tolerant on both items) and the attitudes of parents and, in the case of allowing controversial books in a public library, gender, race–ethnicity, student government, parental education, and school type. In the case of grade in school, the finding is consistent with the learning of a more tolerant attitude in classes since it is in the 11th and 12th grade that students have had the most history and government classes; yet it may also be that maturation, even apart from classroom lessons, brings with it a greater understanding of the principle of rights and freedoms and that this is manifested here in greater political tolerance. In the case of parental opinions, it is noteworthy that they loom large in a multivariate context even though the bivariate comparisons (table 3e) might have suggested that parental influence is relatively weak.

Community Service and Service Learning

Community service is related to a number of indicators of civic development, even in the multivariate analysis. The large number and variety of controls entered into the model provide considerable assurance that this relationship is meaningful. Yet there is another threat to validity that could affect this relationship more than many others. This is the matter of how the variables to be explained (civic development) and the variables used to explain them relate to one another. In most instances, it is safe to assume that the variables being used to explain civic development precede the development. For instance, it is almost certain that something about gender underlies differences in civic development and not the other way around. However, this is not necessarily the case when it comes to the measure of community service involvement. It is likely that those who participate more are more knowledgeable about politics and feel more comfortable speaking at public gatherings, though it is also possible that those who are more knowledgeable and more self-confident are more likely to volunteer. The question here is: does community service lead to changes in the variables to which it is related, or do the variables to which it is related lead some students to take part in such service while discouraging others? Of course, with a cross-sectional analysis one cannot hope to establish fully the nature of these relationships (and, indeed, they are not mutually exclusive). Yet it is important to test explanations that clearly indicate that community service does not lead to increased civic development.

With the data from NHES:96, one significant test is possible. As just noted, the explanation for the relationship between community service and civic development could be due to self-selection into such service. Thus, for example, if those who feel more confident about themselves and their ability to deal with adults volunteer disproportionately for community service, a relationship between service and the perceived ability to make a statement at a public meeting may result—and yet in no way be due to confidence-boosting activities or any other activities undertaken as part of that service. Since the alternative explanation has to do with self-selection, a test that can be performed is to see whether the relationships uncovered so far are also found among those whose participation was not necessarily voluntary.

Specifically, students were asked whether their school “arrange[d] or offer[ed] any service activities that students can participate in” or whether “participation in a service activity [was] required.” Based on the responses to these questions, students were selected who were in schools

that either arranged or required service.³¹ Regression analyses identical to those in tables 4–8 were then run. For the instances in which participation was significant, the results of this analysis were nearly a carbon copy of those shown previously (table 9). Thus, even among those whose participation was not voluntary or whose participation was facilitated by the school, community participation was associated with greater political knowledge, more frequently talking with parents about the news, greater perceived participation skills, and a higher sense of internal political efficacy. These findings are consistent with the argument that participation leads to some changes in student civic development.³²

Table 9—Comparison of select community service regression coefficients between all 9th- through 12th-grade students and 9th- through 12th-grade students whose service was required or arranged by schools: 1996

	All 9th–12th-grade students			9th–12th-grade students whose service was required or arranged by schools		
	Once or twice	Less than 35 hours	35 or more hours	Once or twice	Less than 35 hours	35 or more hours
Component of civic development						
Political knowledge	0.09	0.11	0.23*	0.10	0.11	0.21*
Talks with parents	0.03	0.20*	0.21*	0.03	0.23*	0.22*
Make a statement	0.28*	0.50*	0.45*	0.28*	0.48*	0.48*
Understands politics	0.05	0.26	0.35*	0.02	0.18	0.33*

*p<0.05.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Survey, Spring 1996, Youth Civic Involvement Component.

One further analysis was also undertaken. As noted earlier, it has been hypothesized that community service has a greater effect if it is integrated into the classroom, turning voluntary service into service learning. In NHES:96, students were asked whether they had a chance to talk about their service experience in class, whether they were required to keep a journal or write an essay about their service, and whether their service contributed toward their grade in any class.

³¹If possible, one might prefer to use only students whose schools required community service. However, only 839 students in grades 9–12 (20 percent of the total) were in such schools, a number that would make it somewhat difficult on sampling grounds to identify significant relationships. Equally important, an earlier analysis found that arranging or offering service, but not requiring it, was an important stimulus to participation (Nolin et al. 1997). Thus, it was deemed appropriate to consider the larger group (N =3,709) that were in schools that either required or facilitated participation in community service.

³²As a further test, a school practices variable was added to the regression analyses. The variable measured the level of school involvement in getting students to participate in community service. Students in schools that required and facilitated service were scored the highest, those in schools that only required service were the next highest, those in schools that only facilitated service were the next highest, and those in schools that did nothing to promote service were scored lowest. In no case did the added variable reduce the magnitude of the relationship between service and the civic development indicators and in no case was the new variable clearly related to the civic development indicators.

Responses were combined, and the analysis was repeated only for those whose service was integrated in two or three of these ways ($N = 437$). There was no evidence of greater effects for this group. As an alternative specification, a four-category scale representing the number of ways in which service was integrated was entered into the equation. The school integration variable did not improve any of the models used to predict civic development. In other words, whether or not students had their service experience integrated into their classroom experience did not noticeably improve their civic development scores. This is not to say that curricula designed specifically to link community service to improved civic development would be ineffective, only that integration of service activities per se did not appear to increase student civic development scores.

Summary and Conclusions

Is the next generation of Americans prepared to carry the mantle of democracy? Doubts about this important ability in particular and concerns about the future of American democracy in general have led to a number of initiatives from both the public and private sectors. Based on data from a study of youth civic capabilities, results presented in this report shed new light on the scope of the potential problem as well as factors that might help ameliorate it.

Because of the importance of mid- to late-adolescence in the formation of key political behaviors and attitudes, this report focuses on the responses from 9th- through 12th-grade students. Not surprisingly, when looking at behavior and attitudes considered crucial for a healthy democratic political system, some results might suggest cause for concern. As a whole, this group of students has relatively little knowledge of the American political process, less than half read about national news in any given week and even fewer discuss it with their parents at least once a week, just over half claim to understand politics, and about the same percentage would tolerate a public library's carrying a controversial book.

However, the results are not all negative. Large majorities of students feel as though they can write a government official and make a statement at a public meeting. Also, while many may not be willing to accept the presence of controversial books at public libraries, nearly nine out of ten students accepted the right of people to speak out in favor of an unpopular idea (speaking against churches and religion). Moreover, some of the results observed can be explained in terms of typical life cycle development (such as the low percentages of students who regularly monitor the news) and may improve as students age as indicated by the fact that students in higher grades tended to do better on the civic development items than students in lower grades.

Another reason for optimism is the number and nature of the correlates of civic development. One important set of correlates clusters around parental traits, behavior, and attitudes. Students living with more highly educated parents tend to have higher levels of civic development than do other students. Thus, the increasing level of education among parents, by itself, suggests that civic development among American high school students may improve. In addition, higher levels of parental education are associated with increased openness in household communication.

Earlier research has shown consistent links between parents' political partisanship and the partisan views of their children. The results in this report indicate that, to a greater degree than

often thought, there are positive relationships between student and parent responses to indicators of civic development. For instance, students living with parents who have higher levels of civic development also tend to have higher levels of civic development. Parents and the family appear to be important in other ways as well: students who are given a voice in family decision making have more confidence in their participation skills than other students.

Even after controlling for possible parental effects, the potential role of schools is evident. Once again, earlier research indicated a limited role for schools in the process of civic development, particularly in terms of boosting student political knowledge. What is evident from the findings presented in this report is that schools may have a bigger role to play in improving student civic development. Though perceptions of school openness do not correlate highly with indicators of civic development, other indicators of school environment do. Apart from higher political knowledge scores, students in schools with student government and who participate in it have more confidence in their participation skills, are more likely to feel as though they understand politics, and are more politically tolerant than other students. In addition, the longer students are in school, the better their civic development scores. Students in higher grades read the news more often, are more likely to feel as though they can communicate with government and groups of people, more often report that they understand politics, and are more tolerant than students in lower grades.

Finally, though it is important to point out that community service is not necessarily related to all of the positive outcomes often attributed to it, community service participation is positively related to several key dimensions of civic development. Findings from this report indicate that students who participated 35 hours or more during the school year had higher political knowledge scores, were more likely to discuss the news with their parents, were more comfortable speaking at public meetings, and more often claimed to understand politics than other students. These findings suggest that getting students more involved in service activities, apart from providing needed resources and providing students with various valuable experiences, might contribute to increasing the overall civic development of American students.

The results also suggest that future research on community service should consider carefully the amount of effort involved. Findings indicate that the positive relationships between service and civic development were generally found among those who had performed 35 or more hours of work. It is questionable whether smaller amounts of service are of any consequence. Rather, it is sustained community involvement that is associated with a number of features of civic development.

Survey Methodology and Data Reliability

The 1996 National Household Education Survey (NHES:96) is a telephone survey conducted by Westat for the U.S. Department of Education, National Center for Education Statistics (NCES). Data collection took place from January through April of 1996. When appropriately weighted, the sample is nationally representative of all civilian, noninstitutionalized persons in the 50 states and the District of Columbia. The sample was selected using random digit dialing (RDD) methods, and the data were collected using computer-assisted telephone interviewing (CATI) technology. (See Vaden-Kiernan et al. [1997] for more information.)

The Youth Civic Involvement (CI) component of the NHES:96, which is the primary basis of this report, used a sample of students in grades 6 through 12. Up to three instruments were used to collect information on the school and family experiences of these students. A set of screening items (Screener), administered to a member of the household age 18 or older, was used to determine whether any children of the appropriate ages or grades lived in the household, to collect information on each household member, and to identify the appropriate parent/guardian respondent for the sampled child. For sampling purposes, children residing in the household were grouped into younger children (age 3 through grade 5) and older children (grades 6 through 12). If one child age 3 to 5th grade resided in the household, an interview was conducted about that child; if there were multiple children in this range, one child was sampled with equal probability. Similarly, if one child in 6th through 12th grade resided in the household, an interview was conducted about that child; if there were multiple children in this range, one child was sampled with equal probability. Up to two children could have been selected from a household, one in the lower age/grade range and one in the higher grade range.

For households with youth in 6th through 12th grade who were sampled for the survey, a Parent and Family Involvement in Education/Civic Involvement (PFI/CI) interview was conducted with the parent/guardian most knowledgeable about the care and education of the youth, usually the child's mother. Following completion of that interview and receipt of parental permission, a Youth CI interview was conducted with the student. This report was based on the responses of 9th- through 12th-grade students from this sample with the exception of home-schooled children, who were omitted because they were not asked many of the relevant school-related items.

All of the variables used in the report are on the Youth CI and the PFI/CI public use data files. More information about the adult, parent, and youth data can be found in the National

Household Education Survey of 1996: Data File User's Manual, Volumes I–V (Collins et al. 1997).

Response Rates

For the NHES:96 survey, Screeners were completed with 55,708 households. A sample of 23,835 children age 3 through 12th grade was selected for a Parent PFI/CI interview. This sample included 10,949 youth in grades 6 through 12. The response rate for the Screener was 70 percent. The completion rate for the Parent PFI/CI interview, or the percentage of eligible sampled children for whom interviews were completed, was 89 percent, or 20,792 interviews. Thus, the overall response rate for the Parent PFI/CI interview was 63 percent (the product of the Screener response rate and the Parent PFI/CI completion rate). An interview with a sampled youth was attempted only after the interview with his or her parent had been completed. The completion rate for youth in grades 6 through 12 was 76 percent. Thus, the overall response rate for the Youth CI interview was 53 percent (the product of the Screener completion rate and the Youth CI interview completion rate). Research was conducted to determine the extent of possible bias introduced by this relatively low response rate and findings indicated little cause for concern. For more information about NHES:96 response rates, see Montaquila and Brick (1997). This report is based on a subset of the total population of youth, students enrolled in schools in the 9th through 12th grade. The unweighted number of cases included in this analysis is 4,212.

Item nonresponse (the failure to complete some items in an otherwise completed interview) was very low in the NHES:96. Most items used in this analysis have response rates of 95 percent or more. Items in this report that have a response rate of less than 95 percent are whether or not the school has student government and whether or not the student was involved with it, what grade the father completed if he finished school sometime during the 9th, 10th, or 11th grade, and household income. Through a procedure known as hot-deck imputation (Kalton and Kasprzyk 1986), responses were imputed for missing values (i.e., “don’t know” or “refused” for items not specifically designated to have those as legitimate response categories, or “not ascertained”). As a result, no missing values remain.

Data Reliability

Estimates produced using data from the NHES:96 are subject to two types of error: non-sampling and sampling errors. Sampling errors occur because the data are collected from a sample rather than a census of the population. Nonsampling errors are errors made in the collection and processing of data.

Weighting and Sampling Errors

All of the estimates in the report are based on weighting the observations using the probabilities of selection of the respondents and other adjustments to partially account for nonresponse and coverage bias. These weights were developed to make the estimates unbiased and consistent with estimates of the national totals. There is a potential for bias in the estimates due to the high nonresponse in this survey. Analyses of response rates for different classifications of the sampled youth also demonstrated differential response rates according to the age and grade of the child. To reduce potential nonresponse bias, grade was used in the construction of weighting classes for nonresponse adjustment. For more information about adjustment for nonresponse, see Montaquila and Brick (1997).

The sample of telephone households selected for the NHES:96 is just one of many possible samples that could have been selected. Therefore, estimates produced from the NHES:96 sample may differ from estimates that would have been produced from other samples. This type of variability is called sampling error because it arises from using a sample of households with telephones, rather than all households with telephones.

The standard error is a measure of the variability due to sampling when estimating a statistic. Standard errors can be used as a measure of the precision expected from a particular sample. The probability that a complete census count would differ from the sample estimate by less than 1 standard error is about 68 percent. The chance that the difference would be less than 1.65 standard errors is about 90 percent, and that the difference would be less than 1.96 standard errors, about 95 percent.

In addition to properly weighting the responses, special procedures for estimating the statistical significance of the estimates were used because the data were collected using a complex sample design. Complex sample designs, like that used in the NHES, result in data that violate some of the assumptions that are normally required to assess the statistical significance of the results. Frequently, the sampling errors of the estimates from the survey are larger than would be expected if the sample was a simple random sample and the observations were independent and identically distributed random variables. Taylor series approximations were used to estimate variances that reflected the actual sample design used in the NHES:96 (Wolter 1985).

Standard errors for all of the estimates are presented. These standard errors can be used to produce confidence intervals. For example, an estimated 41 percent of students reported reading national news at least once a week. This figure has an estimated standard error of 1.0. Therefore, a 95 percent confidence interval for the percentage of students reading national news at least once a week is approximately 39 to 43 percent.

Nonsampling Errors

Nonsampling error is the term used to describe variations in the estimates that may be caused by population coverage limitations and data collection, processing, and reporting procedures. The sources of nonsampling errors are typically problems like unit and item nonresponse, the differences in respondent interpretations of the meaning of the questions, response differences related to the particular time the survey was conducted, and mistakes in data preparation. As explained above, weighting procedures help to reduce potential bias due to nonresponse.

In general, it is difficult to identify and estimate either the amount of nonsampling error or the bias caused by this error. In the NHES:96, efforts were made to prevent such errors from occurring and to compensate for them where possible. For instance, during the survey design phase, focus groups and cognitive laboratory interviews were conducted for the purpose of assessing respondent knowledge of the topics, comprehension of questions and terms, and the sensitivity of items (Nolin and Chandler 1996). The design phase also entailed CATI instrument testing and an extensive, multicycle field test in which about 3,200 Screeners, over 950 parent interviews, about 300 youth interviews, and about 40 adult interviews were conducted.

An important nonsampling error for a telephone survey is the failure to include persons who do not live in households with telephones. About 93.3 percent of all students in grades 1 through 12 live in households with telephones. Estimation procedures were used to help reduce the bias in the estimates associated with youth who do not live in households with telephones. Cross-classifications of race–ethnicity by household income, census region by urbanicity, and home tenure by child grade were used for forming cells for raking. For more information about coverage issues and estimation procedures, see Brick and Burke (1992), Montaquila and Brick (1997), Montaquila, Brick, and Brock (1997), and Nolin, Collins, Vaden-Kiernan, and Davies (1997).

Derived Variables

Youth attention to news and parents' attention to news

The attention to news indicator was created by recoding a variable dealing with how often the respondent read national news (CYRDNEWU) and one dealing with how often the respondent watched national news (CYWATCHU). The values of the variables were recoded such that 1 was coded as 4, 2 as 3, and so forth. Once recoded, the variables were summed into an index with scores ranging from 2 to 8. Respondents with scores of 2 or 3 were considered to have low atten-

tiveness, 4 or 5 to have medium attentiveness, and 6 or more high attentiveness. A similar variable was constructed for parents.

Attention to news with parents

This indicator was calculated by recoding and summing two questions. The first asked if the student watched or listened to the news with parents during the past week (CYNEWSHH). If respondents said yes, they were coded as 1s, otherwise they were coded as 0s. The second question asked how often the student discussed national news with parents (CYISTALK). Again, recoding was done such that if respondents said hardly ever, they were coded as 1s, if once a month as 2s, if once a week as 3s, and if daily as 4s. The two recoded indicators were then summed. Anyone with a score of 1 or 2 was considered as having a low level of interaction with parents, 3 or 4 as having a medium level of interaction with parents, and 5 as having a high level of interaction with parents.

Participation in student government

Students were asked if their school had student government (PRSTUGOV) and whether or not they had participated in it (PRREPGOV). Both variables were recoded so that those saying yes were categorized as 1s and those saying no as 0s. The variables were then summed and the resulting score increased by 1. Respondents who scored 1 were counted as low on the scale (no/no), 2 as medium on the scale (yes/no), and 3 as high on the scale (yes/yes).

Participation in in-school or out-of-school activities

The variables PRSCHACT and PRGRPACT asked students whether or not they had participated in any in-school activities (other than student government) during the school year and whether or not they had participated in any out-of-school activities during the school year. Both variables were recoded such that if students said yes, they had participated, they were coded as 1s, and if they said no, they were coded as 0s. The recoded variables were then summed and the resulting score increased by 1. Students who scored 1 were counted as low on the scale (no/no), 2 as medium on the scale (yes/no), and 3 as high on the scale (yes/yes).

Student role in family decisions

Students were asked three questions focusing on how much input they had into family issues. One asked how often the student had a say in family decisions (FEFAMDEC); another asked how often the student's side of an argument was given consideration (FEYRSIDE); and the

third asked how often the student had a say in rules that affected him or her (FERULES). All three variables had 3 categories with 1 meaning often, 2 meaning sometimes, and 3 meaning hardly ever. The variables were summed, and those with a score of 3 or 4 were coded as having an important voice in the family; those with scores of 5, 6, or 7 were coded as having a moderate say; and those with a score of 8 or 9 were coded as having no say.

Student perception of school openness

Students were asked if they agreed that students and teachers respected one another (FERESPCT) and if they agreed that students were listened to in school decisions (FELISTEN). Both variables had 4 categories with 1 meaning strongly agree, 2 meaning agree, 3 meaning disagree, and 4 meaning strongly disagree. The two variables were summed, and if the students had a score of 2 or 3, they were counted as agreeing with the statements and assigned a score of 3. If they had scores of 4, 5, or 6, they were counted as somewhat agreeing and assigned a score of 2. If they scored 7 or 8 on the scale, they were counted as disagreeing with the contention that schools were open to student input and were assigned a score of 1.

Hours of service measure

The measure presented in this report for the number of hours of community service in which a student had participated was developed by combining information about the number of weeks and the number of hours per week that students reported spending in each of up to three service activities.

First, the number of weeks that the student had participated in each activity was calculated. The exact number of weeks was used in the calculation if it was reported. For students who reported participating since the beginning of the school year, the number of days from September 1, 1995, to the date of the interview was calculated and divided by 7 to obtain the number of weeks. Some students (fewer than 3 percent for any service activity) responded in some other way (for example, three times a month). For service activity one, these cases were assigned the modal value for service activity one; that is, they were given the most frequently reported number of weeks for the first service activity named by students. The same procedure was used to assign the number of weeks for service activity two and service activity three.

Second, the number of hours for each service activity was calculated. If a specific number of hours had been reported, that number was used. For the few students who gave another response (e.g., “the hours change from week to week”), the modal value for number of hours for the ap-

propriate service activity (first, second, or third) was assigned. Modal values were assigned to less than 3 percent of students in any given activity.

Third, the total number of hours of service in the current school year was calculated. The number of hours per week was multiplied by the number of weeks for each service activity. The total number of hours of community service for each student was calculated by summing the hours for each of the three possible service activities. Once this was accomplished, a four-category variable was computed such that those who had not participated were coded as 1s, those who had participated once or twice were coded as 2s, those who had regularly participated but did so for less than 35 hours were coded as 3s, and those who had regularly participated and did so for 35 hours or more were coded as 4s.

Political knowledge

Respondents were asked a series of five questions testing their knowledge about the U.S. political system. One-half of the sample was asked one set of five questions (CYVP, CYLAW, CYHOUSE, CYVETO, and CYCONSRV), and the second half of the sample was asked another set of five questions (CYSPKR, CYJUDGE, CYSENATE, CYCONST, and CYDFENS). For each correct answer, the respondent was given one point. A similar variable was constructed for parents.³³

Service learning

Students were asked three questions regarding how their community service experience(s) had been integrated into their schoolwork. The three questions asked students if they had talked about their experience in class or in a group session with other students (SATALK), if they had been required to keep a journal or write an essay about their experience (SAJOURNAL), and if the service contributed towards a grade in class (SAGRADE). Students who said yes to all three were given a score of 4, those who said yes to two were given a score of 3, those who said yes to one were given a score of 2, and those who said yes to none were given a score of 1.

Statistical Tests

Differences discussed in this report are significant at the 95 percent confidence level or higher, and where a lack of difference is noted, the significance of the difference is below this threshold. Differences between estimated percentages were tested using the Student's *t* statistic.

³³Analyses were conducted to test the comparability of the two sets of items. Though the second set was more difficult, there was no difference in the types of students that were asked the first set of questions versus those who were given the second set.

This t statistic can be used to test the likelihood that the differences between two independent estimates are larger than would be expected simply due to sampling error. To compare the difference between two percentage estimates, Student's t is calculated as:

$$\frac{P_1 - P_2}{\sqrt{se_1^2 + se_2^2}}$$

where p_1 and p_2 are the estimated percentages to be compared and se_1 and se_2 are their corresponding adjusted standard errors.

As the number of comparisons on the same set of data increases, so does the likelihood that the t value for one or more of the comparisons will exceed 1.96 simply due to sampling error. For a single comparison, there is a 5 percent chance that the t value will exceed 1.96 due to sampling error. For five tests, the risk of getting at least one t value over 1.96 due to sampling error increases to 23 percent. To compensate for the problem when making multiple comparisons on the same set of data or for a given hypothesis, Bonferroni adjustments were made. Bonferroni adjustments essentially deflate the alpha value needed to obtain a given confidence interval. Bonferroni adjustment factors are determined by establishing the number of comparisons that could be made for a given set of data. The alpha value (probability of finding a given result by chance) for a given level of confidence is then divided by the number of possible comparisons. The resulting alpha value is then compared with the table of t statistics to find the t value associated with that alpha.

Multivariate Analysis

To design the multivariate analysis presented in the tables, either an ordinary least squares (OLS) regression or a logistic regression was devised for each of the indicators of civic development. Where the dependent variable had two or more categories that could be meaningfully ordered, an OLS was run. Where the dependent variable had only two meaningful categories, a logistic regression was run.

Several variables that appeared to be significant in the bivariate tests were no longer significant predictors of the dependent variable in multivariate tests (e.g., student academic performance was significantly related to whether or not the student read national news at least once a week [table 1b]; however, in the multivariate analyses, the relationship was no longer significant [table 5]).

Interpreting the b values generated by OLS is fairly straightforward. The slope, or b value, indicates how many units of change in the dependent variable occur for each unit of change in the

independent variable. For instance, as shown in table 5 (column 1), every categorical increase in “Attention to news with parents” (low, medium, and high) is associated with an increase of 0.62 categories in the “Youth reads national news” item (hardly ever, at least once a month, at least once a week, almost every day).

The R^2 values are also fairly easy to understand. Basically, they indicate how much of the variance in the variable of interest is explained by the variables being used to explain it. For instance, the variables in table 4 account for 34 percent of the variance seen among student political knowledge scores.

Interpreting the coefficients generated by using logistic regression is not as straightforward. The coefficient for a given variable is expressed in relation to an omitted category for the variable, controlling for all other variables in the model. The applicable coefficients can be summed to estimate the probability that students with certain characteristics will participate in community service. For example, a 12th-grade student living with a parent who said people should be allowed to make a speech against religion would have a logistic score of $-0.04 + 2(0.16) + 0.81 = 1.09$. Based on these characteristics, the probability of understanding politics is $1/(1 + e^{-1.09}) = 0.75$ or 75 percent (table 8).

The odds ratio can be used to estimate the change in probability of a student’s developing democratic predispositions. An odds ratio greater than one indicates that students in the indicated group are more likely to behave in a given way or think in a given way than the omitted group. Using the example presented in the preceding paragraph, suppose a student would ordinarily have a 75 percent probability of agreeing that speeches against religion should be allowed. If we then learned that the student spoke mostly English at home, his or her probability would have to be adjusted upward. First, the base probability would have to be expressed as an odds ratio [$75/(100-75) = 3.00$]. The odds ratio of 1.82 for students who speak mostly English at home could then be multiplied by the original odds (3.00 times 1.82 = 5.46) to estimate the revised odds that the student would agree. To express the revised odds as a probability, the following formula is applied: $\text{probability} = (\text{odds}) / (1 + \text{odds}) = 5.46/6.46 = 0.85$. Among otherwise similar students, those like the student just described (i.e., who also speak English at home) are likely to agree 85 percent of the time, compared with students who do not speak mostly English who would only agree 75 percent of the time.

The summary statistic for logistic regression, R^2_{LA} , was designed to be roughly equivalent to the adjusted R^2 in OLS. The R^2_{LA} coefficient indicates how much of a reduction occurs in the -2 log likelihood associated with the dependent variable once all of the modeled independent variables are considered. A value of 1.0 means that the -2 log likelihood associated with a dependent

variable has decreased 100% once all of the independent variables in the model are taken into account and a value of 0.0 means there was no reduction after modeling the independent variables. Looking at the first logistic regression, shown in table 5, the R^2_{LA} value is 0.16. This means that, by controlling for the modeled independent variables, the -2 log likelihood associated with the dependent variable decreases 16 percent (Menard 1995).

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