ABSTRACT

Title of dissertation: CIVIC SKILLS AND CIVIC EDUCATION: AN EMPIRICAL ASSESSMENT

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Participation in public life requires sufficient civic skills. Civic skills include the abilities to communicate with elected officials, organize to influence policy, understand and participate in one's polity, and think critically about civic and political life. One source of civic skill development is civic education coursework, often provided in high school or college. This dissertation tests for a correlation between civic skills (political interpretation skills, news monitoring skills, group discussion skills, communication skills, and English language skills) and civics coursework among fourteen to thirty-year-olds using probit models and propensity score matching methods. Data sources include the International Association for the Evaluation of Educational Achievement Civic Education survey (1999), the Civic and Political Health of the Nation: A Generational Portrait survey (2001), the American Citizen Participation Study (1990); and the National Household Education Survey's Civic Involvement study (2001).

Political interpretation skills are almost always correlated with the presence of civic education. According to the IEA/CivEd study, studying the Constitution and the Presidency almost always influences civic skill levels, while other civic education topics sometimes influence civic skill levels. Civic education is not always correlated with news monitoring skills. Civic education is sometimes correlated with the presence of

group discussion skills and communication skills. No evidence was found of a correlation between civic education and English language skills. Among minorities, females, low-income respondents, non-college respondents, and non-Hispanic whites, differences exist in civic skill levels and the effect of civic education on civic skill presence.

This dissertation recommends that all American high school students take at least one semester of civics. This dissertation also recommends schools and communities seek to prioritize teaching civic skills in schools, so as to equalize abilities of political participation. Further research is needed to fully understand the relationship between the content of civics courses, the classroom climate of civics courses, and civic skill presence.

CIVIC SKILLS AND CIVIC EDUCATION: AN EMPIRICAL ASSESSMENT

by

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In memory of Anna, a true heroine

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Chapter 1: INTRODUCTION

Civic skills include the abilities to communicate with elected officials, organize to influence policy, understand and participate in one's polity, and think critically about civic and political life. In short, civic skills enable citizens to participate in the democratic process. Without them, individuals cannot effectively engage in democratic deliberation (Soltan 1999).

Civic skills originate from a number of sources, including one's home environment, participation in various groups, general education, and civic education. Civic education courses are a potential source of civic skill development and acquisition. Yet, civic education is not required of all American students, and as a result many citizens have never taken a civics course.[1]

Some researchers hypothesize that higher education and professional employment provide an alternative to civic education for acquiring civic skills (Schwadel 2002; Putnam 1995; Verba et al. 1995). However, higher education and professional employment are often only selectively available, primarily to people of higher socioeconomic status. Citizens without access to professional employment, higher education, civic education, or other paths to civic skill development are politically disabled. The interests of disadvantaged groups often diverge from society's more prosperous members (Delli Carpini and Keeter 1996), and a lack of civic skills and

[1] Civics coursework and / or social studies is currently mandated in 41 states (CIRCLE 2004). According to the International Association for the Evaluation of Educational Achievement Civic Education survey (IEA/CivEd), approximately 70% of U.S. fourteen-year-olds have studied a civics topic. According to Niemi and Junn (1998) 10% of students took no American government or civics coursework in grades 9 through 12 (p. 66).

political knowledge may further constrain their ability to effectively influence public decision-making.

This dissertation empirically examines whether civics coursework and content contribute to the acquisition of civic skills. In turn, this dissertation speaks to broader issues of inequality in civic skill development and the distribution of civics coursework. Researchers have defined and categorized civic skills, but empirical research on civic skills is sparse. By examining civic skills, this dissertation investigates the ability, not the willingness, of citizens to engage in political participation.

Decline in Youth Civic Engagement

Declining political participation among young people is a concern. Voter turnout rates, one indicator of political participation, have declined since 1972 for Americans under the age of 25. The exception to this is the most recent Presidential election. In November of 2004, 42.3% of eligible 18-24 year-olds voted, compared with 36.5% in November of 2000 (CIRCLE Staff 2004). In all, the rate of decline in voter turnout for young Americans is greater than the rate of decline among Americans aged 25 and over (Levine and Lopez 2002).

Other measures of civic and political participation also evidence decline among all age groups, including young Americans (Putnam 1995). Community group memberships, club memberships, organizational involvement, and citizen participation in campaign activities have all decreased over the past thirty years (ibid.). However, youth participation in community life has increased over the last ten years, with a rise in voluntarism and participation in community service activities (Lopez 2004; Longo 2004).

Explanations for the decline in political participation include poor civic skills and a lack of civic engagement. Understanding both components is crucial to explaining declining political participation among young people. This dissertation begins to comprehensively address the skills component, contributing to a greater understanding of this problem.

Civic Education

The American founders felt education should provide a moral education and form character in future citizens (Pangle and Pangle 2000). In particular, President George Washington urged Congress to support a civic education that would consist of "teaching the people themselves to know and value their own rights; [and] to distinguish between oppression and the necessary exercise of lawful authority" (Fitzpatrick 1939 [1790] p. 493). John Dewey and Charles Merriam also espoused the necessity of education for developing characteristics of citizenship in a democracy, and the responsibility of American schools to teach youth how to participate in a democracy (Niemi and Junn 1998). Benjamin Franklin maintained that good schools should include the value of promoting democracy (Hochschild and Scovronick 2000).

Today, the purpose and content of civic education remains a subject of deliberation. Often, communities debate which normative purposes and values to teach. Civic education teaches values that can conflict, such as patriotism vs. membership in global society, or socially acceptable attitudes of character vs. independent thinking (Nelson 1991). Civic education requirements and curricula differ among states, and even

among school districts within states. However, even when civic education policies mandate civic requirements, they often do not mandate the values and norms to be taught.

State policies requiring civics coursework or examination vary widely. In general, over 70% of American ninth grade students have studied a civics topic, according to the IEA/CivEd survey (Torney-Purta et al. 2001). The majority of states require a government or civics course for high school graduation, while fewer have a state statute requiring schools to offer government or civics courses (CIRCLE 2004). As of 2003, only five states required students to pass a social studies examination as a high school graduation requirement (National Center for Learning and Citizenship 2003). While state assessment systems are often a focus of education reform, only twenty-two states' assessment systems include knowledge of government or civics (Education Commission of the States 2004).

Service-learning requirements also are becoming more common in high school curricula. Service-learning is generally defined as including a "curriculum-based form of community service" (Stagg 2004, p.1). In 1999, 30% of high school students participated in a service-learning project (ibid.). In 2004, 44% of high schools participated in service-learning projects (ibid.). Although data on service-learning is difficult to compare over time due to different definitions of service-learning, general trends indicate an increase in service-learning participation (ibid.). Civic education content is discussed further in Chapter 2.

Civic Skills in the Literature

The majority of civic skills literature employs qualitative and theoretical research methods.[2] Studies that do employ quantitative methods examine civic skills as covariates in models explaining political participation and civic engagement. Both Verba et al. (1995) and Brady et al. (1995) provide bedrock studies by using civic skills and resources as predictors of political participation. In contrast, Moely et al. (2002) use civic skills and civic engagement as outcomes to gauge the success of service-learning programs. Nie et al. (1996) include civic skills among the attributes of political engagement and democratic enlightenment in an examination of their relationship with formal education. These studies are noteworthy for their empirical explanations of political participation, civic engagement, and citizenship. Yet they have not contributed to a deeper understanding of civic skills themselves.

The delineation of civic skills has emerged only recently. Kirlin (2003) identifies four skill categories: collective decision-making, communication, organizational, and critical thinking. Only collective decision-making skills, communication skills, and some organizational skills are empirically measurable. Patrick (2002) identifies two important categories of civic skills: participatory and cognitive. Both categories are empirically measurable. Patrick also distinguishes between cognitive skills (the capacity to analyze and interpret) and civic knowledge (the recognition of facts and principles) (2002, 6). This dissertation examines participatory, communication, collective decision-making, and cognitive skill categories.

Two notable studies have examined civic skills as dependent, or outcome, variables in an empirical setting. Campbell (2001) uses civic skills as a dependent

[2] See, for example, Kirlin (2003) and Patrick (2002).

measure to examine differences among types of schools. Using an index of civic skills as the dependent variable, he examines differences between public, private, and religious schools. By creating an index of civic skills, Campbell's method combines different skills into one measure. However, data richness can be lost by combining skills into a single index. Schwadel (2002) considers civic skills as direct outcomes in his examination of religious group participation. Schwadel uses measures of church leadership positions and church group participation as proxies for expressing civic skills (ibid.). Both Campbell's (2001) and Schwadel's (2002) studies are helpful contributions to the literature, yet neither tests for a correlation between civics coursework and civic skill development.

A strong scholarly focus on civic skill research is absent, while much research assumes an understanding of civic skill acquisition. For example, Verba, Schlozman and Brady's cornerstone study states as accepted fact that "civic skills are acquired throughout the life cycle beginning at home and, especially, in school." (1995, 305). Since this 1995 work, the field has moved forward, incorporating the presumption that individuals learn civic skills in schools. This dissertation empirically tests that claim and focuses on civic skill acquisition.

Civic Education in the Literature

Civic education research also does not address civic skills. However, such research does address civic engagement and political knowledge. Niemi and Junn (1998), using the National Assessment of Educational Progress survey, find a positive relationship between civics coursework and civic and political knowledge. Torney-Purta

(2002), using the International Association for the Evaluation of Educational Achievement Civic Education survey (IEA/CivEd), finds increased civic knowledge and engagement among students who take civics courses. The IEA/CivEd survey examined numerous types of civic education requirements. A recent study by the National Conference of State Legislatures and partners suggests that civic education results in an increased likelihood to vote and increased civic knowledge and engagement (Kurtz et al. 2003). Finally, McDevitt et al. (2003) and the Carnegie Corporation of New York and the Center for Information and Research on Civic Learning and Engagement (2003) recognize program evaluations detailing the positive effects of specific civics curricula on political engagement and knowledge.

A few studies have examined the contribution of civic education to building civic knowledge and engagement. Niemi and Junn (1998) in particular have examined civic education and civic knowledge. Torney-Purta (2002) reports the results of a study that links formal education with civic knowledge and engagement. These studies have incorporated civic skills within their analyses, but have not employed civic skills as outcomes. These studies necessitate a focus on civics coursework as a predictor of civic skills. This focus will clarify the contribution of civics coursework to the acquisition of civic skills, furthering an understanding of civic education.

This dissertation's contribution to understanding civic skill acquisition is twofold. Primarily, its quantitative study of the correlation between civic skill presence and civics coursework is unprecedented. The majority of existing research on both civic skills and civic education has been qualitative, while a few quantitative studies exist. Existing research has focused on either civic skills or civic education without their joint

examination. Second, this dissertation employs robust methods to examine the relationship between civic skills and civic education. Other quantitative studies of civic skills (Campbell 2001 and Schwadel 2002) have not examined civic education and have not applied a matching methods framework to the study of civic education. This dissertation uses probits and propensity score matching methods to examine civic skill presence and civics coursework.

Map of the Dissertation

This dissertation tests for a correlation between civic education course-taking and the presence of civic skills. Chapter 2 discusses theories of political participation and highlights the absence of civic skill origination in these theories. The chapter continues with a discussion of civic skill definition and skill links to political knowledge and political competence. Chapter 2 concludes with a discussion of civic education.

Chapter 3 describes the datasets used throughout the dissertation and provides descriptive statistics and tabulations. Chapter 3 also describes the dissertation's research methodology. Chapter 4 contains the majority of the data analyses and includes probit models for all examined data sets and civic skills. Chapter 5 details the propensity score matching analyses and compares results to the probit models in Chapter 4. Chapter 6 offers an analysis of heterogeneous effects of civics coursework on civic skills. The chapter details subgroup analyses, exploring differences in the effects of civic education on racial, ethnic, gender, income, and education groups. Chapter 7 concludes the study and includes policy recommendations and thoughts for future research.

Chapter 2: CIVIC SKILLS AND CIVIC EDUCATION

Civic skills are essential for political participation. Verba et al. (1995) and Schur (2003) have shown that increased levels of civic skills result in greater political participation. A complete understanding of civic skills necessitates a review of theories of political participation. An American link between a healthy democracy and citizen participation was originally documented by Tocqueville in 1840. Tocqueville found that egalitarian and individualistic mores dominated the American version of democracy. These values threatened to undermine social cohesion, but they were checked by citizens' participation in voluntary associations. Since Tocqueville's first observations, theorists have been examining political and societal participation.

Theories of Political Participation

Rational choice theory is one of the oldest theories of individual behavior to be applied to political participation (Downs 1957). Rational choice theory explains individual behavior as utility maximizing. Individuals make choices based on their preferences to maximize their personal objectives. Rationality is assumed to be consistent across all individuals (Green and Shapiro 1994). In the case of voting, the individual rationally weighs the costs and benefits of voting to determine whether they will vote. Voting is seen through the perspective of a market transaction. Costs include the inconvenience of travel to the polls and the belief that one vote will not influence the outcome of the election. Benefits include the gratification of seeing one's preferred candidate win the election and the gratification of the act of voting. When viewed as a

collective action problem, rational choice theory predicts that individuals will not vote. The theory also predicts that voter turnout rates decline as the projected margin of victory increases (Barzel and Silberberg 1973).

Rational choice theory has limitations. First, it attempts to explain the behavior of a collectivity through individual actions, when collective actions should also be considered. Also, it does not take into consideration psychological or emotional reasons for voting and assumes that all individuals behave in a common rational manner. Furthermore, Green and Shapiro (1994) assert that little empirical evidence exists to support rational choice theory, despite a large quantity of research on the subject. As an explanation of political behavior, rational choice theory is not methodologically sound (ibid.).

Other theories of individual political participation are resource-based. Rosenstone and Hansen (1993) document the importance of resources in promoting political participation. Resources include money, time, knowledge, skills, and self-confidence (ibid., p. 74). The authors include political efficacy as a psychological resource valuable to participation. Verba et al. (1995) develop a resource-based theory in their civic voluntarism model. The civic voluntarism model maintains that political participation is a function of political engagement, recruitment through social networks, and resources. Resources include time, money, and civic skills. Resource-based models are the only theories to account for the contribution of civic skills and political abilities toward political participation.

Social-psychological theories explain political participation through psychological motivators. According to these theories, citizens' attitudes, feelings of political efficacy,

beliefs about governmental responsiveness, and even threats of pending undesirable policy changes all motivate political participation and voter turnout (Abramson and Aldrich 1982; Miller and Krosnick 2004). From this perspective, market-like costs and benefits are not influential to participation. Instead, these theories focus on providing social and psychological explanations for political participation among citizens (Fitzgerald 2001).

Finally, the institutional theory of political participation shifts the explanation for political participation from the individual to institutions. For example, Rosenstone and Hansen (1993) state that mobilization by political leaders and political parties explains when citizens participate. Wattenberg (1984) explains political parties as instrumental in mobilizing, socializing, organizing, and recruiting voters. More broadly, March and Olsen (2000) describe interests, rules, and resource distributions as a function of the political process.

While theories of political participation are numerous, theories of the origins of political abilities are scarce. Most theories of political participation explain why people want to participate, not whether they are able to participate. With the exception of the resource-based theories, theories of participation do not consider the contribution of skills and abilities to political participation. Yet even the resource-based theories do not explain the derivation of civic skills and abilities in individuals. Although incomplete, the resource-based theories provide the best available framework for this dissertation by illustrating a relationship between civic skills and political participation. However, a clear theory of the origins of civic skills remains absent.

Civic Skills

Civic skills comprise individual abilities. These abilities range from "…the communications and organizational abilities that allow citizens to use time and money effectively in political life" (Verba et al. 1995 p. 304) to "skills for political action, communication, ability to identify social issues, and tolerance," and "skills useful in civic endeavors" (Moely et al. 2002 pp. 1, 3). Kirlin (2003) defines civic skills as "a set of skills which are required to effectively participate in civic and political life …integral to …political participation" (p.3). This section discusses civic skills and their relation to political participation, political competence, and political knowledge.

Functions of Civic Skills

The primary role for civic skills is political participation. Verba and Nie (1972) define political participation as individual political actions that influence government actions. Verba et al. (1995) assert that civic skills foster individual political participation. Gutmann (1987) espouses the necessity of civic skills for the pursuit of community participation and deliberation to result in societal justice.

Verba et al. (1995) provide a clear purpose for civic skills in their civic voluntarism model. Their model explains individual political participation as a function of political engagement (political willingness), recruitment into political participation, and resources. Civic skills, along with time and financial flexibility, are resources. The model provides a neat view of individual political participation, but does not provide an explanation of the origins of civic skills themselves.

According to Gutmann (1987), skill development is essential for democratic individuals and communities. Her primary concern is democratic deliberation and its participatory requirements. "Deliberation … calls upon skills of literacy, numeracy, and critical thinking, as well as contextual knowledge, understanding, and appreciation of other people's perspectives." (ibid., p. xiii). These skills are necessary not only for individual political participation, but also for a society's "collective capacity to pursue justice." (ibid.). This collective willingness to deliberate in pursuit of justice is the hallmark of democratic citizens, in contrast to self-interested citizens. While both democratic citizens and self-interested citizens require civic skills to participate, democratic citizens require civic skills to deliberate to achieve societal justice.

Both Verba et al. and Gutmann highlight the importance of civic skill acquisition and development. While individual participatory actions such as voting and writing letters to elected officials are more common than collective actions, both are important to understand. Also, more scholars focus on explaining individual participation than collective participation. Yet both individual political participation and collective deliberation are necessary for a healthy democracy. Civic skills play a role in the success of both.

Civic Skills and Political Competence

Civic skills are closely associated with citizen competence, and are often viewed as components of competence. Almond and Verba (1963) maintain that skills are necessary for political competence. They define politically competent individuals as those who can exert influence over a governmental decision. To them, politically

competent, yet ordinary, citizens can influence significant decisions. Almond and Verba also assert that democracy involves high levels of participation in decision-making (ibid.). They list actions necessary for citizen influence on government decision-making such as organizing a protest or petition, contacting political leaders, voting, or even violence (ibid., p. 191). While these actions are clearly behaviors, these behaviors require civic skills.

Strate et al. (1989) also define civic competence as including components of knowledge and "habits of knowledge acquisition relevant to politics" (p. 450). These habits, such as monitoring public events to refresh political knowledge, are civic skills. For Strate et al., civic competence requires civic skills. Competence is necessary for political participation, and their study links life-cycle changes in civic competence with changes in political participation.

Smiley (1999) warns against labeling citizens as competent or incompetent. According to her, these labels resemble traditional defenses of barriers to participation, such as voter registration exam requirements and voter disenfranchisement. She asserts that citizen competence can be an assessment of one's knowledge and abilities but should not be a judgment about one's knowledge and abilities (ibid., p. 375). Alternatively stated, competence includes both knowledge and skills, to be assessed objectively.

Both Soltan (1999a) and Boyte (1999) define civic competence as comprising civic skills. Soltan states that competence includes "a combination of attitudes and ideals that include skills" (1999a, p. 20). Boyte defines civic competence as "capacities, traits and skills tied to … practices of citizenship" (1999, p. 259). Boyte also emphasizes the role competence plays in successful democratic deliberations, necessitating

communications skills (1999). Citizen competence and civic skills are necessary for a democracy that creates common goals (ibid.).

According to these researchers, civic skills play a significant role in the makeup of citizen competence. Competence, in turn, enables political participation and successful democratic deliberation.

Civic Skills and Political Knowledge

Patrick (2002) maintains that a combination of political knowledge and civic skills are necessary for thriving democratic citizens. In particular, "knowledgeable citizens are better citizens of a democracy in regard to their possession and use of civic skills" (ibid., p. 11). He links political knowledge with greater levels of political engagement. He describes knowledge of concepts such as republicanism, constitutionalism, human rights and liberalism, and citizenship as essential civic knowledge components (ibid., p. 12). Although Patrick's description of the relationship between civic skills and political knowledge is brief, it is clear they are distinct components of a democratic citizen.

Delli Carpini and Keeter (1996) define political knowledge as the "range of factual information about politics stored in long-term memory … the most important component of a broader notion of political sophistication" (p. 294). The authors strongly link political knowledge with political action. Political knowledge, they assert, contributes to political participation, the construction of citizens' opinions, and political action in relation to citizens' interests (ibid., p. 219). Their study also asserts that significant differences exist among Americans' individual levels of political knowledge.

Importantly, greater knowledge leads to greater political participation, increasing the legitimacy of a democracy. They also contend that political efficacy and trust influence levels of political learning (ibid.). In all, their study of political knowledge is thorough yet does not incorporate civic skills.

Popkin and Dimock (1999) study political knowledge, specifically examining citizens' knowledge of how government works. While they agree with Patrick (2002) and Delli Carpini and Keeter (1996) that higher levels of political knowledge lead to higher political participation in the form of voter turnout, they contend that high levels of political knowledge are not necessary for voters to make informed political decisions. They maintain that voters can be sufficiently competent through the use of information short-cuts to make political judgments (p. 120). These short-cuts are used to help citizens make political decisions by incorporating experiences of daily life, the media, and campaigns to process political information (ibid., p. 120).

The study of political knowledge speaks to the question of whether citizens who make public decisions are capable of the task. Lupia and McCubbins (1998) label this problem the democratic dilemma. They conclude that a lack of knowledge is acceptable, however, as decision-makers will substitute advice from other people and institutions for their own lack of political knowledge. They assert that "reasoned choice does not require full information" (ibid., p. 2). Other political scientists agree that judgmental short-cuts, or heuristics, can be substituted for significant political knowledge to make political decisions (Sniderman et al. 1991; Iyengar 1990; Hacker and Pierson 2005).

I define civic skills as abilities necessary for political participation. In this sense, the short-cut process is a civic skill. For some citizens, sufficient political decision-

making may bypass the need for political knowledge when heuristics lead to informed political judgments. Although extensive political knowledge may be unnecessary, the skill of using heuristics is necessary for making political decisions.

Hacker and Pierson (2005) describe "New Pluralism" as the belief that "a rough version of citizen control over politicians exists, even though political resources, including political knowledge, are distributed unequally" (p. 5). In this sense, individuals are capable of protecting their own interests. This differs from "Old Pluralism," or the concept that citizen power to shape politics was held in group memberships. Groups could effectively fight for citizens' interests (ibid.). Page and Shapiro (1992) provide evidence of "Old Pluralism." They contend that the aggregate value of voter decisions is more powerful and more rational than individual voter decisions alone. These authors are confident that successful political decision-making occurs, despite a lack of political knowledge among individuals.

Though existing literature does not provide a particularly nuanced view of the relationship between civic skills and political knowledge, a clear difference between skills and knowledge exists. Civic skills are abilities necessary for political actions, while political knowledge is familiarity with political information, regardless of the intention of political action. Furthermore, extensive levels of political knowledge are unnecessary when citizens use judgmental short-cuts to make political decisions. The process of using heuristics to make political decisions is a civic skill. Overall, civic skills are necessary for individuals to make political decisions. Political knowledge is helpful, but not required, for individuals to make political decisions.

Origins of CivicS kills

Researchers have examined the origins of civic engagement and political participation. For example, Miller and Kimmel (2003); Torney-Purta (1990); and Skocpol (1999) explore youth development of citizenship behaviors, youth development of civic engagement, and youth relations with social institutions. Their studies center on political socialization theory. Political socialization theory explains the origins and acquisitions of youth belief systems and the development of political consciousness in individuals (Renshon 1977).

However, few researchers have examined how civic skills originate in citizens. While political socialization research examines the development of political orientations and behaviors, it does not examine how young people become capable of political participation. In short, political socialization research has focused on the development of political willingness, not political abilities. This section will examine research that addresses civic skill origination.

Both Flanagan (2003) and Youniss et al. (2001) examine the benefits of youth participation in groups toward developing skills and engagement. Flanagan (2003) argues that youth membership in community institutions requires exercising rights and responsibilities related to membership. These responsibilities build civic skills. As a contrast to political socialization theory, she illuminates youth group participation as the primary source for youth ties to a community (ibid., p. 257). Youniss et al. (2001) examine youth development of civic identity through group participation. They maintain that participation in groups "introduces youth to the basic roles and organizational

processes required for adult civic engagement" (ibid., p. 246). In turn, these roles and processes lead to the development of civic skills.

Schur (2003) and Pateman (1970) assert that one source of civic skill development is the workplace. Schur (2003), in her study of disabled workers, finds that employment increases political activity by increasing income, efficacy, and civic skills. Her research directionally links employment to civic skill development to political participation. Pateman (1970) asserts that citizens practice political participation skills through employment. She claims that political attitudes are formed in the workplace and that professional workers have more opportunities to learn participatory skills than laborers and non-professionals (ibid.). She contends that this gap affects family political environments when non-professional workers have no opportunities to learn participatory skills. She offers this as evidence of a socioeconomic gap among participatory skill distribution (ibid.).

Verba and Nie (1972) also assert that socioeconomic status is related to political participation. They claim that social status determines civic attitudes among people, in turn influencing their participation. They propose that citizens need ample resources (time, skills, and money) in order to participate. As one's job and education largely dictate resource development, these resources can be unequally distributed (ibid.). This model is updated by Brady et al. (1995) who incorporate the importance of resources (time, money and civic skills) into determining levels of political participation. They maintain that skills and resources are distributed partially according to socioeconomic status (ibid.).

Child Development

Research on the political socialization of children is ample. Once again, this literature's focus is the development of political socialization and attitudes in children, not the development of civic skills. Early studies of childhood political socialization focused on children's awareness of politics and their development of ideas about government structure, political ideology, and foreign policy (Connell 1971; Hess and Torney 1967; Merelman 1971). Andrain (1971) also contributed to this line of study with his research on civic awareness in children. However, he defines civic awareness as including both "cognitive (intellectual) and affective (value-laden) dispositions" (ibid., p.6). He defines cognitive civic awareness as attention to political entities, with or without political knowledge. For example, an awareness of political news may develop, requiring cognitive skills. While his study distinguishes between cognitive skills and value-laden dispositions, he measures cognitive skills as political knowledge (ibid.).

Recently, Kirlin (2004) has examined the origins of civic skills in adolescents. Her work categorizes civic skills into groups, and then lists skill areas measurable for researchers. She uses a developmental approach to examine when adolescents are best able to learn different types of civic skills. For example, "basic communication skills develop in early and middle childhood … and the more sophisticated critical thinking skills appear in mid-late adolescence" (ibid., p. 8). Kirlin also asserts that even though these capacities are present in adolescents according to their developmental clock, adolescents require "instruction and exposure" to develop skills (ibid. p. 9). Her research is original for its recognition of different types of civic skills and their association to developmental abilities.

Finally, some researchers hypothesize that education can be a source of civic skill development. Verba et al. (1995) correlate education to increased civic skills. They assert that primary skills such as reading and writing are necessary for political participation, and that increased education leads to greater political participation (ibid.). More common, however, are studies such as Patrick's (2002) that catalog the civic skills that should be taught in schools. Yet his work and others lack a rigorous study of whether schools are actually teaching these skills. Schools as originators of civic skills, and the democratic purposes of schools, will be discussed further in the next section.

This section on civic skills serves to examine the relationship between civic skills and other important areas of civic engagement, such as civic competence and political knowledge. Some of the civic skill measures this dissertation examines may not be purely or solely skills. This dissertation's civic skill measures may examine both ability and willingness to participate, or both ability and engagement. However, all the civic skills in this dissertation are precursors to political participation. The skills this dissertation examines are discussed individually in Chapter 3.

Civic Education Content

The nature of civic education coursework has changed over the last fifty years. Coursework comprising problems in government has decreased, while coursework about American government institutions has predominated (Niemi and Smith 2001; Weiss et al. 2001). Generally, "problems" courses invite more classroom discussion about public life, while American government courses teach basic facts about government institutions and processes (Carnegie and CIRCLE 2003). The difference between these two curricula is

teaching civic skills through group discussion. In turn, students today may be taking American government and civics courses without learning communication and group discussion skills.

The content of civic education curricula is often discussed. The 1983 Educational Reform Reports (Ascher 1983) promoted literacy as the primary curricular focus for schools. Literacy took precedence over teaching social and civic skills as the primary goal for education (ibid.). In contrast, Patrick (2000) prioritizes civic education. Within civic education curricula, he emphasizes equal teaching of both civic knowledge and skills. Patrick claims that teaching civic knowledge coupled with cognitive and intellectual civic skills is necessary for civic education to be "an effective agent of civic development among American youth." (2000, p.2). Gutmann (2000) also calls on public schools to cultivate skills essential for democratic virtues.

Gutmann (1987) declares that teaching civic education, including knowledge, virtues, and skills necessary for political participation, "has moral primacy over other purposes of public education in a democratic society." (p. 287). Gutmann further contends that democratic virtue should be taught in history and civics courses (ibid.). Teaching democratic virtue should carefully include the "willingness and ability of citizens to reason collectively and critically about politics." (ibid. p. 107). She also emphasizes the importance of education as a means of conscious social reproduction for a society, or a means of transmitting political values to other generations (ibid.). Patrick (2002) points out the paradox inherent in her emphasis, in that the promotion of specific political ideals is coupled with teaching the importance of free and independent thinking as a cornerstone to democracy. In this sense, it is essential to teach competing ideas of an

individual's right to liberties and the importance of civic republicanism (ibid.). Goodlad (1996) also maintains that successful democratic education will find a common center between teaching individuality and civic responsibility.

Currently, American civic education appears to embrace either individuality or civicism, without meeting a common center. In practice, civic education is focused on either civics courses or service-learning (Boyte 2003). While civics courses emphasize liberal political theory and are rights-centered, service learning emphasizes voluntarism and communitarianism (ibid.). Boyte maintains that teaching students about public work and organizing skills is absent from these two common approaches (ibid.). In particular, Patrick and Hoge (1991) show that high school civics textbooks are focused on teaching American political institutions, and do not teach participatory civic skills.

Westheimer and Kahne (2004) document the accelerated increase in service learning programs available to high school students. While these programs are important to teach a commitment to serve others, they teach a non-participatory form of political citizenship. In particular, the authors find "the emphasis placed on personal responsibility and character an inadequate response to the challenges of educating a democratic citizenry" (ibid. p. 243). Conrad (1991) asserts that experiential learning can teach skills directly related to the learning environment, such as child-care skills learned through interaction with a day care center. However, these skills can be particular to the task at hand and not easily transferable to political participation. Neither traditional civic education coursework nor service-learning approaches always teach civic skills.

A final word on civic skill definition is necessary. As stated earlier, civic skills are the abilities needed to politically participate. They are distinct from civic confidence, or the belief that one has civic skills. Coursework has been shown to increase confidence without increasing skills, at times (Katila et al. 2004). Further, civic skills are separate from civic motivations, or reasons prompting individuals to politically participate. Although these are distinct, a small measure of all three – civic skills, civic confidence, and civic motivations – must be present for political participation. As Chapter 3 will reveal, some measures of civic skills used in this dissertation also document civic confidence and motivation.

Overall, this chapter illustrates a lack of scholarship specific to civic skills, particularly regarding their origins, their development in children, and their relation to participation and engagement. While current research elaborates upon the relationship of political willingness to political participation, engagement, and origins, the study of political abilities is incomplete. This dissertation contributes to research on political abilities, by examining the relationship between civic education and civic skills. Chapter 3 outlines the methodology and descriptive statistics for this study.

Chapter 3: DATA AND METHODS

This chapter describes the data sets used in this dissertation and their measures of civic skills, civic education, and other background characteristics. It also provides descriptive statistics for all four data sets. The chapter concludes by outlining the research methodology used in this dissertation.

Datum

This dissertation employs the following four data sets: the International Association for the Evaluation of Educational Achievement Civic Education survey (Torney-Purta et al. 2001) (IEA/CivEd); the Civic and Political Health of the Nation: A Generational Portrait (Keeter et al. 2002) (NGI); the American Citizen Participation Study (Verba et al. 1990) (ACPS); and the National Household Education Survey's Civic Involvement study (U.S. Department of Education 2001) (NHES). Numerous data sets were examined for their potential use in this study. While some existing data sets thoroughly measure civics coursework, they do not measure civic skills.[3] Only a small number of data sets measure both civic skills and civic education. The four examined data sets were chosen for their prevalence of appropriate skill and education measures.

Data Sets and Samples

The IEA/CivEd survey was conducted to measure civic skills and civic education course content. The IEA/CivEd survey comprises data from 2,811 ninth-graders in the U.S. as part of an international study of civics among fourteen-year-olds worldwide in

[3] Examples include the National Assessment of Educational Progress, 1998, the National Educational Longitudinal Study of 1988, and High School and Beyond Surveys.

October of 1999. This dissertation uses only the U.S. data. U.S. schools were chosen for participation in the survey through a three-stage design. Random sampling within classrooms was not done; entire classrooms were administered the survey during their school day. Response rates within schools were at least 85%. This dissertation uses all of the American IEA/CivEd survey data. The data was adjusted for missing values and weighted toward a nationally-representative sample. With these adjustments, the sample size is 1,953.

The NGI survey was conducted to better understand civic engagement among young people. The NGI survey is a random digit dialed telephone survey of 3,246 Americans aged fifteen and older conducted in the spring of 2002. The survey focused on the fifteen to twenty-five-year-old age group. One thousand and one respondents comprise the fifteen to twenty-five-year-old age group. This generation is identified in the survey as the "DotNets." The NGI contains a wide range of questions on civic engagement. Only the fifteen to twenty-five-year-old students were examined from the NGI data set. The sample was weighted appropriately for the use of this age group. The resulting sample size is approximately 556.[4]

The NHES Youth Interview was part of a telephone survey consisting of three sets of interviews: parent, youth, and teacher. The survey was developed by the National Center for Education Statistics, U.S. Department of Education, and conducted in the beginning of 1999 as a random digit dial telephone survey of households in the United States. The response rate for the initial screener interview was approximately 76%; the response rate for the completed extended interview was approximately 56%. The NHES employed a stratified, list-assisted sample design. The NHES includes a variety of

[4] Unlike the IEA/CivEd survey, the NGI sample includes college undergraduate students.

questions related to civic education, extracurricular activities, school curriculum, civic knowledge, and civic skills. The survey was conducted of 6th through 12th grade students; only tenth and eleventh grade students are examined for this study. Only the Youth Interview component is used in this study. The sample size is approximately 2,100.

The ACPS was conducted in 1990 of adults aged eighteen and older. The survey consisted of both telephone and in-person interviews of a nationally representative sample. The data set includes most empirically measurable civic skills, except for political material interpretation skills. The ACPS employed clustered and stratified probability sampling techniques. ACPS respondents were asked whether they took a course in high school that required them to pay attention to current events. For this dissertation, respondents aged eighteen to thirty are examined. The sample size is approximately 630.

These data sets are summarized in Figure 1 below.

Figure 1: Summary of Data Sets

	ACPS	**NHES**	**IEA/Civic Education**	**NGI**
Year Data Collected	1990	1999	1999	2002
Age Span of Sample	18-30 year-olds	10^{th} and 11^{th} grade students	14 year-old students	15-25 year-old students
Sample Size	638	2,106	1,953	556
How Data Collected	Telephone and in-person surveys	Telephone survey	Survey administered to classrooms	Telephone survey

Civic Skill Measures

All four data sets provide measures of civic skills, though no one data set provides measures of all civic skills This dissertation examines participatory ski lls, cognitive skills, communication skills, and collective decision-making skills to identify the effect of civic education on the acquisition of civic skills. This study will only use empirically measurable civic skills (see Appendix A for an abbreviated view of civic skills and their background literature and Appendix B for survey questions measuring civic skills). Civic skills fitting these criteria include:

- English language skills
- the ability to write a letter to an elected official
- the ability to give a speech or make a public statement
- the ability to interpret political cartoons or leaflets
- frequency of reading the newspaper or monitoring public events
- the ability to participate in a discussion with a group

The civic skill questions in each data set are summarized below in Figure 2.

Figure 2: Summary of Civic Skill Questions			
NHES	**IEA**	**ACPS**	**NGI**
English proficiency, Ability to write letter, Ability to give speech, Monitor news	English proficiency, Political interpretation, Monitor news, Group discussion	English proficiency, Ability to write a letter, Ability to give a speech, Monitor news, Group discussion	Monitor news, Group discussion

Communication Skills

The IEA/CivEd survey, the NHES survey, and the ACPS measure English proficiency by asking respondents what language is spoken at home or what language they speak most. Verba et al. (1995) state that English language skills are necessary civic skills, as participation in American democracy is difficult without them.

Both the NHES survey and the ACPS measure whether respondents feel they can successfully write a letter or give a speech that conveys their opinion. Both surveys' questions are worded to emphasize the abilities necessary to perform these actions. This differs from the IEA/CivEd survey's similar questions that ask students if they intend to write a letter or give a speech when they are adults (see Appendix B). The primary emphasis of the IEA/CivEd survey's questions measures willingness or intention to write a letter or give a speech, instead of ability. Therefore, the IEA/CivEd survey's questions are not used in this dissertation.

While the NHES survey questions and the ACPS questions measure the respondent's ability to write a letter or give a speech, these questions also measure willingness or confidence to take these actions. For example, a respondent answering "yes" to the question: "Do you feel that you could write a letter that clearly gives your opinion?" is stating her positive assessment of her ability to write the letter and her confidence that she could take this civic action. Even though these questions do not purely measure ability, the NHES and ACPS measures of communication skills are the best available measures of communication abilities, and are the ones used in this

dissertation. A thorough discussion of self-assessed skill measures occurs later in this chapter.

Cognitive Skills (Political Interpretation Skills)

The IEA/CivEd survey measures political interpretation skills as ability measures. Torney-Purta (2002) regards political information interpretation as a skill necessary for political participation. Further, she argues that political communication interpretation skills (such as interpreting political leaflets and cartoons) are primary components of civic knowledge. Participatory behaviors, such as voting, require an ability to understand political communication. In this dissertation, political interpretation skill measures include the interpretation of political leaflets and political cartoons. Political interpretation skills are measured as correct or incorrect answers to multiple choice questions.

Participatory Skills (News Monitoring Skills)

The IEA/CivEd survey, the NGI survey, the NHES survey, and the ACPS include news monitoring skill measures as self-assessed measures. News monitoring skill measures include reading the newspaper, watching television news, listening to radio broadcast news, and reading news on the internet. Patrick (2000) and Kirlin (2003) define the monitoring of public events as a civic skill. Monitoring public events and issues is another capacity necessary for political activity (Brady et al. 1995). These data sets capture the frequency of monitoring the news. While news monitoring frequency is

at best a proxy for willingness and ability to monitor public events, these are the best available measures of news monitoring ability.

Collective Decision-Making Skills

The IEA/CivEd survey, the ACPS, and the NGI survey measure group discussion skills as self-assessments. Group discussion skills are necessary to make decisions in a group and understand multiple perspectives about an issue. Group discussions provide exposure to diverse viewpoints and populations (Hurtado et al. 2002). These abilities can accelerate democratic outcomes (ibid.). Group discussion also provides interaction with other citizens necessary to promote common interests (Kirlin 2003).

Unfortunately, these data sets do not measure how successful citizens are at group discussion, or at coming to a consensus in a group, or at getting along well with others in a decision-making group. The survey measures used in this dissertation catalog how often, if ever, respondents have worked in a group or participated in a group discussion. Clearly these questions are capturing not only ability to engage in group discussion, but also willingness to engage and confidence in one's group discussion skills. While it is uncertain whether these measures are a pure reflection of group discussion skills, they are the best available instruments.

Civic Education Measures

In this dissertation, civic education includes civics courses, government courses, and courses requiring students to pay attention to current events. All four data sets used in this dissertation measure civic education course-taking. The IEA/CivEd includes six

measures of civic education. Students were asked if they have studied the Constitution, Congress, the Presidency, how laws are made, political parties and voting, and state and local governments. NGI survey respondents reported whether any of their classes require them to "keep up with politics or government." The NHES survey and the ACPS record whether respondents took high school courses requiring them to pay attention to politics or current events. Appendix C details the civic education measures in these data sets. Figure 3 below summarizes these measures.

Figure 3: Summary of Civic Education Measures	
IEA/CivEd	Over the past year, have you studied the Constitution / Congress / Presidency [etc] ?
NGI	Do any of your classes require you to keep up with politics or government?
NHES	During this school year or last year did you have any courses that required you to pay attention to government, politics or national issues?
ACPS	In high school, did you have any courses that required you to pay attention to current events?

Some of the data sets' samples were restricted due to the wording of their civic education measures. According to Niemi and Junn (1998), approximately 60% of Americans took a civic education course most recently in twelfth grade (p. 66). In this sense, the IEA/CivEd survey may be measuring civic education course-taking too soon, as its respondents were ninth-graders. However, because the IEA/CivEd measures students at age fourteen, it fully captures a broad range of students, including those who do not complete high school.

Similarly, part of the NHES survey sample could not be used for this dissertation due to the wording of the civic education question. The NHES survey question

measuring civic education is: “Have you taken a civics course in school this year or last year?” Therefore, the survey does not reveal the exact year the student took a civic education course. This dissertation only examines tenth and eleventh grade students because the majority of students take civic education courses in the tenth grade (Niemi and Junn 1998). This resulted in a sample size of approximately 2,100. Including younger students who have not had civic education but still may take a civics course in the future in the sample would be inconsistent with considering civic education as a treatment for the matching methods. Similarly, twelfth grade students in the sample who had a civics course in tenth grade would respond “no” to the civic education measure, even though they had a history of civic education course-taking. Specifically, 72.9% of 10th and 11th grade students responded that they had taken a civic education course “this year or last year” (NHES 2001).

Among the fifteen to twenty-five-year-olds in the NGI data set, only those respondents currently in school (high school or undergraduate college) were used for the sample. Due to the phrasing of the civic education question, fifteen to twenty-five year-olds not in school could not be examined for this dissertation. The NGI survey question measuring civic education states, “Do any of your classes require you to keep up with politics or government, either by reading the newspaper, watching TV, or going onto the Internet, or not?” The resulting sample size is 556.

Other Measures

Another important factor that may influence the effectiveness of civic education coursework on civic skill development is classroom climate. A democratic classroom is

open to student ideas and encourages students to comfortably disagree with each other on political and social issues (Torney-Purta and Barber 2004). Researchers hypothesize that classroom climate can greatly affect the learning environment and affect student achievement (Fraser 1999; Freiberg and Stein 1999). In particular, student voice in school decisions and student discussion are two approaches that can develop civic skills (Carnegie and CIRCLE 2003; Kirlin 2004).

This dissertation includes three classroom climate measures as covariates in the analysis of the IEA/CivEd data set. The included measures assess whether students feel free to disagree openly with their teachers about political and social issues, are encouraged to make up their own minds about issues, and feel free to express opinions in class even when their opinions are different from most other students (IEA/CivEd 1999).

Other numerous factors are examined in this dissertation for their relation to civic skills. Some of these controls include participation in student government and school activities, type of job and job skills, political orientation, membership in political clubs or groups, and membership and participation in religious groups. Existing literature describes most of these variables as potentially correlated with the presence of civic skills (see Appendix A). The data sets themselves limit the factors available for controls. As no single data set contains a full set of controls, multiple data sets must be used. All analyses will control for demographic factors such as age, race, sex, education level, and household income.

Descriptive Statistics

Tables 1 through 5 depict descriptive statistics for all four data sets. Tables 1 and 2 show means for the IEA/CivEd survey separated by each of the six civic education measures. For example, column (1) shows means for the full sample, while columns (2) through (7) detail means for those respondents who report studying the Constitution, Congress, etc. Column (8) shows means for students who only studied two or fewer civic education topics, while Column (9) shows means for students who studied three or more civic education topics. Table 3 shows means for both the students and non-students in the NGI survey, separated by those who received civic education. Table 4 shows means for 10^{th} and 11^{th} grade students from the NHES survey, while Table 5 depicts means from the ACPS.

Table 1 depicts civic education course-taking and civic skill measures according to the IEA/CivEd survey. Approximately 81% of students have studied the Constitution, while only 67% of students have studied the Presidency. Overall, 79% of the students report studying three or more of the civics education topics in the IEA/CivEd survey. Also of note, students who have studied one of the civic education topics are more likely to report studying other topics as well. For example, students who have studied the Presidency are much more likely to have studied the other five civics content areas than the full sample. In contrast, among students who have studied two or fewer civic education topics, less than 20% of them have studied the Constitution, while less than 8% of them have studied the Presidency.

Civic Education and Civic Skills

All four examined data sets indicate that survey respondents exhibit greater levels of civic skills if they have had contact with civics courses. This is evident in Tables 1, 3, 4, and 5. Table 1 shows that respondents who have studied civics and government topics are more likely to exhibit civic skills, according to the IEA/CivEd study. For example, 85.5% of the full sample correctly interpreted which party issued a political leaflet, while at least 86.2% of students who have studied a civics education topic correctly interpreted which party issued a political leaflet. In contrast, column (8) shows that less than 80% of students who have studied two or fewer civic education topics correctly interpreted which party issued a political leaflet.

Table 1 also reveals that students who have studied a civic education course topic are more likely to engage in group discussion. For example, over 60% of the total sample sometimes or often engages in group discussion with their teachers, while over 62% of students who have studied a civic education course topic answer similarly. By comparison, only 44% of students who have studied two or fewer civic education topics sometimes or often engage in group discussion with their teacher.

According to the NGI survey, approximately half of the students currently in school are enrolled in a course requiring their attention to government events. In Table 3, a comparison of column (3) with column (2) shows that students who are taking a civic education course primarily exhibit higher levels of civic skills. For example, 31.6% of all students listen to news on the radio, while 32.3% of students who take a civic education course listen to news on the radio. Column (4) shows that students who are not taking a civic education course are slightly less likely, overall, to monitor the news.

A similar pattern is apparent with the group discussion skills in the NGI survey. For example, approximately 43% of all students have worked informally with a group in their community, while over 47% of students who take a civics course have worked informally with a group in their community. However, less than 39% of students who are not taking a civics course have worked informally with a group in their community.

According to the NHES survey, 10th and 11th grade students who have taken a civics course are more likely to monitor the news (Table 4). For example, over 78% of students who have taken a civics course watch television news almost daily or once a week. In contrast, approximately 70% of students who have not had a civics course watch television news almost daily or once a week. Students of civic education were also more likely to feel they could write a letter to someone in government or make a statement at a public meeting. English language skills were also slightly higher for students of civic education.

Among the news monitoring skills measured by the ACPS, respondents who had a civics course in high school were slightly more likely to monitor the news than respondents who did not have a civics course in high school (Table 5). Over 80% of respondents who had a civics course in high school felt they could write a convincing letter to someone in government. Less than 72% of respondents who did not have a civics course in high school felt they could write a convincing letter to someone in government. Also, almost 62% of respondents who had a civics course in high school discuss national events at least twice a week with others. In contrast, approximately 46% of respondents who did not have a civics course in high school discuss national events at least twice a week with others.

According to these four data sets, simple calculations of means suggest that civic skills are present when respondents have a history of civic education course-taking. This suggests that civic education influences civic skill levels. To determine whether this pattern is statistically significant, probit models were conducted to test for a correlation between civic skills and civic education. The results of the probit models are discussed in Chapter 4. Also, the probit models control for factors other than civic education that may influence civic skill levels. In turn, the probit analyses are a robust test of the influence of civic education on civic skill levels.

Civic Education and Demographics

The means tables depict other measures outside of civic skills. For example, according to the IEA/CivEd survey, 70.9% of the full sample expects to complete a four-year college degree (Table 2). For students who report studying civic education topics, over 72% of them expect to complete a four-year college degree. However, 56% of those students who only studied two or fewer civics topics expect to complete a four-year college degree. Also, African-American students make up over 11% of the full sample, but comprise approximately 14% of the students who studied two or fewer civic education topics. The same pattern is true for Latino, Asian, and immigrant students, but not females.

Table 2 also shows that students who have studied civic education topics were more likely to experience open classroom climates. For example, over 84% of students who have studied the Constitution were sometimes or often encouraged to make up their minds about issues in any class. In contrast, less than 71% of students who studied two

or fewer civic education topics were sometimes or often encouraged to make up their minds about issues in any class. The same pattern appears with other measures of classroom climate. For example, students who have studied two or fewer civic education topics are less likely than other students to feel free to disagree openly with teachers about political or social issues or express their opinions in class even when their opinions are different.

Table 3 also shows other factors measured in the NGI survey. For example, over 37% of students in civic education courses feel that the political system in this country is responsive to the genuine needs of the public, while only 27% of students not in civic education courses feel similarly. Also, over 45% of students in civic education courses think they will always vote in local and national elections, while only 31% of students not in civic education courses think they will always vote. Similarly, 5% of students in civic education courses think they will never vote, yet over 9% of students not in civic education courses think they will never vote.

Other measures from the NHES survey are depicted in Table 4. Students of civic education are more likely to expect to complete a college degree, be involved in student government, and work outside their home than students who have not taken a civics course. Immigrants, however, are less likely to have taken a civics course. For example, 4.5% of students who have taken a civics course are immigrants, while almost 8% of students who have not taken a civics course are immigrants.

Other measures besides civic skills are depicted in Table 5 from the ACPS. Respondents who had a civics course in high school were more likely to agree that religion is very important to them, to be politically liberal, and to have completed some

college. Respondents who did not have a civics course in high school were more likely to be immigrants and to be politically conservative. For example, approximately 7% of the respondents who did have a civics course in high school are immigrants, while over 15% of the respondents who did not have a civics course in high school are immigrants.

Methods

This dissertation determines whether a correlation exists between civic skills and civic education. To begin, the production capacity of certain variables on the six civic skills is modeled in Chapter 4. I estimate a probit model for each examined civic skill as *Yi* such that:

$$Yi = f [CE, CLIMATE, GROUPS, POLITICAL, HOME, DEMOGRAPHICS]$$

where *Yi* represents six different civic skills (English language skills, the ability to write a letter to an elected official, the ability to give a speech or make a public statement, the ability to interpret political cartoons or leaflets, frequency of reading the newspaper or monitoring public events, and the ability to participate in a discussion with a group), resulting in six distinct models. *CE* represents a vector of civic education participation. *CLIMATE* represents a group of three measures of classroom culture and climate with respect to democracy in the students' schools. *GROUPS* represents covariates associated with group membership and participation, such as student government membership and after-school group participation. *POLITICAL* represents a group of covariates including feelings of political efficacy, or the feeling that one's actions can influence the political

process.[5] *HOME* represents covariates measuring the home environment, such as the number of books in the home and household income. *DEMOGRAPHICS* represents basic demographic variables such as race, gender, religious views, and political orientation. Students self-reported their race and were able to choose more than one race. Robust standard errors are employed to control for the probability of heteroskedasticity.

An ideal experiment would randomly assign students to take civics courses and then assess the impact of civic education on civic skills. Unfortunately, this is difficult and expensive to do. As this dissertation's analyses do not originate from a randomized experiment, an issue of endogeneity exists. Acquiring civic skills and taking civic education courses may both be affected by an outside, unobservable factor. For example, students may select to take civic education courses based on their pre-existing interests, which may explain their levels of civic skills. Systematic self-selection may indicate the presence of an unobservable factor influencing civic education course-taking and level of civic skill development.

Also, self-assessed civic skill measures introduce potential measurement error. For example, the news monitoring skill items in the surveys were measured as self-assessments of news monitoring frequency, which may overstate or understate actual skill levels. Social psychologists indicate that some people overstate their knowledge and abilities. At times, lower achieving people have a tendency to overstate their skills, resulting in inaccurate self-reporting.[6] Also, Katila et al. (2004) conclude that coursework can increase one's confidence without increasing ability, producing inflated self-assessments. Other researchers, however, dispute any inaccuracy in self-assessments

[5] A measure of political knowledge was not included as a covariate in any of the analyses as it may be endogeneous with the civic skill measures (dependent variable).
[6] See Kruger and Dunning (1999), DeAngelis (2003), and Dunning et al. (2003).

(Ackerman et al. 2002). Furthermore, precedent exists for measuring civic skills as self-assessments (Verba et al. 1995; Schur 2003; Moely et al. 2002).

As a parametric method, the probit model described earlier inherently controls for selection on observables. In this dissertation, nonparametric methods (propensity score matching) are also conducted as a more robust control for selection on the observable factors. Precedent exists for the application of matching methods in order to construct unbiased estimators when evaluating a program effect in a non-random setting (Dehejia and Wahba 2002; Smith and Todd 2004). Although these strategies may not completely correct for endogeneity within the analyses, they will contribute to a more robust measure of civic skills and lessen bias. Propensity score matching methods are discussed further in Chapter 5, along with the propensity score matching analysis results.

Instrumental variables methods were attempted in order to control for unobservable factors that influence civic education course-taking. Data restrictions did not allow for the use of instruments in this dissertation. Appendix D details this attempt.

This chapter described the data and methods used in this dissertation. Four nationally representative data sets are used. The means tables (Tables 1-5) showed that survey respondents exhibit greater levels of civic skills when civic education is present. Chapter 4 will test this correlation with probit models. The means tables also showed that minorities and immigrants are less likely to have taken a civics course and to have civic skills. Chapter 6 tests the heterogeneous subgroup effects of civic education on civic skill presence for racial/ethnic minorities, females, and low-income students. Finally, this chapter outlined the statistical research methods used in the rest of the study.

Chapter 4 follows with probit analyses of the correlation between civic skill presence and civic education within all four data sets.

Chapter 4: PROBIT MODELS

The means calculations presented in Tables 1-5 in Chapter 3 show that civic skills are present more often when survey respondents have had contact with civic education. This chapter will test for a statistical correlation between civic skills and civic education using probit models with the four data sets. The results of the probit analyses are displayed in Tables 6-19. This chapter discusses the results of the probit analyses. Figure 4 below summarizes the tables discussed in this chapter. The chapter concludes with a discussion of the weaknesses in conducting probit models and introduces the propensity score matching methods used in Chapter 5.

Figure 4: Summary of Tables for Chapter 4 – Probit Models

Table Number	Civic Skill Measures	Data Source
6	Political interpretation (leaflets)	IEA/CivEd
7	Political interpretation (cartoons)	IEA/CivEd
8	Monitoring the news	IEA/CivEd
9	English language skills	IEA/CivEd
10	Group discussion	IEA/CivEd
11	Monitoring the news	NGI
12	Group discussion	NGI
13	Political communication (letter / speech)	NHES
14	Monitoring the news	NHES
15	English language skills	NHES
16	Political communication (letter / speech)	ACPS
17	Monitoring the news	ACPS
18	Group discussion	ACPS
19	English language skills	ACPS

Probit Model Results

Tables 6 through 10 illustrate results from the IEA/CivEd study. Tables 11 and 12 show results from the NGI study. Tables 13 through 15 show results from the NHES study, while Tables 16 through 19 display results from the ACPS study. The probit results are discussed by civic skill type in the following four sections.

Overall, the probit models in this chapter provide evidence of a statistical correlation between certain civic skills and civic education. Figure 5 summarizes the statistically significant results between civic skills and civic education from the probit models analyzed for this chapter.

Figure 5: Civic Skills that are Positively Statistically Correlated with Civic Education in Full Model Probits	
	Table and Column
POLITICAL INTERPRETATION SKILLS	
(IEA/CivEd)	
Who issued leaflet (with studying the Constitution and Presidency)	6, 2
Leaflet regarding taxes (with studying Constitution)	6, 4
Cartoon regarding political leader (with studying Presidency and Constitution)	7, 2
NEWS-MONITORING SKILLS	
(IEA/CivEd)	
International newspaper news (with studying political parties and voting)	8, 4
Television (with studying Constitution)	8, 6
Radio (with studying Presidency)	8, 8
(NHES)	
Reading news	14, 2
Television or radio	14, 4
COMMUNICATION SKILLS	
(NHES)	
Writing letter	13, 2
GROUP DISCUSSION SKILLS	
(IEA/CivEd)	
Discussion with peers (with studying Presidency and political parties)	10, 2
Discussion with parents (with studying Presidency)	10, 4
Discussion with teachers (with studying state and local government)	10, 6
(ACPS)	
Discusses national politics with others	18, 4

Figure 5 indicates that some data sets show a statistical correlation between civic skills and civic education, while other data sets do not yield similar results for the same civic skills. These differences in results may be explained by differences among the data sets and samples, such as age span and the year the data was collected. Also, differences

among different civic education topics in the IEA/CivEd study exist. Often, studying the Presidency or the Constitution significantly influences civic skill presence, while studying other civic education topics does not. IEA/CivEd students were asked, "Have you ever studied the Constitution / Congress…etc." Potentially, students may be responding "yes" to a topic they learned in a course besides civics, such as American history. For example, students' exposure to the Presidency may come from their American history course, while students' exposure to studying political parties and voting may come from their civics course. Such differences in courses and topics may explain the differences in civic skill outcomes.

Political Interpretation Skills

According to the IEA/CivEd study, some political interpretation skills are significantly correlated with studying civic education topics. In particular, studying civic education topics is correlated with correctly interpreting political leaflets. Interpreting which political party issued a leaflet is both positively and negatively affected by civic education topics, such as studying the Presidency (Table 6). For example, the probability of interpreting this leaflet correctly for students who studied the Presidency is 4.8 percentage points higher than for students who did not study the Presidency, according to the full model. Correctly interpreting what leaflet issuers think about taxes is positively affected by the study of the Constitution, by 7.1 percentage points. Correctly interpreting what policy leaflet issuers favor does not exhibit any significant effects from the civic education topics.

Table 7 shows that civics coursework also has positive effects on political cartoon interpretation skills. For example, studying the Presidency and the Constitution significantly contribute to the ability to interpret a cartoon about a political leader. The probability of correctly interpreting a cartoon about a political leader for students who studied the Constitution is almost 6 percentage points higher than for students who did not study the Constitution, according to the full model.

As stated earlier, differences in interpreting leaflets and cartoons among the civic education topics may be explained by the course where the student learned the civics topic. Differences may also be explained by the instruments themselves. For example, none of the civic education topics influenced correct interpretation of a cartoon about democracy. Potentially, that cartoon was too difficult for ninth-grade students to interpret, or they had not yet been exposed to its lessons in their education.

Other significant findings from the probit models are shown in Tables 6 and 7. For all three political leaflets examined, African-American students were significantly less likely than white non-Hispanic students to correctly interpret the leaflets, once other factors are controlled. For African-American students, the probability of correctly choosing which policy leaflet issuers favor is 12.6 percentage points less than for white non-Hispanic students. Expecting to complete a four-year college degree also holds significant differences. The probability of interpreting the leaflets correctly is at least 7.1 percentage points higher for students who expect to complete a four-year college degree than for students who do not expect to complete such a degree. Also, participation in student government positively contributes to correct leaflet interpretation.

Various aspects of an open classroom climate are associated with correct political leaflet interpretation. For students who feel free to express opinions in class, the probability of correctly interpreting which policy leaflet issuers favor is 9 percentage points higher than for students not in such classrooms. Also, for students who are encouraged to make up their own minds about issues in their classrooms, the probability of correctly interpreting which party issued a political leaflet is 4.3 percentage points higher than for students in alternative classroom climates.

Also shown in Table 7, the probability of correctly interpreting political cartoons for African-American students is significantly less than that for white non-Hispanic students, once other factors are controlled. Also, students who expect to complete a four-year college degree are significantly more likely to correctly interpret political cartoons than students who do not expect to complete a college degree. Finally, open classroom climates are associated with correct political cartoon interpretation, especially when students feel free to express their opinions. Overall, one consistent finding of political interpretation skills is the significantly lower ability of African-American students to interpret leaflets and cartoons. This difference is further addressed in Chapter 6.

News-Monitoring Skills

According to the four examined data sets, civic education course-taking is positively correlated with news monitoring skills, but the relationship often is not statistically significant. According to the IEA/CivEd study, reading domestic news in the newspaper is positively correlated with studying civic education topics, but the relationship is not statistically significant. Reading the newspaper about other countries

is significantly correlated with studying political parties and voting in the full model (Table 8, column 4). Watching television news and listening to radio news are significantly correlated with studying the Constitution and studying the Presidency, respectively. For example, the probability of listening to radio news for students who studied the Presidency is 6.9 percentage points higher than for students who did not study the Presidency. Also, the probability of watching television news for students who studied the Constitution is 10.3 percentage points higher than for students who did not study the Constitution.

According to the NGI study, news monitoring skills are not correlated with civic education course-taking. The NGI study also reveals that Latino students are significantly less likely than white non-Hispanic students to read news on the internet, while African-American students are significantly more likely than white non-Hispanic students to read newsmagazines (Table 11). Immigrant students are less likely to read news in the newspaper than native-born students. Participation in student government and religiosity are not significantly correlated with news-monitoring skills.

According to the NHES, civics course taking is significantly correlated with reading newspapers or newsmagazines or listening to radio news or watching television news. For example, the probability of reading news is over 9 percentage points higher for students who have had civic education than for other students, according to the full model (Table 14, column 2). Also, the probability of watching television news or listening to radio news is 7.3 percentage points higher for students who have had civic education than for other students, according to the full model in column 4. According to

the ACPS, monitoring the news is not significantly correlated with civic education, although the relationship is positive.

Overall, these four data sets did not always yield consistent results for news-monitoring skills. The NHES study showed that civic education is correlated with increased news-monitoring skills (Table 14). However, the other three data sets did not show the same results. One explanation for overall differences in results from the NGI study is its measure of civic education. As stated earlier, the NGI sample used in this dissertation includes all fifteen to twenty-five-year-olds currently in school (high school or college). These students were then asked whether any of their classes require them to keep up to date with politics or government events. Potentially, the NGI respondents may have had such a course prior to answering the survey, but are not currently enrolled in such a course. If so, this survey question may not fully capture civics course-taking among NGI respondents. This measurement error may also explain the lower percentage of NGI students reporting civics course-taking (50.8%) compared with the other examined data sets (73% - 79%). This may explain differences in results between the NGI study and other data sources.

The probit models also depict differences among survey respondents who monitor the news and their demographic characteristics. According to the IEA/CivEd study, African-American students were significantly less likely to monitor newspaper articles about other countries, while immigrant students were significantly more likely to monitor newspaper articles about other countries, once other factors are controlled. However, African-American students were more likely to watch television news and listen to radio news than white non-Hispanic students, once other factors are controlled. Also of note,

female students are significantly more likely than male students to listen to radio news. The probability of listening to radio news for female students is 7.3 percentage points higher than for male students.

Open classroom climates are associated with monitoring the news. Students who are encouraged to make up their own minds are significantly more likely to read the newspaper. Students who express opinions in class are significantly more likely to read the newspaper and watch television news. For example, the probability of reading the newspaper about other countries for students who are encouraged to make up their own minds in their classroom is 11.4 percentage points higher than for students not experiencing an open classroom climate.

According to the NHES study, African-American students are consistently less likely to monitor the news, although this difference is not significant. Immigrant students are significantly more likely to monitor the news. For example, the probability of reading newspapers or newsmagazines is 19.7 percentage points higher for immigrant students than for non-immigrant students, according to the full model (Table 14, column 2). Also, female students and students living in rural areas are significantly less likely to watch television news or listen to radio news, and less likely to monitor news overall, than other students.

Probit models from the ACPS study show that African-Americans are significantly more likely to watch television news and read newspaper news than white non-Hispanics. For example, the probability of watching television news is 16.2 percentage points higher for African-Americans than for white non-Hispanics, according to the full model. Finally, respondents who have had at least some college education are

significantly more likely to read the newspaper than respondents with no college experience.

Overall, according to the ACPS study (Table 17), African-Americans are significantly more likely to read the newspaper than white non-Hispanics. According to the IEA/CivEd study (Table 8), they are significantly less likely to read newspaper articles about other countries than white non-Hispanic students. However, according to the NGI study (Table 11), African-Americans are more likely than white non-Hispanic students to read newsmagazines. According to the NHES study (Table 14), they are less likely overall to exhibit news-monitoring skills, although the differences are not significant.

Probit model results for immigrants' news-monitoring skills also are mixed. The IEA/CivEd and NGI studies (Tables 8 and 11) show immigrants exhibiting some news-monitoring skills but not others. The NHES study (Table 14) shows that immigrant students are more likely to monitor news sources than native-born students. The ACPS study (Table 17), however, shows that immigrants are less likely to monitor news sources than non-immigrants.

These different results between data sets may be due to different sample populations or survey size. For example, the ACPS measures an older sample (18 to 30 year-olds) than the NGI study (15 to 25 year olds). Also, the ACPS and the NGI study measured smaller samples (n = 638 and 556, respectively) than the NHES study and the IEA/CivEd study (n = 2,106 and 1,953, respectively). Small sample sizes may affect outcomes when minorities are examined. The differences among African-Americans and respondents of other races are further explored in chapter 6.

The year survey data was collected may also explain different results among data sets. For example, the ACPS data was collected in 1990, much earlier than the other data sets. The ACPS also measures respondents who are older than those in the other data sets. As all four data sets measure civic education and civic skills at one point in time, they do not consider changes over time. Despite all four data sets being nationally representative, the year data was collected and age span may explain different results.

Communication Skills

English Language Skills

According to the IEA/CivEd, NHES, and ACPS studies, English language skills are not significantly correlated with studying civic education or any of the civic education topics. However, respondents' English language skills cannot be precisely judged due to the wording of the English language survey questions. In all three of these data sets, respondents were asked how often they speak English at home. It is clear from the probit analyses that Latinos and immigrants do not speak English at home as often as other survey respondents. However, the survey questions are not measuring respondents' actual English language skills, as the respondents may be fluent in English but choose not to speak it at home. The survey questions are primarily measuring frequency of English usage, language minority status, and whether the respondents come from a bilingual household. Overall, the examined data sets do not allow for accurate testing of English language skills as civic skills.

Other findings from the English language probit models are not surprising. According to the IEA/CivEd study, Latino, Asian, and immigrant students are

significantly less likely to speak English at home than other students. For example, the probability that Latino students speak English at home is over 17 percentage points less than the probability that white non-Hispanic students speak English at home, according to the full model (Table 9, column 2).

The NHES study reveals similar results. Latino and immigrant students are significantly less likely to speak English at home, compared to other students. Also, students who live in rural areas are significantly more likely to speak English at home compared with other students.

The ACPS data yields results similar to the IEA/CivEd and the NHES studies. Latino and immigrant students are significantly less likely to speak English at home, compared to other students. Also, private school attendees are significantly less likely to speak English at home, compared to public school attendees. This may be due to a greater presence of immigrant or Latino students in Catholic or religious private schools.

The probit analyses of English language skills and civic education provide no evidence of a correlation between civics course-taking and English as a civic skill. The analyses do provide evidence that Latinos and immigrants are less likely to solely speak English at home, compared to white non-Hispanics. However, while English language skills have been documented as a skill necessary for participation in American politics, bilingual skills may also be a civic asset to national and global political participation. While this dissertation defines Latinos and immigrants as less skilled due to their levels of English language skills, their dual language skills overall may actually be a political asset.

In contrast, Fry and Lowell (2003) describe a U.S. labor market that does not reward bilingualism with increased wages. This may explain immigrants' generational shifts toward monolingualism (ibid.). In turn, if the labor market does not value bilingualism, other cultural or familial incentives to remain bilingual may fade as well. Societal disincentives for bilingualism may mirror political disincentives to remain bilingual.

Writing a Letter, Making a Statement or Speech

The NHES and ACPS surveys provide mixed evidence of a correlation between civic education and writing a letter and making a statement or speech. According to the NHES data, civics course-taking is significantly correlated with confidence in writing a letter to someone in government. The probability of feeling confident in being able to write a letter to someone in government is over 3 percentage points higher for students of civics than for students who have not had a civics course (Table 13). Similarly, the NHES provides evidence of a positive relationship between civic education and feeling confident in being able to make a statement at a public meeting, although the correlation is not statistically significant. Also, according to the ACPS, civic education is positively correlated with confidence in being able to write a letter or make a statement, although the correlation is not significant.

The NHES data also shows that students who participate in student government are significantly more confident in their ability to make a comment or statement at a public meeting than other students. Overall, immigrants, African-Americans, and

students from rural areas are much less confident in their own communication skills than other students.

The ACPS data also shows that survey respondents who have had at least some college education are significantly more likely to feel confident in their communication skills than respondents with no college experience. For example, the probability of feeling confident in making an effective statement for those who attended some college is almost 17 percentage points higher than for those with no college experience, according to the full model in column 4. According to the ACPS, immigrants are significantly less likely to feel confident in their letter-writing abilities than non-immigrants, while African-Americans are significantly more likely to feel confident in their letter-writing abilities than others.

Probit analyses provide evidence of a correlation between civics course-taking and communication skills such as writing a letter and making a statement or speech. However, it is important to note what the NHES and the ACPS survey questions actually measured. Respondents were asked if they "felt they could" write a letter, give a speech or make a statement. Therefore, these survey questions are measuring ability, willingness, and confidence. Ideal civic skill measures would isolate communications abilities from confidence and willingness. However, the NHES and ACPS survey questions are the best available measures of writing a letter and making a statement or speech.

Group Discussion Skills

The group discussion survey questions measure both ability to engage in a group discussion and willingness to do so, by asking the respondent how often they have performed these actions. As discussed in chapter 3, the survey questions often do not isolate ability from willingness to engage in group discussion, but they are the best available measures of group discussion skills.

Some evidence of a correlation between civic education and group discussion skills was found among the IEA/CivEd, NGI, and ACPS studies. According to the IEA/CivEd study, group discussion skills are significantly correlated with studying the Presidency and studying state and local government. In particular, studying the Presidency is correlated with engaging in frequent discussions about U.S. government events with parents and peers. Studying state and local government is correlated with engaging in discussions with teachers. Also, studying political parties is significantly related to engaging in discussions with peers about U.S. government events.

According to the NGI study, civics course-taking is positively related to group discussion skills, though not significantly in the full models. Again, the NGI study measures frequency of working in a community group and frequency of group discussion. These measures do not isolate the ability to engage in group discussion or work in a group, because by measuring frequency, they are measuring willingness and ability.

According to the ACPS, group discussion about local and national politics is correlated with civics course-taking. The relationship between civic education and discussion of national politics is statistically significant, according to the full model

(Table 18, column 4). The probability of discussing national politics with others is over 13 percentage points higher for respondents who had civic education compared to respondents who did not have civic education. The ACPS measures how frequently respondents discuss local and national politics with others. Like the IEA/CivEd study and the NGI study, ACPS questions do not solely measure group discussion skills; they also measure willingness to engage in group discussion.

The probit models of group discussion skills also reveal other findings related to demographic characteristics of respondents. The IEA/CivEd study shows that immigrant students are significantly more likely to discuss U.S. government events with their peers than native-born students. African-American, Asian, and female students are less likely than other students to engage in group discussions, although the difference is not statistically significant. Also, students who feel free to disagree openly with their teachers are significantly more likely to engage in group discussions about U.S. government events with their peers, parents, or teachers than students who do not feel free to disagree with their teachers. In turn, the probability that students have frequent discussions about U.S. government events with their teachers is 16.4 percentage points higher for students in open classroom climates where students feel free to disagree with their teachers than for students not in such classrooms, according to the full model (Table 10, column 6).

The NGI study also reveals that Latino, African-American, Asian, immigrant, and sometimes female students are less likely to have worked in a community group or engaged in group discussions than other students. Also, respondents who view themselves as very religious are significantly more likely to have worked in a community

group than all other respondents. The probability of having worked informally in a group to solve a community problem is over 14 percentage points higher for the very religious than for all others.

The ACPS also shows that Latinos, African-Americans, immigrants, and females are less likely than others to discuss local or national politics in a group. In particular, the difference for females is statistically significant. Also, respondents who report having at least some college education are significantly more likely to engage in discussions about local and national politics with others than respondents with no college experience.

Overall, these group discussion measures do not purely reflect group discussion skills. All of the group discussion survey questions from the IEA/CivEd, NGI, and ACPS studies measure willingness and ability to engage in group discussion. Ideally, a more precise measure of civic skills would solely consist of ability to engage in a group discussion. A consistent correlation between civic education and group discussion skills was not found in these three data sets.

Conclusions

Figure 5 above and Figure 6 below summarize the statistically significant results of the probit models. This chapter illustrates how examining one civic skill among multiple data sets can provide inconsistent results. For example, news-monitoring skills were found to be significantly correlated with civics course-taking in the NHES and IEA/CivEd studies, but not in other data sets.

Differences among data sources may explain differences in probit model results for the same civic skill. For example, the NGI study's civic education measure may

provide an explanation for inconsistent results among data sources. As stated earlier, potential measurement error in the NGI survey's civic education question may influence the probit model results.

The probit models in this chapter revealed that often a civic skill is found to be correlated with civics course-taking in one data set but not in another. Figure 6 summarizes the statistically significant correlations between civic skills and civic education found in the probit models in this chapter. From the IEA/CivEd study, the civic education topics that are correlated with civic skills were primarily studying the Presidency and the Constitution. Often, other examined civic education topics were not correlated with civic skill presence. Again, this difference among civic education topics may be explained by different courses where the student was exposed to such topics.

Also, as stated earlier, news-monitoring skills are correlated with civics course-taking in the IEA/CivEd and NHES studies, but not in the NGI or ACPS studies. Communication skills, such as writing a letter, are correlated with civics course-taking in the NHES study but not in the ACPS study. Group discussion skills, as they were measured, are correlated with civics course-taking in the IEA/CivEd study, but not in the NGI or ACPS studies. Finally, the measures of English language skills are imprecise and not an adequate assessment of English as a civic skill. English language skill measures in this dissertation only capture language minority status and whether the respondent comes from a bilingual household.

Probit model analyses in this chapter also reveal findings about factors other than civic education related to civic skill presence. Figure 6 below summarizes other factors examined in the probit models that are statistically related to civic skill presence.

A secondary finding of this chapter's probit models is an apparent civic skill shortage held by African-Americans, immigrants, Latinos, and sometimes females. While immigrants, Latinos, and females do not always hold lower levels of civic skills than others, African-Americans are almost always shown to hold lower levels of civic skills than others, according to these four data sets. Clearly, an inequality of opportunity to learn civic skills exists. Also, according to the civic skill measures examined from these data sources, African-Americans appear to have less civic skills than others. However, African-Americans may hold different civic skills that are not measured in this dissertation, making any apparent deficiency false. These differences are further explored in Chapter 6.

The probit models also reveal the positive presence of civic skills in those who have either attended some college or plan to complete a college degree. These respondents almost always hold higher levels of civic skills. Also, the IEA/CivEd study shows that an open classroom climate may provide assistance in acquiring civic skills. Whether an open classroom climate itself contributes to learning civic skills is unknown, but the presence of civic skills is often accompanied by an open classroom climate. Finally, the ACPS study reveals that very religious respondents are more likely to engage in frequent group discussions with others than nonreligious respondents.

Figure 6: Other Factors Significantly Correlated with Civic Skill Presence in Full Model Probits[7]		
	Direction of Correlation	Tables
POLITICAL INTERPRETATION SKILLS		
(IEA/CivEd)		
African-Americans, Immigrants	-	6 and 7
College, Classroom climate measures, females	+	6 and 7
Student government	+	6 and 7
NEWS-MONITORING SKILLS		
(IEA/CivEd)		
Classroom climate measures	+	8
(NHES)		
Immigrants, College	+	14
Females, Reside in rural areas	-	14
(ACPS)		
African-American, Some college	+	17
ENGLISH LANGUAGE SKILLS		
(IEA/CivEd)		
Latinos, Asians, Immigrants	-	9
(NHES)		
Latinos, Immigrants, Females	-	15
Reside in rural area	+	15
(ACPS)		
Latinos, Immigrants, Private school attendees	-	19
LETTER / STATEMENT		
(NHES)		
Student government participation	+	13
(ACPS)		
African-American, Some college	+	16
Immigrants	-	16
GROUP DISCUSSION SKILLS		
(IEA/CivEd)		
Classroom climate measures, Immigrants	+	10
(NGI)		
Very religious	+	12
(ACPS)		
Latinos, Females	-	18
Some college	+	18

[7] Number of books in the home, group participation, and feelings of political efficacy were also controlled for in the IEA/CivEd data. Other controls in the NGI data include Latino, African-American, Asian, immigrant, female, student government participation, household income, political views, group participation, voting behaviors, and feelings of political efficacy. Other controls in the NHES data include African-American, household income, region of U.S., group participation, and feelings of political efficacy. Other controls in the ACPS include household income, political orientation, group participation, and feelings of political efficacy.

As explained in Chapter 3, an issue of endogeneity may exist in these analyses because they did not originate from a randomized experiment. Despite controlling for all available observable factors, there may still be unobservable factors that are correlated with both civic education and civic skills. For example, the strong correlation shown in Table 7 between studying the Constitution and being able to correctly interpret a political cartoon about a political leader may be influenced by other hidden factors such as civic education self-selection. While this dissertation employs single equation estimates as a multivariate approach to control for all observable factors in a non-random setting, it is possible that the analyses do not include all relevant factors.

Chapter 5 introduces and discusses propensity score matching methods applied to the correlation between civic education and civic skill presence. Chapter 5 also shows results of the matching methods using the four data sets. While propensity score matching methods will not control for selection on unobservable factors, they will provide a more robust analysis on the observable factors.

Chapter 5: MATCHING METHODS

This chapter begins by describing the purpose of propensity score matching methods as an alternative to probit models to evaluate the effect of civic education on civic skill presence. This chapter discusses the results of the propensity score matching methods conducted on the four data sets.

Propensity Score Matching Methods

The primary purpose of this dissertation is to answer the question, "Is civic education correlated with the presence of civic skills?" To properly answer this question, it is necessary to isolate the effect of civic education on civic skill development. While many factors influence civic skill development in individuals, such as extracurricular activities, religious participation, and home environment, this dissertation is concerned with the influence of civic education.

The single equation probit models presented in the previous chapter control for factors outside of civic education that may influence civic skill presence, and may possibly be correlated with civic education participation. However, the probit models may not control for every factor that influences civic skill presence. In turn, a factor endogeneous to the probit analyses may influence civic skill presence and be correlated with civic education participation, and may not be included in the probit models. As an alternative means of isolating the effect of civic education on civic skill presence, propensity score matching methods were conducted.

Propensity score matching methods were conducted using civic education as a "treatment." Survey respondents who have taken a civics course were compared to respondents who have not taken a civics course in a multivariate probit model to produce a single propensity score. Treated individuals (those with a history of civic education coursework) were matched with untreated individuals (those with no history of civic education coursework) along observed characteristics, according to the propensity score, to assess the effect of civic education. Once the individuals were matched based on common background characteristics, a truer picture of the effect of civic education course-taking was determined.

Bootstrapped standard errors and matching-weighted probits were also conducted to provide another assessment of the magnitude of the effect of civic education. Appendix E provides more details on the propensity score matching methods.

Matching methods were conducted for every full-model probit conducted in Chapter 4 except the English language skill analyses. English language skills were initially included in this dissertation in order to explore their correlation with civic education coursework. No evidence of a correlation between civic education and English language skills was found in the IEA/CivEd, NHES, and ACPS studies. Verba et al. (1995) describe English language skills as a civic skill, or a skill necessary for participation in American democracy. However, a theoretical link between civic education course-taking and English language skills is untenable. The primary purpose of civics and government courses is not to teach English. Furthermore, the measures of English language used in this dissertation are merely capturing language minority status and whether the respondent comes from a bilingual household. As English language

skills do not appear to be linked to civic education, propensity score matching methods were not applied to their analysis.

Matching Methods Results

The probit models presented in Chapter 4 indicate evidence of some correlations between civic skills and civic education. These correlations were further examined with propensity score matching methods. At times, the matching methods reveal different or stronger results than the full-model probit analyses. The results of the matching methods are displayed in Tables 20-27. This chapter discusses the results of the matching methods. Figure 7 below summarizes the tables discussed in this chapter.

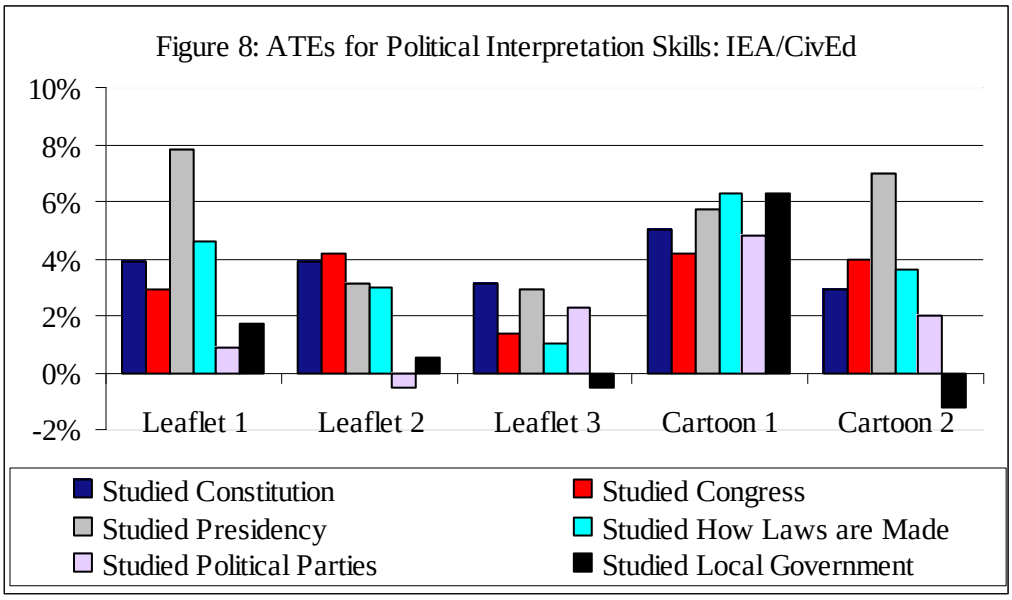
	Figure 7: Summary of Tables for Chapter 5 – Matching Methods	
Table Number	**Civic Skill Measures**	**Data Source**
20	Political interpretation (leaflets)	IEA/CivEd
21	Political interpretation (cartoons)	IEA/CivEd
22	Monitoring the news	IEA/CivEd
23	Monitoring the news	IEA/CivEd
24	Group discussion	IEA/CivEd
25	Group discussion, monitoring the news	NGI
26	Monitoring the news, Political communication (letter / speech)	NHES
27	Monitoring the news, Group discussion, Political communication (letter / speech)	ACPS

Tables 20 through 24 provide matching results for the IEA/CivEd study. Table 25 shows results from the NGI study, and Table 26 shows results from the NHES study. Table 27 shows all matching results from the ACPS. The results of the matching methods are discussed by civic skill type in the next few sections.

The primary parameter of interest from the matching methods is the average treatment effect (ATE). The average treatment effect indicates the magnitude of the influence of civic education on all respondents, whether they had civic education or not. In this sense, the ATE predicts the expected effect of civic education on all survey respondents. This is the most policy-relevant statistic, as it mirrors the effect of mandating civic education for everyone.

Political Interpretation Skills

The average treatment effect of studying civic education topics on interpreting political communication material is not greater than 8 percentage points, according to the IEA/CivEd study. As expected, ATE values are higher for civic education topics that were found to be significant in the probit analyses. For example, the average effect of studying the Presidency results in a 7.8 percentage point increase in the ability to interpret which party issued a political leaflet (Table 20, Column (3)). Studying the Presidency was found to be significantly correlated with the ability to interpret which party issued a political leaflet in the full-model probits. This correlation is also statistically significant in the matching-weighted probit. Figure 8 below shows the ATEs for the political interpretation skills.



While the full-model probits indicate statistical significance among different civic education topics and political interpretation skills, the matching methods indicate the magnitude of the average treatment effects for political interpretation skills. For example, Figure 8 shows that studying the Presidency yields larger effects on political interpretation skill presence than other civic education topics. Also, all of the civic education topics yield substantial effects on interpreting a cartoon about a political leader.

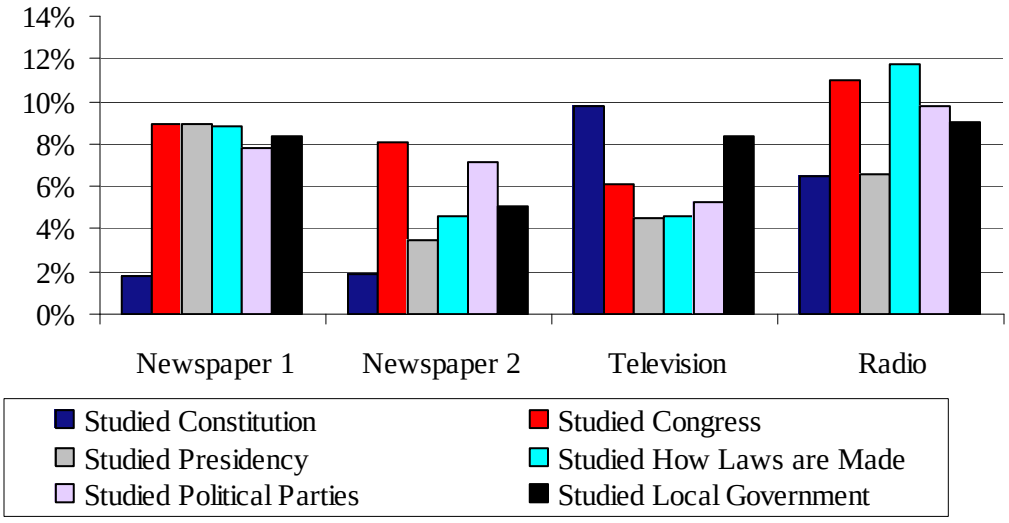
These results are similar to the full model probit results. For example, the ATE values show that all of the civic education topics appear to influence correct interpretation of a cartoon about a political leader. The full-model probit analyses reveal similar results. Similar differences among civic education topics are also found between the full-model probits and the matching methods. Again, studying the Presidency and the Constitution appear to have the most prominent correlation with political interpretation skills. These differences potentially can be explained by students taking different courses (American history or civics) to learn these topics.

News Monitoring Skills

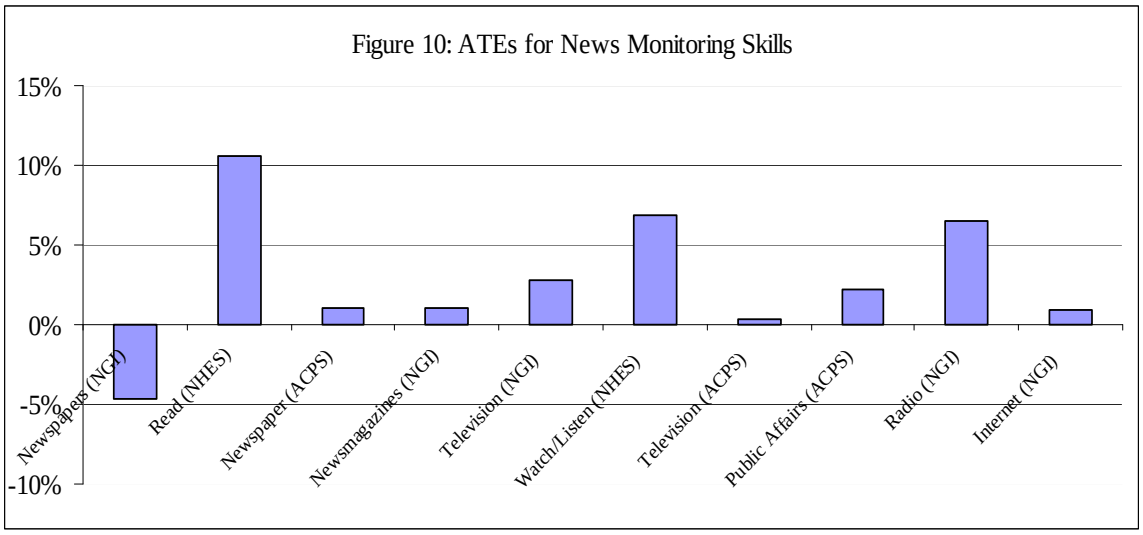
According to the IEA/CivEd study, the average treatment effects of studying civic education topics on monitoring the news are as high as 11.7 percentage points. For example, studying Congress provides an 11 percentage point increase in frequency of monitoring radio news, while studying how laws are made provides an 11.7 percentage point increase in frequency of monitoring radio news (Table 23). Most of the civic education topics also have a substantial effect on monitoring domestic newspaper news.

The effect of studying Congress on news monitoring skills in the matching methods is different than the effect of studying Congress in the full-model probit analyses. In fact, the matching methods indicate that studying Congress has a larger effect than indicated by the full-model probits. This difference in results between methods may be due to the truer isolation of the effect of civic education in the matching methods. Figure 9 below summarizes the average treatment effects on news monitoring skills according to the IEA/CivEd study.

Figure 9: ATEs for News Monitoring Skills: IEA/CivEd



Matching methods were conducted on news monitoring skills in the other three data sets as well. Similar to the results from the full-model probits, the results are mixed. The NHES is the only data source to exhibit a substantial ATE on monitoring newspaper news. The NHES study also provides a higher ATE of civic education on monitoring television news than the NGI study or the ACPS. Finally, the NGI study shows positive ATEs of studying civic education on monitoring radio and internet news. Among these three data sets, the results from the matching methods are similar to those from the full-model probit analyses. Figure 10 below summarizes the ATEs of studying civic education on news monitoring skills according to the NGI, NHES, and ACPS surveys. Figure 10 represents data from Tables 25, 26, and 27.



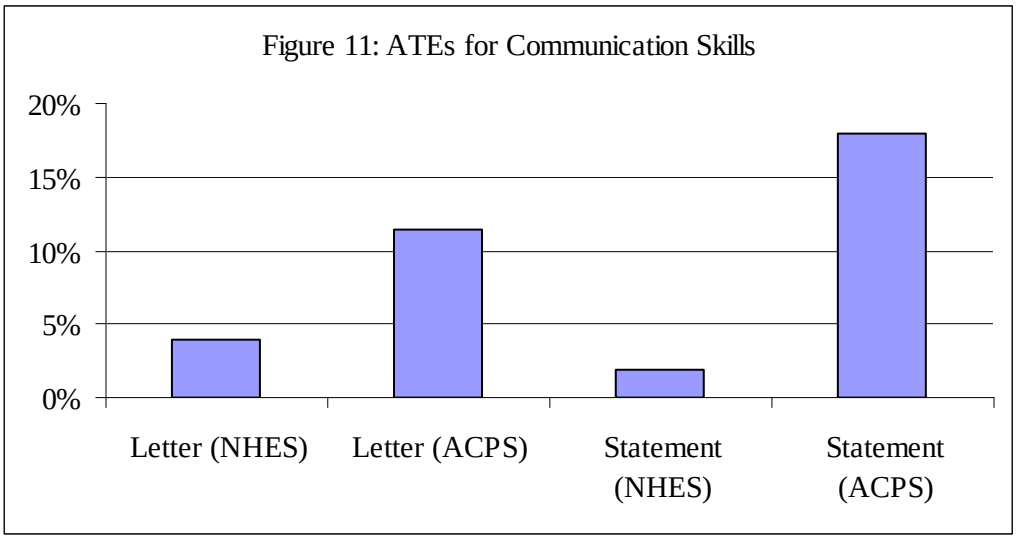
Again, differences in these results may be explained by differences in data sources. ACPS respondents' news monitoring habits may not be influenced by civic education as much as students in the NHES or IEA/CivEd surveys. This may be because the ACPS sample consists of respondents older than the NHES or IEA/CivEd samples' respondents. Also, because the NGI survey's civic education question only measures

current students of civic education, the magnitude of the average effect of civic education on news monitoring skills may be affected by measurement error.

Communication Skills

Writing a Letter, Making a Statement or Speech

The average effect of civic education on communication skills is greater in the ACPS survey data than in the NHES survey data. The average effect of civic education on confidence in being able to write a letter to someone in government is less than 4 percentage points, according to the NHES data (Table 26). However, this same effect is over 11 percentage points according to the ACPS data. This same pattern between data sets is true for feeling confident in making an effective statement or speech in a public forum. Often these results differ from the insignificant results found in the full-model probit analyses. For example, according to the ACPS data, the marginal effect of civic education on writing a letter is less than 4 percentage points (Table 27). However, matching methods indicate the ATE to be greater than 11 percentage points, and the marginal effect from the matching-weighted probit is greater than 10 percentage points. This difference is explained by the difference in methods – the matching methods provide a more robust analysis of the effect of civic education. Figure 11 below illustrates the ATEs for communication skills according to the NHES and ACPS surveys.

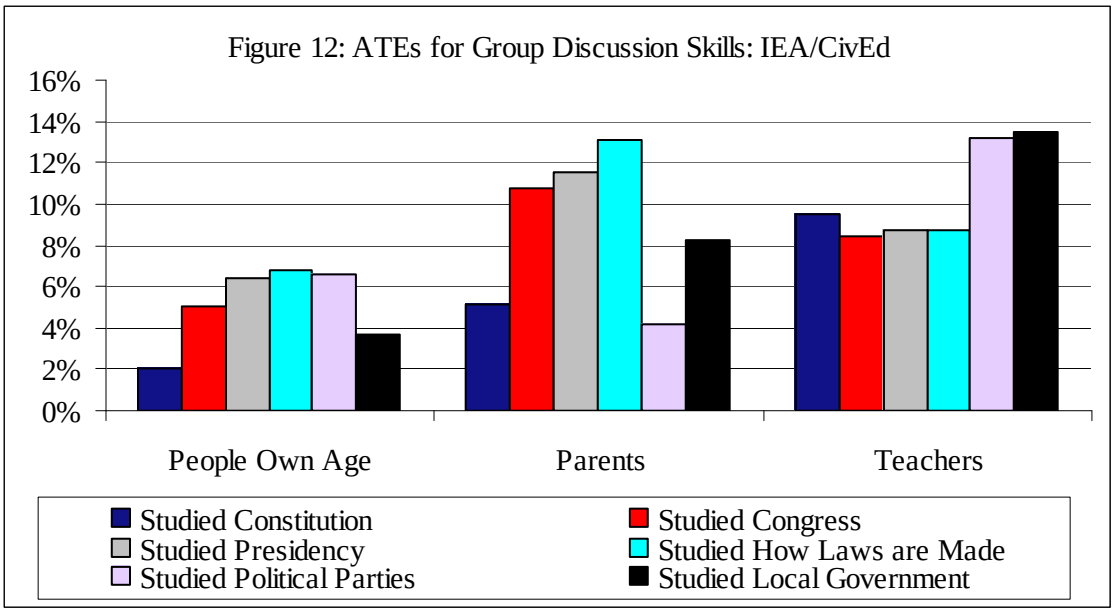


The differences in results between the two data sets may be explained by the age of the respondents. NHES respondents are 10th and 11th grade students, while ACPS respondents are up to 30 years old. While a 29-year-old may feel confident in her ability to write a letter or make a statement in a public forum, she may not have had such confidence as a tenth-grade student. For the 29-year-old, factors that influenced her civic education selection may also influence her confidence in communication skills as an adult. For example, an advantaged high school student who had access to civic education may also have access to societal opportunities to practice letter-writing and public speaking skills. Even though analyses using the ACPS study control for household income and job skills, factors that play out in life past age 18 may explain the greater effects of civic education on confidence in communication skills for older survey respondents.

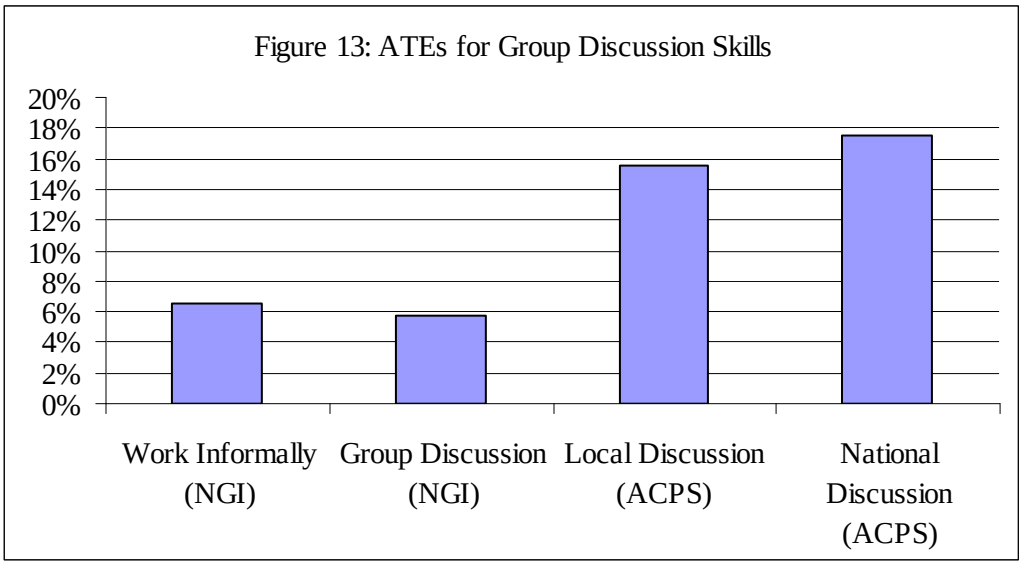
Group Discussion Skills

The average effect of civic education topics on group discussion skills is greater for students discussing matters with their teachers or parents than with their peers, according to the IEA/CivEd study (Table 24). For example, the average effects of studying political parties or state and local government on discussing U.S. government events with teachers is over 13 percentage points. The matching-weighted probits also indicate the strong effect of studying civic education topics on discussing U.S. government events with parents and teachers.

The ATEs are not always similar to the marginal effects in the full-model probits. For example, studying state and local government has a negative effect on discussing U.S. events with peers, according to the full-model probit results (Table 24). However, this effect is positive according to the matching methods, and is even significantly positive in the matching-weighted probit model. This pattern is also reflected in the effect of studying how laws are made on group discussions with teachers. These differences reflect the increased capability of the matching methods to isolate the effect of civic education. Figure 12 below summarizes the ATEs for group discussion skills according to the IEA/CivEd study.



The NGI study and the ACPS also measure group discussion skills. Similar to the results of the communication skills discussed previously, the average effects of civic education on group discussion skills is greater for the older respondents of the ACPS survey than for the younger respondents of the NGI survey. For example, the average effect of civic education on engaging in discussion about national events is over 17 percentage points according to the ACPS data, while it is less than 6 percentage points according to the NGI data. These results are similar to those in the full-model probits. Figure 13 below summarizes the ATEs of civic education on group discussion skills according to the NGI and ACPS data sets.



As discussed in Chapter 3, the group discussion survey questions measure frequency of engagement in group discussions, and are not a pure measure of these skills. Overall, civic education has a minimal effect on group discussion frequency, especially according to the NGI study and the IEA/CivEd's measure of group discussion with peers.

Conclusions

The probit models in Chapter 4 revealed that often a civic skill is found to be correlated with civics course-taking in one data set but not in another. The same pattern was found when matching methods were applied to the data. When these differences include the NGI study, the NGI study's civic education measure may explain this difference. Differences in sample make-up may also explain different results, such as the sample of older respondents from the ACPS survey.

For civic skills tested with the IEA/CivEd study, differences among civic education topics remain. Similar to the full-model probit analyses, matching methods reveal thatstudying the Constitution and the Presidency yield a greater effect on civic

skill presence over other topics. However, the matching methods indicate that studying Congress is influential on civic skill presence, unlike the full-model probit analyses. Also, studying state and local government often yields different results than studying other civic education topics (Figures 8, 9, and 12). Some educators strongly advocate the study of local government in civics courses.[8]

Overall, the matching methods revealed mixed results when compared to the results of the probit models from Chapter 4. Most differences between the two methods were found in news monitoring, communication, and group discussion skills. Where differences exist, the matching methods reveal greater civic education effects than those found in the full-model probits. Matching methods provide a more robust means of isolating the effect of civic education on civic skill presence than probit models.

Chapter 6 consists of the heterogeneous sub-group analyses. The effect of civic education on civic skill presence for different racial, ethnic, gender, and low-income groups is examined.

[8] For example, the Constitutional Rights Foundation promotes a focus on state and local government through service learning www.crf-usa.org. Also, a New Jersey program, Empowerment Civics, encourages a focus on local government in civics courses www.citizensarmynj.com/reform/empowermentcivics.html.

Chapter 6 – HETEROGENEOUS LINKS BETWEEN CIVIC EDUCATION AND CIVIC SKILLS

This chapter reports the results of subgroup analyses. Subgroup analyses convey differences in the effects of civic education on civic skill presence for different groups. Statistical means shown in Chapter 3 reveal that some subgroups (African-American, Latino, females, low-income, and non-college) differ in their levels of civic skills and civic education participation. Differences in the effects of civic education on civic skill presence for these subgroups may explain different levels of civic skills.

For example, civic skills may originate from numerous background factors, such as families, home environments, and civic education. By examining the relationship between civic education and civic skills among different subgroups, differences among background factors may be revealed. For example, a different effect of civic education on civic skill presence for African-American students than for non-Hispanic white students may indicate differences in background factors between these two groups.

In order to determine the heterogeneous effects of civic education on different populations (African-American, Latino, females, low-income, and non-college), probit models and propensity score matching methods were conducted on each group separately. The analysis of groups was limited by small sample sizes. As Figure 14 shows, once data sets were separated by population, some sub-samples were too small for analysis. Values in bold type in Figure 14 were deemed large enough for analysis.

Figure 14: Sample Sizes for Subgroup Analyses

	African-American	Latinos	Females	Immigrants	Asians	Low-income	Non-College	Full Sample
IEA/ CivEd	**223**	**229**	**1,008**	187	118	--	**599**	1,953
NGI	93	80	**271**	44	18	125[a]	196	556
NHES	**343**	**255**	**1,062**	115	--	**637**[b]	**261**	2,106
ACPS	70	--	**321**	58	--	--	**289**	638

a) Household income $30,000 per year or less was considered low-income.
b) Household income $25,000 per year or less was considered low-income. These values differ between data sets due to the nature of the survey questions. Survey questions were asked as categorical values of income.

All four data sets were examined for heterogeneous civic education effects on females and males. The IEA/CivEd and NHES studies were examined for civic education effects on African-Americans and Latinos. The NHES study was also examined for civic education effects on low-income students. The IEA/CivEd, NHES, and ACPS studies were analyzed for civic education effects on non-college respondents. Overall, a sub-sample size of 200 was deemed the minimum sample size necessary for probit model analyses or matching methods. A sample size of 200 is generally the minimum needed for a robust regression, and is considered small, but not unprecedented, for propensity score matching methods.[9]

The results of the heterogeneous analyses are discussed in this chapter. Overall, the analyses show that differences in the effects of civic education on civic skill presence exist among females, racial/ethnic minorities, low-income students, and students who do not intend to attend college. Results are discussed by subgroup. Figure 15 below summarizes the data tables associated with this chapter.

[9] Jeffrey Smith, e-mail communication, January 31, 2005.

	Figure 15: Summary of Tables for Chapter 6 – Subgroup Analyses	
Table Numbers	**Civic Skill Measures**	**Data Source**
28 – 31	African-Americans, probit models	IEA/CivEd
32 – 35	Latinos, probit models	IEA/CivEd
36 – 39	Females, probit models	IEA/CivEd
40 – 43	Non-college, probit models	IEA/CivEd
44 – 45	Females, probit models	NGI
46 – 50	All probit models	NHES
51 – 54	All probit models	ACPS
55 – 60	African-Americans, matching methods	IEA/CivEd
61 – 66	Latinos, matching methods	IEA/CivEd
67 – 72	Females, matching methods	IEA/CivEd
73 – 78	Non-college, matching methods	IEA/CivEd
79 – 80	Females, matching methods	NGI
81 – 85	All, matching methods	NHES
86 – 89	All, matching methods	ACPS

Racial/Ethnic Minorities

The means tables presented in Chapter 3 show that African-Americans and Latinos receive less civic education than their non-Hispanic white or Asian counterparts. The IEA/CivEd study shows that students who studied two or fewer civic education topics (out of a total of six topics) were more likely to be African-American or Latino, and less likely to be non-Hispanic white or Asian (Table 2). The ACPS reveals similar results. The NGI study shows that African-Americans are less likely to study civics, but the same is not true for Latino students. The NHES study shows that Latinos are less likely to study civics, but the same is not true for African-American students (Tables 3, 4, and 5).

The probit models presented in Chapter 4 reveal that minorities have lower levels of civic skills than non-Hispanic whites. The IEA/CivEd study shows that Latinos hold lower levels of civic skills than others, while African-Americans hold statistically significantly lower levels of civic skills than others, except for group discussion skills. Latino and African-American students hold lower levels of civic skills than others according to the NGI and NHES studies, although the differences are not statistically significant. The ACPS shows that Latinos hold lower levels of civic skills than others, while African-Americans do not.

The probit models demonstrate the differences in civic skill levels when African-Americans and Latinos are examined within full samples. However, they do not address whether the effect of civic education on civic skill levels is different for African-Americans compared to all others, or for Latinos compared to all others. That analysis is discussed in this chapter.

In order to determine the differences in the effects of civic education on civic skill presence for different subgroups, probit models and matching methods were conducted on each subgroup separately. For example, a full model probit of the effect of civics course-taking on correctly interpreting political leaflets was conducted on a subsample of African-Americans only. The analysis was then repeated for all non-African-Americans in the same data set. These probit model results are displayed adjacent to each other in the data tables. A similar process was followed to conduct the propensity score matching methods. For example, matching methods were conducted for a subsample of African-Americans within the IEA/CivEd study only, and then compared to the matching method results conducted on all non-African-Americans within the IEA/CivEd study. Therefore,

it is easy to compare the effects of civics course-taking on the African-American sub-sample and the non-African-American sub-sample.

The subgroup analyses reveal that, overall, African-American and Latino students' civic skill levels are differently influenced by civic education than non-Hispanic whites' civic skill levels. While little research has been done to examine the differences in civic education and civic skills between racial/ethnic minorities and non-Hispanic whites, much research has examined the gap in overall student performance between racial/ethnic minorities and non-Hispanic whites. Current research focuses particularly on the academic achievement gap between African-American students and non-Hispanic white students.

Jencks and Phillips (1998) describe the gap between African-American and white students' test scores in subjects such as reading and math. A significant gap exists. Regardless of socioeconomic status, African-American children lag behind their non-Hispanic white counterparts with respect to academic achievement. Jencks and Phillips offer overall explanations for the gap, such as culture, schooling, and family (ibid.). Being raised in an African-American family significantly reduces student test scores. The student's mother's socioeconomic status and her parenting processes also explain the gap. Teachers are to blame as well, as they have lower expectations for African-American students than for non-Hispanic white students, often for historical reasons. These expectations can affect student performance (ibid.).

Hochschild and Scovronick (2003) contend that while racial discrimination in schools is no longer *de jure*, it remains *de facto*. Often a significant portion of a school's revenue originates from property tax revenue and local government revenue, resulting in

unequal tax bases among schools. Schools in wealthier neighborhoods receive higher revenues from taxes than schools in poorer neighborhoods. As these wealthier neighborhoods tend to be non-Hispanic white, this perpetuates discrimination. In turn, racially segregated neighborhoods can result in separate school outcomes (ibid.). Although the racial achievement gap improved in the 1980s, it has worsened from 1990 to the present. Furthermore, there is evidence that Latinos and students from urban areas drop out of school more often than non-Hispanic whites (Hochschild and Scovronick 2003).

According to a new report by Orfield and Lee (2005), re-segregation has occurred since 1980. Non-Hispanic white students, particularly in the Midwest, are more isolated and attend the most segregated schools than other races and ethnicities. Phillips (2004) reports that segregation stems from poverty, fueled by disparities in school funding. Frequently, states are pressured to fund what districts themselves cannot fund, especially as they try to finance No Child Left Behind programs (Winter 2004). Bankston and Caldas (2000) also find that minorities in public schools perform poorly when the majority of non-Hispanic white students in their school districts attend private schools.

While current studies focus on the achievement gap between African-American and non-Hispanic white students, Latinos and inner-city residents also lag behind their non-Hispanic white counterparts. Although there is disagreement as to how the high school drop-out rate is calculated, it is clear that Latinos have a higher drop-out rate than their non-Hispanic white counterparts (Fry 2003; Barton 2005).

At best, current research on the academic achievement gap can be assumed to apply also to civic education and civic skills. However, it is clear that there is a

consistent difference in academic achievement between racial/ethnic minorities and non-Hispanic whites. The following sections detail the results of this dissertation's subgroup analyses.

African-Americans

The IEA/CivEd study and the NHES study allow for the examination of African-American students as a subgroup, due to their sample sizes. Overall, the effect of civic education is different for African-American students than for all other students. For certain civic skills, the effect of civic education on civic skill presence is stronger for African-American students than other students. For other civic skills, the effect of civic education is weaker for African-American students than other students. Also, other factors in African-American students' environments appear to strongly affect civic skill presence, such as expecting to complete a four-year college degree.

Political Interpretation Skills

African-American students are both more and less likely to be capable of interpreting political communication material than other students, depending on the content of their civic education. According to the IEA/CivEd study, studying the Constitution always contributes to the presence of political interpretation skills more strongly for African-American students than for other students. For example, African-American students who study the Constitution are over 15 percentage points more likely to correctly interpret which political party issued a political leaflet. This same effect is less than 6 percentage points for all other students (Tables 28 and 55). The matching

methods mirror these results. This same pattern is also true for correct interpretation of a cartoon about a political leader (Tables 29 and 56).

In contrast, studying how laws are made is not always associated with political interpretation skills in African-American students, but is for all other students. For example, studying how laws are made has negative effects on correctly interpreting a leaflet about what the leaflet issuers think of a policy and correctly interpreting a cartoon about a political leader for African-American students (Table 56). The same is not true for all other students. For other political interpretation skills, studying how laws are made has a strong average effect for both African-American students and all other students (Table 55).

The IEA/CivEd study also reveals a stark difference between African-American students who expect to complete a four-year college degree and African-American students who do not.[10] For example, the probability of correctly interpreting leaflets about political party issuance and taxes for African-American students who expect to complete a four-year college degree is 28 and 30 percentage points greater, respectively, than the probability of correct interpretation for other African-American students (Table 28). Among African-American students, this pattern is true for other political interpretation skills. While this same difference exists for non-African-American students, the difference is not as large.

Potentially, the large effects of studying civic education topics for African-Americans may signify a variation in civic skill levels among African-American students. It may also signify that some African-American students do not come to the classroom

[10] Fifty-nine percent of African-American students in the IEA/CivEd study expect to complete a college degree. Over 71% of non-African-American students in the IEA/CivEd study expect to complete a college degree.

with pre-existing civic skills, unlike some non-African-American students. For example, given that this dissertation provides evidence that civic education can influence civic skill development, if African-American students have had no exposure to sources of civic skill development, the effect of civic education on their civic skill levels would be greater than this same effect on all other students. Similarly, if non-African-American students have had previous exposure to numerous sources of civic skill development, once exposed to civic education, they may show a smaller improvement in their civic skill levels than African-American students. In other words, when alternative sources of civic skill development are present (such as religious group participation, student government participation, and home environment), civic education may have a smaller effect on civic skill presence than when these sources are absent.

Broad variation in access to sources of civic skill development for African-American students may explain the large difference in civic skill levels between African-American students who expect to complete college and African-American students who do not. For example, African-American students who expect to complete a four-year college degree may experience other sources of civic skill development besides civic education, such as a home environment conducive to learning civic skills. African-American students who do not expect to complete a college degree may not have access to other sources of civic skill development besides civic education. If this is the case, the civic skill differences between African-American students who expect to complete college and those who do not would be apparent.

Other studies reveal stronger effects of education treatments for disadvantaged students than for non-Hispanic white students. For example, Winfield (1990) documents

a stronger effect of minimum competency tests on African-American students' academic achievement than non-Hispanic white students' academic achievement. Sanders and Rivers (1996) and Ascher and Fruchter (2001) find that high-quality teachers have a greater impact on the academic achievement of low-achieving students than of high-achieving students. These studies provide evidence that endeavors to improve education can have stronger effects for lower achievers and minorities than for others. Civic education may be one such endeavor.

The empirical results of this subgroup analysis are evidence of a wide distribution of civic skills among African-American students. The results also provide evidence that African-American students may have fewer means of learning civic skills outside of civic education than their non-African-American counterparts. The often strong effect of civic education on the presence of political interpretation skills may signify that for some African-American students, civic education is a primary source of civic skill development.

News Monitoring Skills

Studying civic education topics has a negative effect on African-American students' newspaper monitoring skills, according to the IEA/CivEd study (Tables 57 and 58). Studying civic education topics rarely has a negative effect on non-African-American students' newspaper monitoring skills. In particular, studying four of the six examined civic education topics had a negative average effect on monitoring international newspaper news for African-American students (Table 58). Studying these

same topics had a positive effect on international news monitoring for non-African-American students.

However, studying other topics, such as political parties and voting, has positive average effects on news monitoring skills for African-American and non-African-American students. Also, studying any civic education topic had smaller average effects on monitoring radio news for African-American students than for all other students (Table 59).

The NHES study also reveals negative effects of studying civics on news monitoring skills for African-American students. The average treatment effects of civic education on news monitoring skills are negative for reading newspaper news, watching television news, and listening to radio news for African-American students. These same effects are positive for all other students (Table 81).

These analyses suggest that African-American students' news monitoring skills are not as strongly affected by civic education as their political interpretation skills. This is similar to the results found for all students as reported in Chapter 4. Again, these measures of news monitoring skills may capture behaviors along with skills. African-American students may choose to monitor news in different amounts than other subgroups. While news monitoring skills may be affected by other factors besides civic education, political interpretation skills appear more elastic to civic education. The negative effects may signify an alienation felt by African-American students toward civic education. Feelings of alienation from the political mainstream may translate into barriers to learning civics topics and civic skills. Spurious analyses due to small sample sizes may also explain the negative impact of civic education on news monitoring skills.

Group Discussion Skills

According to the IEA/CivEd study, studying civic education topics has an overall positive effect on the frequency of African-American students' discussions of government events with their peers and their teachers, but not with their parents. For example, the average treatment effect of studying civic education topics on discussing government events with one's teachers ranges from 8 to almost 20 percentage points for African-American students (Table 60). This same pattern is true for non-African-American students, although the average effects are not as strong.

However, the average effect of studying civic education topics on discussions of government events with one's parents is negative for African-American students (Table 60). This pattern is not mirrored among non-African-American students. This may evidence a difference in the home environments of African-American students and all other students. These results may indicate that the home environment is not often a viable source of civic skill development for African-American students, although it is a viable source for non-African-American students.

Communication Skills

The NHES study provides measures of communication skills. The NHES reveals that the average effect of civic education on letter-writing skills is negative for African-American students, but positive for all other students. The effect of civic education on letter-writing skills is over 2 percentage points for non-African-American students (Table

81). For both African-American and other students, the effect of civic education on public speaking skills is identical, less than 1 percentage point (Table 81).

The NHES probit models reveal other communication skill results. African-American female students are significantly more likely to feel they could make a comment or statement at a public meeting than their African-American male counterparts. The same pattern is not true for non-African-American females and males. Also, non-African-American students who live in rural areas are significantly less likely to feel they could write a letter to someone in government that clearly conveys their opinion compared to their non-rural counterparts. The same is not true for African-American students.

Overall, the negative impact of civic education on letter-writing skills represents a different result from the political interpretation skills. Similar to the news monitoring skills' analyses, the negative effect may represent an alienation felt by African-American students toward civic education, and an impediment to learning civics topics and civic skills.

When African-Americans exhibit stronger effects of civic education on their civic skill levels than non-African-Americans, this may indicate that civic education is a primary source of civic skill development. However, this finding may be contrary to the voting behavior of young African-Americans. In past Presidential elections, eighteen to twenty-four-year-old African-Americans have voted at greater rates than their non-Hispanic white counterparts (Levine and Lopez 2002). Yet young African-Americans with few sources of civic skill development may be unlikely to vote. However, the

NHES and the IEA/CivEd studies measure students at young ages – 10th and 11th grade and age 14 – well before voting age. This discrepancy in results may be explained by what happens to these students after high school. While in school, these students may have scant resources for civic skill development. Yet, once they are voting age, individual or societal factors that influence political participation may increase. Longitudinal data to track students throughout this time period is needed to fully understand these patterns.

Latinos

Latino students experience different effects from civic education on their civic skill levels than non-Latino students. At times, civic education has a stronger effect for Latino students than for others. Overall, the results of the subgroup analyses are comparable for Latino and African-American students. Similar to African-American students, Latino students exhibit strong political interpretation skills when they study civic education topics.

Political Interpretation Skills

For Latino students, studying the Constitution and political parties has a strong effect on interpreting political leaflets about party issuance and taxes. The effect is also positive for non-Latino students, but not as strong. For example, for Latino students, studying the Constitution or political parties has an over 11 percentage point effect on correctly interpreting which political party issued a leaflet. The effect for non-Latino

students who study the Constitution is 5 percentage points, while it is around zero for non-Latino students who study political parties.

Similarly, studying civic education topics has a stronger effect on correctly interpreting a cartoon about a political leader for Latino students than for non-Latino students. Again, studying the Constitution and political parties has average effects of over 15 percentage points on correctly interpreting a cartoon about a political leader. In contrast, studying civic education topics often has a negative effect on correct interpretation of a cartoon about democracy for Latino students. However, non-Latino students experience a positive effect of studying civic education topics on correctly interpreting a cartoon about democracy.

The probit models reveal other significant findings. All students, Latino or non-Latino, who expect to complete a four-year college degree are significantly more likely to correctly interpret political leaflets. While Latino students who expect to complete a college degree are more likely to correctly interpret political leaflets when compared to other Latinos, this same difference is not as pronounced for non-Latino students. This is similar to the stark difference found between African-American students who expect to complete a college degree and all other African-American students.

Overall, these results mirror those found for African-American students, although the magnitudes of the effects are not as strong. These results may have similar explanations. Again, Latino students as a whole may reflect a wide range of civic skill levels. Some Latino students may have had no exposure to means of civic skill development outside of civic education. This may explain the stronger influence of civic education on political interpretation skills for Latino students compared to non-Latino

students. Also, negative effects of civic education on political interpretation skills may be a factor of classroom climate or students' feelings of alienation.

News Monitoring Skills

According to the IEA/CivEd study, studying civic education topics has a smaller effect on monitoring newspaper news for Latino students than for non-Latino students. Sometimes the effect is negative for Latino students. For example, studying the Constitution and Congress has a negative effect on newspaper monitoring skills for Latino students, but not for non-Latino students (Tables 63 and 64). Studying Congress has a significantly negative effect on monitoring newspaper news for Latino students. According to the matching method results, the average negative effect is approximately 12 percentage points.

In contrast, the NHES study provides evidence that civic education has a much stronger effect on monitoring newspaper or newsmagazine news for Latino students than for non-Latino students. The effect of civic education on reading news sources is over 20 percentage points for Latino students, and over 7 percentage points for non-Latino students.

Like African-American students, Latino students may also experience alienation from the political mainstream. These feelings of alienation may provide a barrier to learning civic skills and may influence classroom climate, causing the negative results seen in these analyses.

Differences in the data sources may explain differences in results between the two data sets. While the IEA/CivEd study comprises ninth-grade students, the NHES study's

sample is a year or two older. Although this age difference is small, if this is a particularly crucial time for students to learn civic skills, the two data sets may provide different outcomes. The small sample sizes may also explain these analyses' results.

According to the IEA/CivEd study, studying civic education topics has a smaller effect on monitoring television news for Latino students than for non-Latino students, except for studying political parties. For example, the effects of studying the Constitution, Congress, and the Presidency on monitoring television news are less for Latinos than for non-Latino students. However, studying political parties and voting has an over 10 percentage point effect on monitoring television news for Latino students and a 4.5 percentage point effect for non-Latino students. Also, studying any civic education topic has a stronger effect on monitoring radio news for Latino students than for non-Latino students. According to the NHES study, the effect of civic education on watching television news or listening to radio news is approximately equal for Latino and non-Latino students.

Overall, the analysis of news monitoring skills and Latino students provides mixed results. According to the IEA/CivEd study, civic education can have a negative effect on some news monitoring skills, but can have a strong effect on monitoring radio news. According to the NHES study, civic education can have a very strong effect on monitoring newspaper news. These differences may be due to differences in the two data sources, such as age of respondent or different sample sizes. For both data sets' analyses, the sample sizes are small.

Group Discussion Skills

The results of examining news monitoring skills among Latino students are similar to the results among African-American students. This is not true for group discussion skills. While the effect of civic education on group discussion skills among African-American students was not strong, according to the IEA/CivEd study, the effect of studying various civic education topics on group discussion skills is strong for Latino students. At times, this effect is stronger than the same effect for non-Latino students. For example, studying Congress and how laws are made has an over 20 and 15 percentage point average effect, respectively, on the frequency Latino students discuss government events with their teachers. This effect is much smaller (over 8 and 4 percentage points, respectively) for non-Latino students (Table 66). Also, studying any civic education topic has a stronger effect on the frequency Latino students discuss government events with their parents than for non-Latino students.

This result contrasts with the analysis of African-American students. While Latino students are influenced by studying civics topics to discuss government events with their parents, African-American students are not. This may signify a difference in the home environment between Latino and African-American students. This provides evidence that a typical Latino student's home environment may be more conducive to learning civic skills than a typical African-American student's home environment.

Communication Skills

For both measured communication skills – writing a letter to an elected official and making a statement at a public meeting or forum – the effect of civic education on

the presence of these skills is greater for Latino students than for non-Latino students, according to the NHES study. For example, the average effect of civic education on feeling confident to write a letter is over 4 percentage points for Latino students but less than 2 percentage points for all other students. The average effect of civic education on feeling confident to make a statement or speech is over 5 percentage points for Latino students and around zero for all other students (Table 82).

The probit model analyses reveal that Latina students' letter-writing skills are much more affected by civic education than their Latino counterparts' letter-writing skills. According to the full probit models, Latina students are 6.7 percentage points more likely to feel confident in their letter-writing skills than their male counterparts (Table 47). This same sex difference is true for non-Latino students, but the effect is not as large.

Again, a potential explanation for the strong effect of civic education on communication skills may be that the primary source of civic skill development for Latino students is civic education. If other sources of civic skill development are not present for Latino students, given that civics coursework influences civic skill development, civic education would have a strong effect on Latino students' communication skill levels.

Overall, the effects of civic education on civic skill levels differ between African-American students and non-African-American students, and between Latino students and non-Latino students. At times, the effects of civic education on minority racial/ethnic students are stronger than the effects on non-minority students. This may be evidence

that civic education is a primary source of civic skill development for minority groups, while non-minority students are exposed to other sources of civic skill development. Other researchers also document strong effects of educational benefits on disadvantaged students. In particular, the analyses reveal strong effects of civic education on political interpretation skill levels.

In other instances, the effects of civic education on minority racial/ethnic groups are much less, and even negative, than the effects on non-minority students. Negative effects of civic education may signify feelings of alienation toward the political mainstream by minority students or disparate classroom climates. Negative effects of civic education were found on news monitoring skills.

Finally, this dissertation examines civic skills that are necessary for political participation in the non-Hispanic white political system that dominates American democracy. Political and civic participation in minority communities may require other skills not measured in these analyses. Alternatively, different skills may be more effective for minority youth than for non-Hispanic whites to effectuate political change. For example, Rockeymoore (2004) encourages minority youth to use their artistic talents to perpetuate political change, cleverness to obtain internships and jobs with major political figures, and pure determination to lobby elected officials for political change. However, by judging minority youth on the civic skills measured in this dissertation, I may be perpetuating an evaluation of minority youth through an Anglo lens.

Low-Income

The means tables presented in Chapter 3 show that students residing in households whose income is less than $25,000 per year receive less civic education than their higher-income counterparts. The NHES study reveals that less than 30% of the students who studied civic education were low-income. Over 31% of the students who did not study civic education were low-income (Table 4).

While means tables can demonstrate differences in exposure to civic education, they do not address whether the effect of civic education on civic skill levels is different for low-income students than for all other students. This section discusses that analysis.

In order to determine the differences in the effects of civic education on civic skill presence for low-income students, probit models and matching methods were conducted on low-income and higher income students separately. These methods are similar to those used to examine the different effects of civic education for African-American and non-African-American students.

The subgroup analyses reveal that civic education has stronger effects on communication skills for low-income students than for other students. However, the analyses also reveal that higher income students experience a stronger effect from civic education on their news monitoring skills than low-income students.

Current research has examined the difference in overall academic achievement between low-income and higher income students. Hochschild and Scovronick (2003) contend that an achievement gap between low-income and higher income students has not changed over time. In Minnesota, low-income students have consistently lower test scores than their counterparts from households with higher incomes (Minneapolis Office

of Educational Accountability 2002). However, in California, low-income students perform better in charter schools than regular schools (Slovacek et al. 2002).

Often, low-income students comprise racial/ethnic minorities. Figure 16 below shows that the sample of low-income students examined in the NHES study are much more likely to be African-American or Latino than their counterparts from higher income families.

Figure 16: NHES Study, Percentage of Low-income Sample who are Minority Race/Ethnicity

	Percent African-American	Percent Latino
Low-income	28.9%	28.5%
Non-low-income	11.5%	11.9%

Economic differences in academic achievement levels are often multiplied by racial/ethnic differences in academic achievement levels. Blau (2003) finds that the racial/ethnic achievement gap in social studies among 10th and 12th grade students is less if the racial/ethnic difference in the school is not compounded with economic disparities as well. Wilson (1996) contends that underlying economic differences can explain the problems of race/ethnicity, including the academic achievement gap. However, Jencks (1992) maintains that when economic differences are removed, race/ethnicity still predicts educational outcomes.

News Monitoring Skills

According to the NHES study, civic education has a greater effect on news monitoring skills for higher income students than for low-income students. For example, the average effect of civic education on monitoring newspaper news is over 11

percentage points for high-income students, and is less than 3 percentage points for low-income students (Table 84). This same civic education effect is true for monitoring television and radio news sources. While low-income students experience a positive effect from civic education, the effect is less than that for higher income students.

This difference in the effect of civic education on news monitoring skills for low-income and higher income students may be due to classroom differences. In some cases, low-income students attend low-income schools. The civic education courses in these schools may not teach civic skills, and these schools may have fewer resources overall. As shown above in Figure 16, low-income students are more likely to be racial/ethnic minorities. The examination of news monitoring skills yields similar results among low-income, African-American, and Latino students.

Communication Skills

For both letter-writing skills and public speaking skills, the effect of civic education is stronger for low-income students than for their higher income counterparts. For example, the average effect of civic education on letter-writing skills for low-income students is over 3 percentage points. The effect is approximately 1 percentage point for higher income students (Table 84). Also, the average effect of civic education on public speaking skills is over 9 percentage points for low-income students, and is around zero for higher income students.

The strong effect of civic education on communication skills for low-income students is similar to the results experienced by Latino students. Again, this result may have a similar explanation to the strong effects experienced by African-American and

Latino students. In this sense, low-income students may have limited access to sources of civic skill development, except for civic education. Civic education may have a stronger effect for low-income students who lack other sources of civic skill development.

Gender

Females and males similarly report studying civic education topics. According to the IEA/CivEd and ACPS studies, females are slightly more likely to study civic education topics than males (Tables 2 and 5). The NGI and NHES studies show that females are equally likely or slightly less likely to study civic education than males (Tables 3 and 4). However, these differences between females and males are small and insignificant. According to the full model probits reported in Chapter 4 from the IEA/CivEd study, female students hold consistently higher levels of political interpretation skills than their male counterparts. According to the NHES study, females have slightly higher levels of communication skills than males, but results from the ACPS study contradict these findings. Females also fare slightly worse on news monitoring and group discussion skills than their male counterparts.

Again, the probit models in Chapter 4 examine the differences in skill levels for females and males when they are evaluated together in the full sample. This section discusses the results of separate analyses of females and males, to determine the differences in the effects of civic education on their civic skill levels.

The subgroup analyses discussed below reveal that females and males are differently affected by civic education. This difference is not always detrimental to female students. Much research examines the gap in academic achievement between

young women and men. The early 1990s introduced a newfound awareness of a gender gap in academic achievement in math and science courses. Since then, however, this achievement gap has been shrinking, particularly since 1996 (Minneapolis Office of Educational Accountability 2002). However, according to Blau (2003), a gender gap remains in the gains made in social studies knowledge among students between 10th and 12th grades. This gap is not statistically significant, but is consistently present (ibid.). Also troubling, while female students generally receive better grades than males, they score lower on standardized tests (AAUW 1998).

Most researchers agree that academic differences between the sexes are a function of socialization and not biology (Begley 2005). The only proven biological differences in academic skills between the sexes involve mental rotation abilities (Gurny 2003). However, these abilities are not necessary for success in secondary math and science. An AAUW (1998) report focuses on the differences in socialization experienced by school-age females. Females are the targets of harassment more often than males, and major threats to female students' success in school include depression and pregnancy. In all, females face separate social issues than males. While sports and extracurricular activities can mollify negative social effects, poverty is a significant barrier to participation in these activities for young women (ibid.).

Orenstein (1995) explains the academic gender gap as a gap in self-confidence. When young women are under social pressures, they are more likely to "opt out" instead of "act out" (ibid.). While young men exhibit outwardly disruptive behavior in times of stress, young women are more likely to shut down and shut out others around them, and not participate in academic activities. A separate AAUW report asserts that as female

students age, their self-esteem lowers (1994). For example, females are less likely than males to argue with their teachers when they think they are right (ibid.).

Political Interpretation Skills

According to the IEA/CivEd study, female students experience a positive effect of studying civics topics on political interpretation skills. Although this effect is less than the effect on male students, it is notable. For example, studying how laws are made has a 2.8 percentage point average effect on female students' correct interpretation of which party issued a political leaflet (Table 67). This same effect is over 9 percentage points for male students. Similarly, studying political parties has a 3 percentage point average effect on female students' correct interpretation of a cartoon about a political leader. This same effect is over 5 percentage points for male students (Table 68). While the subgroup analysis shows that civic education has a smaller effect on political interpretation skill presence for females than for males, females hold higher levels of political interpretation skills overall.

The IEA/CivEd study shows that females who expect to complete a four-year college degree are always significantly more likely than other female students to correctly interpret political cartoons and leaflets. The same is true for male students as well (Tables 36 and 37). Open classroom climates in schools, such as those that encourage students to make up their own mind, are also associated with correct political interpretation skills for both females and males.

News Monitoring Skills

Overall, the IEA/CivEd and NGI studies provide mixed results on the effects of civic education on news monitoring skills for females and males. The NHES and ACPS studies provide moderate evidence that males' news monitoring skills are more strongly affected by civic education than females' skills. For example, according to the IEA/CivEd study, the average effects of studying civic education topics on monitoring domestic newspaper news ranges from zero to over 9 percentage points for female students. These same effects range from 8 to almost 13 percentage points for male students. However, the average effect of studying civic education topics on monitoring radio news is almost always greater for female students than for male students (Table 71).

The NGI study reveals that studying civic education has a negative effect on monitoring newspaper and newsmagazine news for female students. This same effect is positive for male students. However, civic education has a stronger effect on monitoring television and radio news for female students than it does for male students (Table 79). Also of note, expecting to complete a four-year college degree does not significantly influence news monitoring skills, according to the IEA/CivEd study (Table 38).

According to the NHES study, studying civic education has a strong effect on news monitoring skills for female students and an even stronger effect for male students. For example, studying civic education has an average effect of approximately 5 percentage points on news monitoring skills for female students. This same effect is between 8 and 13 percentage points for male students (Table 83).

Finally, the ACPS reveals that the average effect of studying civic education on monitoring television news and public affairs programming is greater for females than for males. The opposite pattern is true for monitoring newspaper news.

Most examined data sources (IEA/CivEd, NGI, and ACPS studies) provide evidence that the effect of civic education on monitoring newspaper news is stronger for males than for females. Results for monitoring other news sources are mixed, although female students' radio news monitoring skills are more strongly affected by civic education than male students' radio news monitoring skills. Overall, these sex differences and mixed results may be explained by classroom differences and the social differences female and male students experience at this age.

Furthermore, throughout this dissertation, the examination of news monitoring skills provides the least consistent results and has been less likely to be correlated with civic education than other civic skills. This may indicate the presence of unobservable factors that influence news monitoring skills. This potential is further discussed in Chapter 7.

Group Discussion Skills

Overall, the IEA/CivEd study provides evidence of strong effects of studying civic education topics on group discussion skills for both female and male students. For example, the average effects of studying civic education topics on frequency of discussing government events with parents ranges from zero to over 14 percentage points for female students. The same effects range from 5 to over 17 percentage points for male students (Table 72). Also, studying most of the civic education topics has stronger

effects on the frequency students discuss government events with people their own age for females than for males. For both female and male students, a classroom climate where students feel free to disagree openly with their teachers significantly contributes to greater frequency of group discussion with peers, parents, and teachers (Table 39).

The NGI study provides evidence that civic education has a negative effect on the likelihood that female students work together in a group to solve community problems. The effect is positive for male students (Table 80). However, civic education has a strong effect on the likelihood that female students discuss current events with others. This average effect is over 5 percentage points, while the same effect for male students is less than 2 percentage points.

The ACPS reveals large effects of studying civic education on the likelihood that males and females discuss local and national politics with others. The effect for males is especially strong. For example, studying civic education has a 10 percentage point average effect on the likelihood females discuss local politics with others, and an over 13 percentage point average effect on the likelihood females discuss national politics with others (Table 87). These same effects are 24 and 26 percentage points for males, respectively. Also remarkable, females who reported some college experience are significantly more likely to discuss local and national politics with others than females without college experience (Table 52).

Communication Skills

According to the NHES study, civic education has a stronger effect on letter-writing skills for male students than for females. However, the NHES also shows that

civic education has a stronger effect on confidence in making a public statement or speech for female students than for males. For example, the average effect of civic education on student confidence in making a statement is almost 3 percentage points for females, and is near zero for males (Table 83). The average effect of civic education on letter-writing skills is over 5 percentage points for males, but only 1.5 percentage points for females.

The ACPS study provides evidence of results opposite the NHES results. According to the ACPS study, civic education has a greater effect on letter-writing skills for males than females. The ACPS also shows that civic education has a greater effect on confidence in making a public statement or speech for females than for males (Table 87). These differences in results between the NHES and the ACPS are consistent with the overall results found in Chapter 5.

Overall, civic education affects female civic skill levels differently than male civic skill levels. Differences in general academic achievement levels may explain differences in the effect of civic education on civic skills. The social experiences of females during their high school years vary from the experiences of males. Female students experiencing stressful social situations are more likely to distance themselves from their studies, unlike male students (Orenstein 1995). This may affect their civic skill levels, particularly group discussion skills, news monitoring skills, and communication skills.

Non-College

According to the IEA/CivEd and NHES studies, non-college-bound students are less likely to study civic education than college-bound students (Tables 2 and 4). Means from the IEA/CivEd study show that only 56% of students who have studied two or fewer civics topics plan on completing a four-year college degree, while almost 74% of students who have studied three or more civics topics plan on completing a four-year college degree. The ACPS also reveals a similar pattern. Over 55% of respondents who studied civics in high school went on to complete at least some college, yet only 41% of respondents who did not study civics in high school went on to complete some college (Table 5).

Students who expect to complete a four-year college degree hold significantly higher levels of political interpretation skills than students who do not expect to complete a four-year college degree, according to the IEA/CivEd study (Tables 6 and 7). Both students who expect to complete a four-year college degree and survey respondents who have had some college hold higher levels of news monitoring skills than others, but the differences are not significant (Tables 8 and 17). According to the ACPS, adults with some college experience are significantly more likely to engage in group discussions with their peers than other adults (Table 18). However, the same pattern was not true of students who expect to complete a four-year college degree, according to the IEA/CivEd study (Table 10).

The probit models in Chapter 4 show differences in civic skill levels for students who plan on completing a four-year college degree and students who do not plan on completing a four-year college degree. Chapter 4 also shows civic skill differences

between adults who had some college experience and adults who did not, as measured by the ACPS. For purposes of this dissertation, both the students surveyed in the IEA/CivEd and NHES studies who do not plan on attending college and the ACPS respondents with no college experience are considered "non-college." This section discusses the results of separate analyses of college and non-college respondents, to determine the differences in the effects of civic education on their civic skill levels.

The subgroup analyses reveal that civic education has different effects on college and non-college respondents. For younger students, civic education can have stronger effects for college-bound students than non-college-bound students, according to the IEA/CivEd and NHES studies. For adults, civic education can have stronger effects for non-college respondents than for respondents with some college experience, according to the ACPS.

Evidence from the means tables suggests that students who do not intend to go to college are less likely to receive civic education. This may be a consequence of academic tracking. Often, higher academic achievers are tracked into college preparatory courses within schools. Similarly, lower academic achievers are put in tracks that emphasize vocational and technical skills. Lower academic tracks may or may not include civic education. While many schools have tracking systems for science and math, some have tracking systems for civics and social studies as well (Oakes 1995).

Critics of tracking systems claim that tracking can internally segregate schools by race and social class (Oakes 1995). For example, schools with strong tracking systems have fewer minorities and low-income students in the tracks for higher achievers, and more minorities and low-income students in the non-college-bound tracks (ibid.).

Proponents of tracking claim that this is an efficient organizational practice that maximizes cognitive development (Hallinan 1994). However, moving from one track to another within schools is often difficult (Oakes 1995).

Tracking may explain the differences in civic education participation between college-bound and non-college-bound students. Tracking may also partly explain the differences in the effects of civic education on civic skill levels for college and non-college respondents.

Political Interpretation Skills

According to the IEA/CivEd study, studying civic education topics has strong effects on political interpretation skill presence for non-college-bound students. These effects are often stronger than the same effects for college-bound students. For example, studying the Constitution, the Presidency, and state and local government results in stronger average effects on correct political leaflet interpretation for non-college-bound students than for college-bound students (Table 73). In particular, the effects of studying civics topics for non-college-bound students on interpreting which political party issued a leaflet range from over 8 to over 12 percentage points. These same effects range from 2 to less than 5 percentage points for college-bound students. The effects of studying civic education topics on interpreting political cartoons reveal a similar pattern.

Large differences in political interpretation skill presence exist between college-bound African-American students and allother college -bound students, and also between non-college-bound African-American students and allother non -college-bound students. While African-American students are less likely overall to correctly interpret political

leaflets and cartoons, non-college-bound African-American students are far less likely than other non-college-bound students to correctly interpret political material. For example, non-college-bound African-American students are over 25 percentage points less likely to correctly interpret what leaflet issuers think about taxes than all other non-college-bound students (Table 40).

These findings are consistent with Oakes' observations of student tracking (1996). She maintains that students on lower-achievement tracks within schools tend to be minority race/ethnicity and low-income. This dissertation finds that minority race/ethnicity and low-income students are less likely to have access to civic education. This may be the result of their placement in lower-achieving tracks. However, this subgroup analysis of political interpretation skills provides evidence that civic education has stronger effects on civic skill presence for non-college-bound students than college-bound students. Potentially, when non-college-bound students do receive civics instruction, the effect is large because they have not had access to other means of civic skill development in their coursework. This may be similar to the strong effect of civic education on civic skill presence experienced by African-American students.

News Monitoring Skills

The effect of civic education on the presence of news monitoring skills for college and non-college respondents differs from the effects of civic education on the presence of political interpretation skills. According to the IEA/CivEd study, the average effect of studying any civic education topic on monitoring domestic or foreign newspaper news is greater for college-bound students than non-college-bound students (Tables 75 and 76).

A similar pattern holds for watching television news and listening to radio news. According to the NHES study, the effect of civic education on news monitoring skills is similar for college-bound and non-college-bound students (Table 85). However, the effect of studying civics on news monitoring skills is greater for adults with no college experience than for adults with some college experience, according to the ACPS (Table 89). These differences among data sets may be due to the age span of the data sample.

Both the NHES study and the ACPS reveal that non-college-bound African-American students and African-American adults with no college experience hold strong news monitoring skills (Tables 50 and 54). For example, according to the NHES study, non-college bound African-American students are much more likely to follow news sources than all other non-college-bound students, although the difference is not significant. According to the ACPS, African-American adults, both with and without college experience, are more likely to monitor news sources than all other adults, and the differences are often significant.

The different results between news monitoring skills and political interpretation skills may be due to the type of skill measured. Political interpretation skills are cognitive skills, and are easier learned in schools. News monitoring skills are participatory skills, and may not be as easily learned in classrooms. In turn, classroom instruction may have a greater effect on political interpretation skills, while news monitoring skills may be more sensitive to other civic skill development factorsoutside of civics instruction, such as home environment.

Group Discussion Skills

According to the IEA/CivEd study, the effect of studying any civic education topic on the frequency of discussions of government events with peers and parents is greater for college-bound students than for non-college-bound students (Tables 77 and 78). This same effect is almost always greater on frequency of discussions with teachers for college-bound students. However, while the effect of studying civic education topics is strong on the frequency of group discussions for college-bound students, it is also positive for non-college-bound students. The ACPS reveals a similar pattern. The average effect of high school civics courses on frequency of discussing politics with others is stronger for adults with some college experience than for adults with no college experience (Table 88).

According to the IEA/CivEd study, classroom climate measures have strong effects on group discussion skill presence for non-college-bound students. In particular, when students feel free to disagree openly with their teachers and are encouraged to make up their own minds, they are much more likely to discuss government events with their peers, parents, and teachers (Table 43). For example, non-college-bound students who feel free to disagree openly with their teachers are over 14 percentage points more likely to engage in discussions with their peers than other non-college-bound students. Similarly, non-college-bound students who are encouraged to make up their own minds in their classrooms are almost 15 percentage points more likely to engage in discussions with their teachers than other non-college-bound students.

Again, different results between group discussion skills and political interpretation skills may be due to the type of skill measured. While political

interpretation skills may be more easily learned in schools, group discussion skills may not be as easily learned in classrooms. In turn, classroom instruction may have a greater effect on political interpretation skills, while group discussion skills may be more sensitive to other civic skill development factors, such as classroom climate or home environment.

Communication Skills

According to the NHES study, civic education has stronger effects on letter-writing skills for non-college-bound students than college-bound students. However, civic education has stronger effects on confidence in making a public statement for college-bound students than for non-college-bound students (Table 85). Similarly, the ACPS reveals that civic education has stronger effects on letter-writing skills for adults with no college experience than for adults with some college experience (Table 88). However, the ACPS shows that civic education has significantly strong effects on confidence in making a public statement for adults with no college experience. The effect of civic education on confidence in making a public statement for adults with some college experience is also positive (Table 53).

The NHES study also reveals that non-college-bound Latino and African-American students hold greater letter-writing and speaking skills than other non-college-bound students (Table 50). Similarly, the ACPS shows that African-American adults with no college experience hold greater letter-writing and speaking skills than other adults with no college experience (Table 53).

In all, skills such as letter-writing and interpreting political leaflets and cartoons may be easier to learn in a civics classroom setting for non-college respondents, as the effect of civic education participation is strong for these skills. Other skills, such as confidence in making a public statement or news monitoring skills, may be learned not just in a civics classroom, but also through other means such as an open classroom climate or a home environment conducive to learning civic skills.

Furthermore, civic education may not be a common course for students in lower-achieving school tracks. When non-college-bound students receive civics instruction, this may indicate they are participating in courses outside their track. Exposure to a higher-achieving track itself may result in higher levels of civic skills for non-college-bound students.

Discussion

To summarize, this subgroup analysis revealed that civics coursework has dissimilar effects on civic skill levels for some populations over others. While civic education has strong effects on some civic skills for African-Americans and Latinos, it has negative effects on other civic skills within the same populations. Similar effects were found among low-income students and non-college respondents. Females and males also experience differences in the effects of their civics courses. While females experience weaker effects of civic education on their civic skill levels in general, they hold greater levels of civic skills than males. The explanation may be that they gain less from courses since they start at a higher baseline.

This chapter's analyses raise two points for further research. First, differences in the effects of civics coursework should prompt an examination of the civics classroom. Differences in civics classroom climate or content may explain wide variations in the effects of civics coursework on civic skill levels among different populations. Second, the role civic education plays among all sources of civic skill development should be examined. As some populations have access to sources of civic skill development at lower rates than more privileged populations, understanding how civic education contributes to civic skill development compared to other sources is crucial. Chapter 7 concludes this dissertation.

Chapter 7 – CONCLUSIONS AND POLICY RECOMMENDATIONS

This dissertation examines the correlation between civic skills and civic education using probit models and propensity score matching methods. The analyses reveal that a history of civic education is correlated with civic skill presence for some civic skills, such as political interpretation skills. For other skills, such as news monitoring skills, civic education does not always influence their presence. The analyses show that the effect of civic education on civic skill presence varies for different subgroups, such as minority race/ethnicities, low-income, female, and non-college respondents. Key results are summarized below.

This dissertation is a study of civic skills, defined as the abilities to participate in politics. This dissertation examines numerous civic skills outside of voting. Skills needed for participation often are more difficult to acquire and more difficult to measure than the act of voting. They are also more difficult to teach. These are the skills that youth increasingly do not have, but are eager to learn (Rockeymoore 2004). They are also the skills that are not always taught in schools.

In the most recent Presidential election, the youth voter turnout rate greatly increased. Partial credit for the increase in youth voter turnout rates belongs to grassroots organizations and campaigns that targeted youth participation. While these organizations encouraged youth to vote, and sometimes even taught them how to vote, they did not teach youth other means of political participation besides voting. Many youth were inspired to vote by current events and urged by these organizations to express their political views through voting. For some young voters, this election experience

materialized a newfound willingness to participate in the political process. However, many youth do not have the abilities to politically participate outside of voting. For these young citizens, acting on willingness is futile without the capability to successfully participate in politics.

This dissertation examines the ability to politically participate, not the willingness to participate. Both ability and willingness are necessary for successful political participation. Sources of learning participation abilities include part-time jobs, extracurricular activities, religious group participation, parents, and civic education. This dissertation focused on civic education as a source of civic skill development.

Prior to this research, a quantitative analysis of civic skills and civic education did not exist. This dissertation provides such an analysis by applying quantitative research methods to the relationship between skills and civic education. In particular, this dissertation applies robust empirical methods (propensity score matching methods) to the analysis of this relationship. Propensity score matching methods mimic a randomized experiment and robustly control for observable factors in the analysis.

Research on civic education, political socialization, political participation, and the development of civic engagement in youth focuses on the willingness of young citizens to be politically engaged. An overall deficit in examining civic skills and abilities exists – from their origins, to how they are taught, to links with education, to links with political knowledge, and to links with political willingness. The relationship of civic skills to all these factors remains unaddressed in the current literature.

This dissertation considers civic skills scarce resources that are unequally distributed. The means tables and probit models in Chapters 3 and 4 show that minority

students hold lower levels of civic skills than more privileged students. Chapter 6 provides evidence that for some civic skills, such as political interpretation skills, racial/ethnic minorities and low-income studentsmay only have opportunities to learn civic skills in school. Overall, civic skills are not equally distributed among different race, ethnicity, household income, gender, and non-college populations.

Rockeymoore (2004) describes an 18 year-old African-American male who asked how he might effectuate political change in his community beyond voting. He lacked the skill but not the will to change the community around him. In turn, Rockeymoore wants young minorities to recognize "what is at stake if [they] fail to become educated about what is happening to them, why it is happening, and what they can do to confront the people, systems, and policies that would cripple them before they've had a chance to enter the race" (ibid., p. vii).

Are civic skills taught in high school civics courses? The answer to this question is mixed: for some students, in some classrooms, some civic skills are being taught. Unfortunately, this dissertation's analyses did not reveal consistent, blanket results among civic skills and civics topics. For example, studying the Constitution and the Presidency often, but not always, is correlated with civic skill presence. Similarly, news monitoring skills are correlated with civic education in some data sets but not others.

This dissertation finds that:

- Increased civic skill levels are present when contact with civic education is present
- Students of civic education are more likely to expect to complete a four-year college degree

- Students who do not take civic education are more likely to be African-American, Latino, or immigrants
- Students who do not take civic education are less likely to be in open classroom climates
- Political interpretation skills are influenced by the study of the Constitution and the Presidency
- Sometimes news monitoring skills are influenced by civic education; studying Congress is associated with news monitoring skills
- Probit models reveal minimal evidence that civic education influences communication skills; propensity score matching methods reveal small effects of civic education on communication skills
- Studying the Presidency is correlated with an increased frequency of group discussions; the propensity score matching methods provide minimal evidence of a link between civic education and group discussion skills
- An open classroom climate almost always is positively correlated with higher levels of civic skills
- African-American and immigrant students hold significantly lower levels of this dissertation's measured civic skills than other students
- Student government participation is correlated with increased communication skills
- Overall, the results of the propensity score matching methods support the probit models' results
- A strong difference exists in the effects of civic education on cognitive civic skills between racial/ethnic minorities and non-Hispanic whites

- African-American and Latino students experience a stronger effect of civic education on their cognitive skill levels than non-Hispanic whites
- The gap in skill levels between college-bound African-American students and non-college-bound African-American students is far greater than the gap in skill levels between college-bound non-Hispanic white students and non-college-bound non-Hispanic white students
- No evidence of a link between civic education and English language skills was found

At times, the same civic skills reveal inconsistent results within and among data sets. For example, the IEA/CivEd study reveals that studying the Constitution and the Presidency often contributes to the presence of civic skills, while studying other civics topics does not. This may be due to the students studying these topics in different courses. The differences in the topics themselves may also explain different results.

Differences in the make-up of data sets may explain different results among the data sets. For example, the ACPS study consisted of eighteen to thirty-year-old students and non-students. All of the other data sets comprise students and survey younger respondents. At the extremes, a fourteen-year-old student from the IEA/CivEd study was compared to a thirty-year-old non-student in the ACPS study. Furthermore, the ACPS and the NGI study were smaller than the other two data sets. Also of note, the ACPS data was collected in 1990, much earlier than the other data sets. These differences in sample make-up may explain different results among data sets that examine the same civic skills.

Finally, different civic skills themselves may engender different relationships with civic education. While political interpretation skills often correlate with studying civic

education topics, news monitoring skills are often unrelated to studying civic education. Civics classes may be more likely to teach cognitive skills (political interpretation skills) than participatory or group discussion skills.

Broad Limitations to the Study

Limitations exist regarding the methodology, assumptions, and data sources used in this study. Previous chapters discuss problems related to potential civic education selection, civic education measures within data sets, and civic skill measures.

This study highlights a problem with the civic education measure in the NGI study. The NGI study's survey question measures current civic education course-taking only, not prior civics course-taking. Due to this wording of the survey question, the measure does not completely capture civics course-taking. Throughout the dissertation, the NGI produced consistently weaker or different results than similar civic skill analyses from other data sources. The disparity in results may signify a serious problem in using the civic education measure found in the NGI study. This limitation should be considered when regarding results from the NGI study.

Similarly, the civic education measures in the IEA/CivEd study lacked complete information. The survey questions from the IEA/CivEd study asked students, "Have you studied the Constitution / Presidency / Congress, etc." Due to this wording, students may answer "yes" to the survey questions, without relaying which courses taught them the topic. In other words, students may answer "yes" if they studied these topics in their American history courses. In this sense, these measures also do not fully capture civics course-taking.

As discussed earlier, many of the civic skill measures examined were not pure measures of civic skills. For example, the news monitoring skills measured frequency of a behavior as indicative of a skill. Also, the communication skills measured confidence along with the skill itself. Ideally, these abilities to politically participate would be measured individually. However, the examined skills are the best available measures of these abilities.

This study measured civic skills that have been previously defined in published literature as civic skills. Yet other civic skills outside of the literature exist that this dissertation did not measure. For example, as discussed in Chapter 2, the use of "heuristics" as a civic skill, or short-cuts to effectuate political change in one's community, was not examined in this study. Also, the skills measured in this dissertation are the skills needed to politically participate in a majority non-Hispanic white American democracy. This dissertation judged all students on these same skills. This may explain the lower levels of skills held by African-American and Latino students. Rockeymoore (2004) encourages young minorities to learn alternative civic skills that this dissertation does not measure, such as expression through artwork and lobbying.

Finally, this dissertation does not examine sources of civic skill development outside of civic education. While the analyses controlled for many factors that may influence civic skill development, such as home environment, after school group activity, and job requirements, they do not directly test how these factors are correlated with civic skill presence. The relationship between civic skills and civic education should not be examined in a vacuum; other sources of civic skill development should be considered when studying this relationship.

Policy Recommendations

On December 21, 2004, President Bush signed into law the American History and Civics Education Act of 2004. The purpose of the bill is to "… establish academies for teachers and students of American history and civics and a national alliance of teachers of American history and civics, and for other purposes" (HR 5360 2004). The legislation institutionalizes the National Endowment for the Humanities' "We the People" program for elementary and secondary students. "We the People" teaches American history and civics through grants to teachers and scholars and provides summer institutes and seminars for American history teachers. The program provides curriculum suggestions for teachers and recommends readings for students. The new legislation allocates funds to establish Presidential learning academies for teachers of American history and civics, Congressional summer academies for students, and forms a national alliance of American history and civics teachers.

The legislation is laudable for its focus on teaching American history and civics, and has inspired national debate on the proper content of history and civics curricula. The legislation also provides much-needed funding for the continuing education of history and civics teachers. In all, this federal legislation legitimizes the importance of teaching history and civics. This is crucial, as No Child Left Behind Programs have not prioritized American history and civics.

However, the "We the People" curriculum does not focus on civic skills. While a solid history and civics curricula such as "We the People" can teach students about the role of political participation in American democracy, its primary aim is not to teach

participatory skills and abilities. This dissertation provides evidence that such a curriculum is desperately needed.

To start, every American high school graduate should take a civics course. Even if this course teaches civic skills secondarily and American government institutions and processes primarily, every student should have this background. An understanding of American government processes and procedures is a crucial seedbed for future political participation.

Along with basic concepts about American government, schools also need to teach students how to politically participate. Civic education should simultaneously teach civic skills and inspire willingness in students to be active, engaged citizens. To do this, schools should teach students how to make decisions in a group setting when all parties do not agree, how to be a successful political activist, how to organize others for a common political cause, and even how to vote.

This dissertation provides evidence that for some students, particularly racial/ethnic minorities and low-income students, civic education may be a sole reliable source of civic skill development. Other sources of civic skill development, such as after-school curricular activities and jobs, religious group participation, and parents and families, are simply unavailable to some students. For some, civic education is the only option for civic skill development. Civic education is the primary policy manipulatable source of civic skill development. Government and society cannot in good conscience influence the civic skill development students receive in their jobs or at home; however, policies can influence the teaching of civic skills in schools.

This burdens civics courses with a heavy responsibility. When youth who do receive civic education and learn civic skills are mostly non-Hispanic white and higher income, the future voice of American democracy is biased. Certainly the interests and preferences of racial/ethnic minority, female, and low-income citizens differ from those of non-Hispanic white, male, and higher income citizens. When schools do not teach civic skills in civics courses, they perpetuate the current reality that racial/ethnic minorities and low-income students have access to fewer sources of civic skill development than their more privileged counterparts.

What should schools do with this burden? Current high school curricula prioritize reading and math, and any skills likely to appear on standardized tests. Schools and students may not have time in their schedules for further civics study with a focus on civic abilities. School districts may not be able to afford to teach more in their current civics courses. Yet the goal of teaching civic skills must be prioritized, to equalize the citizen voice that our government hears. We must teach skills in high schools, to give all young citizens at least one venue from which to learn civic skills. When families cannot or do not teach civic skills and group participation and jobs are unavailable to disadvantaged youth, civic skills should be taught in schools.

According to the Civic Mission of Schools report, a promising approach to teaching civic skills includes class discussion, service-learning, student voice in school government, and simulations (Carnegie Corporation and CIRCLE 2003). All these methods should be used to teach civic skills. The New York Times' Learning Network Daily Lesson Plan[11] offers numerous lesson plans for civics teachers. Many of these implicitly teach civic skills. For example, in one lesson plan called "Stunning

[11] See http://www.nytimes.com/learning/teachers/lessons/civics.html.

Recommendation," students study current research on stun guns and safety and write letters to their elected officials about whether stun guns should be further regulated. In another lesson, students assess the charitable needs of their community and create a mock charitable organization to address these needs. Still other lessons urge students to form their own opinions on current topics, and to express themselves through writing or art. These lessons can teach participatory, organizational, and communication skills to students.

This dissertation stops short of recommending a separate semester of civic education with a focus on civic skills for all American high school students. Although this may be effective, such a requirement may not reflect overall community agreement on the importance of fostering civic skill development. In a sense, it would be putting the cart before the horse. The solution is to engender in schools and communities the importance of teaching civic skills, so as to equalize the ability to politically participate. Schools and their surrounding communities should seek to prioritize teaching civic skills and equal political participation. Communities, in turn, should support schools in this endeavor, and recognize the necessity of equal participation for a representative democracy.[12] Once communities, parents, students, and schools agree that equal ability to politically participate is a priority, schools should teach civic skills.

Future Research

Overall, further research is needed to understand what is happening inside civic education classrooms. This dissertation reveals different results of the effects of civic

[12] Campbell (2002) also emphasizes school-community partnerships to equalize and engender political participation.

education on civic skill presence among different civic skills and different populations. This study also reveals differences among students who study different civics topics, such as the Constitution and political parties and voting. Classroom curriculum content, classroom climate, and teacher behavior may explain these differences. The data sources in this dissertation do not measure differences inside students' civic education classrooms. Better data needs to be collected that measures civic skills, civic education content and environment, and students' civics course-taking history. This data would reveal whether differences inside the classroom contribute to differences in civic skill levels.

A large gap in current research comprises the effects, influence, and interaction of alterative sources of civic skill development with civic education. Alternative sources include parents, families and students' home environments; part-time job requirements and activities; after-school group activities; group memberships; and participation in religious organizations. While this study thoroughly examines the effect of civic education on civic skill levels, further research should similarly examine the effect of alternative sources of civic skill development on civic skill levels. Such studies would provide insight into the most effective means of acquiring civic skills. By fully understanding all sources of civic skill development, communities, parents, schools, and organizations could work to better develop civic skills in young people.

In the U.S., the concept of equal political participation as a human right is relatively new. Women have been voting for 85 years, African-Americans have had their vote legally protected for only 40 years, and 18 year-olds have been voting for 34 years.

While political influence and political participation has historically been reserved for the privileged, equalizing the ability for all to participate is a newer concept. How citizens learn the abilities to participate, and how these abilities can be equalized among all citizens is of grave concern to a fair and representative democracy. Schools, and civic education courses, are one reliable source of civic skill development. Schools and communities should prioritize teaching civic skills to all students.

Appendix A – Summary of Data Sets and Related Literature

	NHES	**IEA**	**ACPS**	**NGI**
Measurable Civic Skills	English proficiency, Ability to write letter, Ability to give speech, Monitor news	English proficiency, Political interpretation, Monitor news, Group discussion	English proficiency, Ability to write a letter, Ability to give a speech, Monitor news, Group discussion	Monitor news, Group discussion.
Civic Education Measure	High school courses that required attention to government, politics or national issues.	High school study of Congress, U.S. Constitution, Presidency, laws, court system, political parties, local government.	High school courses that required attention to current events.	High school courses that required attention to politics or government.
Covariates	Student government participation, group participation, community service.	Student government participation, group participation, religious participation, number of books in home, expected educational level.	Student government participation, type of job, political orientation, group participation, religious participation.	Student government participation, political orientation, group participation, religious participation, hours per day watching television.
Data Subset Used	10^{th} and 11^{th}-grade students	Entire data set (14-year-olds)	18-30 year-olds	15-25 year-old students
Sample Size	2,106	1,953	638	556
% in Sample with Civic Education	72.9%	69% - 81%	78.6%	50.7%

Note: Demographic factors such as age, race, sex, education level, and household income are absent from this chart but are included in the analyses.

ACPS = American Citizen Participation Survey 1990
NHES = National Household Education Survey 1999
IEA = IEA Civic Education Study 1999
NGI = Civic and Political Health of the Nation, Generational Portrait 2002

Related Literature:

Measurable Skills:	**Related Literature:**
English Proficiency	Verba et al 1995
Ability to write a letter	Verba et al 1995
Ability to give a speech	Verba et al 1995
Political interpretation	Patrick 2002, Torney-Purta 2002
Monitor news	Patrick 2000, Kirlin 2002
Group discussion	Kirlin 2003, Hurtado et al 2002
Covariates:	
Student government participation	Patrick 2002
Civics curriculum	Niemi and Junn 1998, Torney-Purta 2002
Type of job and job skills	Schur 2003
Political knowledge measure	Torney-Purta 2002
Political orientation	
Political club or group	Hurtado et al 2002
Religious participation	Schwadel 2002, Campbell 2001

Appendix B – Civic Skill Survey Questions

English proficiency

NHES: What language does [CHILD] speak at home?

IEA/CivEd: How often do you speak English at home?

ACPS: What language do you usually speak at home – English or something else?

Ability to write a letter / Political Communication

NHES: Suppose that you wanted to write a letter to someone in the government about something that concerned you. Do you feel that you could write a letter that clearly gives your opinion?

IEA/CivEd: When you are an adult, what do you expect you will do? Write letters to a newspaper about social or political concerns? [NOT USED]

ACPS: Suppose you wanted to write a letter to someone in the government – perhaps your Member of Congress or a local city official – on some issue or problem that concerned you. Do you feel that you write well enough to write a convincing letter expressing your point or do you feel that you do not?

Ability to give a speech

NHES: Imagine you went to a community meeting and people were making comments and statements. Do you think you could make a comment or a statement at a public meeting?

ACPS: Imagine you went to a community meeting and people were making comments and statements. Do you think you speak well enough to make an effective statement in public at such a meeting?

Political interpretation

IEA/CivEd: Which party issued political leaflet?
What do issuers of leaflet think about taxes?
What policy issuers of leaflet are likely to favor? [note: these are measured as correct / incorrect answers]

Main message of cartoon about political leader? [note: measured as correct / incorrect answers]

Monitor news

NHES: How often do you read about the national news in a newspaper or a newsmagazine like Newsweek, Time, or U.S. News and World Reports?

How often do you watch the national news on television or listen to the national news on the radio?

IEA/CivEd: How often do you read articles in the newspaper about what is happening in this country?

How often do you read articles in the newspaper about what is happening in other countries?

How often do you watch news broadcasts on television?

How often do you listen to news broadcasts on the radio?

ACPS: How often do you watch a national news broadcast on television?

Besides the news, how often do you watch some type of public affairs program on television?

How often do you read a newspaper?

NGI: How many days have you read a newspaper over the past seven days?

How many days have you read a magazine like Newsweek, Time, or U.S. News and World Reports over the past seven days?

How many days have you watched the national news on television over the past seven days?

How many days have you listened to the news on the radio over the past seven days?

How many days have you read news on the internet over the past seven days?

Some people seem to follow what's going on in government and public affairs most of the time, whether there's an election or not. Others aren't that interested. Do you follow what's going on in government and public affairs most of the time, some of the time, rarely or never?

Group discussion

IEA/CivEd: How often do you have discussions of what is happening in the U.S. government with people of your own age?

How often do you have discussions of what is happening in the U.S. government with parents or other adult family members?

ACPS: How often do you discuss local community politics or local community affairs with others?

How often do you discuss national politics and national affairs with others?

NGI: Have you ever worked together informally with someone or some group to solve problems in the community where you live?

How often do you talk about current events or things you have heard about in the news with your family and friends?

Appendix C – Civic Education Survey Questions

American Citizen Participation Survey (ACPS)

Thinking still about high school, did you have any courses that required you to pay attention to current events?

National Household Education Survey (NHES)

During this school year, have you had any courses that required you to pay attention to government, politics or national issues?

Last year, did you have any courses that required you to pay attention to government, politics or national issues?

IEA / Civic Education study

Over the past year, have you studied the United States Constitution?

Over the past year, have you studied Congress?

Over the past year, have you studied the President and the Cabinet?

Over the past year, have you studied how laws are made?

Over the past year, have you studied the court system?

Over the past year, have you studied political parties, elections, and voting?

Over the past year, have you studied state and local government?

Over the past year, have you studied other countries' government?

Over the past year, have you studied international organizations (such as the United Nations)?

Civic and Political Health of the Nation, Generational Portrait (NGI)

Do any of your classes require you to keep up with politics or government, either by reading the newspaper, watching TV, or going onto the Internet, or no?

Appendix D – Instrumental Variables Methods

Instrumental variables methods require an instrument, or an exclusion restriction. An exclusion restriction is a variable that is significantlyrelated to the pri mary independent variable of interest (civic education) but not related to the dependent variable (civic skills). In this case, the exclusion restriction would affect whether the respondent had civic education, but would not affect their skill level. The instrument acts as a proxy for the unobservable factors that influence civic education selection that otherwise would be included in the error term (Gujarati 1995).

Overall, reliable instruments are difficult to find. For this dissertation, I tested the use of three different state-level civic education policies as exclusion restrictions. In theory, state-level education policies should be related to civic education selection but not related to individual civic skill level. The instruments tested include: state graduation requirements in civics, citizenship education, or American government; civics, citizenship education or social studies included in state assessments; and state statutes that address civics, citizenship education, or social studies. Use of these instruments requires state-specific identifying information in the data sets. Table A that follows details the states that have these requirements, assessments, and statutes.

Table A: States that have Graduation Requirements, Include Civics in State Assessments, or Address Civics in State Statutes		
Graduation Requirements	State Assessments	State Statutes
AL, AZ, AR, CA, CO, CT, DC, FL, GA, HI, ID, IL, IN, IA, KS, KY, LA, ME, MD, MA, MI, MO, NV, NH, NM, NY, NC, ND, OH, OK, OR, PA, SC, SD, TN, TX, UT, VA, WA, WI, WY	CA, DE, GA, IN, KS, KY, LA, ME, MI, MO, MT, NH, NC, OR, SC, TX, UT, WI	AL, AZ, AR, CA, CO, CT, DE, GA, ID, IL, IN, IA, KS, KY, LA, ME, MA, MI, MN, MS, MO, NE, NH, NJ, NY, NC, OK, OR, PA, SC, TN, TX, UT, VT, VA, WA, WV, WI, WY

Source: Education Commission of the States (ECS) database. www.ecs.org.

As stated earlier, for these instruments to be valid, they must be significantly correlated with the measure of civic education in the data sets. Two data sets allowed for examination of instruments – the NGI and the NHES. Table B below shows coefficients and standard errors of the three tested instruments from the first-stage of the bivariate probit models. Civic education is the dependent variable.

Table B: Coefficients from First-Stage Bivariate Probit Models

	Graduation Requirements	State Assessments	State Statutes
NGI	.035 (.190)	.212 (.122)	-.104 (.164)
NHES	-.069 (.118)	-.021 (.073)	-.190 (.099)

Civic Education is the dependent variable in both models. Standard errors are in parentheses.

Because none of the tested instruments are significantly related to the civic education measure in each data set, they cannot be used as exclusion restrictions. In fact, the coefficients examined in the NHES study are negatively associated with civic education participation.

If these instruments were significantly correlated with civic education participation, they could be relied upon to absorb some of the exogenous variation in the civic education measures. Unfortunately for this dissertation, this was not the case, and the instruments are unusable.

Appendix E - Propensity Score Matching Methods

Viewing civic education as a treatment enables the construction of a counter-factual to be used as an appropriate comparison group in the probit analyses. This counter-factual is constructed to be as similar as possible (based on observable background characteristics) to the group receiving the treatment. In doing so, an unbiased estimate of the treatment outcome is obtained. In order for this to be correct, the conditional independence assumption (CIA) is assumed. The CIA presumes that given a background characteristic, or value of X available in the data sets, the outcome Y_0 for the treated group is equal to the same outcome, Y_0, in the untreated group. Unfortunately this cannot be tested without experimental data.

An ideal experiment would observe what the civic skill development would have been like in the respondents who did take a civic education course, had they not taken the course. As this is not possible, a counter-factual will be approximated. For example, let

Y_{1i} = the individual's treated outcome

Y_{0i} = the individual's untreated outcome

X = a vector of observed individual background characteristic variables included as covariates in the probit analyses.

The issue of common support is not a concern with any of the four data sets. For the treated and untreated groups, the distributions where all X are supported generously

overlap. The chart at the end of this Appendix details the means and standard deviations for the propensity scores for all four data sets. The similarity in propensity score values between the treated and untreated groups in each of the four data sets indicates common background characteristics (*X* vector variables) for each analysis.

$D = 1$ if treated

$D = 0$ if no treatment

where *D* is civic education, the treatment of interest. The stable unit treatment value assumption (SUTVA) is presumed in this analysis. SUTVA presumes that the outcomes for both the treated and untreated students (Y_{1i} and Y_{0i}) do not rely on the treatment participation decisions of other students or the number of students receiving the treatment.

These matching methods estimate a counter-factual of what would occur to the treated student if they did not take civic education. This counter-factual, or comparison group, will give the outcome $E(Y_{0i} \mid X, D=0)$. Therefore, the parameter of greatest interest, the "average treatment effect" is estimated as:

$E(Y_{1i} \mid X) - E(Y_{0i} \mid X)$

And another parameter of interest, the "average treatment effect on the treated," will be estimated as:

$E(Y_{1i} \mid X, D=1) - E(Y_{0i} \mid X, D=1)$

Propensity score matching methods were employed to construct the counter-factual. Propensity score matching methods were chosen for their simplicity; typically, propensity score matching methods are employed to solve for the "curse of dimensionality" (Heckman et al. 1998).

This dissertation employs nearest-neighbor matching methods with replacement. Common support was imposed and tied propensity score observations were also matched. The treated observations outnumbered the untreated observations in the IEA/CivEd, NHES, and ACPS surveys. Treated and untreated observations were approximately equal in the NGI survey. Due to the ratio of treated observations to untreated observations, nearest-neighbor methods were deemed appropriate (Frölich 2004). When matching is done with replacement, as in this dissertation, the same untreated individual can be matched to more than one treated individual.

Matching methods increase model variance by estimating the propensity scores. Bootstrapped standard errors were calculated as an alternative measure of variance. Bootstrapped standard errors account for added variance, such as that introduced by the estimation of the propensity scores and by matching with replacement (Efron 1993). Also, matching-weighted probits were conducted. The matching weight is the frequency the observation is used as a match. This weight is included in the probit models to present an alternative means of estimating the civic education coefficients.

Propensity Score Means

	***D* = 1**	***D* = 0**
IEA/CivEd:		
Studied Constitution:		
N	1,559	394
Propensity Score Mean	.814	.747
Propensity Score Std. Deviation	.102	.125
Studied Congress:		
N	1,493	460
Propensity Score Mean	.784	.699
Propensity Score Std. Deviation	.122	.149
Studied Presidency:		
N	1,312	641
Propensity Score Mean	.688	.608
Propensity Score Std. Deviation	.130	.150
Studied How Laws are Made:		
N	1,520	433
Propensity Score Mean	.790	.735
Propensity Score Std. Deviation	.097	.113
Studied Political Parties:		
N	1,427	526
Propensity Score Mean	.739	.677
Propensity Score Std. Deviation	.103	.126
Studied State and Local Gov't.:		
N	1,355	598
Propensity Score Mean	.698	.644
Propensity Score Std. Deviation	.100	.112
NGI:		
N	277	278
Propensity Score Mean	.543	.471
Propensity Score Std. Deviation	.133	.132
NHES:		
N	1,532	574
Propensity Score Mean	.734	.699
Propensity Score Std.	.079	.092

Deviation		
ACPS:		
N	478	136
Propensity Score Mean	.796	.687
Propensity Score Std. Deviation	.127	.175

Table 1
International Association for the Evaluation of Educational Achievement Civic Education study: IEA/CivEd
Means

		Of those who studied….							
	Full Sample	Constitution	Congress	Presidency	Laws	Political Parties	State/ Local Gov't.	Studied 2 or Fewer Topics[a]	Studied 3 or More Topics
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Studied:									
Constitution	81.11%	100.00%	94.95%	93.45%	90.76%	90.73%	90.82%	19.28%	94.21%
Congress	77.73%	91.01%	100.00%	93.02%	89.85%	89.48%	89.73%	9.06%	92.30%
Presidency	67.69%	77.99%	81.00%	100.00%	78.98%	79.71%	78.81%	7.63%	80.42%
Laws	78.96%	88.35%	91.26%	92.13%	100.00%	89.74%	89.55%	19.36%	91.59%
Political Parties	73.34%	82.05%	84.42%	86.36%	83.36%	100.00%	88.71%	16.93%	85.30%
State/Local Gov't.	69.10%	77.38%	79.77%	80.45%	78.38%	83.59%	100.00%	16.63%	80.23%
Civic Skills:									
Political Interpretation:									
Leaflet 1[b]	85.59%	87.50%	87.20%	88.41%	87.04%	86.28%	86.54%	79.69%	86.84%
Leaflet 2	86.48%	88.98%	88.80%	88.80%	87.75%	87.67%	88.02%	77.81%	88.32%
Leaflet 3	74.78%	76.95%	76.84%	77.07%	75.84%	76.93%	75.41%	64.51%	76.95%
Cartoon 1	90.30%	92.46%	92.10%	92.90%	91.95%	92.01%	92.17%	80.87%	92.30%
Cartoon 2	78.75%	80.26%	80.58%	81.38%	79.74%	79.44%	78.52%	71.02%	80.39%
News Monitoring:									
Monitor this country[c]	62.87%	65.06%	65.80%	66.51%	65.20%	66.02%	66.36%	49.10%	65.78%
Monitor other countries	53.57%	55.98%	56.17%	56.24%	55.22%	57.24%	56.78%	39.73%	56.51%
Monitor TV	80.00%	82.87%	82.26%	82.72%	81.98%	82.73%	82.88%	68.13%	82.51%
Monitor Radio	43.89%	45.97%	46.80%	48.40%	46.61%	47.79%	46.81%	30.12%	46.81%
English[d]:	92.78%	93.64%	93.42%	94.18%	93.52%	93.70%	93.89%	88.39%	93.71%
Group Discussion:									
w/ Own Age[e]	28.62%	30.03%	30.28%	32.01%	30.19%	31.40%	30.61%	22.46%	29.93%
w/ Parents	58.76%	61.78%	62.86%	64.46%	61.97%	61.55%	62.32%	41.40%	62.45%
w/ Teachers	60.13%	63.10%	64.03%	64.57%	62.57%	63.91%	65.21%	44.50%	63.44%
sample size:	1,953	1,559	1,493	1,312	1,520	1,427	1,355	361	1,592

a) Students who report studying 0, 1 or 2 of the six listed civics education topics.

b) Percent correctly interpreting political leaflets and political cartoons
Leaflet 1: Dependent variable =1 if student correctly interpreted which party issued the political leaflet.
Leaflet 2: Dependent variable=1 if student correctly interpreted what leaflet issuers think about taxes.
Leaflet 3: Dependent variable=1 if student correctly interpreted what policy the issuers of the leaflet favor.
Cartoon 1: Dependent variable =1 if student correctly interpreted a political cartoon about a political leader.
Cartoon 2: Dependent variable =1 if student correctly interpreted a political cartoon about democracy.

c) Monitoring the news variables: percent answering "sometimes" or "often."

d) Percent responding that they speak English always or almost always at home.

e) Group discussion variables: percent answering "sometimes" or "often" to "How often do you have discussions of what is happening in the U.S. government with people of your own age / parents / teachers?"

All calculations used the "total weight" as provided in the survey data.

Table 2
International Association for the Evaluation of Educational Achievement Civic Education study: IEA/CivEd
Means

		Of those who studied….							
	Full Sample	Constitution	Congress	Presidency	Laws	Political Parties	State/ Local Gov't.	Studied 2 or Fewer Topics[a]	Studied 3 or More Topics
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Studied:									
Constitution	81.11%	100.00%	94.95%	93.45%	90.76%	90.73%	90.82%	19.28%	94.21%
Congress	77.73%	91.01%	100.00%	93.02%	89.85%	89.48%	89.73%	9.06%	92.30%
Presidency	67.69%	77.99%	81.00%	100.00%	78.98%	79.71%	78.81%	7.63%	80.42%
Laws	78.96%	88.35%	91.26%	92.13%	100.00%	89.74%	89.55%	19.36%	91.59%
Political Parties	73.34%	82.05%	84.42%	86.36%	83.36%	100.00%	88.71%	16.93%	85.30%
State/Local Gov't.	69.10%	77.38%	79.77%	80.45%	78.38%	83.59%	100.00%	16.63%	80.23%
Classroom climate:									
Students disagree	69.42%	72.74%	74.21%	73.99%	72.32%	73.01%	73.26%	50.65%	73.41%
Students' own minds	82.95%	84.98%	85.97%	85.24%	84.56%	85.44%	85.32%	70.82%	85.52%
Student opinions[b]	74.83%	77.85%	78.82%	79.15%	77.08%	78.08%	78.67%	59.33%	78.11%
Demographics:									
African-American	11.44%	10.84%	10.14%	10.22%	10.74%	11.37%	11.74%	14.15%	10.86%
Latino	11.74%	11.09%	11.04%	10.56%	12.20%	11.32%	10.22%	13.41%	11.39%
Asian	6.05%	6.12%	6.08%	5.35%	5.81%	6.13%	5.74%	6.51%	5.95%
Whites	74.36%	75.85%	76.54%	77.40%	75.55%	75.13%	75.58%	67.12%	75.90%
Female	51.66%	53.53%	52.80%	51.99%	53.08%	52.53%	52.58%	42.56%	53.59%
Males	48.34%	46.47%	47.20%	48.01%	46.92%	47.47%	47.42%	57.44%	46.41%
Immigrants	9.59%	9.25%	9.33%	8.14%	9.00%	9.08%	8.91%	12.22%	9.03%
Student Gov't.	32.73%	35.44%	35.35%	35.75%	34.70%	34.97%	34.83%	21.61%	35.09%
College Degree[c]	70.90%	73.87%	74.68%	75.83%	73.49%	74.11%	72.72%	56.34%	73.98%
Over 100 books in Home	51.34%	52.49%	52.69%	53.88%	52.72%	53.79%	52.88%	44.66%	52.76%
Newspaper in home	60.80%	62.22%	62.62%	63.00%	62.39%	62.05%	61.55%	52.42%	62.58%
sample size:	1,953	1,559	1,493	1,312	1,520	1,427	1,355	361	1,592

a) Students who report studying 0, 1 or 2 of the six listed civics education topics.

b) "Students disagree" - Students 'sometimes' or 'often' feel free to disagree openly with their teachers about political and social issues during class. "Students' own minds" - Students 'sometimes' or 'often' are encouraged to make up their minds about issues. "Student opinions" - Students 'sometimes' or 'often' feel free to express opinions in class even when their opinions are different.

c) Percentage of students expecting to complete a four-year college degree.

All calculations used the "total weight" as provided in the survey data.

Table 3
Civic and Political Health of the Nation, National Generational Index study: NGI
Means

	15-25 year-olds	15-25 year-olds in school[a]	15-25 year-olds in school who study civics education	15-25 year-olds in school who do not study civics education
	(1)	(2)	(3)	(4)
Studied Civics Education	31.93%	50.77%		
Civic Skills:				
News Monitoring:				
Read newspaper[b]	30.32%	29.12%	29.27%	29.06%
Read newsmagazines	5.23%	6.15%	5.27%	7.08%
Watch news	37.68%	35.27%	38.03%	32.53%
Listen radio news	32.98%	31.65%	32.37%	30.69%
Read internet news	15.52%	15.46%	15.86%	15.09%
Collective Decision-Making:				
Work informally[c]	38.50%	43.25%	47.59%	38.93%
Group discussion	86.75%	86.61%	89.06%	84.03%
African-American	15.33%	16.85%	15.27%	18.53%
Latino	14.63%	14.39%	17.43%	10.96%
Asian	2.73%	3.16%	3.40%	2.93%
White	72.53%	69.97%	69.07%	71.14%
Female	49.72%	48.89%	48.23%	49.39%
Male	50.28%	51.11%	51.77%	50.61%
Immigrants	7.99%	7.89%	7.62%	8.19%
Student Gov't.	7.13%	11.74%	15.13%	8.29%
Political Efficacy	31.68%	32.44%	37.43%	27.07%
Vote always[d]	32.34%	38.07%	45.07%	30.98%
Vote sometimes	34.03%	33.36%	31.72%	34.82%
Vote rarely	9.63%	7.03%	5.13%	9.02%
Conservative	26.34%	25.00%	26.60%	23.44%
Moderate	38.56%	37.10%	37.24%	37.09%
Liberal	25.43%	26.63%	28.26%	24.70%
Religion very important	49.90%	48.50%	47.92%	49.25%
Family Income over $80,000	12.29%	14.48%	12.93%	16.14%
sample size:	1,001	556	277	278

a) In school: currently in high school or undergraduate college
b) Monitoring the news variables: percent answering 5, 6 or 7 days per week
c) Collective decision-making skill variables: percent answering "yes" to "Have you ever worked together informally with someone or some group to solve problems in the community where you live?" and percent answering "very often" or "sometimes" to "How often do you talk about current events or things you have heard about in the news with your family and friends?"
d) Measures of voting behavior: Respondents age 15 to 19 were asked "How often do you think you will vote…" Respondents over age 19 were asked "How often do you vote…"

All calculations used the "step weight" as provided in the survey data.

Table 4
National Household Education Survey: NHES 10th and 11th grade only
Means

	Full Sample	Had Civics Education this year or last year	Did not have Civics Education this year or last year
	(1)	(2)	(3)
Studied Civics Education	72.95%		
Civic Skills:			
News Monitoring:			
Read newspaper[a]	51.34%	54.24%	43.51%
Watch news	76.04%	78.12%	70.40%
English at home	96.05%	96.78%	94.10%
Communication skills:			
Write letter[b]	92.12%	93.42%	88.60%
Make statement	80.79%	81.28%	79.46%
Female	50.36%	49.96%	51.45%
African-American	16.20%	17.05%	13.90%
Latino	12.14%	10.37%	16.90%
Student Gov't.	15.28%	16.37%	12.35%
Political Efficacy	69.11%	70.02%	66.66%
Immigrants	5.43%	4.52%	7.90%
Private School Attendees	7.49%	7.63%	7.11%
Group Participation	69.59%	72.71%	61.18%
Work outside of school	59.58%	61.52%	54.35%
College Degree[c]	86.94%	87.85%	84.46%
Family Income under $25,000	30.29%	29.80%	31.60%
sample size:	2,106	1,532	574

a) Monitoring the news variables: percent answering "almost daily" or "at least once a week"
b) Communication skills: percent answering that they could write a letter to someone in governı
make a statement at a public meeting.
c) Percentage of students expecting to complete a four-year college degree.

All calculations used the "FY" weight as provided in the survey data.

Table 5
American Citizen Participation Survey: ACPS
Means

	Full Sample	Had Civics Education in high school	Did not have Civics Education in high school
	(1)	(2)	(3)
Studied Civics Education	78.63%		
Civic Skills:			
News Monitoring:			
Read newspaper[a]	83.05%	85.06%	82.91%
Watch public affairs	32.53%	32.84%	30.48%
Watch news	77.22%	78.59%	74.24%
English at home	94.91%	97.52%	90.00%
Communication skills:			
Write letter[b]	77.16%	80.73%	71.55%
Make speech	64.09%	68.12%	55.68%
Group Disscussion Local[c]	42.67%	45.34%	31.71%
Group Disscussion National	58.57%	61.79%	46.19%
Female	50.40%	52.48%	42.50%
Black	10.95%	10.25%	11.69%
Latino	8.66%	6.86%	13.36%
Student Gov't.	29.61%	34.08%	16.04%
Political Efficacy local[d]	45.00%	48.45%	37.43%
Political Efficacy national	15.84%	16.29%	15.30%
Immigrants	9.13%	7.10%	15.62%
Private School Attendees	10.72%	9.98%	13.28%
Religion is very important	41.29%	41.38%	37.56%
Liberal	32.09%	33.59%	25.43%
Conservative	33.67%	31.83%	42.56%
Some College[e]	51.67%	55.37%	41.32%
Family Income under $20,000	29.94%	28.61%	33.59%
sample size:	638	478	136

a) Monitoring the news variables: percent answering at least once a week
b) Communication skills: percent answering that they could write a convincing letter to someone in government or make an effective public statement at a community meeting.
c) Group discussion skills: percent answering that they discuss local / national events every day, nearly every day, or once or twice a week with others.
d) Percent of respondents who feel they have "some" or "a lot" of influence over local / national government decisions.
e) Percentage of respondents who completed some college.

All calculations used the "wt2517" weight as provided in the survey data.

Table 6
Political Interpretation Skills - Political Leaflets (IEA/CivEd)
Probit Models

	Leaflet 1		Leaflet 2		Leaflet 3	
	(1)	(2)	(3)	(4)	(5)	(6)
Civic Education variables:						
Studied Constitution	.312*	.267*	.411*	.360*	.250*	0.196
	(.126)	(.125)	(.130)	(.133)	(.108)	(.112)
	[.076]	[.055]	[.099]	[.071]	[.083]	[.063]
Studied Congress	-0.047	-0.251	0.161	0.004	0.098	-0.026
	(.135)	(.135)	(.135)	(.137)	(.113)	(.118)
	[-.010]	[-.043]	[.035]	[.000]	[.031]	[-.008]
Studied Presidency	.300*	.247*	0.121	0.012	0.086	0.016
	(.097)	(.103)	(.100)	(.106)	(.090)	(.093)
	[.070]	[.048]	[.026]	[.002]	[.027]	[.005]
Studied How Laws are Made	0.087	0.124	-0.075	-0.048	-0.089	-0.077
	(.117)	(.120)	(.124)	(.128)	(.103)	(.103)
	[.019]	[.024]	[-.015]	[-.008]	[-.027]	[-.023]
Studied Political Parties	-0.149	-.257*	-0.073	-0.146	0.194*	0.163
	(.112)	(.118)	(.116)	(.125)	(.091)	(.093)
	[-.031]	[-.044]	[-.015]	[-.023]	[.063]	[.051]
Studied State and Local Government	-0.027	-0.01	0.021	-0.002	-0.163	-0.146
	(.100)	(.102)	(.100)	(.106)	(.085)	(.087)
	[-.006]	[-.001]	[.004]	[-.001]	[-.050]	[-.044]
Latino		-0.071		-0.169		0.008
		(.115)		(.112)		(.101)
		[-.013]		[-.031]		[.002]
African-American		-.435*		-.522*		-.372*
		(.103)		(.103)		(.097)
		[-.099]		[-.114]		[-.126]
Asian		0.12		0.073		0.078
		(.172)		(.190)		(.146)
		[.021]		[.012]		[.023]
Immigrant		-0.131		-.257*		-0.051
		(.119)		(.122)		(.115)
		[-.026]		[-.050]		[-.016]
Female		0.157		.284*		0.022
		(.086)		(.086)		(.075)
		[.029]		[.049]		[.007]
In Student Government		.295*		0.179		0.097
		(.096)		(.098)		(.080)
		[.052]		[.029]		[.029]
Expecting to Complete a 4-year College Degree		.518*		.376*		.380*
		(.084)		(.088)		(.076)
		[.110]		[.071]		[.123]
Classroom climate:						
Students feel free to disagree openly with teachers		0.08		.226*		0.089
		(.089)		(.090)		(.084)
		[.015]		[.041]		[.027]
Students are encouraged to make up own minds		.214*		0.084		0.047
		(.104)		(.104)		(.098)
		[.043]		[.015]		[.014]
Students express opinions in class even when different		0.038		0.116		.280*
		(.093)		(.093)		(.084)
		[.007]		[.020]		[.090]
Controls for Number of Books and Newspapers in Home		yes		yes		yes
Controls for Group Participation		yes		yes		yes
Control for Feelings of Political Efficacy		yes		yes		yes
Log Pseudo-Likelihood	-787.03	-682.32	-751.62	-639.12	-1088.22	-1024.08
sample size:	1,953	1,953	1,953	1,953	1,953	1,953

Leaflet 1: Dependent variable =1 if student correctly interpreted which party issued the political leaflet.
Leaflet 2: Dependent variable=1 if student correctly interpreted what leaflet issuers think about taxes.
Leaflet 3: Dependent variable=1 if student correctly interpreted what policy the issuers of the leaflet favor.

"Controls for Group Participation" include youth, school paper, enivronmental, Model UN, student exchange, human rights, volunteer, charity, Boy or Girl Scouts, ethnic, computer, art, sports, or religious groups.

Robust standard errors are in parentheses. Marginal effects are in brackets.
* significant at the α=.05 level.

All calculations used the "total weight" as provided in the survey data.

Table 7
Political Interpretation Skills - Political Cartoons (IEA/CivEd)
Probit Models

	Cartoon 1		Cartoon 2	
	(1)	(2)	(3)	(4)
Civic Education variables:				
Studied Constitution	.406*	.366*	0.124	0.092
	(.148)	(.149)	(.117)	(.121)
	[.077]	[.059]	[.037]	[.026]
Studied Congress	-0.098	-0.291	0.179	0.097
	(.147)	(.153)	(.121)	(.125)
	[-.015]	[-.035]	[.053]	[.027]
Studied Presidency	.235*	.216*	.231*	0.158
	(.104)	(.110)	(.089)	(.093)
	[.040]	[.031]	[.068]	[.044]
Studied How Laws are Made	0.083	0.105	-0.025	-0.032
	(.123)	(.124)	(.108)	(.109)
	[.014]	[.015]	[-.007]	[-.008]
Studied Political Parties	0.039	-0.026	-0.029	-0.08
	(.121)	(.124)	(.100)	(.104)
	[.006]	[-.003]	[-.008]	[-.021]
Studied State and Local Government	0.084	0.116	-0.203	-0.183
	(.107)	(.110)	(.095)	(.099)
	[.014]	[.016]	[-.056]	[-.048]
Latino		-0.052		0.011
		(.126)		(.105)
		[-.007]		[.003]
African-American		-.517*		-.283*
		(.117)		(.100)
		[-.093]		[-.085]
Asian		0.086		0.044
		(.188)		(.173)
		[.011]		[.011]
Immigrant		-0.08		-0.061
		(.131)		(.122)
		[-.011]		[-.017]
Female		.244*		-0.017
		(.097)		(.078)
		[.033]		[-.004]
In Student Government		0.208		0.12
		(.112)		(.085)
		[.027]		[.032]
Expecting to Complete a 4-year College Degree		.301*		.372*
		(.095)		(.079)
		[.045]		[.109]
Classroom climate:				
Students feel free to disagree openly with teachers		0.023		-0.069
		(.103)		(.087)
		[.003]		[-.081]
Students are encouraged to make up own minds		0.116		-0.026
		(.116)		(.097)
		[.016]		[-.007]
Students express opinions in class even when different		.285*		0.134
		(.102)		(.089)
		[.043]		[.038]
Controls for Number of Books and Newspapers in Home		yes		yes
Controls for Group Participation		yes		yes
Control for Feelings of Political Efficacy		yes		yes
Log Pseudo-Likelihood	-597.34	-541.29	-996.4	-931.37
sample size:	1,953	1,953	1,953	1,953

Cartoon 1: Dependent variable =1 if student correctly interpreted a political cartoon about a political leader.
Cartoon 2: Dependent variable =1 if student correctly interpreted a political cartoon about democracy.

"Controls for Group Participation" include youth, school paper, enivronmental, Model UN, student exchange, h
rights, volunteer, charity, Boy or Girl Scouts, ethnic, computer, art, sports, or religious groups.

Robust standard errors are in parentheses. Marginal effects are in brackets.
* significant at the α=.05 level.

All calculations used the "total weight" as provided in the survey data.

Table 8
Monitoring the News (IEA/CivEd)
Probit Models

	Read Newspaper 1		Read Newspaper 2		Watch TV		Listen to Radio	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Civic Education variables:								
Studied Constitution	0.027	-0.029	0.151	0.104	.394*	.356*	-0.023	-0.087
	(.107)	(.110)	(.106)	(.112)	(.112)	(.115)	(.108)	(.111)
	[.010]	[-.011]	[.060]	[.041]	[.119]	[.103]	[-.009]	[-.034]
Studied Congress	0.115	0.016	0.068	-0.046	-0.096	-0.22	0.066	0.026
	(.112)	(.114)	(.111)	(.116)	(.121)	(.124)	(.114)	(.114)
	[.043]	[.006]	[.027]	[-.018]	[-.025]	[-.055]	[.026]	[.010]
Studied Presidency	0.127	0.068	0.023	0.001	0.066	0.009	.212*	.177*
	(.084)	(.085)	(.084)	(.086)	(.091)	(.095)	(.085)	(.086)
	[.048]	[.025]	[.009]	[.001]	[.018]	[.002]	[.083]	[.069]
Studied How Laws are Made	0.03	0.053	-0.073	-0.063	0.026	0.023	0.086	0.1
	(.096)	(.099)	(.096)	(.100)	(.105)	(.106)	(.098)	(.099)
	[.011]	[.020]	[-.029]	[-.025]	[.007]	[.006]	[.033]	[.039]
Studied Political Parties	0.104	0.062	0.234*	.209*	0.128	0.087	.227*	0.183
	(.091)	(.094)	(.091)	(.094)	(.093)	(.097)	(.093)	(.095)
	[.039]	[.023]	[.093]	[.083]	[.036]	[.023]	[.088]	[.071]
Studied State and Local Government	0.134	0.124	0.088	0.077	0.125	0.117	0.008	-0.028
	(.085)	(.087)	(.084)	(.086)	(.089)	(.092)	(.085)	(.086)
	[.051]	[.047]	[.033]	[.030]	[.035]	[.031]	[.003]	[-.011]
Latino		-0.079		0.068		0.051		-0.072
		(.100)		(.100)		(.111)		(.101)
		[-.029]		[.027]		[.013]		[-.028]
African-American		-0.151		-.262*		0.06		0.14
		(.096)		(.095)		(.108)		(.100)
		[-.057]		[-.104]		[.015]		[.055]
Asian		0.088		0.239		0.088		-0.158
		(.149)		(.143)		(.160)		(.142)
		[.032]		[.093]		[.022]		[-.061]
Immigrant		0.149		.330*		-0.001		-0.076
		(.111)		(.111)		(.120)		(.111)
		[.054]		[.127]		[-.001]		[-.029]
Female		-0.115		-0.045		0.027		.187*
		(.071)		(.070)		(.077)		(.070)
		[-.043]		[-.018]		[.007]		[.073]
In Student Government		0.097		0.025		0.095		-0.006
		(.076)		(.074)		(.081)		(.074)
		[.036]		[.009]		[.024]		[-.002]
Expecting to Complete a 4-year College Degree		0.026		-0.018		0.041		0.05
		(.075)		(.075)		(.082)		(.075)
		[.009]		[-.007]		[.010]		[.019]
Classroom climate:								
Students feel free to disagree openly with teachers		0.092		0.051		.213*		0.14
		(.079)		(.078)		(.083)		(.079)
		[.034]		[.020]		[.058]		[.054]
Students are encouraged to make up own minds		.184*		.287*		0.16		0.182
		(.093)		(.093)		(.097)		(.095)
		[.070]		[.114]		[.044]		[.070]
Students express opinions in class even when different		.249*		.259*		.248*		0.096
		(.081)		(.080)		(.085)		(.083)
		[.094]		[.103]		[.069]		[.037]
Controls for Number of Books and Newspapers in Home		yes		yes		yes		yes
Controls for Group Participation		yes		yes		yes		yes
Control for Feelings of Political Efficacy		yes		yes		yes		yes
Log Pseudo-Likelihood	-1268.61	-1198.35	-1329.96	-1240.95	-952.91	-901.66	-1314.13	-1255.3
sample size:	1,953	1,953	1,953	1,953	1,953	1,953	1,953	1,953

Read Newspaper 1: Dependent variable =1 if respondent answered "sometimes" or "often" to "How often do you read articles in the newspaper about what is happening in this country?"
Read Newspaper 2: Dependent variable =1 if respondent answered "sometimes" or "often" to "How often do you read articles in the newspaper about what is happening in other countries?"
Watch: Dependent variable =1 if respondent answered "sometimes" or "often" to "How often do you watch news broadcasts on television?"
Listen: Dependent variable =1 if respondent answered "sometimes" or "often" to "How often do you listen to news broadcasts on the radio?"

"Controls for Group Participation" include youth, school paper, enivronmental, Model UN, student exchange, human rights, volunteer, charity, Boy or Girl Scouts, ethnic, computer, art, sports, or religious groups.

Robust standard errors are in parentheses. Marginal effects are in brackets.
* significant at the α=.05 level.

All calculations used the "total weight" as provided in the survey data.

Table 9
English Language Skills (IEA/CivEd)
Probit Models

	(1)	(2)
Civic Education variables:		
Studied Constitution	0.205 (.167) [.030]	0.221 (.184) [.014]
Studied Congress	-0.181 (.159) [-.022]	-0.318 (.186) [-.015]
Studied Presidency	.220* (.106) [.031]	0.029 (.141) [.001]
Studied How Laws are Made	0.04 (.137) [.005]	0.202 (.152) [.013]
Studied Political Parties	0.045 (.111) [.006]	0.059 (.142) [.003]
Studied State and Local Government	0.129 (.107) [.017]	0.026 (.138) [.001]
Latino		-1.249* (.124) [-.176]
African-American		0.031 (.168) [.001]
Asian		-.889* (.168) [-.107]
Immigrant		-.799* (.134) [-.086]
Female		0.101 (.115) [.005]
In Student Government		0.058 (.123) [.003]
Expecting to Complete a 4-year College Degree		0.21 (.127) [.013]
Classroom climate:		
Students feel free to disagree openly with teachers		0.155 (.133) [.009]
Students are encouraged to make up own minds		0.017 (.152) [.001]
Students express opinions in class even when different		0.066 (.133) [.003]
Controls for Number of Books and Newspapers in Home		yes
Controls for Group Participation		yes
Control for Feelings of Political Efficacy		yes
Log Pseudo-Likelihood	-497.99	-321.86
sample size:	1,953	1,953

Dependent Variable =1 if respondents speak English at home always or almost always

"Controls for Group Participation" include youth, school paper, enivronmental, Model U
rights, volunteer, charity, Boy or Girl Scouts, ethnic, computer, art, sports, or religio

Robust standard errors are in parentheses. Marginal effects are in brackets.
* significant at the α=.05 level.

All calculations used the "total weight" as provided in the survey data.

Table 10
Group Discussion Skills (IEA/CivEd)
Probit Models

	People Own Age		Parents		Teachers	
	(1)	(2)	(3)	(4)	(5)	(6)
Civic Education variables:						
Studied Constitution	0.028	0.03	0.052	-0.002	0.078	0.027
	(.121)	(.123)	(.107)	(.108)	(.108)	(.109)
	[.009]	[.010]	[.020]	[-.001]	[.030]	[.010]
Studied Congress	-0.052	-0.157	0.2	0.112	0.197	0.131
	(.123)	(.127)	(.111)	(.111)	(.113)	(.118)
	[-.018]	[-.053]	[.078]	[.043]	[.077]	[.051]
Studied Presidency	.239*	.214*	.294*	.239*	0.141	0.118
	(.088)	(.089)	(.084)	(.085)	(.086)	(.087)
	[.078]	[.069]	[.115]	[.093]	[.054]	[.045]
Studied How Laws are Made	0.014	0.043	0.077	0.072	-0.08	-0.083
	(.106)	(.108)	(.097)	(.099)	(.098)	(.102)
	[.004]	[.014]	[.030]	[.028]	[-.030]	[-.031]
Studied Political Parties	.216*	.213*	-0.057	-0.114	0.075	0.032
	(.101)	(.103)	(.091)	(.093)	(.091)	(.093)
	[.070]	[.069]	[-.022]	[-.043]	[.029]	[.012]
Studied State and Local Government	0.013	-0.035	0.096	0.082	.261*	.242*
	(.091)	(.093)	(.085)	(.088)	(.084)	(.086)
	[.004]	[-.011]	[.037]	[.032]	[.101]	[.094]
Latino		-0.018		0.078		0.118
		(.106)		(.100)		(.102)
		[-.006]		[.030]		[.044]
African-American		-0.025		-0.074		0.061
		(.105)		(.099)		(.097)
		[-.008]		[-.028]		[.023]
Asian		-0.112		-0.13		0.126
		(.155)		(.144)		(.151)
		[-.036]		[-.051]		[.047]
Immigrant		.251*		0.147		0.101
		(.112)		(.110)		(.114)
		[.088]		[.056]		[.038]
Female		-0.121		0.013		0.065
		(.073)		(.070)		(.071)
		[-.040]		[.005]		[.025]
In Student Government		-0.01		0.021		-0.007
		(.077)		(.075)		(.076)
		[-.003]		[.008]		[-.002]
Expecting to Complete a 4-year College Degree		-0.101		0.089		-0.132
		(.079)		(.076)		(.074)
		[-.034]		[.035]		[-.050]
Classroom climate:						
Students feel free to disagree openly with teachers		.277*		.242*		.421*
		(.084)		(.077)		(.078)
		[.089]		[.094]		[.164]
Students are encouraged to make up own minds		0.184		.289*		0.071
		(.099)		(.090)		(.092)
		[.059]		[.113]		[.027]
Students express opinions in class even when different		.234*		0.104		0.086
		(.089)		(.081)		(.083)
		[.075]		[.040]		[.033]
Controls for Number of Books and Newspapers in Home		yes		yes		yes
Controls for Group Participation		yes		yes		yes
Control for Feelings of Political Efficacy		yes		yes		yes
Log Pseudo-Likelihood	-1153.37	-1109.51	-1288.92	-1214.05	-1279.06	-1218.01
sample size:	1,953	1,953	1,953	1,953	1,953	1,953

Dependent variable =1 if respondent answered "sometimes" or "often" to "How often do you have discussions of what is happening in U.S. government with people your own age / your parents / your teachers?"

"Controls for Group Participation" include youth, school paper, enivronmental, Model UN, student exchange, human rights, volunteer, charity, Boy or Girl Scouts, ethnic, computer, art, sports, or religious groups.

Robust standard errors are in parentheses. Marginal effects are in brackets.
* significant at the α=.05 level.

All calculations used the "total weight" as provided in the survey data.

Table 11
Monitoring the News (NGI)
Probit Models

	Newspapers		Newsmagazines		Watch TV		Listen to Radio		Internet News	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Civic Education	0.01	-0.023	-0.143	-0.107	0.139	0.062	0.043	0.016	0.056	-0.009
	(.119)	(.123)	(.181)	(.179)	(.118)	(.121)	(.118)	(.121)	(.137)	(.143)
	[.003]	[-.007]	[-.017]	[-.010]	[.051]	[.022]	[.015]	[.005]	[.013]	[-.002]
Latino	-0.13	-0.149	0.252	0.336	0.257	0.183	0.131	0.159	-0.458	-0.402
	(.183)	(.200)	(.238)	(.244)	(.174)	(.185)	(.177)	(.185)	(.237)	(.268)
	[-.043]	[-.048]	[.034]	[.038]	[.098]	[.069]	[.047]	[.057]	[-.088]	[-.073]
African-American	0.263	0.345	0.439	.605*	0.172	0.198	-0.009	-0.041	-0.359	-0.188
	(.164)	(.179)	(.220)	(.237)	(.162)	(.179)	(.167)	(.181)	(.213)	(.217)
	[.093]	[.123]	[.064]	[.079]	[.065]	[.074]	[-.003]	[-.014]	[-.073]	[-.038]
Asian	0.565	0.534	--	--	0.446	0.202	-0.483	-0.513	0.417	0.404
	(.327)	(.352)	--	--	(.315)	(.316)	(.376)	(.356)	(.318)	(.345)
	[.213]	[.199]	--	--	[.174]	[.076]	[-.149]	[-.154]	[.116]	[.106]
Immigrant	-.528*	-0.36	0.116	0.205	0.376	0.121	0.044	0.009	0.099	0.212
	(.228)	(.269)	(.337)	(.442)	(.221)	(.263)	(.230)	(.273)	(.245)	(.285)
	[-.154]	[-.109]	[.014]	[.022]	[.145]	[.045]	[.015]	[.003]	[.024]	[.050]
Female	-0.17	-0.151	-0.078	-0.041	-0.108	-0.103	0.207	0.168	-0.174	-0.102
	(.119)	(.126)	(.181)	(.196)	(.118)	(.125)	(.118)	(.123)	(.137)	(.145)
	[-.057]	[-.050]	[-.009]	[-.003]	[-.040]	[-.038]	[.073]	[.059]	[-.040]	[-.022]
In Student Government		-0.232		-0.133		0.353		0.235		0.271
		(.213)		(.286)		(.203)		(.196)		(.219)
		[-.073]		[-.011]		[.135]		[.086]		[.065]
Very Religious		-0.099		0.035		-0.029		0.205		-0.289
		(.175)		(.290)		(.180)		(.174)		(.206)
		[-.033]		[.003]		[-.010]		[.072]		[-.062]
Controls for Household Income		yes		yes		yes		yes		yes
Controls for Political Views		yes		yes		yes		yes		yes
Controls for Group Participation		yes		yes		yes		yes		yes
Controls for Frequency of Voting / Intention to Vote		yes		yes		yes		yes		yes
Control for Feelings of Political Efficacy		yes		yes		yes		yes		yes
Log Pseudo-Likelihood	-329.45	-316.6	-122.81	-112.41	-352.93	-333.81	-342.97	-331.44	-233.09	-218.28
sample size:	555	555	532	532	555	555	555	555	555	555

Dependent variable =1 if respondent has read a newspaper 5, 6 or 7 days out of the past week.
Dependent variable =1 if respondent has read a newsmagazine 5, 6 or 7 days out of the past week.
Dependent variable =1 if respondent has watched the national news on television 5, 6 or 7 days out of the past week.
Dependent variable =1 if respondent has listened to the news on the radio 5, 6 or 7 days out of the past week.
Dependent variable =1 if respondent has read news on the internet 5, 6 or 7 days out of the past week.

"Controls for Group Participation" include youth, religious, enivronmental, political, civic or other groups.

Robust standard errors are in parentheses. Marginal effects are in brackets.
* significant at the α=.05 level.

All calculations used the "step weight" as provided in the survey data.

Asians were dropped from the newsmagazine analysis due to their small sample size.

Table 12
Collective Decision-Making Skills (NGI)
Probit Models

	Work Informally		Group Discussion	
	(1)	(2)	(3)	(4)
Civic Education	.227*	0.218	0.242	0.163
	(.115)	(.123)	(.142)	(.150)
	[.089]	[.085]	[.051]	[.030]
Latino	-0.182	-0.299	-0.178	-0.318
	(.177)	(.192)	(.218)	(.233)
	[-.070]	[-.114]	[-.040]	[-.067]
African-American	-0.282	-0.334	-0.117	-0.218
	(.166)	(.189)	(.203)	(.210)
	[-.108]	[-.127]	[-.026]	[-.044]
Asian	-0.291	-0.457	-0.015	-0.195
	(.325)	(.324)	(.403)	(.485)
	[-.108]	[-.166]	[-.003]	[-.040]
Immigrant	-0.365	-0.149	-.179	-0.433
	(.235)	(.275)	(.265)	(.344)
	[-.137]	[-.057]	[-.041]	[-.099]
Female	0.048	-0.01	-0.001	0.098
	(.116)	(.128)	(.148)	(.150)
	[.018]	[-.003]	[-.001]	[.018]
In Student Government		0.158		-0.367
		(.193)		(.251)
		[.062]		[-.080]
Very Religious		.362*		0.308
		(.177)		(.204)
		[.141]		[.057]
Controls for Household Income		yes		yes
Controls for Political Views		yes		yes
Controls for Group Participation		yes		yes
Controls for Frequency of Voting / Intention to Vote		yes		yes
Control for Feelings of Political Efficacy		yes		yes
Log Pseudo-Likelihood	-372.46	-321.83	-216.2	-197.85
sample size:	555	555	555	555

Dependent variable =1 if respondent has worked together informally, ever, with someone or some group to solve a community problem.
Dependent variable =1 if respondent sometimes or very often talks about current events or ne with family or friends.

"Controls for Group Participation" include youth, religious, enivronmental, political, civic or other groups.

Robust standard errors are in parentheses. Marginal effects are in brackets.
* significant at the α=.05 level.

All calculations used the "step weight" as provided in the survey data.

Table 13
Communication Skills (NHES)
Probit Models

	Letter		Statement	
	(1)	(2)	(3)	(4)
Civic Education	.303*	.241*	0.064	0.009
	(.111)	(.112)	(.085)	(.086)
	[.047]	[.033]	[.017]	[.002]
Latino	-0.165	-0.049	-0.031	0.033
	(.137)	(.152)	(.111)	(.122)
	[-.025]	[-.006]	[-.008]	[.008]
African-American	-0.107	-0.054	-0.058	0.012
	(.148)	(.149)	(.115)	(.122)
	[-.016]	[-.007]	[-.016]	[.003]
Immigrant	0.172	0.187	-0.057	-0.059
	(.233)	(.250)	(.170)	(.173)
	[.021]	[.021]	[-.016]	[-.016]
Female	0.195	0.139	0.072	0.019
	(.101)	(.105)	(.078)	(.078)
	[.027]	[.017]	[.019]	[.005]
In Student Government		0.089		.362*
		(.160)		(.123)
		[.011]		[.085]
Live in Rural Area		-0.163		-0.104
		(.116)		(.099)
		[-.022]		[-.028]
Expect to graduate from a 4-year college		-0.022		0.128
		(.155)		(.119)
		[-.002]		[.035]
Controls for Household Income		yes		yes
Controls for Region of Country		yes		yes
Controls for Group Participation		yes		yes
Control for Feelings of Political Efficacy		yes		yes
Log Pseudo-Likelihood	-570.51	-542.85	-1028.9	-1004.76
sample size:	2,106	2,106	2,106	2,106

Dependent variable =1 if student feels they could write a letter to someone in government that clearly gives their opinion.
Dependent variable =1 if student feels they could make a comment or statement at a public meeting.

"Controls for Group Participation" include school groups and non-school groups.

Robust standard errors are in parentheses. Marginal effects are in brackets.
* significant at the α=.05 level.

All calculations used the "FYWT" weight as provided in the survey data.

Table 14
Monitoring the News (NHES)
Probit Models

	Read		Watch/Listen	
	(1)	(2)	(3)	(4)
Civic Education	.285*	.229*	.255*	.231*
	(.078)	(.078)	(.081)	(.082)
	[.113]	[.091]	[.082]	[.073]
Latino	-0.104	0.01	-0.002	-0.006
	(.099)	(.107)	(.101)	(.111)
	[-.045]	[.004]	[-.001]	[-.002]
African-American	-0.128	-0.031	-0.02	-0.038
	(.098)	(.106)	(.110)	(.116)
	[-.051]	[-.012]	[-.006]	[-.011]
Immigrant	.499*	.519*	.546*	.531*
	(.156)	(.149)	(.161)	(.170)
	[.191]	[.197]	[.137]	[.132]
Female	-0.036	-0.093	-0.141	-.172*
	(.068)	(.069)	(.074)	(.075)
	[-.014]	[-.037]	[-.043]	[-.052]
In Student Government		0.008		0.005
		(.092)		(.100)
		[.003]		[.001]
Live in Rural Area		-0.079		-.223*
		(.085)		(.091)
		[-.031]		[-.070]
Expect to graduate from a 4-year college		.306*		0.13
		(.105)		(.110)
		[.121]		[.041]
Controls for Household Income		yes		yes
Controls for Region of Country		yes		yes
Controls for Group Participation		yes		yes
Control for Feelings of Political Efficacy		yes		yes
Log Pseudo-Likelihood	-1440.07	-1375.1	-1143.76	-1121.69
sample size:	2,106	2,106	2,106	2,106

Dependent variable =1 if student reads a newspaper or newsmagazine almost daily or at least once a week.
Dependent variable =1 if student watches television news or listens to radio news almost daily or at least once a week.

"Controls for Group Participation" include school groups and non-school groups.

Robust standard errors are in parentheses. Marginal effects are in brackets.
* significant at the α=.05 level.

All calculations used the "FYWT" weight as provided in the survey data.

Table 15
English Language Skills (NHES)
Probit Models

	(1)	(2)
Civic Education	0.058	0.042
	(.151)	(.160)
	[.001]	[.001]
Latino	-1.248*	-1.045*
	(.155)	(.186)
	[-.116]	[-.051]
African-American	0.255	0.396
	(.259)	(.281)
	[.006]	[.004]
Immigrant	-1.573*	-1.454*
	(.180)	(.191)
	[-.213]	[-.122]
Female	-0.257	-0.314*
	(.143)	(.156)
	[-.008]	[-.005]
In Student Government		-0.333
		(.202)
		[-.007]
Live in Rural Area		1.00*
		(.399)
		[.010]
Expect to graduate from a 4-year college		0.225
		(.235)
		[.004]
Controls for Household Income		yes
Controls for Region of Country		yes
Controls for Group Participation		yes
Control for Feelings of Political Efficacy		yes
Log Pseudo-Likelihood	-214.75	-196.9
sample size:	2,106	2,106

Dependent Variable =1 if student speaks English or English and another language equally at home.

"Controls for Group Participation" include school groups and non-school groups.

Robust standard errors are in parentheses. Marginal effects are in brackets.
* significant at the α=.05 level.

All calculations used the "FYWT" weight as provided in the survey data.

Table 16
Communication Skills (ACPS)
Probit Models

	Letter		Statement	
	(1)	(2)	(3)	(4)
Civic Education	0.273	0.155	.334*	0.287
	(.172)	(.179)	(.164)	(.175)
	[.083]	[.038]	[.126]	[.105]
Latino	-0.309	-0.157	-0.3	-0.08
	(.174)	(.200)	(.162)	(.194)
	[-.097]	[-.039]	[-.115]	[-.028]
African-American	0.245	.521*	0.274	0.217
	(.166)	(.199)	(.152)	(.180)
	[.064]	[.098]	[.095]	[.073]
Immigrant	-0.176	-.629*	-0.049	0.327
	(.229)	(.307)	(.223)	(.289)
	[-.053]	[-.185]	[-.018]	[.106]
Female	-0.091	0.025	-0.211	-0.235
	(.155)	(.164)	(.141)	(.149)
	[-.026]	[.006]	[-.077]	[-.082]
Some College		.375*		.481*
		(.185)		(.161)
		[.089]		[.169]
Private School Attendees		0.226		0.384
		(.373)		(.256)
		[.048]		[.123]
Controls for Household Income		yes		yes
Controls for Political Orientation		yes		yes
Controls for Group Participation		yes		yes
Control for Feelings of Political Efficacy		yes		yes
Log Pseudo-Likelihood	-311.66	-260.85	-387.33	-338.72
sample size:	614	614	614	614

Dependent variable =1 if respondent feels they could write a convincing letter to someone in government that expresses their point of view.
Dependent variable =1 if respondent feels they speak well enough to make an effective statement at a public community meeting.

"Controls for Group Participation" include service clubs, religious, unions, business, political, youth, sports, health, or educational groups.

Robust standard errors are in parentheses. Marginal effects are in brackets.
* significant at the α=.05 level.

All calculations used the "wt2517" weight as provided in the survey data.

Table 17
Monitoring the News (ACPS)
Probit Models

	Television News		Public Affairs		Newspaper	
	(1)	(2)	(3)	(4)	(5)	(6)
Civic Education	0.151	0.196	0.079	0.094	0.088	0.047
	(.184)	(.182)	(.165)	(.168)	(.190)	(.187)
	[.046]	[.055]	[.028]	[.032]	[.021]	[.010]
Latino	0.001	-0.056	-0.047	0.022	0.083	0.277
	(.197)	(.219)	(.159)	(.180)	(.178)	(.217)
	[.001]	[-.015]	[-.016]	[.007]	[.018]	[.053]
African-American	.545*	.841*	0.159	0.301	.402*	.578*
	(.183)	(.227)	(.148)	(.175)	(.194)	(.220)
	[.133]	[.162]	[.058]	[.111]	[.079]	[.097]
Immigrant	0.058	-0.2	-0.043	-0.292	-0.335	-0.241
	(.252)	(.351)	(.234)	(.299)	(.250)	(.341)
	[.017]	[-.058]	[-.015]	[-.095]	[-.089]	[-.058]
Female	-0.001	-0.082	-0.164	-0.216	-0.077	-0.16
	(.153)	(.169)	(.138)	(.139)	(.166)	(.164)
	[-.001]	[-.022]	[-.059]	[-.076]	[-.018]	[-.035]
Some College		0.073		0.283		.421*
		(.163)		(.156)		(.191)
		[.019]		[.099]		[.093]
Private School Attendees		-0.34		0.086		0.261
		(.252)		(.234)		(.266)
		[-.102]		[.031]		[.051]
Controls for Household Income		yes		yes		yes
Controls for Political Orientation		yes		yes		yes
Controls for Group Participation		yes		yes		yes
Control for Feelings of Political Efficacy		yes		yes		yes
Log Pseudo-Likelihood	-322.1	-283.71	-384.62	-358.33	-260.49	-234.68
sample size:	614	614	614	614	614	584

Dependent variable =1 if respondent watches television news once a week or more.
Dependent variable =1 if respondent watches public affairs programming on television once a week or more.
Dependent variable =1 if respondent reads the newspaper once a week or more.

"Controls for Group Participation" include service clubs, religious, unions, business, political, youth, sports, health, or educational groups.

Robust standard errors are in parentheses. Marginal effects are in brackets.
* significant at the α=.05 level.

"Political club" membership perfectly predicted newspaper monitoring and was dropped from the analysis.

All calculations used the "wt2517" weight as provided in the survey data.

Table 18
Group Discussion Skills (ACPS)
Probit Models

	Local		National	
	(1)	(2)	(3)	(4)
Civic Education	.379*	0.253	.448*	.343*
	(.173)	(.181)	(.166)	(.171)
	[.143]	[.096]	[.176]	[.134]
Latino	-.451*	-0.338	-.363*	-0.1
	(.154)	(.181)	(.161)	(.176)
	[-.165]	[-.125]	[-.144]	[-.039]
African-American	-0.008	0.003	-0.177	-0.006
	(.148)	(.184)	(.147)	(.181)
	[-.003]	[.001]	[-.069]	[-.002]
Immigrant	0.056	-0.043	-0.015	0.048
	(.229)	(.276)	(.231)	(.281)
	[.022]	[-.016]	[-.006]	[.018]
Female	-.351*	-.322*	-.579*	-.593*
	(.137)	(.147)	(.137)	(.145)
	[-.136]	[-.125]	[-.222]	[-.225]
Some College		.340*		.523*
		(.153)		(.153)
		[.131]		[.200]
Private School Attendees		0.019		-0.135
		(.217)		(.249)
		[.007]		[-.053]
Controls for Household Income		yes		yes
Controls for Political Orientation		yes		yes
Controls for Group Participation		yes		yes
Control for Feelings of Political Efficacy		yes		yes
Log Pseudo-Likelihood	-405.6	-360.96	-392.74	-352.91
sample size:	614	614	614	614

Dependent variable =1 if respondent discusses local politics or affairs with others every day, nearly every day, or once or twice a week.
Dependent variable =1 if respondent discusses national politics or affairs with others every day, nearly every day, or once or twice a week.

"Controls for Group Participation" include service clubs, religious, unions, business, political, youth, sports, health, or educational groups.

Robust standard errors are in parentheses. Marginal effects are in brackets.
* significant at the α=.05 level.

All calculations used the "wt2517" weight as provided in the survey data.

Table 19
English Language Skills (ACPS)
Probit Models

	(1)	(2)
Civic Education	0.372	0.439
	(.277)	(.277)
	[.006]	[.001]
Latino	-1.467*	-1.666*
	(.251)	(.343)
	[-.096]	[-.035]
African-American	-0.628	0.306
	(.427)	(.430)
	[-.015]	[.001]
Immigrant	-2.143*	-2.114*
	(.232)	(.468)
	[-.245]	[-.077]
Female	0.478*	0.48
	(.236)	(.261)
	[.006]	[.001]
Some College		-0.376
		(.312)
		[-.001]
Private School Attendees		-.601*
		(.285)
		[-.002]
Controls for Household Income		yes
Controls for Political Orientation		yes
Controls for Group Participation		yes
Control for Feelings of Political Efficacy		yes
Log Pseudo-Likelihood	-47.64	-35.79
sample size:	614	554

Dependent variable =1 if respondent speaks English at home.

"Controls for Group Participation" include service clubs, religious, unions, busines political, youth, sports, health, or educational groups.

Robust standard errors are in parentheses. Marginal effects are in brackets.
* significant at the α=.05 level.

"Political Club" and "Service Club" membership perfectly predicted English language skills and were dropped from the analysis.

All calculations used the "wt2517" weight as provided in the survey data.

Table 20
Political Interpretation Skills - Political Leaflets (IEA/CivEd)
Matching Methods[a]

	Leaflet 1				Leaflet 2				Leaflet 3			
	Probit Coefficient[c] (Std. Error)	ATT[d]	ATE[e]	Coefficient[f] (Std. Error)[g]	Probit Coefficient (Std. Error)	ATT	ATE	Coefficient (Std. Error)	Probit Coefficient (Std. Error)	ATT	ATE	Coefficient (Std. Error)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Civic Education variables:												
Studied Constitution	.267*	0.035	0.039	.295*	.360*	0.024	0.039	.296*	0.139	0.021	0.031	0.159
	(.125)			(.025)[h]	(.133)			(.022)	(.107)			(.029)
	[.055]			[.050]	[.071]			[.043]	[.045]			[.046]
Studied Congress	-0.251	0.022	0.029	0.12	0.004	0.037	0.042	0.13	0.008	0.007	0.014	0.008
	(.135)			(.021)	(.137)			(.022)[i]	(.112)			(.031)
	[-.043]			[.023]	[.000]			[.024]	[.002]			[.002]
Studied Presidency	.247*	0.069	0.078	.443*	0.012	0.01	0.031	0.172	0.012	0.019	0.029	0.088
	(.103)			(.023)	(.106)			(.019)	(.089)			(.026)
	[.048]			[.089]	[.002]			[.025]	[.003]			[.027]
Studied How Laws are Made	0.124	0.052	0.046	0.074	-0.048	0.036	0.03	0.084	-0.041	0.01	0.01	-0.035
	(.120)			(.026)	(.128)			(.024)	(.099)			(.031)
	[.024]			[.017]	[-.008]			[.017]	[-.013]			[-.011]
Studied Political Parties	-.257*	0.012	0.009	0.002	-0.146	-0.014	-0.005	-0.164	0.122	0.021	0.023	0.017
	(.118)			(.024)	(.125)			(.021)	(.090)			(.030)
	[-.044]			[.001]	[-.023]			[-.029]	[.039]			[.005]
Studied State and Local Government	-0.01	0.011	0.017	0.013	-0.002	-0.001	0.005	-0.127	-0.124	-0.007	-0.005	-0.093
	(.102)			(.022)	(.106)			(.020)	(.083)			(.027)
	[-.001]			[.002]	[-.001]			[-.022]	[-.038]			[-.029]

a) Civic education variable is the treatment effect. Nearest-neighbor matching methods with replacement were employed.
Individual matching analyses were conducted for each of the 6 treatment effects (civics education types).

b) Leaflet 1: Dependent variable =1 if student correctly interpreted which party issued the political leaflet.
Leaflet 2: Dependent variable=1 if student correctly interpreted what leaflet issuers think about taxes.
Leaflet 3: Dependent variable=1 if student correctly interpreted what policy the issuers of the leaflet favor.

c) Coefficients, robust standard errors (in parentheses) and marginal effects (in brackets) from full probit models in Table 6.

d) ATT= Average Treatment Effect on the Treated, interpreted as percentage points; "Treated" are those that report studying the above civic education topics.

e) ATE= Average Treatment Effect.

f) Coefficients are from matching-weighted probits. Marginal effects are in brackets.

g) Bootstrapped standard errors are in parentheses.
Significance is based on the bias-corrected confidence intervals and the matching-weighted probit analyses.

h) Significant in the matching-weighted probit but not the bias-corrected confidence interval.

i) Significant in the bias-corrected confidence interval but not the matching-weighted probit.

* significant at the α=.05 level.
All calculations used the "total weight" as provided in the survey data, except the matching-weighted probits.

Table 21
Political Interpretation Skills - Political Cartoons (IEA/CivEd)
Matching Methods[a]

	Cartoon 1				Cartoon 2[b]			
	Probit Coefficient[c] (Std. Error)	ATT[d]	ATE[e]	Coefficient[f] (Std. Error)[g]	Probit Coefficient (Std. Error)	ATT	ATE	Coefficient (Std. Error)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Civic Education variables:								
Studied Constitution	.366*	0.038	0.05	.463*	0.092	0.026	0.029	0.133
	(.149)			(.021)[h]	(.121)			(.031)
	[.059]			[.051]	[.026]			[.037]
Studied Congress	-0.291	0.033	0.042	.332*	0.097	0.035	0.04	.245*
	(.153)			(.018)[h]	(.125)			(.027)[h]
	[-.035]			[.036]	[.027]			[.063]
Studied Presidency	.216*	0.043	0.057	.408*	0.158	0.057	0.07	.332*
	(.110)			(.018)	(.093)			(.025)
	[.031]			[.051]	[.044]			[.090]
Studied How Laws are Made	0.105	0.063	0.063	.339*	-0.032	0.054	0.036	0.035
	(.124)			(.021)	(.109)			(.034)
	[.015]			[.052]	[-.008]			[.011]
Studied Political Parties	-0.026	0.045	0.048	0.162	-0.08	0.024	0.02	0.104
	(.124)			(.022)	(.104)			(.027)
	[-.003]			[.021]	[-.021]			[.029]
Studied State and Local Government	0.116	0.06	0.063	.382*	-0.183	-0.01	-0.012	-0.134
	(.110)			(.019)	(.099)			(.028)
	[.016]			[.051]	[-.048]			[-.037]

a) Civic education variable is the treatment effect. Nearest-neighbor matching methods with replacement were employed. Individual matching analyses were conducted for each of the 6 treatment effects (civics education types).

b) Cartoon 1: Dependent variable =1 if student correctly interpreted a political cartoon about a political leader.
Cartoon 2: Dependent variable =1 if student correctly interpreted a political cartoon about democracy.

c) Coefficients, robust standard errors (in parentheses) and marginal effects (in brackets) from full probit models in Table 7.

d) ATT= Average Treatment Effect on the Treated, interpreted as percentage points; "Treated" are those that report studying the above civic education topics.

e) ATE= Average Treatment Effect.

f) Coefficients are from matching-weighted probits. Marginal effects are in brackets.

g) Bootstrapped standard errors are in parentheses.
Significance is based on the bias-corrected confidence intervals and the matching-weighted probit analyses.

h) Significant in the matching-weighted probit but not the bias-corrected confidence interval.

* significant at the α=.05 level.
All calculations used the "total weight" as provided in the survey data, except the matching-weighted probits.

Table 22
Monitoring the News (IEA/CivEd)
Matching Methods[a]

	Read Newspaper 1[b]				Read Newspaper 2			
	Probit Coefficient[c] (Standard Error)	ATT[d]	ATE[e]	Coefficient[f] (Standard Error)[g]	Probit Coefficient (Standard Error)	ATT	ATE	Coefficient (Standard Error)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Civic Education variables:								
Studied Constitution	-0.029	0.018	0.018	-0.038	0.104	0.018	0.019	0.04
	(.110)			(.038)	(.112)			(.036)
	[-.011]			[-.014]	[.041]			[.016]
Studied Congress	0.016	0.087	0.089	.174*	-0.046	0.086	0.081	0.135
	(.114)			(.035)	(.116)			(.035)[i]
	[.006]			[.067]	[-.018]			[.053]
Studied Presidency	0.068	0.096	0.089	.271*	0.001	0.049	0.035	0.065
	(.085)			(.033)	(.086)			(.031)
	[.025]			[.104]	[.001]			[.026]
Studied How Laws are Made	0.053	0.093	0.088	0.143	-0.063	0.046	0.046	0.091
	(.099)			(.037)[i]	(.100)			(.038)
	[.020]			[.055]	[-.025]			[.036]
Studied Political Parties	0.062	0.088	0.078	0.111	.209*	0.077	0.071	0.101
	(.094)			(.031)[i]	(.094)			(.033)[i]
	[.023]			[.043]	[.083]			[.040]
Studied State and Local Government	0.124	0.094	0.084	.201*	0.077	0.06	0.051	0.12
	(.087)			(.030)	(.086)			(.032)
	[.047]			[.078]	[.030]			[.048]

a) Civic education variable is the treatment effect. Nearest-neighbor matching methods with replacement were employed.
Individual matching analyses were conducted for each of the 6 treatment effects (civics education types).

b) Read Newspaper 1: Dependent variable =1 if respondent answered "sometimes" or "often" to "How often do you read articles in the newspaper about what is happening in this country?"
Read Newspaper 2: Dependent variable =1 if respondent answered "sometimes" or "often" to "How often do you read articles in the newspaper about what is happening in other countries?"

c) Coefficients, robust standard errors (in parentheses) and marginal effects (in brackets) from full probit models in Table 8.

d) ATT= Average Treatment Effect on the Treated, interpreted as percentage points; "Treated" are those that report studying the above civic education topics.

e) ATE= Average Treatment Effect.

f) Coefficients are from matching-weighted probits. Marginal effects are in brackets.

g) Bootstrapped standard errors are in parentheses.
Significance is based on the bias-corrected confidence intervals and the matching-weighted probit analyses.

h) Significant in the matching-weighted probit but not the bias-corrected confidence interval.

i) Significant in the bias-corrected confidence interval but not the matching-weighted probit.

* significant at the α=.05 level.
All calculations used the "total weight" as provided in the survey data, except the matching-weighted probits.

Table 23
Monitoring the News (IEA/CivEd)
Matching Methods[a]

	Watch TV[b]				Listen to Radio			
	Probit Coefficient[c] (Standard Error)	ATT[d]	ATE[e]	Coefficient[f] (Standard Error)[g]	Probit Coefficient (Standard Error)	ATT	ATE	Coefficient (Standard Error)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Civic Education variables:								
Studied Constitution	.356*	0.108	0.098	.262*	-0.087	0.072	0.065	.178*
	(.115)			(.031)	(.111)			(.035)
	[.103]			[.082]	[-.034]			[.067]
Studied Congress	-0.22	0.057	0.061	.315*	0.026	0.129	0.11	.210*
	(.124)			(.027)	(.114)			(.031)
	[-.055]			[.082]	[.010]			[.077]
Studied Presidency	0.009	0.029	0.045	.232*	.177*	0.072	0.066	.136*
	(.095)			(.026)[h]	(.086)			(.033)
	[.002]			[.059]	[.069]			[.052]
Studied How Laws are Made	0.023	0.035	0.046	.212*	0.1	0.114	0.117	.361*
	(.106)			(.027)[h]	(.099)			(.037)
	[.006]			[.054]	[.039]			[.138]
Studied Political Parties	0.087	0.054	0.053	0.101	0.183	0.108	0.098	.185*
	(.097)			(.025)	(.095)			(.033)
	[.023]			[.029]	[.071]			[.070]
Studied State and Local Government	0.117	0.085	0.084	.299*	-0.028	0.102	0.09	.250*
	(.092)			(.026)	(.086)			(.033)
	[.031]			[.088]	[-.011]			[.095]

a) Civic education variable is the treatment effect. Nearest-neighbor matching methods with replacement were employed.
Individual matching analyses were conducted for each of the 6 treatment effects (civics education types).

b) Watch: Dependent variable =1 if respondent answered "sometimes" or "often" to "How often do you watch news broadcasts on television?"
Listen: Dependent variable =1 if respondent answered "sometimes" or "often" to "How often do you listen to news broadcasts on the radio?"

c) Coefficients, robust standard errors (in parentheses) and marginal effects (in brackets) from full probit models in Table 8.

d) ATT= Average Treatment Effect on the Treated, interpreted as percentage points; "Treated" are those that report studying the above civic education topics.

e) ATE= Average Treatment Effect.

f) Coefficients are from matching-weighted probits. Marginal effects are in brackets.

g) Bootstrapped standard errors are in parentheses.
Significance is based on the bias-corrected confidence intervals and the matching-weighted probit analyses.

h) Significant in the matching-weighted probit but not the bias-corrected confidence interval.

* significant at the α=.05 level.
All calculations used the "total weight" as provided in the survey data, except the matching-weighted probits.

Table 24
Group Discussion Skills (IEA/CivEd)
Matching Methods[a]

	People Own Age[b]				Parents				Teachers			
	Probit Coefficient[c] (Std. Error)	ATT[d]	ATE[e]	Coefficient[f] (Std. Error)[g]	Probit Coefficient (Std. Error)	ATT	ATE	Coefficient (Std. Error)	Probit Coefficient (Std. Error)	ATT	ATE	Coefficient (Std. Error)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Civic Education variables:												
Studied Constitution	0.03	0.02	0.02	0.002	-0.002	0.041	0.051	.213*	0.027	0.079	0.095	.414*
	(.123)			(.030)	(.108)			(.034)[h]	(.109)			(.034)
	[.010]			[.001]	[-.001]			[.082]	[.010]			[.156]
Studied Congress	-0.157	0.057	0.05	0.066	0.112	0.108	0.108	.178*	0.131	0.095	0.084	.184*
	(.127)			(.030)[i]	(.111)			(.035)	(.118)			(.037)
	[-.053]			[.020]	[.043]			[.070]	[.051]			[.072]
Studied Presidency	.214*	0.066	0.064	.150*	.239*	0.122	0.115	.280*	0.118	0.075	0.087	.282*
	(.089)			(.027)	(.085)			(.033)	(.087)			(.032)
	[.069]			[.048]	[.093]			[.111]	[.045]			[.107]
Studied How Laws are Made	0.043	0.085	0.068	0.139	0.072	0.137	0.131	.389*	-0.083	0.097	0.087	.244*
	(.108)			(.032)[i]	(.099)			(.032)	(.102)			(.036)
	[.014]			[.040]	[.028]			[.154]	[-.031]			[.095]
Studied Political Parties	.213*	0.061	0.066	.225*	-0.114	0.038	0.042	0.085	0.032	0.132	0.132	.397*
	(.103)			(.030)	(.093)			(.033)	(.093)			(.032)
	[.069]			[.073]	[-.043]			[.033]	[.012]			[.154]
Studied State and Local Government	-0.035	0.026	0.037	.136*	0.082	0.091	0.082	.206*	.242*	0.125	0.135	.413*
	(.093)			(.027)[h]	(.088)			(.033)	(.086)			(.031)
	[-.011]			[.046]	[.032]			[.081]	[.094]			[.158]

a) Civic education variable is the treatment effect. Nearest-neighbor matching methods with replacement were employed.
Individual matching analyses were conducted for each of the 6 treatment effects (civics education types).

b) Student sometimes or often has discussions of what is happening in U.S. government with
people their own age / their parents / their teachers

c) Coefficients, robust standard errors (in parentheses) and marginal effects (in brackets) from full probit models in Table 10.

d) ATT= Average Treatment Effect on the Treated, interpreted as percentage points; "Treated" are those that report studying the above civic education topics.

e) ATE= Average Treatment Effect.

f) Coefficients are from matching-weighted probits. Marginal effects are in brackets.

g) Bootstrapped standard errors are in parentheses.
Significance is based on the bias-corrected confidence intervals and the matching-weighted probit analyses.

h) Significant in the matching-weighted probit but not the bias-corrected confidence interval.

i) Significant in the bias-corrected confidence interval but not the matching-weighted probit.

* significant at the α=.05 level.
All calculations used the "total weight" as provided in the survey data, except the matching-weighted probits.

Table 25
Group Discussion and Monitoring the News (NGI)
Matching Methods[a]

	Probit Coefficient[b] (Std. Error)	ATT[c]	ATE[d]	Coefficient[e] (Std. Error)[f]
	(1)	(2)	(3)	(4)
Work Informally[g]				
Civic Education	0.218	0.058	0.065	0.166
	(.123)			(.063)
	[.085]			[.065]
Group Discussion				
Civic Education	0.163	0.075	0.058	.355*
	(.150)			(.043)[i]
	[.030]			[.062]
Newspapers[h]				
Civic Education	-0.023	-0.084	-0.046	-.264*
	(.123)			(.061)
	[-.007]			[-.094]
Newsmagazines				
Civic Education	-0.107	-0.001	0.011	0.114
	(.179)			(.028)
	[-.010]			[.008]
Watch TV				
Civic Education	0.062	0.038	0.028	-0.064
	(.121)			(.053)
	[.022]			[-.023]
Listen to Radio				
Civic Education	0.016	0.07	0.065	.532*
	(.121)			(.055)[i]
	[.005]			[.181]
Internet News				
Civic Education	-0.009	0.006	0.009	-0.06
	(.143)			(.047)
	[-.002]			[-.013]

a) Civic education variable is the treatment effect. Nearest-neighbor matching methods with replacement were employed.

b) Coefficients from full probit models in Tables 12 and 11.

c) ATT= Average Treatment Effect on the Treated, interpreted as percentage points; Treated are those that report studying civic education.

d) ATE= Average Treatment Effect.

e) Coefficients are from matching-weighted probits. Marginal effects are in brackets.

f) Bootstrapped standard errors are in parentheses. Significance is based on the bias-corrected confidence intervals and the matching-weighted probit analyses.

g) Worked together informally, ever, with someone or some group to solve a community problem. Sometimes or very often talks about current events or news with family or friends.

h) Newspapers: Read a newspaper 5, 6 or 7 days out of the past week.
Newsmagazines: Read a newspaper 5, 6 or 7 days out of the past week.
Watch: Watch the national news on television 5, 6 or 7 days out of the past week.
Listen: Listen to the news on the radio 5, 6 or 7 days out of the past week.
Internet: Read news on the internet 5, 6 or 7 days out of the past week.

i) Significant in the matching-weighted probit but not the bias-corrected confidence interval.

* significant at the α=.05 level.
All calculations used the "step weight" as provided in the survey data, except for the matching-weighted probits.

Table 26
Communication Skills and Monitoring the News (NHES)
Matching Methods[a]

	Probit Coefficient[b] (Std. Error)	ATT[c]	ATE[d]	Coefficient[e] (Std. Error)[f]
	(1)	(2)	(3)	(4)
Read[g]				
Civic Education	.235*	0.104	0.106	.309*
	(.078)			(.039)[i]
	[.093]			[.123]
Watch / Listen				
Civic Education	.236*	0.061	0.069	.342*
	(.082)			(.032)[i]
	[.074]			[.102]
Letter[h]				
Civic Education	0.155	0.04	0.039	.453*
	(.179)			(.020)[i]
	[.038]			[.050]
Statement				
Civic Education	0.287	0.014	0.019	.171*
	(.175)			(.025)[i]
	[.105]			[.041]

a) Civic education variable is the treatment effect. Nearest-neighbor matching methods with replacement were employed.

b) Coefficients from full probit models in Tables 14 and 16.

c) ATT= Average Treatment Effect on the Treated, interpreted as percentage points; Treated are those that report studying civic education.

d) ATE= Average Treatment Effect.

e) Coefficients are from matching-weighted probits. Marginal effects are in brackets.

f) Bootstrapped standard errors are in parentheses. Significance is based on the bias-corrected confidence intervals and the matching-weighted probit analyses.

g) Student reads a newspaper or newsmagazine almost daily or at least once a week. Student watches television news or listens to radio news almost daily or at least once a week.

h) Student feels they could write a letter to someone in government that clearly gives their opinion. Student feels they could make a comment or statement at a public meeting.

i) Significant in the matching-weighted probit but not the bias-corrected confidence interval.

* significant at the α=.05 level.
All calculations used the "FYWT" weight as provided in the survey data, except for the matching-weighted probits.

Table 27
Group Discussion, Monitoring the News and Communication Skills (ACPS)
Matching Methods[a]

	Probit Coefficient[b] (Std. Error)	ATT[c]	ATE[d]	Coefficient[e] (Std. Error)[f]
	(1)	(2)	(3)	(4)
Television News[g]				
Civic Education	0.196	0.002	0.003	0.142
	(.182)			(.048)
	[.055]			[.029]
Public Affairs				
Civic Education	0.094	0.039	0.022	-0.081
	(.168)			(.063)
	[.032]			[-.026]
Newspaper				
Civic Education	0.047	0.006	0.01	-0.034
	(.187)			(.038)
	[.010]			[-.008]
Local Discussion[h]				
Civic Education	0.253	0.158	0.155	.369*
	(.181)			(.056)[j]
	[.096]			[.138]
National Discussion				
Civic Education	.343*	0.18	0.175	.488*
	(.171)			(.059)
	[.134]			[.192]
Letter[i]				
Civic Education	0.155	0.135	0.114	0.322
	(.179)			(.053)[k]
	[.038]			[.103]
Statement				
Civic Education	0.287	0.189	0.179	.489*
	(.175)			(.068)
	[.105]			[.182]

a) Civic education variable is the treatment effect. Nearest-neighbor matching methods with replacement were employed.

b) Coefficients from full probit models in Tables 16, 17, and 18.

c) ATT= Average Treatment Effect on the Treated, interpreted as percentage points; Treated are those that report studying civic education.

d) ATE= Average Treatment Effect.

e) Coefficients are from matching-weighted probits. Marginal effects are in brackets.

f) Bootstrapped standard errors are in parentheses. Significance is based on the bias-corrected confidence intervals and the matching-weighted probit analyses.

g) Respondent watches television news once a week or more. Respondent watches public affairs programming on television once a week or more. Respondent reads the newspaper once a week or more.

h) Respondent discusses local politics or affairs with others every day, nearly every day, or once or twice a week. Respondent discusses national politics or affairs with others every day, nearly every day, or once or twice a week.

i) Respondent feels they could write a convincing letter to someone in government that expresses their point of view. Respondent feels they speak well enough to make an effective statement at a public meeting.

j) Significant in the matching-weighted probit but not the bias-corrected confidence interval.

k) Significant in the bias-corrected confidence interval but not the matching-weighted probit.

* significant at the α=.05 level.
All calculations used the "wt2517" weight as provided in the survey data, except for the matching-weighted probits.

Table 28
Political Interpretation Skills - Political Leaflets (IEA/CivEd)
Full Probit Models - African-Americans

	Leaflet 1		Leaflet 2		Leaflet 3	
	(1) African-Americans	(2) All others	(3) African-Americans	(4) All others	(5) African-Americans	(6) All others
Civics Education variables:						
Studied Constitution	0.46	.289*	0.471	.369*	0.162	0.178
	(.323)	(.145)	(.337)	(.143)	(.286)	(.119)
	[.153]	[.055]	[.152]	[.066]	[.062]	[.055]
Studied Congress	0.071	-.335*	-0.06	0.075	-0.175	0.002
	(.313)	(.162)	(.338)	(.160)	(.289)	(.128)
	[.022]	[-.049]	[-.017]	[.011]	[-.065]	[.001]
Studied Presidency	-0.092	.292*	-0.199	-0.017	-.463*	0.084
	(.250)	(.111)	(.266)	(.119)	(.233)	(.093)
	[-.028]	[.053]	[-.058]	[-.002]	[-.171]	[.025]
Studied How Laws are Made	-0.486	0.176	-0.112	-0.092	-0.259	-0.066
	(.300)	(.129)	(.291)	(.136)	(.256)	(.111)
	[-.136]	[.031]	[-.032]	[-.013]	[-.096]	[-.019]
Studied Political Parties	-0.021	-.298*	-0.538	-0.036	.735*	0.086
	(.262)	(.125)	(.279)	(.123)	(.244)	(.102)
	[-.006]	[-.046]	[-.144]	[-.005]	[.283]	[.025]
Studied State and Local Government	0.291	-0.055	0.288	-0.096	-0.07	-0.138
	(.266)	(.115)	(.275)	(.118)	(.242)	(.094)
	[.093]	[-.009]	[.089]	[-.014]	[-.026]	[-.040]
Female	0.299	0.132	.699*	.244*	-0.107	0.037
	(.210)	(.095)	(.216)	(.099)	(.182)	(.077)
	[.092]	[.022]	[.207]	[.037]	[-.040]	[.011]
In Student Government	0.017	.330*	-.572*	.319*	-0.254	0.126
	(.229)	(.110)	(.239)	(.115)	(.202)	(.083)
	[.005]	[.051]	[-.179]	[.045]	[-.097]	[.036]
Expecting to Complete a 4-year College Degree	.869*	.496*	.961*	.312*	.494*	.369*
	(.222)	(.093)	(.232)	(.097)	(.199)	(.081)
	[.280]	[.096]	[.301]	[.052]	[.188]	[.116]
Classroom climate:						
Students feel free to disagree openly with teachers	0.178	0.038	0.318	.225*	-0.011	0.125
	(.219)	(.105)	(.227)	(.105)	(.197)	(.084)
	[.056]	[.006]	[.097]	[.036]	[-.004]	[.037]
Students are encouraged to make up own minds	-0.087	.247*	-0.022	0.092	0.064	0.029
	(.249)	(.120)	(.256)	(.123)	(.218)	(.103)
	[-.026]	[.046]	[-.006]	[.014]	[.024]	[.008]
Students express opinions in class even when different	-0.083	0.085	0.384	0.07	.496*	.246*
	(.232)	(.108)	(.232)	(.110)	(.209)	(.087)
	[-.025]	[.014]	[.121]	[.011]	[.191]	[.076]
Log Likelihood	-125.877	-543.334	-116.946	-503.436	-158.599	-854.386
sample size:	283	1,670	283	1,670	283	1,670

Leaflet 1: Dependent variable =1 if student correctly interpreted which party issued the political leaflet.
Leaflet 2: Dependent variable=1 if student correctly interpreted what leaflet issuers think about taxes.
Leaflet 3: Dependent variable=1 if student correctly interpreted what policy the issuers of the leaflet favor.

All models included controls for number of books and newspapers in the home, group participation, and feelings of political efficac

Robust standard errors are in parentheses. Marginal effects are in brackets.
* significant at the α=.05 level.

All calculations used the "total weight" as provided in the survey data.

Table 29
Political Interpretation Skills - Political Cartoons (IEA/CivEd)
Full Probit Models - African-Americans

	Cartoon 1		Cartoon 2	
	(1) African-Americans	(2) All others	(3) African-Americans	(4) All others
Civics Education variables:				
Studied Constitution	.841*	0.261	0.33	0.008
	(.337)	(.154)	(.324)	(.125)
	[.242]	[.035]	[.120]	[.002]
Studied Congress	-0.364	-0.288	-0.382	0.177
	(.348)	(.175)	(.306)	(.134)
	[-.080]	[-.030]	[-.127]	[.048]
Studied Presidency	-0.06	.274*	0.419	0.168
	(.261)	(.126)	(.240)	(.097)
	[-.014]	[.035]	[.148]	[.045]
Studied How Laws are Made	-0.589	0.194	0.144	-0.04
	(.304)	(.141)	(.263)	(.115)
	[-.120]	[.025]	[.051]	[-.010]
Studied Political Parties	0.212	-0.036	-0.22	-0.044
	(.273)	(.134)	(.256)	(.106)
	[.052]	[-.004]	[-.074]	[-.011]
Studied State and Local Government	0.234	0.106	0.364	-.280*
	(.273)	(.128)	(.252)	(.099)
	[.058]	[.012]	[.131]	[-.070]
Female	0.162	.262*	-0.318	-0.008
	(.218)	(.107)	(.199)	(.080)
	[.038]	[.031]	[-.110]	[-.002]
In Student Government	-0.283	.287*	0.327	0.099
	(.239)	(.123)	(.213)	(.087)
	[-.070]	[.031]	[.111]	[.025]
Expecting to Complete a 4-year College Degree	0.394	.287*	0.183	.391*
	(.233)	(.107)	(.213)	(.083)
	[.097]	[.037]	[.064]	[.110]
Classroom climate:				
Students feel free to disagree openly with teachers	0.252	0.008	-.779*	0.026
	(.232)	(.116)	(.213)	(.089)
	[.062]	[.001]	[-.252]	[.006]
Students are encouraged to make up own minds	-0.366	0.191	0.054	-0.073
	(.265)	(.133)	(.236)	(.111)
	[-.078]	[.025]	[.019]	[-.018]
Students express opinions in class even when different	0.473	.241*	0.412	0.09
	(.246)	(.114)	(.225)	(.093)
	[.124]	[.031]	[.149]	[.024]
Log Likelihood	-114.384	-416.737	-137.849	-768.985
sample size:	283	1,670	283	1,670

Cartoon 1: Dependent variable =1 if student correctly interpreted a political cartoon about a political lead
Cartoon 2: Dependent variable =1 if student correctly interpreted a political cartoon about democracy.

All models included controls for number of books and newspapers in the home, group participation, and feelings of political efficacy.

Robust standard errors are in parentheses. Marginal effects are in brackets.
* significant at the α=.05 level.

All calculations used the "total weight" as provided in the survey data.

Table 30
Monitoring the News (IEA/CivEd)
Full Probit Models - African-Americans

	Read Newspaper 1[a]		**Read Newspaper 2**		**Watch TV**		**Listen to Radio**	
	(1) African-Americans	(2) All others	(3) African-Americans	(4) All others	(5) African-Americans	(6) All others	(7) African-Americans	(8) All others
Civics Education variables:								
Studied Constitution	-.741*	0.062	-0.456	0.179	0.223	.387*	-0.154	-0.048
	(.302)	(.113)	(.300)	(.111)	(.317)	(.123)	(.288)	(.114)
	[-.262]	[.023]	[-.180]	[.071]	[.059]	[.112]	[-.061]	[-.019]
Studied Congress	-0.124	0.028	-0.175	-0.057	-0.055	-0.231	0.227	-0.003
	(.300)	(.119)	(.290)	(.117)	(.336)	(.135)	(.284)	(.120)
	[-.047]	[.010]	[-.069]	[-.022]	[-.013]	[-.057]	[.089]	[-.001]
Studied Presidency	0.33	0.034	0.226	-0.031	-0.107	0.027	0.014	.185*
	(.236)	(.087)	(.225)	(.087)	(.253)	(.098)	(.215)	(.086)
	[.128]	[.013]	[.088]	[-.012]	[-.026]	[.007]	[.005]	[.072]
Studied How Laws are Made	0.252	0.027	0.07	-0.08	0.265	0.003	-0.13	0.124
	(.258)	(.103)	(.256)	(.103)	(.284)	(.114)	(.250)	(.104)
	[.098]	[.010]	[.027]	[-.031]	[.071]	[.001]	[-.051]	[.048]
Studied Political Parties	0.195	0.06	0.28	.215*	0.071	0.074	0.318	0.145
	(.247)	(.093)	(.242)	(.092)	(.271)	(.104)	(.236)	(.093)
	[.076]	[.022]	[.108]	[.085]	[.018]	[.019]	[.124]	[.056]
Studied State and Local Government	0.242	0.1	0.138	0.089	-0.198	0.15	-.578*	0.047
	(.239)	(.085)	(.237)	(.084)	(.265)	(.096)	(.235)	(.085)
	[.094]	[.037]	[.054]	[.035]	[-.048]	[.040]	[-.227]	[.018]
Female	-0.233	-0.104	-0.264	-0.016	0.161	0.013	0.234	.207*
	(.189)	(.072)	(.183)	(.070)	(.204)	(.081)	(.181)	(.070)
	[-.089]	[-.038]	[-.103]	[-.006]	[.040]	[.003]	[.092]	[.081]
In Student Government	0.107	0.111	0.005	0.027	0.118	0.113	-0.08	0.001
	(.204)	(.076)	(.196)	(.074)	(.225)	(.089)	(.193)	(.073)
	[.041]	[.041]	[.002]	[.010]	[.029]	[.029]	[-.031]	[.001]
Expecting to Complete a 4-year College Degree	-0.111	0.025	-0.133	-0.017	-0.087	0.053	0.242	0.013
	(.199)	(.078)	(.197)	(.077)	(.220)	(.085)	(.190)	(.078)
	[-.042]	[.009]	[-.052]	[-.007]	[-.022]	[.014]	[.095]	[.005]
Classroom climate:								
Students feel free to disagree openly with teachers	.426*	0.044	0.184	0.038	0.12	.223*	0.02	.156*
	(.196)	(.079)	(.195)	(.079)	(.213)	(.087)	(.195)	(.079)
	[.165]	[.016]	[.072]	[.015]	[.030]	[.061]	[.007]	[.060]
Students are encouraged to make up own minds	0.348	0.162	0.052	.325*	0.334	0.118	0.365	0.136
	(.218)	(.097)	(.218)	(.098)	(.234)	(.106)	(.219)	(.100)
	[.136]	[.061]	[.020]	[.129]	[.091]	[.032]	[.141]	[.053]
Students express opinions in class even when different	.464*	.260*	.502*	.229*	0.374	.241*	0.096	0.088
	(.215)	(.083)	(.218)	(.082)	(.230)	(.090)	(.211)	(.083)
	[.181]	[.098]	[.191]	[.091]	[.102]	[.066]	[.038]	[.034]
Log Likelihood	-152.638	-1020.41	-159.296	-1060.58	-126.91	-762.7	-168.86	-1064.94
sample size:	283	1,670	283	1,670	283	1,670	283	1,670

a) Read Newspaper 1: Dependent variable =1 if respondent answered "sometimes" or "often" to "How often do you read articles in the newspaper about what is happening in this country?"
Read Newspaper 2: Dependent variable =1 if respondent answered "sometimes" or "often" to "How often do you read articles in the newspaper about what is happening in other countries?"
Watch: Dependent variable =1 if respondent answered "sometimes" or "often" to "How often do you watch news broadcasts on television?"
Listen: Dependent variable =1 if respondent answered "sometimes" or "often" to "How often do you listen to news broadcasts on the radio?"

All models included controls for number of books and newspapers in the home, group participation, and feelings of political efficacy.

Robust standard errors are in parentheses. Marginal effects are in brackets.
* significant at the α=.05 level.

All calculations used the "total weight" as provided in the survey data.

Table 31
Group Discussion Skills (IEA/CivEd)
Full Probit Models - African-Americans

	People Own Age		Parents		Teachers	
	(1) African-Americans	(2) All others	(3) African-Americans	(4) All others	(5) African-Americans	(6) All others
Civic Education variables:						
Studied Constitution	0.104	0.066	-0.342	0.048	-0.033	0.067
	(.297)	(.121)	(.295)	(.114)	(.293)	(.112)
	[.032]	[.021]	[-.134]	[.018]	[-.012]	[.025]
Studied Congress	-0.341	-0.146	0.189	0.12	0.525	0.079
	(.294)	(.129)	(.286)	(.119)	(.294)	(.117)
	[-.114]	[-.049]	[.075]	[.046]	[.201]	[.030]
Studied Presidency	0.011	.226*	-0.095	.281*	-0.439	.169*
	(.231)	(.094)	(.214)	(.086)	(.232)	(.086)
	[.003]	[.073]	[-.037]	[.109]	[-.162]	[.065]
Studied How Laws are Made	-0.132	0.085	0.074	0.083	0.225	-0.137
	(.262)	(.111)	(.250)	(.103)	(.248)	(.103)
	[-.043]	[.027]	[.029]	[.032]	[.086]	[-.052]
Studied Political Parties	0.214	0.19	-0.309	-0.113	-0.155	0.05
	(.245)	(.100)	(.235)	(.094)	(.245)	(.092)
	[.066]	[.061]	[-.122]	[-.043]	[-.057]	[.019]
Studied State and Local Government	0.183	-0.033	-0.022	0.09	0.297	.249*
	(.249)	(.090)	(.231)	(.085)	(.238)	(.084)
	[.057]	[-.011]	[-.008]	[.035]	[.113]	[.097]
Female	-.393*	-0.083	0.198	-0.003	0.023	0.073
	(.187)	(.074)	(.177)	(.072)	(.186)	(.071)
	[-.126]	[-.027]	[.079]	[-.001]	[.008]	[.028]
In Student Government	-0.103	-0.023	0.2	0.005	-0.391	0.03
	(.206)	(.078)	(.193)	(.076)	(.200)	(.075)
	[-.033]	[-.007]	[.079]	[.002]	[-.149]	[.011]
Expecting to Complete a 4-year College Degree	-0.083	-0.095	0.028	0.101	0.127	-.175*
	(.202)	(.082)	(.192)	(.077)	(.196)	(.079)
	[-.027]	[-.032]	[.011]	[.039]	[.048]	[-.066]
Classroom climate:						
Students feel free to disagree openly with teachers	0.287	.300*	0.042	.274*	0.343	.424*
	(.203)	(.086)	(.192)	(.079)	(.189)	(.078)
	[.090]	[.096]	[.016]	[.106]	[.131]	[.165]
Students are encouraged to make up own minds	0.115	0.202	0.246	.297*	0.021	0.082
	(.229)	(.110)	(.212)	(.099)	(.213)	(.098)
	[.036]	[.064]	[.098]	[.116]	[.008]	[.031]
Students express opinions in class even when different	0.168	.224*	0.35	0.069	-0.138	0.095
	(.226)	(.090)	(.209)	(.083)	(.210)	(.082)
	[.052]	[.072]	[.139]	[.026]	[-.051]	[.036]
Log Likelihood	-150.219	-943.648	-169.598	-1023.09	-161.553	-1038.05
sample size:	283	1,670	283	1,670	283	1,670

Dependent variable =1 if respondent answered "sometimes" or "often" to "How often do you have discussions of what is happening in U.S. government with people your own age / your parents / your teachers?"

All models included controls for number of books and newspapers in the home, group participation, and feelings of political efficacy.

Robust standard errors are in parentheses. Marginal effects are in brackets.
* significant at the α=.05 level.

All calculations used the "total weight" as provided in the survey data.

Table 32
Political Interpretation Skills - Political Leaflets (IEA/CivEd)
Full Probit Models - Latinos

	Leaflet 1		Leaflet 2		Leaflet 3	
	(1)	(2)	(3)	(4)	(5)	(6)
	Latinos	All others	Latinos	All others	Latinos	All others
Civics Education variables:						
Studied Constitution	.899*	0.135	.815*	0.252	0.021	0.216
	(.330)	(.146)	(.316)	(.148)	(.294)	(.120)
	[.241]	[.025]	[.213]	[.045]	[.006]	[.069]
Studied Congress	-1.09*	-0.067	0.086	0.061	-0.191	-0.014
	(.409)	(.155)	(.368)	(.160)	(.321)	(.128)
	[-.176]	[-.011]	[.018]	[.010]	[-.058]	[-.004]
Studied Presidency	.526*	0.208	0.006	0.03	0.124	-0.005
	(.264)	(.109)	(.286)	(.116)	(.234)	(.093)
	[.119]	[.038]	[.001]	[.005]	[.039]	[-.001]
Studied How Laws are Made	0.12	0.116	-0.522	0.003	-0.091	-0.061
	(.336)	(.125)	(.350)	(.130)	(.293)	(.109)
	[.026]	[.021]	[-.090]	[.001]	[-.028]	[-.018]
Studied Political Parties	0.166	-.344*	0.153	-0.198	0.315	0.133
	(.290)	(.124)	(.283)	(.123)	(.247)	(.101)
	[.036]	[-.055]	[.033]	[-.030]	[.103]	[.042]
Studied State and Local Government	-0.314	0.031	0.022	-0.012	-0.084	-0.167
	(.260)	(.115)	(.265)	(.118)	(.236)	(.095)
	[-.064]	[.005]	[.004]	[-.002]	[-.026]	[-.050]
Female	0.204	0.151	0.27	.269*	-0.022	0.026
	(.231)	(.092)	(.238)	(.096)	(.198)	(.076)
	[.043]	[.026]	[.057]	[.043]	[-.007]	[.008]
In Student Government	0.444	.282*	0.598	0.129	0.124	0.091
	(.318)	(.104)	(.348)	(.105)	(.248)	(.080)
	[.084]	[.047]	[.109]	[.020]	[.038]	[.027]
Expecting to Complete a 4-year College Degree	.567*	.502*	.644*	.357*	.504*	.358*
	(.224)	(.092)	(.231)	(.095)	(.195)	(.080)
	[.128]	[.102]	[.145]	[.064]	[.162]	[.116]
Classroom climate:						
Students feel free to disagree openly with teachers	0.048	0.095	0.055	.231*	0.263	0.069
	(.250)	(.102)	(.250)	(.102)	(.216)	(.083)
	[.010]	[.017]	[.011]	[.040]	[.084]	[.021]
Students are encouraged to make up own minds	0.438	0.158	0.276	0.06	-0.04	0.062
	(.280)	(.118)	(.280)	(.121)	(.239)	(.101)
	[.106]	[.030]	[.063]	[.010]	[-.012]	[.019]
Students express opinions in class even when different	-0.065	0.084	-0.046	0.16	.485*	.263*
	(.273)	(.104)	(.271)	(.105)	(.242)	(.085)
	[-.013]	[.015]	[-.009]	[.027]	[.163]	[.084]
Log Likelihood	-104.942	-563.362	-100.529	-525.342	-135.825	-876.896
sample size:	273	1,679	273	1,679	273	1,679

Leaflet 1: Dependent variable =1 if student correctly interpreted which party issued the political leaflet.
Leaflet 2: Dependent variable=1 if student correctly interpreted what leaflet issuers think about taxes.
Leaflet 3: Dependent variable=1 if student correctly interpreted what policy the issuers of the leaflet favor.

All models included controls for number of books and newspapers in the home, group participation, and feelings of political efficacy

Robust standard errors are in parentheses. Marginal effects are in brackets.
* significant at the α=.05 level.

All calculations used the "total weight" as provided in the survey data.

Table 33
Political Interpretation Skills - Political Cartoons (IEA/CivEd)
Full Probit Models - Latinos

	Cartoon 1		Cartoon 2	
	(1)	(2)	(3)	(4)
	Latinos	All others	Latinos	All others
Civics Education variables:				
Studied Constitution	1.23*	0.225	0.124	0.028
	(.380)	(.153)	(.327)	(.124)
	[.198]	[.033]	[.035]	[.007]
Studied Congress	-0.67	-0.236	-0.743	0.251
	(.462)	(.168)	(.381)	(.131)
	[-.048]	[-.028]	[-.175]	[.072]
Studied Presidency	0.04	0.223	0.415	0.126
	(.371)	(.121)	(.259)	(.096)
	[.003]	[.031]	[.119]	[.035]
Studied How Laws are Made	0.153	0.106	0.089	-0.055
	(.395)	(.136)	(.324)	(.112)
	[.015]	[.014]	[.025]	[-.014]
Studied Political Parties	0.252	-0.094	-0.276	-0.088
	(.347)	(.129)	(.286)	(.104)
	[.025]	[-.012]	[-.072]	[-.023]
Studied State and Local Government	0.046	0.174	-.538*	-0.138
	(.336)	(.122)	(.255)	(.097)
	[.004]	[.024]	[-.141]	[-.036]
Female	0.593	0.194	0.011	-0.034
	(.319)	(.101)	(.217)	(.079)
	[.056]	[.025]	[.003]	[-.009]
In Student Government	-0.124	.254*	0.051	0.138
	(.376)	(.114)	(.284)	(.085)
	[-.012]	[.031]	[.014]	[.036]
Expecting to Complete a 4-year College Degree	0.002	.327*	.739*	.328*
	(.284)	(.102)	(.224)	(.082)
	[.001]	[.048]	[.215]	[.094]
Classroom climate:				
Students feel free to disagree openly with teachers	0.099	0.029	0.091	-0.081
	(.321)	(.111)	(.243)	(.088)
	[.009]	[.003]	[.025]	[-.021]
Students are encouraged to make up own minds	0.188	0.115	0.027	-0.042
	(.340)	(.128)	(.275)	(.109)
	[.019]	[.016]	[.007]	[-.011]
Students express opinions in class even when different	.769*	.245*	0.324	0.126
	(.329)	(.109)	(.276)	(.090)
	[.100]	[.035]	[.096]	[.035]
Log Likelihood	-65.633	-453.374	-113.688	-791.668
sample size:	273	1,679	273	1,679

Cartoon 1: Dependent variable =1 if student correctly interpreted a political cartoon about a political lead
Cartoon 2: Dependent variable =1 if student correctly interpreted a political cartoon about democracy.

All models included controls for number of books and newspapers in the home, group participation, and feelings of political efficacy.

Robust standard errors are in parentheses. Marginal effects are in brackets.
* significant at the α=.05 level.

All calculations used the "total weight" as provided in the survey data.

Table 34
Monitoring the News (IEA/CivEd)
Full Probit Models - Latinos

	Read Newspaper 1[a]		Read Newspaper 2		Watch TV		Listen to Radio	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Latinos	All others	Latinos	All others	Latinos	All others	Latinos	All others
Civics Education variables:								
Studied Constitution	-0.043	-0.008	0.248	0.062	0.327	.339*	-0.025	-0.086
	(.283)	(.114)	(.271)	(.112)	(.312)	(.124)	(.287)	(.114)
	[-.016]	[-.003]	[.099]	[.025]	[.087]	[.097]	[-.009]	[-.034]
Studied Congress	-.712*	0.063	-.796*	0.048	-0.628	-0.188	-0.459	0.056
	(.311)	(.119)	(.304)	(.117)	(.347)	(.135)	(.318)	(.119)
	[-.257]	[.023]	[-.297]	[.019]	[-.133]	[-.046]	[-.176]	[.022]
Studied Presidency	0.166	0.055	0.075	-0.02	-0.147	0.021	.506*	0.164
	(.220)	(.088)	(.217)	(.087)	(.271)	(.098)	(.225)	(.086)
	[.064]	[.020]	[.030]	[-.008]	[-.035]	[.005]	[.184]	[.064]
Studied How Laws are Made	0.536	0.013	0.278	-0.094	0.565	-0.013	0.317	0.092
	(.281)	(.101)	(.279)	(.101)	(.303)	(.113)	(.292)	(.101)
	[.211]	[.005]	[.110]	[-.037]	[.163]	[-.003]	[.114]	[.036]
Studied Political Parties	0.015	0.053	-0.193	.259*	0.177	0.075	0.128	.193*
	(.232)	(.093)	(.230)	(.092)	(.261)	(.104)	(.239)	(.093)
	[.005]	[.019]	[-.076]	[.103]	[.045]	[.019]	[.047]	[.075]
Studied State and Local Government	0.265	0.107	.463*	0.023	0.274	0.098	0.409	-0.094
	(.223)	(.086)	(.217)	(.085)	(.251)	(.097)	(.229)	(.085)
	[.103]	[.040]	[.182]	[.009]	[.069]	[.026]	[.150]	[-.037]
Female	0.218	-0.136	0.142	-0.058	0.049	0.035	0.04	.208*
	(.189)	(.072)	(.184)	(.070)	(.222)	(.081)	(.188)	(.069)
	[.084]	[-.050]	[.056]	[-.023]	[.012]	[.009]	[.015]	[.082]
In Student Government	-0.344	0.134	-0.126	0.037	-0.155	0.122	0.295	-0.033
	(.232)	(.075)	(.226)	(.073)	(.274)	(.086)	(.225)	(.072)
	[-.134]	[.049]	[-.050]	[.014]	[-.039]	[.031]	[.112]	[-.013]
Expecting to Complete a 4-year College Degree	-0.005	0.013	0.104	-0.045	-0.222	0.073	0.057	0.053
	(.189)	(.078)	(.187)	(.077)	(.219)	(.085)	(.196)	(.077)
	[-.002]	[.004]	[.041]	[-.018]	[-.053]	[.019]	[.021]	[.021]
Classroom climate:								
Students feel free to disagree openly with teachers	0.146	0.092	0.126	0.062	0.127	.233*	0.335	0.124
	(.206)	(.079)	(.203)	(.078)	(.234)	(.086)	(.213)	(.078)
	[.056]	[.034]	[.050]	[.024]	[.031]	[.063]	[.123]	[.049]
Students are encouraged to make up own minds	0.346	0.151	.454*	.249*	0.149	0.159	0.014	.207*
	(.232)	(.097)	(.231)	(.097)	(.262)	(.104)	(.244)	(.098)
	[.136]	[.057]	[.179]	[.099]	[.038]	[.043]	[.005]	[.080]
Students express opinions in class even when different	0.331	.248*	0.179	.281*	.594*	.225*	0.155	0.089
	(.231)	(.081)	(.231)	(.081)	(.259)	(.088)	(.246)	(.081)
	[.130]	[.094]	[.071]	[.111]	[.167]	[.061]	[.057]	[.035]
Log Likelihood	-157.831	-1020.12	-162.881	-1061.08	-116.277	-765.86	-151.906	-1080.22
sample size:	273	1,679	273	1,679	273	1,679	273	1,679

a) Read Newspaper 1: Dependent variable =1 if respondent answered "sometimes" or "often" to "How often do you read articles in the newspaper about what is happening in this country?"
Read Newspaper 2: Dependent variable =1 if respondent answered "sometimes" or "often" to "How often do you read articles in the newspaper about what is happening in other countries?"
Watch: Dependent variable =1 if respondent answered "sometimes" or "often" to "How often do you watch news broadcasts on television?"
Listen: Dependent variable =1 if respondent answered "sometimes" or "often" to "How often do you listen to news broadcasts on the radio?"

All models included controls for number of books and newspapers in the home, group participation, and feelings of political efficacy.

Robust standard errors are in parentheses. Marginal effects are in brackets.
* significant at the α=.05 level.

All calculations used the "total weight" as provided in the survey data.

Table 35
Group Discussion Skills (IEA/CivEd)
Full Probit Models - Latinos

	People Own Age		Parents		Teachers	
	(1)	(2)	(3)	(4)	(5)	(6)
	Latinos	All others	Latinos	All others	Latinos	All others
Civic Education variables:						
Studied Constitution	0.521	-0.031	0.473	-0.081	0.044	0.027
	(.310)	(.122)	(.272)	(.115)	(.283)	(.113)
	[.142]	[-.010]	[.187]	[-.031]	[.016]	[.010]
Studied Congress	-0.512	-0.133	-0.156	0.136	-0.146	0.158
	(.343)	(.128)	(.304)	(.119)	(.308)	(.117)
	[-.169]	[-.045]	[-.060]	[.053]	[-.054]	[.061]
Studied Presidency	0.296	.198*	0.123	.246*	0.116	0.087
	(.239)	(.093)	(.218)	(.086)	(.225)	(.087)
	[.088]	[.064]	[.048]	[.096]	[.044]	[.033]
Studied How Laws are Made	.775*	-0.012	0.423	0.05	0.225	-0.102
	(.342)	(.109)	(.281)	(.101)	(.273)	(.101)
	[.192]	[-.004]	[.167]	[.019]	[.086]	[-.038]
Studied Political Parties	-0.36	.295*	-0.042	-0.143	0.318	0.008
	(.262)	(.100)	(.233)	(.094)	(.235)	(.093)
	[-.116]	[.094]	[-.016]	[-.054]	[.121]	[.003]
Studied State and Local Government	0.202	-0.064	0.09	0.104	0.428	.259*
	(.244)	(.090)	(.225)	(.085)	(.225)	(.085)
	[.061]	[-.021]	[.035]	[.040]	[.162]	[.100]
Female	-0.25	-0.106	0.088	-0.009	0.073	0.057
	(.202)	(.073)	(.189)	(.071)	(.195)	(.070)
	[-.076]	[-.035]	[.034]	[-.003]	[.027]	[.022]
In Student Government	-0.135	0.002	0.255	0.005	0.346	-0.033
	(.245)	(.076)	(.234)	(.073)	(.242)	(.073)
	[-.040]	[.001]	[.098]	[.002]	[.125]	[-.012]
Expecting to Complete a 4-year College Degree	-0.014	-0.103	0.029	0.089	-0.219	-0.124
	(.207)	(.082)	(.190)	(.077)	(.196)	(.078)
	[-.004]	[-.034]	[.011]	[.034]	[-.081]	[-.047]
Classroom climate:						
Students feel free to disagree openly with teachers	0.302	.275*	0.139	.255*	0.272	.437*
	(.235)	(.085)	(.210)	(.078)	(.212)	(.077)
	[.089]	[.088]	[.054]	[.099]	[.103]	[.170]
Students are encouraged to make up own minds	0.359	0.196	.667*	.251*	0.025	0.1
	(.265)	(.109)	(.240)	(.097)	(.243)	(.097)
	[.101]	[.062]	[.261]	[.098]	[.009]	[.039]
Students express opinions in class even when different	0.269	.245*	0.238	0.116	.479*	0.048
	(.267)	(.089)	(.238)	(.081)	(.240)	(.081)
	[.078]	[.078]	[.094]	[.045	[.184]	[.018]
Log Likelihood	-131.575	-953.115	-152.447	-1042.19	-144.109	-1050.82
sample size:	273	1,679	273	1,679	273	1,679

Dependent variable =1 if respondent answered "sometimes" or "often" to "How often do you have discussions of what is happening in U.S. government with people your own age / your parents / your teachers?"

All models included controls for number of books and newspapers in the home, group participation, and feelings of political efficacy.

Robust standard errors are in parentheses. Marginal effects are in brackets.
* significant at the α=.05 level.

All calculations used the "total weight" as provided in the survey data.

Table 36
Political Interpretation Skills - Political Leaflets (IEA/CivEd)
Full Probit Models - Females

	Leaflet 1		Leaflet 2		Leaflet 3	
	(1) Females	(2) Males	(3) Females	(4) Males	(5) Females	(6) Males
Civics Education variables:						
Studied Constitution	0.245	0.304	.453*	0.272	-0.042	.418*
	(.194)	(.178)	(.197)	(.178)	(.155)	(.163)
	[.041]	[.071]	[.073]	[.062]	[-.012]	[.141]
Studied Congress	-0.349	-0.185	-0.094	0.109	0.102	-0.17
	(.208)	(.200)	(.215)	(.199)	(.158)	(.179)
	[-.046]	[-.037]	[-.011]	[.023]	[.030]	[-.052]
Studied Presidency	.279*	0.262	-0.069	0.099	0.102	-0.077
	(.140)	(.145)	(.156)	(.149)	(.115)	(.131)
	[.045]	[.059]	[-.008]	[.021]	[.030]	[-.024]
Studied How Laws are Made	0.222	-0.01	-0.001	-0.135	-0.019	-0.144
	(.166)	(.167)	(.178)	(.169)	(.141)	(.150)
	[.037]	[-.002]	[-.001]	[-.027]	[-.005]	[-.044]
Studied Political Parties	-0.377	-0.161	-0.207	-0.115	0.095	0.234
	(.171)	(.151)	(.174)	(.150)	(.130)	(.136)
	[-.050]	[-.033]	[-.024]	[-.023]	[.028]	[.076]
Studied State and Local Government	-0.045	-0.037	-0.122	0.043	-0.198	-0.106
	(.155)	(.144)	(.164)	(.143)	(.122)	(.129)
	[-.006]	[-.008]	[-.015]	[.009]	[-.056]	[-.033]
In Student Government	0.202	.390*	0.086	0.282	-0.03	.236*
	(.134)	(.146)	(.140)	(.147)	(.102)	(.117)
	[.029]	[.076]	[.010]	[.055]	[-.008]	[.072]
Expecting to Complete a 4-year College Degree	.556*	.552*	.373*	.463*	.359*	.407*
	(.129)	(.113)	(.137)	(.115)	(.109)	(.103)
	[.102]	[.131]	[.055]	[.106]	[.113]	[.134]
Classroom climate:						
Students feel free to disagree openly with teachers	0.207	0.046	0.125	.375*	0.097	0.097
	(.142)	(.126)	(.150)	(.123)	(.113)	(.108)
	[.033]	[.010]	[.016]	[.084]	[.029]	[.031]
Students are encouraged to make up own minds	0.079	.276*	0.216	0.007	.311*	-0.119
	(.180)	(.137)	(.186)	(.140)	(.143)	(.126)
	[.012]	[.064]	[.031]	[.001]	[.100]	[-.036]
Students express opinions in class even when different	0.008	0.064	0.058	0.146	.236*	.336*
	(.148)	(.129)	(.154)	(.128)	(.118)	(.110)
	[.001]	[.014]	[.007]	[.031]	[.073]	[.111]
Log Likelihood	-303.212	-365.564	-267.893	-355.14	-503.3	-499.62
sample size:	999	954	999	954	999	954

Leaflet 1: Dependent variable =1 if student correctly interpreted which party issued the political leaflet.
Leaflet 2: Dependent variable=1 if student correctly interpreted what leaflet issuers think about taxes.
Leaflet 3: Dependent variable=1 if student correctly interpreted what policy the issuers of the leaflet favor.

All models included controls for number of books and newspapers in the home, group participation, and feelings of political efficacy.

Robust standard errors are in parentheses. Marginal effects are in brackets.
* significant at the α=.05 level.

All calculations used the "total weight" as provided in the survey data.

Table 37
Political Interpretation Skills - Political Cartoons (IEA/CivEd)
Full Probit Models - Females

	Cartoon 1		Cartoon 2	
	(1) Females	(2) Males	(3) Females	(4) Males
Civics Education variables:				
Studied Constitution	0.229	.415*	0.263	-0.066
	(.214)	(.183)	(.163)	(.164)
	[.024]	[.084]	[.073]	[-.018]
Studied Congress	-0.339	-0.213	0.043	0.136
	(.234)	(.209)	(.172)	(.179)
	[-.027]	[-.034]	[.011]	[.039]
Studied Presidency	0.246	0.203	0.082	0.233
	(.166)	(.156)	(.123)	(.131)
	[.025]	[.037]	[.021]	[.068]
Studied How Laws are Made	0.163	0.077	0.062	-0.103
	(.189)	(.175)	(.147)	(.151)
	[.016]	[.014]	[.016]	[-.028]
Studied Political Parties	0.03	-0.099	-0.164	-0.058
	(.185)	(.159)	(.139)	(.139)
	[.002]	[-.016]	[-.040]	[-.016]
Studied State and Local Government	-0.062	0.232	-0.233	-0.1
	(.179)	(.152)	(.129)	(.130)
	[-.005]	[.042]	[-.057]	[-.028]
In Student Government	.327*	0.105	0.173	0.053
	(.163)	(.145)	(.110)	(.119)
	[.028]	[.017]	[.043]	[.015]
Expecting to Complete a 4-year College Degree	.380*	0.267	.430*	.373*
	(.150)	(.125)	(.111)	(.105)
	[.042]	[.049]	[.121]	[.111]
Classroom climate:				
Students feel free to disagree openly with teachers	-0.075	0.093	-0.182	0.039
	(.165)	(.131)	(.124)	(.111)
	[-.006]	[.016]	[-.044]	[.011]
Students are encouraged to make up own minds	.425*	-0.009	-0.17	0.066
	(.193)	(.149)	(.168)	(.128)
	[.052]	[-.001]	[-.041]	[.019]
Students express opinions in class even when different	.450*	0.192	0.174	0.145
	(.157)	(.133)	(.128)	(.114)
	[.053]	[.035]	[.046]	[.042]
Log Likelihood	-212.287	-318.155	-444.61	-467.03
sample size:	999	954	999	954

Cartoon 1: Dependent variable =1 if student correctly interpreted a political cartoon about a political lead
Cartoon 2: Dependent variable =1 if student correctly interpreted a political cartoon about democracy.

All models included controls for number of books and newspapers in the home, group participation, and feelings of political efficacy.

Robust standard errors are in parentheses. Marginal effects are in brackets.
* significant at the α=.05 level.

All calculations used the "total weight" as provided in the survey data.

Table 38
Monitoring the News (IEA/CivEd)
Full Probit Models - Females

	Read Newspaper 1[a]		Read Newspaper 2		Watch TV		Listen to Radio	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Females	Males	Females	Males	Females	Males	Females	Males
Civics Education variables:								
Studied Constitution	-0.138	0.056	0.107	0.084	.427*	0.31	0.104	-.335*
	(.146)	(.153)	(.141)	(.153)	(.163)	(.162)	(.142)	(.162)
	[-.050]	[.021]	[.042]	[.033]	[.117]	[.093]	[.041]	[-.129]
Studied Congress	-0.011	0.033	0.002	-0.103	-.448*	0.003	-0.037	0.14
	(.147)	(.166)	(.144)	(.166)	(.175)	(.180)	(.145)	(.176)
	[-.004]	[.012]	[.001]	[-.041]	[-.093]	[.001]	[-.015]	[.052]
Studied Presidency	0.077	0.058	0.07	-0.052	0.029	0.012	.296*	0.009
	(.108)	(.123)	(.107)	(.122)	(.123)	(.136)	(.105)	(.125)
	[.028]	[.022]	[.027]	[-.021]	[.007]	[.003]	[.117]	[.003]
Studied How Laws are Made	0.069	-0.012	-0.145	-0.011	0.096	-0.069	0.134	0.071
	(.130)	(.139)	(.131)	(.139)	(.148)	(.153)	(.128)	(.146)
	[.026]	[-.004]	[-.056]	[-.004]	[.023]	[-.019]	[.053]	[.026]
Studied Political Parties	-0.044	0.228	0.091	.380*	0.048	0.182	0.062	.415*
	(.118)	(.127)	(.116)	(.126)	(.136)	(.139)	(.116)	(.133)
	[-.016]	[.087]	[.036]	[.150]	[.011]	[.053]	[.025]	[.150]
Studied State and Local Government	0.145	0.089	0.127	0.006	0.216	-0.035	-0.065	0.068
	(.109)	(.118)	(.107)	(.118)	(.125)	(.130)	(.107)	(.122)
	[.054]	[.033]	[.050]	[.002]	[.054]	[-.010]	[-.025]	[.025]
In Student Government	-0.009	.232*	-0.125	.212*	-0.036	.297*	-0.048	0.033
	(.094)	(.109)	(.093)	(.105)	(.110)	(.126)	(.091)	(.106)
	[-.003]	[.085]	[-.049]	[.084]	[-.008]	[.079]	[-.019]	[.012]
Expecting to Complete a 4-year College Degree	0.028	0.005	-0.138	0.073	0.006	0.043	0.05	0.07
	(.104)	(.100)	(.103)	(.099)	(.119)	(.107)	(.103)	(.102)
	[.010]	[.002]	[-.054]	[.029]	[.001]	[.012]	[.019]	[.026]
Classroom climate:								
Students feel free to disagree openly with teachers	0.081	0.131	0.057	0.077	.307*	0.173	0.117	0.152
	(.107)	(.101)	(.106)	(.100)	(.119)	(.111)	(.105)	(.103)
	[.030]	[.049]	[.022]	[.030]	[.078]	[.049]	[.046]	[.057]
Students are encouraged to make up own minds	0.062	0.211	0.253	.306*	-0.09	.250*	0.198	0.183
	(.138)	(.118)	(.138)	(.119)	(.158)	(.125)	(.138)	(.124)
	[.023]	[.081]	[.100]	[.121]	[-.020]	[.074]	[.078]	[.067]
Students express opinions in class even when different	0.207	.235*	.245*	.249*	.256*	0.197	0.02	0.117
	(.113)	(.104)	(.113)	(.105)	(.123)	(.113)	(.112)	(.108)
	[.078]	[.090]	[.097]	[.099]	[.066]	[.057]	[.008]	[.044]
Log Likelihood	-607.723	-569.596	-632.58	-591.202	-427.523	-456.127	-649.492	-575.616
sample size:	999	954	999	954	999	954	999	954

a) Read Newspaper 1: Dependent variable =1 if respondent answered "sometimes" or "often" to "How often do you read articles in the newspaper about what is happening in this country?"
Read Newspaper 2: Dependent variable =1 if respondent answered "sometimes" or "often" to "How often do you read articles in the newspaper about what is happening in other countries?"
Watch: Dependent variable =1 if respondent answered "sometimes" or "often" to "How often do you watch news broadcasts on television?"
Listen: Dependent variable =1 if respondent answered "sometimes" or "often" to "How often do you listen to news broadcasts on the radio?"

All models included controls for number of books and newspapers in the home, group participation, and feelings of political efficacy.

Robust standard errors are in parentheses. Marginal effects are in brackets.
* significant at the α=.05 level.

All calculations used the "total weight" as provided in the survey data.

Table 39
Group Discussion Skills (IEA/CivEd)
Full Probit Models - Females

	People Own Age		Parents		Teachers	
	(1) Females	(2) Males	(3) Females	(4) Males	(5) Females	(6) Males
Civic Education variables:						
Studied Constitution	0.124	-0.077	0.057	-0.142	0.075	-0.034
	(.157)	(.164)	(.145)	(.158)	(.144)	(.153)
	[.039]	[-.026]	[.022]	[-.055]	[.028]	[-.013]
Studied Congress	-0.078	-0.24	-0.006	.343*	0.173	0.082
	(.161)	(.179)	(.146)	(.169)	(.145)	(.165)
	[-.026]	[-.082]	[-.002]	[.135]	[.066]	[.032]
Studied Presidency	0.211	0.186	.244*	0.214	0.095	0.138
	(.116)	(.132)	(.106)	(.122)	(.108)	(.120)
	[.067]	[.060]	[.093]	[.084]	[.036]	[.054]
Studied How Laws are Made	0.184	-0.131	0.005	0.189	-0.149	-0.037
	(.144)	(.149)	(.129)	(.140)	(.131)	(.138)
	[.058]	[-.044]	[.002]	[.075]	[-.054]	[-.014]
Studied Political Parties	0.074	.485*	-0.106	-0.121	0.043	0.043
	(.125)	(.140)	(.118)	(.130)	(.119)	(.125)
	[.024]	[.150]	[-.039]	[-.047]	[.016]	[.017]
Studied State and Local Government	-0.131	0.064	.218*	-0.151	0.212	.294*
	(.113)	(.128)	(.108)	(.120)	(.109)	(.116)
	[-.043]	[.021]	[.083]	[-.059]	[.080]	[.116]
In Student Government	0.017	-0.094	-0.051	0.165	0.038	-0.035
	(.097)	(.110)	(.093)	(.107)	(.094)	(.105)
	[.005]	[-.031]	[-.019]	[.064]	[.014]	[-.013]
Expecting to Complete a 4-year College Degree	-0.001	-0.141	0.073	0.092	-.297*	0.027
	(.112)	(.104)	(.104)	(.098)	(.108)	(.098)
	[-.001]	[-.047]	[.028]	[.036]	[-.108]	[.010]
Classroom climate:						
Students feel free to disagree openly with teachers	.283*	.292*	.256*	.312*	.499*	.364*
	(.118)	(.109)	(.107)	(.101)	(.106)	(.099)
	[.088]	[.094]	[.098]	[.123]	[.192]	[.143]
Students are encouraged to make up own minds	0.256	0.146	0.237	0.23	0.081	0.071
	(.161)	(.130)	(.140)	(.121)	(.140)	(.117)
	[.078]	[.047]	[.091]	[.091]	[.030]	[.028]
Students express opinions in class even when different	0.183	.254*	0.091	0.094	0.14	0.036
	(.125)	(.113)	(.113)	(.106)	(.112)	(.103)
	[.058]	[.081]	[.035]	[.037]	[.053]	[.014]
Log Likelihood	-554.516	-529.65	-611.02	-575.546	-604.167	-603
sample size:	999	954	999	954	999	954

Dependent variable =1 if respondent answered "sometimes" or "often" to "How often do you have discussions of what is happening in U.S. government with people your own age / your parents / your teachers?"

All models included controls for number of books and newspapers in the home, group participation, and feelings of political efficacy.

Robust standard errors are in parentheses. Marginal effects are in brackets.
* significant at the α=.05 level.

All calculations used the "total weight" as provided in the survey data.

Table 40
Political Interpretation Skills - Political Leaflets (IEA/CivEd)
Full Probit Models - Non-College

	Leaflet 1		Leaflet 2		Leaflet 3	
	(1)	(2)	(3)	(4)	(5)	(6)
	College	Non-College	College	Non-College	College	Non-College
Civics Education variables:						
Studied Constitution	0.373	0.261	0.23	.514*	-0.033	.458*
	(.197)	(.177)	(.193)	(.183)	(.152)	(.166)
	[.055]	[.085]	[.031]	[.158]	[-.009]	[.176]
Studied Congress	-0.417	-0.228	0.097	-0.174	0.025	-0.091
	(.215)	(.203)	(.201)	(.214)	(.154)	(.188)
	[-.042]	[-.070]	[.012]	[-.048]	[.007]	[-.034]
Studied Presidency	0.237	.306*	0.072	-0.006	0.103	-0.09
	(.140)	(.150)	(.144)	(.163)	(.108)	(.144)
	[.031]	[.097]	[.009]	[-.001]	[.028]	[-.033]
Studied How Laws are Made	.491*	-0.133	0.083	-0.177	-0.029	-0.185
	(.167)	(.167)	(.168)	(.177)	(.133)	(.160)
	[.076]	[-.041]	[.010]	[-.048]	[-.007]	[-.068]
Studied Political Parties	-.510*	-0.053	-.321*	0.12	0.146	0.275
	(.174)	(.156)	(.158)	(.167)	(.121)	(.149)
	[-.051]	[-.016]	[-.034]	[.034]	[.041]	[.104]
Studied State and Local Government	-0.15	0.193	-0.055	0.08	-.266*	0.045
	(.153)	(.152)	(.145)	(.163)	(.114)	(.143)
	[-.017]	[.062]	[-.006]	[.023]	[-.068]	[.017]
African American	-.348*	-.517*	-.313*	-.769*	-.329*	-.473*
	(.157)	(.165)	(.154)	(.169)	(.131)	(.163)
	[-.053]	[-.180]	[-.046]	[-.258]	[-.099]	[-.184]
Latino	-0.098	-0.009	-0.026	-.334*	0.096	-0.107
	(.174)	(.161)	(.171)	(.166)	(.144)	(.154)
	[-.012]	[-.002]	[-.003]	[-.103]	[.025]	[-.040]
Female	0.095	.294*	0.203	.469*	-0.028	0.105
	(.119)	(.127)	(.120)	(.137)	(.089)	(.119)
	[.011]	[.091]	[.025]	[.129]	[-.007]	[.039]
In Student Government	.377*	0.092	.272*	-0.163	0.059	0.264
	(.124)	(.173)	(.124)	(.179)	(.088)	(.163)
	[.044]	[.028]	[.032]	[-.048]	[.016]	[.096]
Classroom climate:						
Students feel free to disagree openly with teachers	-0.011	0.219	0.207	.288*	0.055	0.127
	(.133)	(.135)	(.126)	(.140)	(.098)	(.128)
	[-.001]	[.070]	[.027]	[.083]	[.015]	[.048]
Students are encouraged to make up own minds	.572*	-0.187	0.276	-0.101	.253*	-0.229
	(.147)	(.156)	(.149)	(.160)	(.120)	(.147)
	[.095]	[-.057]	[.039]	[-.028]	[.074]	[-.084]
Students express opinions in class even when different	0.124	-0.091	0.121	0.052	0.225*	.398*
	(.135)	(.140)	(.133)	(.144)	(.102)	(.130)
	[.016]	[-.028]	[.015]	[.015]	[.064]	[.152]
Log Likelihood	-352.44	-309.33	-346.25	-275.76	-646.16	-355.65
sample size:	1,354	599	1,354	599	1,354	599

"College" are those students who expect to complete a four-year college degree.

Leaflet 1: Dependent variable =1 if student correctly interpreted which party issued the political leaflet.
Leaflet 2: Dependent variable=1 if student correctly interpreted what leaflet issuers think about taxes.
Leaflet 3: Dependent variable=1 if student correctly interpreted what policy the issuers of the leaflet favor.

All models included controls for number of books and newspapers in the home, group participation, and feelings of political efficacy.

Robust standard errors are in parentheses. Marginal effects are in brackets.
* significant at the α=.05 level.

All calculations used the "total weight" as provided in the survey data.

Table 41
Political Interpretation Skills - Political Cartoons (IEA/CivEd)
Full Probit Models - Non-College

	Cartoon 1		Cartoon 2	
	(1) College	(2) Non-College	(3) College	(4) Non-College
Civics Education variables:				
Studied Constitution	0.36	.416*	0.268	-0.074
	(.209)	(.186)	(.156)	(.170)
	[.043]	[.100]	[.068]	[-.026]
Studied Congress	-0.272	-0.413	-0.07	0.276
	(.227)	(.218)	(.166)	(.189)
	[-.023]	[-.082]	[-.015]	[.100]
Studied Presidency	0.043	.446*	0.148	0.156
	(.157)	(.170)	(.115)	(.147)
	[.004]	[.100]	[.035]	[.055]
Studied How Laws are Made	0.25	0.098	0.064	-0.192
	(.179)	(.184)	(.138)	(.162)
	[.028]	[.021]	[.015]	[-.067]
Studied Political Parties	-0.192	0.102	-0.185	0.048
	(.170)	(.172)	(.130)	(.152)
	[-.017]	[.022]	[-.041]	[.017]
Studied State and Local Government	0.061	0.189	-0.136	-0.241
	(.155)	(.169)	(.117)	(.144)
	[.006]	[.042]	[-.030]	[-.084]
African American	-.472*	-.505*	-.335*	-0.147
	(.167)	(.179)	(.136)	(.165)
	[-.063]	[-.131]	[-.088]	[-.053]
Latino	-0.191	0.094	0.123	-0.157
	(.181)	(.189)	(.148)	(.156)
	[-.021]	[.019]	[.027]	[-.057]
Female	.278*	0.239	-0.034	-0.059
	(.128)	(.144)	(.094)	(.121)
	[.028]	[.051]	[-.008]	[-.021]
In Student Government	.313*	-0.014	0.175	-0.049
	(.132)	(.192)	(.094)	(.161)
	[.029]	[-.003]	[.040]	[-.017]
Classroom climate:				
Students feel free to disagree openly with teachers	0.248	-0.28	-0.005	-0.165
	(.133)	(.160)	(.104)	(.132)
	[.027]	[-.059]	[-.001]	[-.058]
Students are encouraged to make up own minds	0.08	0.155	-0.04	0.014
	(.161)	(.171)	(.135)	(.149)
	[.008]	[.035]	[-.009]	[.005]
Students express opinions in class even when different	.314*	.311*	0.069	0.208
	(.135)	(.154)	(.111)	(.133)
	[.036]	[.071]	[.016]	[.075]
Log Likelihood	-294.25	-236.09	-568.1	-345.69
sample size:	1,354	599	1,354	599

"College" are those students who expect to complete a four-year college degree.

Cartoon 1: Dependent variable =1 if student correctly interpreted a political cartoon about a political leader.
Cartoon 2: Dependent variable =1 if student correctly interpreted a political cartoon about democracy.

All models included controls for number of books and newspapers in the home, group participation, and feelings of political efficacy.

Robust standard errors are in parentheses. Marginal effects are in brackets.
* significant at the α=.05 level.

All calculations used the "total weight" as provided in the survey data.

Table 42
Monitoring the News (IEA/CivEd)
Full Probit Models - Non-College

	Read Newspaper 1[a]		Read Newspaper 2		Watch TV		Listen to Radio	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	College	Non-College	College	Non-College	College	Non-College	College	Non-College
Civics Education variables:								
Studied Constitution	0.003	-0.071	0.121	0.099	.445*	.368*	-0.008	-0.198
	(.138)	(.164)	(.134)	(.165)	(.151)	(.182)	(.134)	(.168)
	[.001]	[-.027]	[.048]	[.039]	[.123]	[.117]	[-.003]	[-.075]
Studied Congress	0.013	-0.007	0.053	-0.221	-0.087	-.521*	0.018	-0.112
	(.139)	(.183)	(.136)	(.185)	(.160)	(.207)	(.137)	(.190)
	[.004]	[-.003]	[.020]	[-.088]	[-.020]	[-.145]	[.007]	[-.042]
Studied Presidency	0.122	-0.017	0.024	-0.077	-0.086	0.177	0.127	.340*
	(.100)	(.143)	(.098)	(.140)	(.116)	(.157)	(.097)	(.143)
	[.045]	[-.006]	[.009]	[-.030]	[-.020]	[.053]	[.050]	[.125]
Studied How Laws are Made	-0.045	0.197	-0.159	0.073	-0.095	0.165	0.041	0.253
	(.120)	(.157)	(.118)	(.159)	(.138)	(.169)	(.118)	(.164)
	[-.016]	[.077]	[-.062]	[.029]	[-.022]	[.050]	[.016]	[.092]
Studied Political Parties	0.067	0.027	0.142	.353*	0.17	-0.096	.280*	0.052
	(.107)	(.147)	(.105)	(.147)	(.121)	(.163)	(.106)	(.149)
	[.024]	[.010]	[.056]	[.139]	[.043]	[-.028]	[.109]	[.019]
Studied State and Local Government	0.154	0.068	0.146	-0.068	0.169	0.05	-0.105	0.166
	(.097)	(.140)	(.095)	(.139)	(.111)	(.153)	(.096)	(.142)
	[.056]	[.026]	[.058]	[-.027]	[.042]	[.015]	[-.041]	[.061]
African American	-0.149	-0.238	-0.245	-0.285	0.04	0.178	.247*	-0.064
	(.128)	(.163)	(.127)	(.165)	(.144)	(.185)	(.123)	(.166)
	[-.055]	[-.094]	[-.097]	[-.111]	[.009]	[.050]	[.098]	[-.023]
Latino	-0.011	-0.187	0.2	0.015	0.043	0.105	-0.036	-0.199
	(.128)	(.152)	(.126)	(.154)	(.144)	(.171)	(.124)	(.158)
	[-.004]	[-.074]	[.077]	[.006]	[.010]	[.030]	[-.014]	[-.072]
Female	-.175*	-0.015	-0.14	0.165	-0.008	0.078	.157*	.248*
	(.081)	(.118)	(.079)	(.118)	(.094)	(.130)	(.078)	(.118)
	[-.063]	[-.006]	[-.055]	[.065]	[-.002]	[.023]	[.062]	[.092]
In Student Government	0.099	0.156	-0.035	0.252	0.072	0.177	0.016	0.044
	(.079)	(.161)	(.077)	(.157)	(.093)	(.181)	(.076)	(.157)
	[.035]	[.060]	[-.014]	[.100]	[.017]	[.050]	[.006]	[.016]
Classroom climate:								
Students feel free to disagree openly with teachers	0.134	0.036	0.107	-0.064	.344*	-0.013	.184*	0.051
	(.090)	(.126)	(.089)	(.127)	(.100)	(.139)	(.089)	(.129)
	[.049]	[.014]	[.042]	[-.025]	[.090]	[-.004]	[.072]	[.019]
Students are encouraged to make up own minds	0.113	.330*	0.169	.504*	-0.074	.553*	0.115	.324*
	(.113)	(.145)	(.113)	(.147)	(.127)	(.152)	(.114)	(.151)
	[.041]	[.130]	[.067]	[.195]	[-.017]	[.182]	[.045]	[.116]
Students express opinions in class even when different	.272*	.270*	.233*	.373*	.278*	0.242	0.159	0.043
	(.095)	(.130)	(.095)	(.131)	(.105)	(.138)	(.095)	(.133)
	[.101]	[.106]	[.092]	[.147]	[.072]	[.075]	[.062]	[.016]
Log Likelihood	-811.26	-368.58	-860.87	-364.48	-577.85	-299.83	-874.08	-357.44
sample size:	1,354	599	1,354	599	1,354	599	1,354	599

"College" are those students who expect to complete a four-year college degree.

a) Read Newspaper 1: Dependent variable =1 if respondent answered "sometimes" or "often" to "How often do you read articles in the newspaper about what is happening in this country?"
Read Newspaper 2: Dependent variable =1 if respondent answered "sometimes" or "often" to "How often do you read articles in the newspaper about what is happening in other countries?"
Watch: Dependent variable =1 if respondent answered "sometimes" or "often" to "How often do you watch news broadcasts on television?"
Listen: Dependent variable =1 if respondent answered "sometimes" or "often" to "How often do you listen to news broadcasts on the radio?"

All models included controls for number of books and newspapers in the home, group participation, and feelings of political efficacy.

Robust standard errors are in parentheses. Marginal effects are in brackets.
* significant at the α=.05 level.

All calculations used the "total weight" as provided in the survey data.

Table 43
Group Discussion Skills (IEA/CivEd)
Full Probit Models - Non-College

	People Own Age		Parents		Teachers	
	(1)	(2)	(3)	(4)	(5)	(6)
	College	Non-College	College	Non-College	College	Non-College
Civic Education variables:						
Studied Constitution	-0.032	0.12	0.067	-0.168	-0.01	0.026
	(.146)	(.175)	(.137)	(.165)	(.135)	(.166)
	[-.011]	[.037]	[.025]	[-.067]	[-.004]	[.010]
Studied Congress	-0.163	-0.034	0.205	-0.074	.303*	-0.214
	(.148)	(.200)	(.138)	(.185)	(.136)	(.187)
	[-.056]	[-.011]	[.078]	[-.029]	[.118]	[-.082]
Studied Presidency	.259*	0.162	.335*	0.105	0.157	0.053
	(.107)	(.152)	(.098)	(.139)	(.097)	(.145)
	[.083]	[.051]	[.128]	[.042]	[.060]	[.020]
Studied How Laws are Made	0.053	0.021	0.028	0.196	-0.126	0.016
	(.129)	(.169)	(.119)	(.157)	(.118)	(.159)
	[.017]	[.006]	[.010]	[.077]	[-.047]	[.006]
Studied Political Parties	.393*	-0.16	-0.201	0.034	-0.016	0.176
	(.116)	(.157)	(.108)	(.146)	(.106)	(.149)
	[.122]	[-.052]	[-.074]	[.013]	[-.006]	[.068]
Studied State and Local Government	-0.128	0.094	0.081	0.052	.254*	0.229
	(.102)	(.149)	(.097)	(.137)	(.095)	(.140)
	[-.043]	[.030]	[.030]	[.020]	[.098]	[.089]
African American	-0.054	-0.04	-0.153	0.02	0.128	-0.124
	(.132)	(.172)	(.125)	(.160)	(.128)	(.163)
	[-.017]	[-.012]	[-.058]	[.008]	[.048]	[-.048]
Latino	-0.019	0.04	0.111	0.151	0.176	0.078
	(.130)	(.164)	(.128)	(.152)	(.127)	(.158)
	[-.006]	[.013]	[.041]	[.060]	[.065]	[.030]
Female	-0.138	-0.147	-0.036	0.093	0.011	.261*
	(.083)	(.126)	(.081)	(.115)	(.080)	(.119)
	[-.046]	[-.046]	[-.013]	[.037]	[.004]	[.100]
In Student Government	-0.001	-0.018	-0.033	0.103	0.001	-0.061
	(.081)	(.167)	(.079)	(.155)	(.078)	(.161)
	[-.001]	[-.005]	[-.012]	[.041]	[.001]	[-.023]
Classroom climate:						
Students feel free to disagree openly with teachers	.206*	.472*	.278*	0.209	.372*	.559*
	(.097)	(.140)	(.089)	(.125)	(.088)	(.127)
	[.067]	[.145]	[.106]	[.083]	[.144]	[.217]
Students are encouraged to make up own minds	0.194	0.188	.253*	.363*	-0.119	.379*
	(.128)	(.161)	(.114)	(.145)	(.114)	(.146)
	[.062]	[.058]	[.097]	[.143]	[-.044]	[.149]
Students express opinions in class even when different	.318*	0.076	0.044	0.218	0.135	0.022
	(.105)	(.142)	(.096)	(.128)	(.094)	(.131)
	[.100]	[.024]	[.016]	[.086]	[.052]	[.008]
Log Likelihood	-767.14	-321.07	-818.28	-379.59	-844.85	-352.49
sample size:	1,354	599	1,354	599	1,354	599

"College" are those students who expect to complete a four-year college degree.

Dependent variable =1 if respondent answered "sometimes" or "often" to "How often do you have discussions of what is happening in U.S. government with people your own age / your parents / your teachers?"

All models included controls for number of books and newspapers in the home, group participation, and feelings of political efficacy.

Robust standard errors are in parentheses. Marginal effects are in brackets.
* significant at the α=.05 level.

All calculations used the "total weight" as provided in the survey data.

Table 44
Monitoring the News (NGI)
Full Probit Models - Females

	Newspapers		Newsmagazines		Watch TV		Listen to Radio		Internet News	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	females	males	females	males	females	males	females	males	females	males
Civic Education	-0.162	0.056	0.052	-0.184	0.154	-0.032	0.053	-0.062	0.239	-0.26
	(.189)	(.171)	(.308)	(.305)	(.184)	(.168)	(.176)	(.175)	(.229)	(.201)
	[-.050]	[.019]	[.003]	[-.014]	[.054]	[-.012]	[.019]	[-.020]	[.040]	[-.059]
Latino	-0.146	-0.113	0.516	0.423	0.292	0.185	-0.003	0.32	-0.761	-0.344
	(.326)	(.256)	(.440)	(.392)	(.302)	(.237)	(.294)	(.250)	(.461)	(.296)
	[-.044]	[-.038]	[.055]	[.042]	[.107]	[.071]	[-.001]	[.111]	[-.088]	[-.069]
African-American	.581*	0.14	.814*	0.441	0.446	0.131	0.314	-0.449	0.102	-0.547
	(.236)	(.254)	(.353)	(.369)	(.236)	(.243)	(.224)	(.275)	(.328)	(.365)
	[.199]	[.050]	[.093]	[.045]	[.165]	[.050]	[.118]	[-.131]	[.018]	[-.099]
Immigrant	-0.393	-0.222	0.709	-0.322	0.716	-0.207	0.115	-0.449	0.868	-0.348
	(.483)	(.402)	(.671)	(.689)	(.427)	(.364)	(.424)	(.391)	(.583)	(.445)
	[-.107]	[-.073]	[.091]	[-.019]	[.274]	[-.075]	[.042]	[-.129]	[.222]	[-.067]
In Student Government	0.104	-.703*	0.071	-0.241	.931*	-0.251	0.429	-0.138	0.165	0.535
	(.264)	(.329)	(.476)	(.599)	(.257)	(.286)	(.254)	(.309)	(.317)	(.324)
	[.033]	[-.200]	[.005]	[-.015]	[.353]	[-.090]	[.164]	[-.043]	[.030]	[.150]
Very Religious	-0.414	0.078	-0.658	0.54	-0.164	0.085	-0.222	0.472	-0.639	-0.134
	(.300)	(.225)	(.480)	(.443)	(.302)	(.217)	(.288)	(.227)	(.364)	(.260)
	[-.130]	[.027]	[-.053]	[.045]	[-.057]	[.032]	[-.081]	[.157]	[-.112]	[-.030]
Log Likelihood	-137.697	-166.08	-48.029	-56.067	-142.369	-177.47	-156.155	-160.725	-88.367	-118.504
sample size:	266	289	266	289	266	289	266	289	266	289

Newspapers: Read a newspaper 5, 6 or 7 days out of the past week.
Newsmagazines: Read a newspaper 5, 6 or 7 days out of the past week.
Watch: Watch the national news on television 5, 6 or 7 days out of the past week.
Listen: Listen to the news on the radio 5, 6 or 7 days out of the past week.
Internet: Read news on the internet 5, 6 or 7 days out of the past week.

All models include controls for household income, political views, group participation, frequency and intention of voting, and feelings of political efficacy.

Robust standard errors are in parentheses. Marginal effects are in brackets.
* significant at the α=.05 level.

All calculations used the "step weight" as provided in the survey data.

Table 45
Collective Decision-Making Skills (NGI)
Full Probit Models - Females

	Work Informally		**Group Discussion**	
	(1)	(2)	(3)	(4)
	females	males	females	males
Civic Education	0.201	0.293	0.182	0.017
	(.179)	(.177)	(.234)	(.220)
	[.079]	[.114]	[.027]	[.003]
Latino	-0.447	-0.216	-.673*	-0.083
	(.314)	(.263)	(.339)	(.307)
	[-.166]	[-.083]	[-.139]	[-.016]
African-American	-0.332	-0.34	0.13	-.714*
	(.234)	(.262)	(.310)	(.294)
	[-.127]	[-.128]	[.018]	[-.177]
Immigrant	-0.294	-0.194	-0.39	-0.462
	(.467)	(.402)	(.583)	(.449)
	[-.111]	[-.074]	[-.072]	[-.107]
In Student Government	0.279	-0.008	-0.516	-0.114
	(.265)	(.306)	(.336)	(.365)
	[.110]	[-.003]	[-.097]	[-.022]
Very Religious	0.274	0.427	0.149	0.421
	(.306)	(.231)	(.355)	(.285)
	[.107]	[.166]	[.022]	[.076]
Log Pseudo-Likelihood	-150.483	-156.844	-84.542	-99.965
sample size:	266	289	266	289

Dependent variable =1 if respondent has worked together informally, ever, with someone or some group to solve a community problem.
Dependent variable =1 if respondent sometimes or very often talks about current events or new with family or friends.

All models include controls for household income, political views, group participation, frequency and intention of voting, and feelings of political efficacy.

Robust standard errors are in parentheses. Marginal effects are in brackets.
* significant at the α=.05 level.

All calculations used the "step weight" as provided in the survey data.

Table 46
Monitoring the News and Communication Skills (NHES)
Full Probit Models - African-Americans

	Read		Watch/Listen		Letter		Statement	
	(1) African-Americans	(2) All others	(3) African-Americans	(4) All others	(5) African-Americans	(6) All others	(7) African-Americans	(8) All others
Civic Education	0.02	.290*	-0.021	.288*	0.351	.209*	0.116	0.025
	(.173)	(.069)	(.188)	(.073)	(.236)	(.098)	(.199)	(.078)
	[.008]	[.115]	[-.006]	[.091]	[.057]	[.027]	[.031]	[.006]
Female	0.248	-.143*	0.071	-.213*	-0.059	.197*	.602*	-0.073
	(.152)	(.062)	(.163)	(.067)	(.227)	(.094)	(.177)	(.070)
	[.098]	[-.057]	[.021]	[-.064]	[-.008]	[.024]	[.163]	[-.019]
In Student Government	0.489	-0.062	-0.161	0.034	0.226	0.042	0.053	.398*
	(.260)	(.085)	(.270)	(.094)	(.474)	(.141)	(.312)	(.110)
	[.191]	[-.024]	[-.051]	[.010]	[.028]	[.005]	[.013]	[.092]
Live in Rural Area	-0.108	-0.094	0.288	-.295*	0.574	-.273*	-0.16	-0.106
	(.216)	(.072)	(.240)	(.077)	(.355)	(.107)	(.244)	(.082)
	[-.043]	[-.037]	[.080]	[-.093]	[.063]	[-.036]	[-.045]	[-.028]
Log Likelihood	-212.86	-1155.1	-175.618	-932.703	-87.163	-444.82	-153.94	-843.269
sample size:	328	1,781	328	1,781	328	1,781	328	1,781

Dependent variable =1 if student reads a newspaper or newsmagazine almost daily or at least once a week.
Dependent variable =1 if student watches television news or listens to radio news almost daily or at least once a week.
Dependent variable =1 if student feels they could write a letter to someone in government that clearly gives their opinion.
Dependent variable =1 if student feels they could make a comment or statement at a public meeting.

All models include controls for hourshold income, region of the country, group participation, and feelings of political efficacy.

Robust standard errors are in parentheses. Marginal effects are in brackets.
* significant at the α=.05 level.

All calculations used the "FYWT" weight as provided in the survey data.

Table 47
Monitoring the News and Communication Skills (NHES)
Full Probit Models - Latinos

	Read		Watch/Listen		Letter		Statement	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Latinos	All others	Latinos	All others	Latinos	All others	Latinos	All others
Civic Education	.402*	.223*	0.151	.247*	0.267	.250*	.432*	-0.044
	(.160)	(.070)	(.171)	(.074)	(.216)	(.099)	(.181)	(.080)
	[.159]	[.088]	[.043]	[.078]	[.040]	[.033]	[.117]	[-.011]
Female	-0.041	-0.071	-0.172	-.158*	.469*	0.091	-0.121	0.043
	(.147)	(.062)	(.161)	(.067)	(.214)	(.094)	(.168)	(.071)
	[-.016]	[-.028]	[-.049]	[-.048]	[.067]	[.011]	[-.031]	[.011]
In Student Government	0.123	-0.021	-0.218	0.029	-.789*	0.273	.666*	.318*
	(.217)	(.087)	(.225)	(.096)	(.274)	(.162)	(.288)	(.111)
	[.049]	[-.008]	[-.066]	[.009]	[-.162]	[.028]	[.136]	[.076]
Live in Rural Area	0.011	-0.102	-.612*	-.209*	0.03	-0.186	-0.228	-0.116
	(.261)	(.072)	(.258)	(.077)	(.376)	(.107)	(.283)	(.082)
	[.004]	[-.040]	[-.206]	[-.066]	[.004]	[-.024]	[-.064]	[-.031]
Log Likelihood	-204.042	-1165.82	-166.039	-950.603	-97.14	-439.972	-154.151	-841.237
sample size:	334	1,775	334	1,775	334	1,775	334	1,775

Dependent variable =1 if student reads a newspaper or newsmagazine almost daily or at least once a week.
Dependent variable =1 if student watches television news or listens to radio news almost daily or at least once a week.
Dependent variable =1 if student feels they could write a letter to someone in government that clearly gives their opinion.
Dependent variable =1 if student feels they could make a comment or statement at a public meeting.

All models include controls for hourshold income, region of the country, group participation, and feelings of political efficacy.

Robust standard errors are in parentheses. Marginal effects are in brackets.
* significant at the α=.05 level.

All calculations used the "FYWT" weight as provided in the survey data.

Table 48
Monitoring the News and Communication Skills (NHES)
Full Probit Models - Females

	Read		Watch/Listen		Letter		Statement	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	females	males	females	males	females	males	females	males
Civic Education	0.12	.406*	0.174	.330*	0.188	.274*	0.114	-0.074
	(.089)	(.094)	(.093)	(.100)	(.134)	(.123)	(.102)	(.106)
	[.048]	[.160]	[.057]	[.099]	[.021]	[.042]	[.029]	[-.019]
Latino	0.056	-0.094	-0.049	0.015	0.17	-0.184	0.027	0.062
	(.137)	(.135)	(.148)	(.152)	(.218)	(.177)	(.159)	(.152)
	[.022]	[-.037]	[-.016]	[.004]	[.016]	[-.029]	[.006]	[.016]
African-American	0.182	-.317*	-0.027	-0.127	-0.287	0.136	0.274	-0.183
	(.117)	(.123)	(.125)	(.135)	(.176)	(.180)	(.145)	(.132)
	[.072]	[-.125]	[-.008]	[-.037]	[-.035]	[.018]	[.063]	[-.052]
Immigrant	.384*	.727*	0.311	0.923*	-0.026	0.476	-0.106	0.066
	(.179)	(.209)	(.202)	(.298)	(.270)	(.311)	(.201)	(.221)
	[.149]	[.264]	[.090]	[.173]	[-.002]	[.049]	[-.028]	[.017]
In Student Government	-0.123	0.201	0.003	0.039	0.032	0.201	0.17	.801*
	(.104)	(.130)	(.111)	(.148)	(.175)	(.216)	(.128)	(.196)
	[-.049]	[.079]	[.001]	[.011]	[.003]	[.025]	[.040]	[.158]
Live in Rural Area	0.004	-0.189	-0.237	-0.19	-0.23	-0.122	-.244*	0.036
	(.096)	(.098)	(.102)	(.105)	(.152)	(.136)	(.110)	(.111)
	[.001]	[-.075]	[-.079]	[-.056]	[-.027]	[-.018]	[-.065]	[.009]
Log Likelihood	-704.074	-661.548	-600.54	-512.988	-237.68	-295.506	-482.762	-497.805
sample size:	1,070	1,036	1,070	1,036	1,070	1,036	1,070	1,036

Dependent variable =1 if student reads a newspaper or newsmagazine almost daily or at least once a week.
Dependent variable =1 if student watches television news or listens to radio news almost daily or at least once a week.
Dependent variable =1 if student feels they could write a letter to someone in government that clearly gives their opinion.
Dependent variable =1 if student feels they could make a comment or statement at a public meeting.

All models include controls for hourshold income, region of the country, group participation, and feelings of political efficacy.

Robust standard errors are in parentheses. Marginal effects are in brackets.
* significant at the α=.05 level.

All calculations used the "FYWT" weight as provided in the survey data.

Table 49
Monitoring the News and Communication Skills (NHES)
Full Probit Models - Low Income

	Read		Watch/Listen		Letter		Statement	
	(1) Low-income	(2) All others	(3) Low-income	(4) All others	(5) Low-income	(6) All others	(7) Low-income	(8) All others
Civic Education	0.065	.313*	-0.001	.326*	.454*	0.159	0.116	-0.06
	(.135)	(.073)	(.145)	(.077)	(.182)	(.106)	(.149)	(.084)
	[.026]	[.124]	[-.001]	[.103]	[.077]	[.019]	[.032]	[-.015]
Females	0.016	-0.106	0.007	-.225*	0.335	0.082	0.306*	-0.085
	(.118)	(.065)	(.128)	(.071)	(.174)	(.100)	(.134)	(.075)
	[.006]	[-.042]	[.002]	[-.067]	[.049]	[.009]	[.084]	[-.022]
In Student Government	0.023	0.019	0.425	-0.094	0.006	0.072	0.419	.333*
	(.194)	(.088)	(.240)	(.096)	(.308)	(.151)	(.255)	(.112)
	[.009]	[.007]	[.113]	[-.029]	[.001]	[.008]	[.099]	[.077]
Live in Rural Area	0.028	-0.123	-0.061	-.278*	0.073	-.238*	-0.106	-0.086
	(.148)	(.077)	(.159)	(.082)	(.213)	(.117)	(.162)	(.088)
	[.011]	[-.049]	[-.019]	[-.088]	[.010]	[-.030]	[-.030]	[-.022]
Log Likelihood	-319.297	-1052.86	-262.12	-842.872	-138.21	-385.76	-239.624	-750.381
sample size:	490	1,619	490	1,619	490	1,619	490	1,619

Respondents with household income $25,000 per year or less are low income.

Dependent variable =1 if student reads a newspaper or newsmagazine almost daily or at least once a week.
Dependent variable =1 if student watches television news or listens to radio news almost daily or at least once a week.
Dependent variable =1 if student feels they could write a letter to someone in government that clearly gives their opinion.
Dependent variable =1 if student feels they could make a comment or statement at a public meeting.

All models include controls for region of the country, group participation, and feelings of political efficacy.

Robust standard errors are in parentheses. Marginal effects are in brackets.
* significant at the α=.05 level.

All calculations used the "FYWT" weight as provided in the survey data.

Table 50
Monitoring the News and Communication Skills (NHES)
Full Probit Models - Non-College

	Read		Watch/Listen		Letter		Statement	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	College	Non-College	College	Non-College	College	Non-College	College	Non-College
Civic Education	.235*	0.249	.237*	0.224	.212*	0.448	0.043	-0.183
	(.068)	(.187)	(.073)	(.186)	(.097)	(.244)	(.078)	(.194)
	[.093]	[.088]	[.073]	[.078]	[.028]	[.062]	[.011]	[-.056]
Latino	0.02	-0.156	-0.098	0.546	-0.064	0.551	0.029	0.534
	(.103)	(.278)	(.113)	(.301)	(.148)	(.416)	(.070)	(.311)
	[.008]	[-.055]	[-.030]	[.165]	[-.008]	[.051]	[-.012]	[.147]
African American	-0.067	0.246	-0.097	0.4	-0.086	0.658	-0.068	0.55
	(.088)	(.279)	(.097)	(.287)	(.130)	(.483)	(.101)	(.294)
	[-.026]	[.092]	[-.029]	[.125]	[-.011]	[.058]	[-.017]	[.151]
Female	-0.068	-0.344	-.206*	0.083	.199*	-0.209	0.029	-0.155
	(.060)	(.185)	(.067)	(.184)	(.091)	(.250)	(.070)	(.192)
	[-.027]	[-.121]	[-.060]	[.028]	[.025]	[-.026]	[.007]	[-.049]
Live in Rural Area	-0.089	0.134	-.216*	-0.128	-0.111	-0.467	-0.13	0.175
	(.073)	(.211)	(.078)	(.212)	(.110)	(.287)	(.083)	(.219)
	[-.035]	[.049]	[-.067]	[-.044]	[-.014]	[-.066]	[-.034]	[.054]
Log Likelihood	-1214.26	-154.15	-963.34	-145.24	-462.42	-70.32	-856.57	-136.9
sample size:	1,848	261	1,848	261	1,848	261	1,848	261

"College" are those students who think they will graduate from a four-year college.

Dependent variable =1 if student reads a newspaper or newsmagazine almost daily or at least once a week.
Dependent variable =1 if student watches television news or listens to radio news almost daily or at least once a week.
Dependent variable =1 if student feels they could write a letter to someone in government that clearly gives their opinion.
Dependent variable =1 if student feels they could make a comment or statement at a public meeting.

All models include controls for hourshold income, region of the country, group participation, and feelings of political efficacy.

Robust standard errors are in parentheses. Marginal effects are in brackets.
* significant at the α=.05 level.

All calculations used the "FYWT" weight as provided in the survey data.

Table 51
Monitoring the News (ACPS)
Full Probit Models - Females

	Television News		Public Affairs		Newspaper	
	(1)	(2)	(3)	(4)	(5)	(6)
	females	males	females	males	females	males
Civic Education	0.291	-0.029	0.22	-0.064	-0.042	0.169
	(.231)	(.240)	(.225)	(.201)	(.259)	(.262)
	[.078]	[-.007]	[.069]	[-.023]	[-.008]	[.034]
Latino	-0.176	0.241	0.033	0.083	0.028	0.348
	(.306)	(.410)	(.295)	(.362)	(.314)	(.467)
	[-.046]	[.055]	[.011]	[.030]	[.006]	[.055]
African-American	.810*	.941*	0.455	0.352	0.317	0.937
	(.324)	(.412)	(.248)	(.309)	(.310)	(.649)
	[.143]	[.158]	[.162]	[.134]	[.059]	[.110]
Immigrant	-0.64	0.448	0.146	-0.698	-.925*	0.616
	(.394)	(.474)	(.369)	(.430)	(.392)	(.515)
	[-.195]	[.095]	[.049]	[-.213]	[-.277]	[.086]
Some College	0.175	0.138	.676*	0.086	0.450*	.613*
	(.204)	(.224)	(.175)	(.189)	(.212)	(.264)
	[.043]	[.035]	[.217]	[.031]	[.097]	[.116]
Private School Attendees	-0.332	-0.315	.578*	-0.18	-0.142	0.72
	(.306)	(.304)	(.276)	(.277)	(.337)	(.503)
	[-.092]	[-.089]	[.211]	[-.063]	[-.032]	[.097]
Log Likelihood	-134.828	-119.045	-178.954	-161.663	-125.358	-84.062
sample size:	339	275	339	275	339	275

Dependent variable =1 if respondent watches television news once a week or more.
Dependent variable =1 if respondent watches public affairs programming on television once a week or more.
Dependent variable =1 if respondent reads the newspaper once a week or more.

All models include controls for household income, political orientation, group participation, and feelings of political efficacy.

Robust standard errors are in parentheses. Marginal effects are in brackets.
* significant at the α=.05 level.

All calculations used the "wt2517" weight as provided in the survey data.

Table 52
Communication Skills and Group Discussion Skills (ACPS)
Full Probit Models - Females

	Letter		Statement		Local		National	
	(1) females	(2) males	(3) females	(4) males	(5) females	(6) males	(7) females	(8) males
Civic Education	.554*	-0.108	.408*	0.079	0.007	0.362	0.139	0.443
	(.231)	(.250)	(.200)	(.220)	(.215)	(.208)	(.206)	(.233)
	[.164]	[-.024]	[.157]	[.020]	[.002]	[.142]	[.055]	[.146]
Latino	-0.369	-0.08	-0.307	0.363	-.776*	-0.005	-0.261	-0.232
	(.299)	(.432)	(.259)	(.414)	(.330)	(.379)	(.272)	(.404)
	[-.107]	[-.019]	[-.118]	[.104]	[-.231]	[-.002]	[-.102]	[-.076]
African-American	.648*	0.282	0.427	0.091	0.29	-0.397	0.122	-0.389
	(.322)	(.362)	(.251)	(.361)	(.250)	(.319)	(.246)	(.343)
	[.129]	[.058]	[.148]	[.028]	[.109]	[-.154]	[.048]	[-.132]
Immigrant	-0.602	-1.45*	0.815*	-0.827	0.282	-0.007	0.617	-0.938
	(.403)	(.602)	(.342)	(.477)	(.361)	(.439)	(.340)	(.515)
	[-.188]	[-.489]	[.251]	[-.306]	[.106]	[-.002]	[.237]	[-.342]
Some College	.424*	.885*	.636*	.699*	.602*	0.133	.688*	.819*
	(.206)	(.248)	(.168)	(.222)	(.169)	(.194)	(.166)	(.234)
	[.110]	[.209]	[.235]	[.225]	[.213]	[.053]	[.268]	[.252]
Private School Attendees	0.463	0.06	0.197	.986*	0.309	0.001	0.526	-0.561
	(.387)	(.370)	(.294)	(.371)	(.280)	(.277)	(.292)	(.308)
	[.098]	[.013]	[.071]	[.233]	[.116]	[.001]	[.204]	[-.195]
Log Likelihood	-132.366	-108.127	-195.56	-130.582	-184.48	-153.85	-195.273	-119.893
sample size:	339	275	339	275	339	275	339	275

Dependent variable =1 if respondent feels they could write a convincing letter to someone in government that expresses their point of view.
Dependent variable =1 if respondent feels they speak well enough to make an effective statement at a public community meeting.
Dependent variable =1 if respondent discusses local politics or affairs with others every day, nearly every day, or once or twice a week.
Dependent variable =1 if respondent discusses national politics or affairs with others every day, nearly every day, or once or twice a week.

All models include controls for household income, political orientation, group participation, and feelings of political efficacy.

Robust standard errors are in parentheses. Marginal effects are in brackets.
* significant at the α=.05 level.

All calculations used the "wt2517" weight as provided in the survey data.

Table 53
Communication Skills and Group Discussion Skills (ACPS)
Full Probit Models - Non-College

	Letter		Statement		Local		National	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
		Non-		Non-		Non-		Non-
	College	College	College	College	College	College	College	College
Civic Education	-0.175	0.389	0.221	.605*	0.185	0.421	0.231	.523*
	(.326)	(.227)	(.287)	(.231)	(.278)	(.237)	(.281)	(.229)
	[-.027]	[.138]	[.063]	[.237]	[.073]	[.137]	[.080]	[.201]
Latino	-0.088	-0.063	-0.366	-0.029	-0.524	-0.262	-0.235	-0.157
	(.337)	(.247)	(.330)	(.255)	(.281)	(.242)	(.284)	(.244)
	[-.015]	[-.021]	[-.112]	[-.011]	[-.202]	[-.086]	[-.083]	[-.062]
African-American	0.482	0.396	0.465	0.234	0.069	0.094	0.099	-0.048
	(.315)	(.254)	(.289)	(.241)	(.260)	(.258)	(.279)	(.261)
	[.062]	[.121]	[.103]	[.090]	[.027]	[.033]	[.032]	[-.019]
Females	-0.069	0.145	-0.103	-.438*	-0.152	-.511*	-.493*	-.667*
	(.226)	(.212)	(.224)	(.215)	(.196)	(.226)	(.198)	(.209)
	[-.011]	[.049]	[-.027]	[-.171]	[-.060]	[-.176]	[-.163]	[-.260]
Immigrant	-0.256	-0.698	-0.106	0.391	0.347	-0.555	0.151	-0.35
	(.497)	(.400)	(.467)	(.400)	(.404)	(.385)	(.424)	(.400)
	[-.049]	[-.262]	[-.029]	[.147]	[.135]	[-.165]	[.048]	[-.135]
Private School Attendees	0.481	-0.433	.871*	-0.762	-0.113	0.397	-0.312	0.319
	(.436)	(.459)	(.329)	(.423)	(.260)	(.395)	(.283)	(.501)
	[.065]	[-.160]	[.175]	[-.291]	[-.045]	[.148]	[-.110]	[.126]
Log Likelihood	-109.35	-152.43	-144.73	-174.17	-194.29	-142.72	-171.6	-166.36
sample size:	325	289	325	289	325	289	325	289

"College" are those respondents who have completed at least one year of college.

Dependent variable =1 if respondent feels they could write a convincing letter to someone in government that expresses their point of view.
Dependent variable =1 if respondent feels they speak well enough to make an effective statement at a public community meeting.
Dependent variable =1 if respondent discusses local politics or affairs with others every day, nearly every day, or once or twice a week.
Dependent variable =1 if respondent discusses national politics or affairs with others every day, nearly every day, or once or twice a week.

All models include controls for household income, political orientation, group participation, and feelings of political efficacy.

Robust standard errors are in parentheses. Marginal effects are in brackets.
* significant at the α=.05 level.

All calculations used the "wt2517" weight as provided in the survey data.

Table 54
Monitoring the News (ACPS)
Full Probit Models - Non-College

	Television News		**Public Affairs**		**Newspaper**	
	(1)	(2)	(3)	(4)	(5)	(6)
	College	Non-College	College	Non-College	College	Non-College
Civic Education	-0.073	0.168	-0.154	0.153	-0.667	0.385
	(.305)	(.224)	(.253)	(.229)	(.400)	(.239)
	[-.018]	[.047]	[-.058]	[.047]	[-.070]	[.108]
Latino	0.021	-0.104	0.107	0.073	0.097	0.48
	(.326)	(.281)	(.274)	(.239)	(.378)	(.300)
	[.005]	[-.029]	[.040]	[.023]	[.012]	[.103]
African-American	.936*	.732*	.499*	0.235	0.849	0.464
	(.367)	(.308)	(.250)	(.251)	(.445)	(.282)
	[.156]	[.151]	[.194]	[.079]	[.074]	[.100]
Females	-0.186	0.067	0.053	-.533*	-0.264	-0.018
	(.235)	(.234)	(.191)	(.212)	(.258)	(.215)
	[-.046]	[.018]	[.019]	[-.168]	[-.037]	[-.004]
Immigrant	0.564	-0.719	-0.09	-0.547	-0.452	-0.464
	(.453)	(.519)	(.424)	(.395)	(.557)	(.418)
	[.111]	[-.240]	[-.033]	[-.146]	[-.081]	[-.140]
Private School Attendees	-.629*	0.978	-0.1	.935*	0.552	-0.307
	(.286)	(.514)	(.254)	(.422)	(.340)	(.434)
	[-.187]	[.166]	[-.036]	[.350]	[.060]	[-.089]
Log Likelihood	-141.58	-126.92	-199.47	-142.21	-84.49	-129.25
sample size:	325	289	325	289	325	289

"College" are those respondents who have completed at least one year of college.

Dependent variable =1 if respondent watches television news once a week or more.
Dependent variable =1 if respondent watches public affairs programming on television once a week or more.
Dependent variable =1 if respondent reads the newspaper once a week or more.

All models include controls for household income, political orientation, group participation, and feelings of political efficacy.

Robust standard errors are in parentheses. Marginal effects are in brackets.
* significant at the α=.05 level.

All calculations used the "wt2517" weight as provided in the survey data.

Table 55
Political Interpretation Skills - Political Leaflets (IEA/CivEd)
Matching Methods[a] - African-Americans

	Leaflet 1 - African-Americans				Leaflet 1 - All others				Leaflet 2 - African-Americans				Leaflet 2 - All others			
	Probit Coefficient[c] (Std. Error)	ATT[d]	ATE[e]	Coefficient[f] (Std. Error)[g]	Probit Coefficient (Std. Error)	ATT	ATE	Coefficient (Std. Error)	Probit Coefficient (Std. Error)	ATT	ATE	Coefficient (Std. Error)	Probit Coefficient (Std. Error)	ATT	ATE	Coefficient (Std. Error)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
Civic Education variables:																
Studied Constitution	0.46	0.261	0.253	1.27*	.289*	0.022	0.027	.232*	0.471	0.138	0.158	3.35*	.369*	0.036	0.043	.310*
	(.323)			(.115)	(.145)			(.029)[h]	(.337)			(.069)	(.143)			(.025)[h]
	[.153]			[.416]	[.055]			[.032]	[.152]			--	[.066]			[.038]
Studied Congress	0.071	0.156	0.106	0.051	-.335*	-0.003	0.003	0.001	-0.06	-0.027	-0.072	-.582*	0.075	0.015	0.03	0.154
	(.313)			(.078)	(.162)			(.021)	(.338)			(.067)	(.160)			(.021)
	[.022]			[.019]	[-.049]			[.001]	[-.017]			[-.182]	[.011]			[.020]
Studied Presidency	-0.092	0.023	0.045	0.382	.292*	0.05	0.041	0.091	-0.199	0.023	0.011	0.439	-0.017	0.029	0.025	0.052
	(.250)			(.072)	(.111)			(.024)	(.266)			(.069)	(.119)			(.024)
	[-.028]			[.081]	[.053]			[.016]	[-.058]			[.102]	[-.002]			[.007]
Studied How Laws are Made	-0.486	0.086	0.074	0.383	0.176	0.045	0.044	0.151	-0.112	0.114	0.086	21.64	-0.092	0.001	0.002	-0.074
	(.300)			(.095)	(.129)			(.027)	(.291)			(.134)	(.136)			(.020)
	[-.136]			[.118]	[.031]			[.029]	[-.032]			[no effect]	[-.013]			[-.009]
Studied Political Parties	-0.021	0.043	0.068	1.07*	-.298*	0.004	-0.001	0.022	-0.538	-0.059	-0.068	-0.517	-0.036	0.028	0.023	0.13
	(.262)			(.080)[h]	(.125)			(.023)	(.279)			(.066)	(.123)			(.023)
	[-.006]			[.169]	[-.046]			[.003]	[-.144]			[-.040]	[-.005]			[.023]
Studied State and Local Gov't.	0.291	0.174	0.124	0.04	-0.055	0.046	0.024	0.09	0.288	0.123	0.073	0.01	-0.096	0.007	0.011	0.073
	(.266)			(.114)	(.115)			(.024)	(.275)			(.131)	(.118)			(.019)
	[.093]			[.014]	[-.009]			[.019]	[.089]			[.003]	[-.014]			[.009]

a) Civic education variable is the treatment effect. Nearest-neighbor matching methods with replacement were employed.
Individual matching analyses were conducted for each of the 6 treatment effects (civics education types).

b) Leaflet 1: Dependent variable =1 if student correctly interpreted which party issued the political leaflet.
Leaflet 2: Dependent variable=1 if student correctly interpreted what leaflet issuers think about taxes.

c) Coefficients, robust standard errors (in parentheses) and marginal effects (in brackets) from full probit models in Table 28.

d) ATT= Average Treatment Effect on the Treated, interpreted as percentage points; "Treated" are those that report studying the above civic education topics.

e) ATE= Average Treatment Effect.

f) Coefficients are from matching-weighted probits. Marginal effects are in brackets.

g) Bootstrapped standard errors are in parentheses.
Significance is based on the bias-corrected confidence intervals and the matching-weighted probit analyses.

h) Significant in the matching-weighted probit but not the bias-corrected confidence interval.

i) Significant in the bias-corrected confidence interval but not the matching-weighted probit.

* significant at the α=.05 level.
All calculations used the "total weight" as provided in the survey data, except the matching-weighted probits.

Table 56
Political Interpretation Skills - Political Leaflets and Cartoons (IEA/CivEd)
Matching Methods[a] - African-Americans

	Leaflet 3 - African-Americans				Leaflet 3 - All others				Cartoon1 - African-Americans				Cartoon 1 - All others			
	Probit Coefficient[c] (Std. Error)	ATT[d]	ATE[e]	Coefficient[f] (Std. Error)[g]	Probit Coefficient (Std. Error)	ATT	ATE	Coefficient (Std. Error)	Probit Coefficient (Std. Error)	ATT	ATE	Coefficient (Std. Error)	Probit Coefficient (Std. Error)	ATT	ATE	Coefficient (Std. Error)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
Civic Education variables:																
Studied Constitution	0.162	0.076	0.069	0.39	0.178	0.008	0.012	-0.043	.841*	0.08	0.099	.692*	0.261	0.048	0.058	.539*
	(.286)			(.125)	(.119)			(.031)	(.337)			(.071)[h]	(.154)			(.020)
	[.062]			[.130]	[.055]			[-.012]	[.242]			[.028]	[.035]			[.047]
Studied Congress	-0.175	-0.081	-0.068	-0.562*	0.002	0.044	0.037	0.021	-0.364	-0.059	-0.049	-.644*	-0.288	0.054	0.059	.464*
	(.289)			(.084)[h]	(.128)			(.030)	(.348)			(.047)[h]	(.175)			(.019)
	[-.065]			[-.189]	[.001]			[.006]	[-.080]			[-.085]	[-.030]			[.038]
Studied Presidency	-.463*	-0.197	-0.176	-0.954*	0.084	0.011	0.007	-0.016	-0.06	-0.017	0.003	-0.03	.274*	0.051	0.06	.420*
	(.233)			(.076)[h]	(.093)			(.029)	(.261)			(.062)	(.126)			(.023)
	[-.171]			[-.267]	[.025]			[-.005]	[-.014]			[-.003]	[.035]			[.042]
Studied How Laws are Made	-0.259	-0.051	-0.069	-1.98*	-0.066	0.033	0.027	-0.014	-0.589	-0.005	-0.004	71.105	0.194	0.073	0.069	0.129
	(.256)			(.137)[h]	(.111)			(.028)	(.304)			(.118)	(.141)			(.024)
	[-.096]			[-.192]	[-.019]			[-.004]	[-.120]			[no effect]	[.025]			[.018]
Studied Political Parties	.735*	0.021	0.03	0.117	0.086	0.028	0.03	0.133	0.212	0.032	0.049	1.92*	-0.036	0.05	0.039	0.047
	(.244)			(.093)	(.102)			(.028)	(.273)			(.056)[h]	(.134)			(.021)
	[.283]			[.038]	[.025]			[.039]	[.052]			[.056]	[-.004]			[.006]
Studied State and Local Gov't.	-0.07	0.117	0.097	-0.15	-0.138	0.011	0.005	-0.051	0.234	0.028	0.054	[.002]	0.106	0.054	0.062	.445*
	(.242)			(.124)	(.094)			(.033)	(.273)			(.087)	(.128)			(.021)
	[-.026]			[-.059]	[-.040]			[-.015]	[.058]			[.000]	[.012]			[.045]

a) Civic education variable is the treatment effect. Nearest-neighbor matching methods with replacement were employed.
Individual matching analyses were conducted for each of the 6 treatment effects (civics education types).

b) Leaflet 3: Dependent variable=1 if student correctly interpreted what policy the issuers of the leaflet favor.
Cartoon 1: Dependent variable=1 if student correctly interpreted a political cartoon about a political leader.

c) Coefficients, robust standard errors (in parentheses) and marginal effects (in brackets) from full probit models in Tables 28 and 29.

d) ATT= Average Treatment Effect on the Treated, interpreted as percentage points; "Treated" are those that report studying the above civic education topics.

e) ATE= Average Treatment Effect.

f) Coefficients are from matching-weighted probits. Marginal effects are in brackets.

g) Bootstrapped standard errors are in parentheses.
Significance is based on the bias-corrected confidence intervals and the matching-weighted probit analyses.

h) Significant in the matching-weighted probit but not the bias-corrected confidence interval.

i) Significant in the bias-corrected confidence interval but not the matching-weighted probit.

* significant at the α=.05 level.
All calculations used the "total weight" as provided in the survey data, except the matching-weighted probits.

Table 57
Political Interpretation Skills - Political Cartoons and Monitoring the News (IEA/CivEd)
Matching Methods[a] - African-Americans

	Cartoon 2 - African-Americans				Cartoon 2 - All others				Read Newspaper 1 - African-Americans				Read Newspaper 1 - All others			
	Probit Coefficient[c] (Std. Error)	ATT[d]	ATE[e]	Coefficient[f] (Std. Error)[g]	Probit Coefficient (Std. Error)	ATT	ATE	Coefficient (Std. Error)	Probit Coefficient (Std. Error)	ATT	ATE	Coefficient (Std. Error)	Probit Coefficient (Std. Error)	ATT	ATE	Coefficient (Std. Error)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
Civic Education variables:																
Studied Constitution	0.33	0.095	0.117	0.544	0.008	-0.002	0.001	-0.133	-.741*	-0.128	-0.121	-.874*	0.062	0.067	0.06	0.089
	(.324)			(.122)	(.125)			(.034)	(.302)			(.099)[h]	(.113)			(.039)
	[.120]			[.166]	[.002]			[-.034]	[-.262]			[-.282]	[.023]			[.034]
Studied Congress	-0.382	0.162	0.133	0.021	0.177	-0.003	0.001	-0.072	-0.124	-0.005	-0.003	-.549*	0.028	0.081	0.083	.200*
	(.306)			(.095)	(.134)			(.029)	(.300)			(.092)[h]	(.119)			(.037)
	[-.127]			[.008]	[.048]			[-.019]	[-.047]			[-.212]	[.010]			[.076]
Studied Presidency	0.419	0.089	0.15	.551*	0.168	0.045	0.03	0.003	0.33	0.041	0.109	1.02*	0.034	0.033	0.036	0.102
	(.240)			(.095)[h]	(.097)			(.029)[i]	(.236)			(.095)[h]	(.087)			(.033)
	[.148]			[.120]	[.045]			[.001]	[.128]			[.282]	[.013]			[.038]
Studied How Laws are Made	0.144	0.189	0.16	.683*	-0.04	0.004	-0.001	-0.113	0.252	0.091	0.09	-0.007	0.027	0.038	0.047	0.094
	(.263)			(.129)	(.115)			(.030)	(.258)			(.134)	(.103)			(.043)
	[.051]			[.254]	[-.010]			[-.030]	[.098]			[-.002]	[.010]			[.035]
Studied Political Parties	-0.22	-0.037	0.007	0.416	-0.044	0.018	0.014	0.157	0.195	0.162	0.137	.498*	0.06	0.104	0.092	.250*
	(.256)			(.082)	(.106)			(.028)	(.247)			(.105)	(.093)			(.036)
	[-.074]			[.105]	[-.011]			[.041]	[.076]			[.196]	[.022]			[.096]
Studied State and Local Gov't.	0.364	0.168	0.151	0.37	-.280*	-0.03	-0.034	-.177*	0.242	0.078	0.108	0.557	0.1	0.075	0.078	.222*
	(.252)			(.133)	(.099)			(.026)[h]	(.239)			(.091)	(.085)			(.033)[h]
	[.131]			[.145]	[-.070]			[-.046]	[.094]			[.184]	[.037]			[.084]

a) Civic education variable is the treatment effect. Nearest-neighbor matching methods with replacement were employed.
Individual matching analyses were conducted for each of the 6 treatment effects (civics education types).

b) Cartoon 2: Dependent variable =1 if student correctly interpreted a political cartoon about democracy.
Read Newspaper 1: Dependent variable =1 if respondent answered "sometimes" or "often" to "How often do you read articles in the newspaper about what is happening in this country?"

c) Coefficients, robust standard errors (in parentheses) and marginal effects (in brackets) from full probit models in Tables 29 and 30.

d) ATT= Average Treatment Effect on the Treated, interpreted as percentage points; "Treated" are those that report studying the above civic education topics.

e) ATE= Average Treatment Effect.

f) Coefficients are from matching-weighted probits. Marginal effects are in brackets.

g) Bootstrapped standard errors are in parentheses.
Significance is based on the bias-corrected confidence intervals and the matching-weighted probit analyses.

h) Significant in the matching-weighted probit but not the bias-corrected confidence interval.

i) Significant in the bias-corrected confidence interval but not the matching-weighted probit.

* significant at the α=.05 level.
All calculations used the "total weight" as provided in the survey data, except the matching-weighted probits.

Table 58
Monitoring the News (IEA/CivEd)
Matching Methods[a] - African-Americans

	Read Newspaper 2 - African-Americans				Read Newspaper 2 - All others				Watch TV - African-Americans				Watch TV - All others			
	Probit Coefficient[c] (Std. Error)	ATT[d]	ATE[e]	Coefficient[f] (Std. Error)[g]	Probit Coefficient (Std. Error)	ATT	ATE	Coefficient (Std. Error)	Probit Coefficient (Std. Error)	ATT	ATE	Coefficient (Std. Error)	Probit Coefficient (Std. Error)	ATT	ATE	Coefficient (Std. Error)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
Civic Education variables:																
Studied Constitution	-0.456	-0.171	-0.143	-0.616	0.179	0.069	0.059	0.111	0.223	0.138	0.099	0.089	.387*	0.083	0.085	.201*
	(.300)			(.096)	(.111)			(.035)	(.317)			(.115)	(.123)			(.037)
	[-.180]			[-.214]	[.071]			[.044]	[.059]			[.021]	[.112]			[.058]
Studied Congress	-0.175	-0.162	-0.144	-.851*	-0.057	0.059	0.053	0.076	-0.055	0.129	0.114	-0.135	-0.231	0.015	0.03	0.138
	(.290)			(.094)[h]	(.117)			(.040)	(.336)			(.072)	(.135)			(.028)
	[-.069]			[-.329]	[-.022]			[.030]	[-.013]			[-.043]	[-.057]			[.033]
Studied Presidency	0.226	-0.071	-0.041	-0.045	-0.031	0.04	0.027	0.093	-0.107	0	0.007	0.107	0.027	0.066	0.049	0.03
	(.225)			(.089)	(.087)			(.037)	(.253)			(.062)	(.098)			(.031)[i]
	[.088]			[-.018]	[-.012]			[.037]	[-.026]			[.024]	[.007]			[.009]
Studied How Laws are Made	0.07	-0.068	-0.049	-0.399	-0.08	-0.004	0.003	0.019	0.265	0.149	0.164	108.41	0.003	0.03	0.04	.202*
	(.256)			(.139)	(.103)			(.039)	(.284)			(.127)[i]	(.114)			(.031)
	[.027]			[-.157]	[-.031]			[.007]	[.071]			[no effect]	[.001]			[.050]
Studied Political Parties	0.28	0.108	0.091	0.069	.215*	0.075	0.066	0.131	0.071	0.037	0.038	0.544	0.074	0.056	0.06	.197*
	(.242)			(.106)	(.092)			(.038)	(.271)			(.073)	(.104)			(.030)
	[.108]			[.026]	[.085]			[.052]	[.018]			[.016]	[.019]			[.053]
Studied State and Local Gov't.	0.138	0.061	0.054	-0.294	0.089	0.049	0.05	0.126	-0.198	0.089	0.054	-0.183	0.15	0.072	0.078	.359*
	(.237)			(.119)	(.084)			(.037)	(.265)			(.130)	(.096)			(.028)
	[.054]			[-.116]	[.035]			[.050]	[-.048]			[-.040]	[.040]			[.094]

a) Civic education variable is the treatment effect. Nearest-neighbor matching methods with replacement were employed.
Individual matching analyses were conducted for each of the 6 treatment effects (civics education types).

b) Cartoon 2: Dependent variable =1 if student correctly interpreted a political cartoon about democracy.
Read Newspaper 1: Dependent variable =1 if respondent answered "sometimes" or "often" to "How often do you read articles in the newspaper about what is happening in this country?"

c) Coefficients, robust standard errors (in parentheses) and marginal effects (in brackets) from full probit models in Table 30.

d) ATT= Average Treatment Effect on the Treated, interpreted as percentage points; "Treated" are those that report studying the above civic education topics.

e) ATE= Average Treatment Effect.

f) Coefficients are from matching-weighted probits. Marginal effects are in brackets.

g) Bootstrapped standard errors are in parentheses.
Significance is based on the bias-corrected confidence intervals and the matching-weighted probit analyses.

h) Significant in the matching-weighted probit but not the bias-corrected confidence interval.

i) Significant in the bias-corrected confidence interval but not the matching-weighted probit.

* significant at the α=.05 level.
All calculations used the "total weight" as provided in the survey data, except the matching-weighted probits.

Table 59
Monitoring the News and Group Discussion Skills (IEA/CivEd)
Matching Methods[a] - African-Americans

	Listen to Radio - African-Americans				Listen to Radio - All others				People Own Age - African-Americans				People Own Age - All others			
	Probit Coefficient[c] (Std. Error)	ATT[d]	ATE[e]	Coefficient[f] (Std. Error)[g]	Probit Coefficient (Std. Error)	ATT	ATE	Coefficient (Std. Error)	Probit Coefficient (Std. Error)	ATT	ATE	Coefficient (Std. Error)	Probit Coefficient (Std. Error)	ATT	ATE	Coefficient (Std. Error)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
Civic Education variables:																
Studied Constitution	-0.154	0.033	0.003	-0.331	-0.048	0.071	0.07	.252*	0.104	0.104	0.11	-0.218	0.066	0.058	0.063	.272*
	(.288)			(.123)	(.114)			(.038)	(.297)			(.072)	(.121)			(.033)[h]
	[-.061]			[-.115]	[-.019]			[.097]	[.032]			[-.003]	[.021]			[.087]
Studied Congress	0.227	0.091	0.034	-0.296	-0.003	0.109	0.102	.230*	-0.341	0.07	0.026	-0.358	-0.146	0.077	0.066	.220*
	(.284)			(.103)	(.120)			(.039)	(.294)			(.081)	(.129)			(.034)
	[.089]			[-.098]	[-.001]			[.086]	[-.114]			[-.079]	[-.049]			[.065]
Studied Presidency	0.014	-0.041	-0.041	-.815*	.185*	0.105	0.095	.305*	0.011	-0.173	-0.131	-.748*	.226*	0.113	0.099	.382*
	(.215)			(.093)[h]	(.086)			(.034)	(.231)			(.098)[h]	(.094)			(.030)
	[.005]			[-.309]	[.072]			[.116]	[.003]			[-.243]	[.073]			[.115]
Studied How Laws are Made	-0.13	-0.045	-0.074	-0.525	0.124	0.105	0.1	.263*	-0.132	0.04	0.045	0.129	0.085	0.056	0.063	.323*
	(.250)			(.131)	(.104)			(.040)	(.262)			(.131)	(.111)			(.036)
	[-.051]			[-.167]	[.048]			[.099]	[-.043]			[.037]	[.027]			[.106]
Studied Political Parties	0.318	-0.064	-0.068	-.602*	0.145	0.099	0.1	.288*	0.214	0.081	0.125	0.413	0.19	0.093	0.082	0.149
	(.236)			(.102)[h]	(.093)			(.032)	(.245)			(.097)	(.100)			(.029)[i]
	[.124]			[-.228]	[.056]			[.110]	[.066]			[.122]	[.061]			[.045]
Studied State and Local Gov't.	-.578*	0.089	0.05	0.348	0.047	0.07	0.068	0.124	0.183	0.174	0.136	.637*	-0.033	0.039	0.034	0.14
	(.235)			(.132)	(.085)			(.031)[i]	(.249)			(.109)	(.090)			(.033)[i]
	[-.227]			[.132]	[.018]			[.047]	[.057]			[.138]	[-.011]			[.045]

a) Civic education variable is the treatment effect. Nearest-neighbor matching methods with replacement were employed.
Individual matching analyses were conducted for each of the 6 treatment effects (civics education types).

b) Listen: Dependent variable =1 if respondent answered "sometimes" or "often" to "How often do you listen to news broadcasts on the radio?"
Dependent variable =1 if respondent answered "sometimes" or "often" to "How often do you have discussions of what is happening in U.S. government with people your own age / your parents / your teachers?"

c) Coefficients, robust standard errors (in parentheses) and marginal effects (in brackets) from full probit models in Tables 30 and 31.

d) ATT= Average Treatment Effect on the Treated, interpreted as percentage points; "Treated" are those that report studying the above civic education topics.

e) ATE= Average Treatment Effect.

f) Coefficients are from matching-weighted probits. Marginal effects are in brackets.

g) Bootstrapped standard errors are in parentheses.
Significance is based on the bias-corrected confidence intervals and the matching-weighted probit analyses.

h) Significant in the matching-weighted probit but not the bias-corrected confidence interval.

i) Significant in the bias-corrected confidence interval but not the matching-weighted probit.

* significant at the α=.05 level.
All calculations used the "total weight" as provided in the survey data, except the matching-weighted probits.

Table 60
Group Discussion Skills (IEA/CivEd)
Matching Methods[a] - African-Americans

	Parents - African-Americans				Parents - All others				Teachers - African-Americans				Teachers - All others			
	Probit Coefficient[c] (Std. Error)	ATT[d]	ATE[e]	Coefficient[f] (Std. Error)[g]	Probit Coefficient (Std. Error)	ATT	ATE	Coefficient (Std. Error)	Probit Coefficient (Std. Error)	ATT	ATE	Coefficient (Std. Error)	Probit Coefficient (Std. Error)	ATT	ATE	Coefficient (Std. Error)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
Civic Education variables:																
Studied Constitution	-0.342	-0.176	-0.143	-0.008	0.048	0.083	0.096	.460*	-0.033	0.095	0.121	.853*	0.067	0.113	0.117	.470*
	(.295)			(.105)	(.114)			(.038)[h]	(.293)			(.126)[h]	(.112)			(.040)
	[-.134]			[-.002]	[.018]			[.176]	[-.012]			[.273]	[.025]			[.181]
Studied Congress	0.189	-0.075	-0.064	-.604*	0.12	0.149	0.138	.290*	0.525	0.227	0.197	.533*	0.079	0.119	0.117	.300*
	(.286)			(.073)	(.119)			(.042)	(.294)			(.095)	(.117)			(.041)
	[.075]			[-.235]	[.046]			[.115]	[.201]			[.209]	[.030]			[.118]
Studied Presidency	-0.095	-0.101	-0.105	-0.277	.281*	0.14	0.133	.371*	-0.439	0.185	0.135	.448*	.169*	0.076	0.08	.290*
	(.214)			(.079)	(.086)			(.035)	(.232)			(.094)	(.086)			(.035)
	[-.037]			[-.108]	[.109]			[.146]	[-.162]			[.177]	[.065]			[.111]
Studied How Laws are Made	0.074	-0.04	-0.012	0.132	0.083	0.069	0.079	.250*	0.225	0.212	0.185	2.29*	-0.137	0.064	0.056	0.106
	(.250)			(.115)	(.103)			(.038)[h]	(.248)			(.134)	(.103)			(.036)
	[.029]			[.051]	[.032]			[.097]	[.086]			[.720]	[-.052]			[.041]
Studied Political Parties	-0.309	-0.064	-0.061	-0.124	-0.113	0.059	0.071	.240*	-0.155	0.059	0.08	0.521	0.05	0.103	0.095	.234*
	(.235)			(.099)	(.094)			(.037)[h]	(.245)			(.102)	(.092)			(.036)
	[-.122]			[-.049]	[-.043]			[.092]	[-.057]			[.179]	[.019]			[.092]
Studied State and Local Gov't.	-0.022	0.011	-0.019	-0.133	0.09	0.103	0.1	.334*	0.297	0.157	0.163	.812*	.249*	0.108	0.119	.382*
	(.231)			(.125)	(.085)			(.032)	(.238)			(.136)[h]	(.084)			(.033)
	[-.008]			[-.053]	[.035]			[.131]	[.113]			[.292]	[.097]			[.146]

a) Civic education variable is the treatment effect. Nearest-neighbor matching methods with replacement were employed. Individual matching analyses were conducted for each of the 6 treatment effects (civics education types).

b) Dependent variable =1 if respondent answered "sometimes" or "often" to "How often do you have discussions of what is happening in U.S. government with people your own age / your parents / your teachers?"

c) Coefficients, robust standard errors (in parentheses) and marginal effects (in brackets) from full probit models in Table 31.

d) ATT= Average Treatment Effect on the Treated, interpreted as percentage points; "Treated" are those that report studying the above civic education topics.

e) ATE= Average Treatment Effect.

f) Coefficients are from matching-weighted probits. Marginal effects are in brackets.

g) Bootstrapped standard errors are in parentheses. Significance is based on the bias-corrected confidence intervals and the matching-weighted probit analyses.

h) Significant in the matching-weighted probit but not the bias-corrected confidence interval.

i) Significant in the bias-corrected confidence interval but not the matching-weighted probit.

* significant at the α=.05 level.
All calculations used the "total weight" as provided in the survey data, except the matching-weighted probits.

Table 61
Political Interpretation Skills - Political Leaflets (IEA/CivEd)
Matching Methods[a] - Latinos

	Leaflet 1 - Latinos				Leaflet 1 - All others				Leaflet 2 - Latinos				Leaflet 2 - All others			
	Probit Coefficient[c] (Std. Error)	ATT[d]	ATE[e]	Coefficient[f] (Std. Error)[g]	Probit Coefficient (Std. Error)	ATT	ATE	Coefficient (Std. Error)	Probit Coefficient (Std. Error)	ATT	ATE	Coefficient (Std. Error)	Probit Coefficient (Std. Error)	ATT	ATE	Coefficient (Std. Error)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
Civic Education variables:																
Studied Constitution	.899*	0.089	0.113	4.39*	0.135	0.052	0.054	.334*	.815*	0.099	0.116	1.68*	0.252	0.063	0.071	.454*
	(.330)			(.083)[h]	(.146)			(.027)	(.316)			(.081)[h]	(.148)			(.026)
	[.241]			[.041]	[.025]			[.052]	[.213]			[.009]	[.045]			[.066]
Studied Congress	-1.09*	0.108	0.101	0.977	-0.067	0.021	0.025	0.054	0.086	0.158	0.157	0.475	0.061	0.067	0.065	0.178
	(.409)			(.112)	(.155)			(.026)	(.368)			(.118)	(.160)			(.027)[i]
	[-.176]			[.331]	[-.011]			[.010]	[.018]			[0]	[.010]			[.035]
Studied Presidency	.526*	0.18	0.156	.804*	0.208	0.043	0.041	0.04	0.006	0.18	0.122	0.094	0.03	0.034	0.035	0.08
	(.264)			(.081)	(.109)			(.025)	(.286)			(.075)[i]	(.116)			(.022)[i]
	[.119]			[.219]	[.038]			[.007]	[.001]			[.026]	[.005]			[.013]
Studied How Laws are Made	0.12	-0.015	0.032	2.01*	0.116	0.062	0.051	0.098	-0.522	-0.047	-0.008	0.317	0.003	0.041	0.033	0.055
	(.336)			(.069)[h]	(.125)			(.025)	(.350)			(.070)	(.130)			(.024)[i]
	[.026]			[.082]	[.021]			[.021]	[-.090]			[.041]	[.001]			[.009]
Studied Political Parties	0.166	0.118	0.111	1.59*	-.344*	0.006	-0.006	-0.18	0.153	0.026	0.061	1.52*	-0.198	-0.009	-0.01	-0.14
	(.290)			(.073)	(.124)			(.022)	(.283)			(.062)[h]	(.123)			(.021)
	[.036]			[.108]	[-.055]			[-.037]	[.033]			[.118]	[-.030]			[-.024]
Studied State and Local Gov't.	-0.314	0.02	0.003	0.311	0.031	0.025	0.029	0.075	0.022	0.053	0.085	1.26*	-0.012	0.024	0.03	0.118
	(.260)			(.073)	(.115)			(.026)	(.265)			(.072)[h]	(.118)			(.025)
	[-.064]			[.069]	[.005]			[.013]	[.004]			[.206]	[-.002]			[.018]

a) Civic education variable is the treatment effect. Nearest-neighbor matching methods with replacement were employed.
Individual matching analyses were conducted for each of the 6 treatment effects (civics education types).

b) Leaflet 1: Dependent variable =1 if student correctly interpreted which party issued the political leaflet.
Leaflet 2: Dependent variable=1 if student correctly interpreted what leaflet issuers think about taxes.

c) Coefficients, robust standard errors (in parentheses) and marginal effects (in brackets) from full probit models in Table 32.

d) ATT= Average Treatment Effect on the Treated, interpreted as percentage points; "Treated" are those that report studying the above civic education topics.

e) ATE= Average Treatment Effect.

f) Coefficients are from matching-weighted probits. Marginal effects are in brackets.

g) Bootstrapped standard errors are in parentheses.
Significance is based on the bias-corrected confidence intervals and the matching-weighted probit analyses.

h) Significant in the matching-weighted probit but not the bias-corrected confidence interval.

i) Significant in the bias-corrected confidence interval but not the matching-weighted probit.

* significant at the α=.05 level.
All calculations used the "total weight" as provided in the survey data, except the matching-weighted probits.

Table 62
Political Interpretation Skills - Political Leaflets and Cartoons (IEA/CivEd)
Matching Methods[a] - Latinos

	Leaflet 3 - Latinos				Leaflet 3 - All others				Cartoon1 - Latinos				Cartoon 1 - All others			
	Probit Coefficient[c] (Std. Error)	ATT[d]	ATE[e]	Coefficient[f] (Std. Error)[g]	Probit Coefficient (Std. Error)	ATT	ATE	Coefficient (Std. Error)	Probit Coefficient (Std. Error)	ATT	ATE	Coefficient (Std. Error)	Probit Coefficient (Std. Error)	ATT	ATE	Coefficient (Std. Error)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
Civic Education variables:																
Studied Constitution	0.021	-0.051	-0.033	-0.899	0.216	0.025	0.03	-0.066	1.23*	0.136	0.158	16.33*	0.225	0.018	0.029	0.038
	(.294)			(.066)	(.120)			(.035)	(.380)			(.086)[h]	(.153)			(.022)
	[.006]			[-.267]	[.069]			[-.020]	[.198]			[0]	[.033]			[.004]
Studied Congress	-0.191	-0.064	-0.041	0.02	-0.014	0.018	0.021	0.045	-0.67	0.074	0.078	0.372	-0.236	0.045	0.05	.293*
	(.321)			(.063)	(.128)			(.034)	(.462)			(.049)	(.168)			(.020)
	[-.058]			[.001]	[-.004]			[.014]	[-.048]			[.044]	[-.028]			[.029]
Studied Presidency	0.124	0.124	0.106	.709*	-0.005	-0.004	-0.001	-0.096	0.04	0.049	0.076	0.372	0.223	0.046	0.051	.27*
	(.234)			(.080)[h]	(.093)			(.028)	(.371)			(.056)	(.121)			(.022)
	[.039]			[.196]	[-.001]			[-.030]	[.003]			[.013]	[.031]			[.034]
Studied How Laws are Made	-0.091	0.005	0.028	0.44	-0.061	0.002	0.005	0.026	0.153	0.042	0.069	22.34	0.106	0.033	0.042	.266*
	(.293)			(.094)	(.109)			(.032)	(.395)			(.062)	(.136)			(.021)
	[-.028]			[.099]	[-.018]			[.008]	[.015]			[no effect]	[.014]			[.028]
Studied Political Parties	0.315	0.069	0.1	1.50*	0.133	0.061	0.046	0.023	0.252	0.172	0.153	37.63	-0.094	0.037	0.038	0.165
	(.247)			(.078)[h]	(.101)			(.032)[i]	(.347)			(.089)[i]	(.129)			(.022)
	[.103]			[.342]	[.042]			[.008]	[.025]			[no effect]	[-.012]			[.023]
Studied State and Local Gov't.	-0.084	0.04	0.034	0.112	-0.167	0.014	0.016	-0.043	0.046	0.067	0.062	0.714	0.174	0.041	0.053	.402*
	(.236)			(.083)	(.095)			(.030)	(.336)			(.062)	(.122)			(.020)[h]
	[-.026]			[.031]	[-.050]			[-.013]	[.004]			[.001]	[.024]			[.042]

a) Civic education variable is the treatment effect. Nearest-neighbor matching methods with replacement were employed.
Individual matching analyses were conducted for each of the 6 treatment effects (civics education types).

b) Leaflet 3: Dependent variable=1 if student correctly interpreted what policy the issuers of the leaflet favor.
Cartoon 1: Dependent variable=1 if student correctly interpreted a political cartoon about a political leader.

c) Coefficients, robust standard errors (in parentheses) and marginal effects (in brackets) from full probit models in Tables 32 and 33.

d) ATT= Average Treatment Effect on the Treated, interpreted as percentage points; "Treated" are those that report studying the above civic education topics.

e) ATE= Average Treatment Effect.

f) Coefficients are from matching-weighted probits. Marginal effects are in brackets.

g) Bootstrapped standard errors are in parentheses.
Significance is based on the bias-corrected confidence intervals and the matching-weighted probit analyses.

h) Significant in the matching-weighted probit but not the bias-corrected confidence interval.

i) Significant in the bias-corrected confidence interval but not the matching-weighted probit.

* significant at the α=.05 level.
All calculations used the "total weight" as provided in the survey data, except the matching-weighted probits.

Table 63
Political Interpretation Skills - Political Cartoons and Monitoring the News (IEA/CivEd)
Matching Methods[a] - Latinos

	Cartoon 2 - Latinos				Cartoon 2 - All others				Read Newspaper 1 - Latinos				Read Newspaper 1 - All others			
	Probit Coefficient[c] (Std. Error)	ATT[d]	ATE[e]	Coefficient[f] (Std. Error)[g]	Probit Coefficient (Std. Error)	ATT	ATE	Coefficient (Std. Error)	Probit Coefficient (Std. Error)	ATT	ATE	Coefficient (Std. Error)	Probit Coefficient (Std. Error)	ATT	ATE	Coefficient (Std. Error)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
Civic Education variables:																
Studied Constitution	0.124	-0.018	-0.003	0.598	0.028	0.062	0.071	.392*	-0.043	-0.108	-0.094	-1.46*	-0.008	0.039	0.038	0.011
	(.327)			(.101)	(.124)			(.034)[h]	(.283)			(.099)[h]	(.114)			(.039)
	[.035]			[.066]	[.007]			[.104]	[-.016]			[-.514]	[-.003]			[.004]
Studied Congress	-0.743	-0.168	-0.146	-.912*	0.251	0.071	0.079	.296*	-.712*	-0.128	-0.127	-1.055*	0.063	0.08	0.09	.256*
	(.381)			(.097)	(.131)			(.032)	(.311)			(.108)	(.119)			(.036)
	[-.175]			[-.100]	[.072]			[.083]	[-.257]			[-.379]	[.023]			[.094]
Studied Presidency	0.415	0.093	0.03	0.338	0.126	0.043	0.055	.235*	0.166	0.024	0.022	-0.118	0.055	0.038	0.04	0.067
	(.259)			(.081)[i]	(.096)			(.028)[h]	(.220)			(.087)	(.088)			(.034)
	[.119]			[.101]	[.035]			[.061]	[.064]			[-.044]	[.020]			[.025]
Studied How Laws are Made	0.089	-0.055	-0.03	-11.67	-0.055	0.033	0.038	0.17	0.536	-0.028	0.002	0.543	0.013	0.105	0.101	.307*
	(.324)			(.094)	(.112)			(.029)	(.281)			(.087)	(.101)			(.034)
	[.025]			[no effect]	[-.014]			[.046]	[.211]			[.135]	[.005]			[.117]
Studied Political Parties	-0.276	-0.177	-0.192	-2.49*	-0.088	0.018	0.017	0.068	0.015	0.043	0.03	-0.397	0.053	0.092	0.07	0.027
	(.286)			(.066)	(.104)			(.028)	(.232)			(.100)	(.093)			(.036)[i]
	[-.072]			[-.033]	[-.023]			[.018]	[.005]			[-.157]	[.019]			[.010]
Studied State and Local Gov't.	-.538*	-0.221	-0.209	-.706*	-0.138	0.038	0.041	0.165	0.265	0.06	0.069	0.272	0.107	0.095	0.091	.284*
	(.255)			(.076)[h]	(.097)			(.030)	(.223)			(.095)	(.086)			(.032)
	[-.141]			[-.067]	[-.036]			[.044]	[.103]			[.104]	[.040]			[.107]

a) Civic education variable is the treatment effect. Nearest-neighbor matching methods with replacement were employed.
Individual matching analyses were conducted for each of the 6 treatment effects (civics education types).

b) Cartoon 2: Dependent variable =1 if student correctly interpreted a political cartoon about democracy.
Read Newspaper 1: Dependent variable =1 if respondent answered "sometimes" or "often" to "How often do you read articles in the newspaper about what is happening in this country?"

c) Coefficients, robust standard errors (in parentheses) and marginal effects (in brackets) from full probit models in Tables 33 and 34.

d) ATT= Average Treatment Effect on the Treated, interpreted as percentage points; "Treated" are those that report studying the above civic education topics.

e) ATE= Average Treatment Effect.

f) Coefficients are from matching-weighted probits. Marginal effects are in brackets.

g) Bootstrapped standard errors are in parentheses.
Significance is based on the bias-corrected confidence intervals and the matching-weighted probit analyses.

h) Significant in the matching-weighted probit but not the bias-corrected confidence interval.

i) Significant in the bias-corrected confidence interval but not the matching-weighted probit.

* significant at the α=.05 level.
All calculations used the "total weight" as provided in the survey data, except the matching-weighted probits.

Table 64
Monitoring the News (IEA/CivEd)
Matching Methods[a] - Latinos

	Read Newspaper 2 - Latinos				Read Newspaper 2 - All others				Watch TV - Latinos				Watch TV - All others			
	Probit Coefficient[c] (Std. Error)	ATT[d]	ATE[e]	Coefficient[f] (Std. Error)[g]	Probit Coefficient (Std. Error)	ATT	ATE	Coefficient (Std. Error)	Probit Coefficient (Std. Error)	ATT	ATE	Coefficient (Std. Error)	Probit Coefficient (Std. Error)	ATT	ATE	Coefficient (Std. Error)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
Civic Education variables:																
Studied Constitution	0.248	-0.047	-0.03	-0.142	0.062	-0.004	0.001	-0.067	0.327	0.07	0.045	-0.434	.339*	0.113	0.113	.422*
	(.271)			(.106)	(.112)			(.041)	(.312)			(.093)	(.124)			(.036)
	[.099]			[-.055]	[.025]			[-.026]	[.087]			[-.122]	[.097]			[.123]
Studied Congress	-.796*	-0.094	-0.093	-0.468	0.048	0.061	0.064	0.146	-0.628	-0.054	-0.048	0.948	-0.188	0.053	0.052	0.153
	(.304)			(.121)	(.117)			(.041)	(.347)			(.053)	(.135)			(.033)
	[-.297]			[-.177]	[.019]			[.058]	[-.133]			[0]	[-.046]			[.042]
Studied Presidency	0.075	0.006	0.019	0.179	-0.02	0.042	0.038	0.122	-0.147	-0.037	0.015	-0.08	0.021	0.021	0.031	0.028
	(.217)			(.082)	(.087)			(.036)	(.271)			(.064)	(.098)			(.026)
	[.030]			[.069]	[-.008]			[.048]	[-.035]			[-.010]	[.005]			[.007]
Studied How Laws are Made	0.278	-0.05	-0.03	0.327	-0.094	0.068	0.068	.267*	0.565	0.047	0.052	0.454	-0.013	0.062	0.061	.227*
	(.279)			(.100)	(.101)			(.038)[h]	(.303)			(.077)	(.113)			(.027)
	[.110]			[.101]	[-.037]			[.105]	[.163]			[.040]	[-.003]			[.061]
Studied Political Parties	-0.193	0.026	0.015	-0.243	.259*	0.119	0.095	0.113	0.177	0.064	0.103	66.33	0.075	0.044	0.045	0.076
	(.230)			(.094)	(.092)			(.034)[i]	(.261)			(.094)	(.104)			(.027)
	[-.076]			[-.096]	[.103]			[.045]	[.045]			[no effect]	[.019]			[.021]
Studied State and Local Gov't.	.463*	0.02	0.062	0.128	0.023	0.083	0.078	.326*	0.274	0.04	0.062	0.95	0.098	0.109	0.096	.346*
	(.217)			(.098)	(.085)			(.034)	(.251)			(.077)	(.097)			(.030)
	[.182]			[.049]	[.009]			[.129]	[.069]			[.181]	[.026]			[.101]

a) Civic education variable is the treatment effect. Nearest-neighbor matching methods with replacement were employed.
Individual matching analyses were conducted for each of the 6 treatment effects (civics education types).

b) Cartoon 2: Dependent variable =1 if student correctly interpreted a political cartoon about democracy.
Read Newspaper 1: Dependent variable =1 if respondent answered "sometimes" or "often" to "How often do you read articles in the newspaper about what is happening in this country?"

c) Coefficients, robust standard errors (in parentheses) and marginal effects (in brackets) from full probit models in Table 34.

d) ATT= Average Treatment Effect on the Treated, interpreted as percentage points; "Treated" are those that report studying the above civic education topics.

e) ATE= Average Treatment Effect.

f) Coefficients are from matching-weighted probits. Marginal effects are in brackets.

g) Bootstrapped standard errors are in parentheses.
Significance is based on the bias-corrected confidence intervals and the matching-weighted probit analyses.

h) Significant in the matching-weighted probit but not the bias-corrected confidence interval.

i) Significant in the bias-corrected confidence interval but not the matching-weighted probit.

* significant at the α=.05 level.
All calculations used the "total weight" as provided in the survey data, except the matching-weighted probits.

Table 65
Monitoring the News and Group Discussion Skills (IEA/CivEd)
Matching Methods[a] - Latinos

	Listen to Radio - Latinos				Listen to Radio - All others				People Own Age - Latinos				People Own Age - All others			
	Probit Coefficient[c] (Std. Error)	ATT[d]	ATE[e]	Coefficient[f] (Std. Error)[g]	Probit Coefficient (Std. Error)	ATT	ATE	Coefficient (Std. Error)	Probit Coefficient (Std. Error)	ATT	ATE	Coefficient (Std. Error)	Probit Coefficient (Std. Error)	ATT	ATE	Coefficient (Std. Error)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
Civic Education variables:																
Studied Constitution	-0.025	0.037	0.056	0.391	-0.086	0.045	0.045	0.007	0.521	0.099	0.094	1.38	-0.031	0.032	0.025	-0.079
	(.287)			(.109)	(.114)			(.040)	(.310)			(.076)	(.122)			(.036)
	[-.009]			[.149]	[-.034]			[.003]	[.142]			[.052]	[-.010]			[-.023]
Studied Congress	-0.459	0.232	0.176	0.051	0.056	0.114	0.116	.350*	-0.512	-0.064	-0.063	-0.378	-0.133	0.059	0.049	.192*
	(.318)			(.109)	(.119)			(.038)	(.343)			(.124)	(.128)			(.035)[h]
	[-.176]			[.007]	[.022]			[.135]	[-.169]			[-.112]	[-.045]			[.059]
Studied Presidency	.506*	0.124	0.133	.540*	0.164	0.04	0.056	0.136	0.296	0.037	0.08	0.191	.198*	0.068	0.066	.222*
	(.225)			(.080)[h]	(.086)			(.035)	(.239)			(.082)	(.093)			(.032)[h]
	[.184]			[.198]	[.064]			[.053]	[.088]			[.063]	[.064]			[.072]
Studied How Laws are Made	0.317	0.126	0.13	1.46*	0.092	0.036	0.041	0.118	.775*	0.152	0.17	1.41*	-0.012	0.018	0.018	0.019
	(.292)			(.100)[h]	(.101)			(.040)	(.342)			(.075)[h]	(.109)			(.036)
	[.114]			[.480]	[.036]			[.046]	[.192]			[.227]	[-.004]			[.006]
Studied Political Parties	0.128	0.129	0.126	0.204	.193*	0.086	0.087	.212*	-0.36	-0.005	0.023	0.318	.295*	0.078	0.065	0.061
	(.239)			(.083)	(.093)			(.036)	(.262)			(.085)	(.100)			(.031)[i]
	[.047]			[.072]	[.075]			[.082]	[-.116]			[.096]	[.094]			[.018]
Studied State and Local Gov't.	0.409	0.154	0.189	.943*	-0.094	0.041	0.046	.215*	0.202	0.046	0.058	0.206	-0.064	0.02	0.016	-0.024
	(.229)			(.082)[h]	(.085)			(.037)	(.244)			(.090)	(.090)			(.033)
	[.150]			[.352]	[-.037]			[.084]	[.061]			[.061]	[-.021]			[-.007]

a) Civic education variable is the treatment effect. Nearest-neighbor matching methods with replacement were employed.
Individual matching analyses were conducted for each of the 6 treatment effects (civics education types).

b) Listen: Dependent variable =1 if respondent answered "sometimes" or "often" to "How often do you listen to news broadcasts on the radio?"
Dependent variable =1 if respondent answered "sometimes" or "often" to "How often do you have discussions of what is happening in U.S. government with people your own age / your parents / your teachers?"

c) Coefficients, robust standard errors (in parentheses) and marginal effects (in brackets) from full probit models in Tables 34 and 35.

d) ATT= Average Treatment Effect on the Treated, interpreted as percentage points; "Treated" are those that report studying the above civic education topics.

e) ATE= Average Treatment Effect.

f) Coefficients are from matching-weighted probits. Marginal effects are in brackets.

g) Bootstrapped standard errors are in parentheses.
Significance is based on the bias-corrected confidence intervals and the matching-weighted probit analyses.

h) Significant in the matching-weighted probit but not the bias-corrected confidence interval.

i) Significant in the bias-corrected confidence interval but not the matching-weighted probit.

* significant at the α=.05 level.
All calculations used the "total weight" as provided in the survey data, except the matching-weighted probits.

Table 66
Group Discussion Skills (IEA/CivEd)
Matching Methods[a] - Latinos

	Parents - Latinos				Parents - All others				Teachers - Latinos				Teachers - All others			
	Probit Coefficient[c] (Std. Error)	ATT[d]	ATE[e]	Coefficient[f] (Std. Error)[g]	Probit Coefficient (Std. Error)	ATT	ATE	Coefficient (Std. Error)	Probit Coefficient (Std. Error)	ATT	ATE	Coefficient (Std. Error)	Probit Coefficient (Std. Error)	ATT	ATE	Coefficient (Std. Error)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
Civic Education variables:																
Studied Constitution	0.473	0.066	0.067	-0.513	-0.081	0.016	0.024	0.018	0.044	0.047	0.071	-0.051	0.027	0.102	0.1	.236*
	(.272)			(.107)	(.115)			(.038)	(.283)			(.101)	(.113)			(.041)[h]
	[.187]			[-.200]	[-.031]			[.007]	[.016]			[-.018]	[.010]			[.092]
Studied Congress	-0.156	0.099	0.108	.918*	0.136	0.111	0.107	.217*	-0.146	0.272	0.209	0.305	0.158	0.087	0.087	0.134
	(.304)			(.127)[h]	(.119)			(.039)	(.308)			(.140)	(.117)			(.043)
	[-.060]			[.344]	[.053]			[.086]	[-.054]			[.112]	[.061]			[.052]
Studied Presidency	0.123	0.099	0.141	.517*	.246*	0.068	0.076	.170*	0.116	0.055	0.118	.914*	0.087	0.091	0.104	.386*
	(.218)			(.084)[h]	(.086)			(.034)[h]	(.225)			(.083)[h]	(.087)			(.033)
	[.048]			[.197]	[.096]			[.066]	[.044]			[.260]	[.033]			[.147]
Studied How Laws are Made	0.423	0.192	0.176	0.293	0.05	0.064	0.07	.232*	0.225	0.155	0.156	0.323	-0.102	0.042	0.045	0.125
	(.281)			(.095)	(.101)			(.033)[h]	(.273)			(.100)	(.101)			(.039)
	[.167]			[.112]	[.019]			[.090]	[.086]			[.126]	[-.038]			[.048]
Studied Political Parties	-0.042	-0.059	0.026	.726*	-0.143	0.003	0.015	-0.011	0.318	0.064	0.123	.864*	0.008	0.118	0.109	.200*
	(.233)			(.109)[h]	(.094)			(.033)	(.235)			(.111)[h]	(.093)			(.037)
	[-.016]			[.186]	[-.054]			[-.004]	[.121]			[.262]	[.003]			[.078]
Studied State and Local Gov't.	0.09	0.127	0.065	0.197	0.104	0.078	0.072	.154*	0.428	0.147	0.151	0.474*	.259*	0.143	0.142	.507*
	(.225)			(.093)	(.085)			(.035)[h]	(.225)			(.084)[h]	(.085)			(.033)
	[.035]			[.078]	[.040]			[.061]	[.162]			[.155]	[.100]			[.194]

a) Civic education variable is the treatment effect. Nearest-neighbor matching methods with replacement were employed.
Individual matching analyses were conducted for each of the 6 treatment effects (civics education types).

b) Dependent variable =1 if respondent answered "sometimes" or "often" to "How often do you have discussions of what is happening in U.S. government with people your own age / your parents / your teachers?"

c) Coefficients, robust standard errors (in parentheses) and marginal effects (in brackets) from full probit models in Table 35.

d) ATT= Average Treatment Effect on the Treated, interpreted as percentage points; "Treated" are those that report studying the above civic education topics.

e) ATE= Average Treatment Effect.

f) Coefficients are from matching-weighted probits. Marginal effects are in brackets.

g) Bootstrapped standard errors are in parentheses.
Significance is based on the bias-corrected confidence intervals and the matching-weighted probit analyses.

h) Significant in the matching-weighted probit but not the bias-corrected confidence interval.

i) Significant in the bias-corrected confidence interval but not the matching-weighted probit.

* significant at the α=.05 level.
All calculations used the "total weight" as provided in the survey data, except the matching-weighted probits.

Table 67
Political Interpretation Skills - Political Leaflets (IEA/CivEd)
Matching Methods[a] - Females

	Leaflet 1 - Females				Leaflet 1 - Males				Leaflet 2 - Females				Leaflet 2 - Males			
	Probit Coefficient[c] (Std. Error)	ATT[d]	ATE[e]	Coefficient[f] (Std. Error)[g]	Probit Coefficient (Std. Error)	ATT	ATE	Coefficient (Std. Error)	Probit Coefficient (Std. Error)	ATT	ATE	Coefficient (Std. Error)	Probit Coefficient (Std. Error)	ATT	ATE	Coefficient (Std. Error)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
Civic Education variables:																
Studied Constitution	0.245	-0.01	0	0.061	0.304	0.06	0.063	0.238	.453*	-0.011	0.008	0.303	0.272	0.067	0.08	.514*
	(.194)			(.029)	(.178)			(.038)[i]	(.197)			(.025)	(.178)			(.037)
	[.041]			[.005]	[.071]			[.053]	[.073]			[.015]	[.062]			[.095]
Studied Congress	-0.349	-0.019	-0.023	-.285*	-0.185	0.087	0.074	0.029	-0.094	-0.009	-0.009	-0.275	0.109	0.078	0.077	0.144
	(.208)			(.024)[h]	(.200)			(.053)	(.215)			(.022)	(.199)			(.038)[i]
	[-.046]			[-.036]	[-.037]			[.007]	[-.011]			[-.028]	[.023]			[.036]
Studied Presidency	.279*	0.043	0.055	.382*	0.262	0.065	0.044	-0.055	-0.069	0.023	0.012	0.08	0.099	0.031	0.025	-0.009
	(.140)			(.029)[h]	(.145)			(.040)[i]	(.156)			(.025)	(.149)			(.034)
	[.045]			[.053]	[.059]			[-.014]	[-.008]			[.010]	[.021]			[-.002]
Studied How Laws are Made	0.222	0.019	0.028	0.291	-0.01	0.115	0.092	0.13	-0.001	-0.015	-0.012	-0.021	-0.135	0.071	0.053	0.023
	(.166)			(.035)	(.167)			(.045)[i]	(.178)			(.021)	(.169)			(.043)[i]
	[.037]			[.037]	[-.002]			[.038]	[-.001]			-0.001	[-.027]			[.006]
Studied Political Parties	-0.377	-0.026	-0.025	-0.269	-0.161	0.026	0.016	-0.108	-0.207	-0.01	-0.013	-0.105	-0.115	-0.006	0.002	-0.18
	(.171)			(.028)	(.151)			(.036)	(.174)			(.022)	(.150)			(.030)
	[-.050]			[-.030]	[-.033]			[-.026]	[-.024]			[-.009]	[-.023]			[-.037]
Studied State and Local Gov't.	-0.045	0.033	0.017	-0.261	-0.037	0.069	0.058	0.042	-0.122	-0.009	-0.012	-0.23	0.043	0.018	0.019	-0.055
	(.155)			(.037)	(.144)			(.045)	(.164)			(.027)	(.143)			(.032)
	[-.006]			[-.054]	[-.008]			[.010]	[-.015]			[-.028]	[.009]			[-.012]

a) Civic education variable is the treatment effect. Nearest-neighbor matching methods with replacement were employed.
Individual matching analyses were conducted for each of the 6 treatment effects (civics education types).

b) Leaflet 1: Dependent variable =1 if student correctly interpreted which party issued the political leaflet.
Leaflet 2: Dependent variable=1 if student correctly interpreted what leaflet issuers think about taxes.

c) Coefficients, robust standard errors (in parentheses) and marginal effects (in brackets) from full probit models in Table 36.

d) ATT= Average Treatment Effect on the Treated, interpreted as percentage points; "Treated" are those that report studying the above civic education topics.

e) ATE= Average Treatment Effect.

f) Coefficients are from matching-weighted probits. Marginal effects are in brackets.

g) Bootstrapped standard errors are in parentheses.
Significance is based on the bias-corrected confidence intervals and the matching-weighted probit analyses.

h) Significant in the matching-weighted probit but not the bias-corrected confidence interval.

i) Significant in the bias-corrected confidence interval but not the matching-weighted probit.

* significant at the α=.05 level.
All calculations used the "total weight" as provided in the survey data, except the matching-weighted probits.

Table 68
Political Interpretation Skills - Political Leaflets and Cartoons (IEA/CivEd)
Matching Methods[a] - Females

	Leaflet 3 - Females					Leaflet 3 - Males			Cartoon1 - Females				Cartoon 1 - Males			
	Probit Coefficient[c] (Std. Error)	ATT[d]	ATE[e]	Coefficient[f] (Std. Error)[g]	Probit Coefficient (Std. Error)	ATT	ATE	Coefficient (Std. Error)	Probit Coefficient (Std. Error)	ATT	ATE	Coefficient (Std. Error)	Probit Coefficient (Std. Error)	ATT	ATE	Coefficient (Std. Error)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
Civic Education variables:																
Studied Constitution	-0.042	-0.041	-0.024	-0.154	.418*	0.084	0.087	0.225	0.229	0.003	0.007	-0.149	.415*	0.082	0.105	.839*
	(.155)			(.040)	(.163)			(.045)[i]	(.214)			(.019)	(.183)			(.034)
	[-.012]			[-.040]	[.141]			[.073]	[.024]			[-.009]	[.084]			[.086]
Studied Congress	0.102	0.019	0.03	-0.014	-0.17	-0.005	-0.003	-0.084	-0.339	-0.001	0.011	-0.038	-0.213	0.067	0.08	.524*
	(.158)			(.042)	(.179)			(.039)	(.234)			(.019)	(.209)			(.034)
	[.030]			[-.004]	[-.052]			[-.026]	[-.027]			[-.001]	[-.034]			[.066]
Studied Presidency	0.102	0.032	0.03	0.102	-0.077	-0.001	-0.005	-0.025	0.246	0.028	0.04	.411*	0.203	0.048	0.052	0.148
	(.115)			(.035)	(.131)			(.041)	(.166)			(.022)	(.156)			(.036)[i]
	[.030]			[.031]	[-.024]			[-.008]	[.025]			[.029]	[.037]			[.023]
Studied How Laws are Made	-0.019	-0.023	-0.004	0.134	-0.144	0.02	0.015	-0.109	0.163	0.04	0.044	0.135	0.077	0.04	0.041	-0.022
	(.141)			(.035)	(.150)			(.047)	(.189)			(.034)[i]	(.175)			(.035)
	[-.005]			[.029]	[-.044]			[-.036]	[.016]			[.009]	[.014]			[-.004]
Studied Political Parties	0.095	-0.003	0.015	0.195	0.234	0.02	0.018	-0.113	0.03	0.033	0.032	-0.045	-0.099	0.043	0.055	0.221
	(.130)			(.040)	(.136)			(.043)	(.185)			(.023)	(.159)			(.031)
	[.028]			[.047]	[.076]			[-.037]	[.002]			[-.004]	[-.016]			[.037]
Studied State and Local Gov't.	-0.198	0.027	0.007	-0.228	-0.106	0.02	0.016	-0.148	-0.062	0.028	0.03	0.119	0.232	0.085	0.101	.646*
	(.122)			(.042)	(.129)			(.048)	(.179)			(.022)	(.152)			(.029)
	[-.056]			[-.074]	[-.033]			[-.047]	[-.005]			[.005]	[.042]			[.085]

a) Civic education variable is the treatment effect. Nearest-neighbor matching methods with replacement were employed.
Individual matching analyses were conducted for each of the 6 treatment effects (civics education types).

b) Leaflet 3: Dependent variable=1 if student correctly interpreted what policy the issuers of the leaflet favor.
Cartoon 1: Dependent variable=1 if student correctly interpreted a political cartoon about a political leader.

c) Coefficients, robust standard errors (in parentheses) and marginal effects (in brackets) from full probit models in Tables 36 and 37.

d) ATT= Average Treatment Effect on the Treated, interpreted as percentage points; "Treated" are those that report studying the above civic education topics.

e) ATE= Average Treatment Effect.

f) Coefficients are from matching-weighted probits. Marginal effects are in brackets.

g) Bootstrapped standard errors are in parentheses.
Significance is based on the bias-corrected confidence intervals and the matching-weighted probit analyses.

h) Significant in the matching-weighted probit but not the bias-corrected confidence interval.

i) Significant in the bias-corrected confidence interval but not the matching-weighted probit.

* significant at the α=.05 level.
All calculations used the "total weight" as provided in the survey data, except the matching-weighted probits.

Table 69
Political Interpretation Skills - Political Cartoons and Monitoring the News (IEA/CivEd)
Matching Methods[a] - Females

	Cartoon 2 - Females				Cartoon 2 - Males				Read Newspaper 1 - Females				Read Newspaper 1 - Males			
	Probit Coefficient[c] (Std. Error)	ATT[d]	ATE[e]	Coefficient[f] (Std. Error)[g]	Probit Coefficient (Std. Error)	ATT	ATE	Coefficient (Std. Error)	Probit Coefficient (Std. Error)	ATT	ATE	Coefficient (Std. Error)	Probit Coefficient (Std. Error)	ATT	ATE	Coefficient (Std. Error)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
Civic Education variables:																
Studied Constitution	0.263	0.046	0.053	.301*	-0.066	-0.003	0.016	0.11	-0.138	-0.008	-0.003	-0.001	0.056	0.076	0.086	.348*
	(.163)			(.040)[h]	(.164)			(.041)	(.146)			(.051)	(.153)			(.052)[h]
	[.073]			[.072]	[-.018]			[.024]	[-.050]			[-.001]	[.021]			[.130]
Studied Congress	0.043	0.015	0.011	-0.002	0.136	0.067	0.065	0.074	-0.011	0.003	-0.009	-.328*	0.033	0.117	0.098	.251*
	(.172)			(.041)	(.179)			(.054)	(.147)			(.047)[h]	(.166)			(.059)[h]
	[.011]			[-.001]	[.039]			[.022]	[-.004]			[-.124]	[.012]			[.099]
Studied Presidency	0.082	0.037	0.046	.302*	0.233	0.042	0.047	0.039	0.077	-0.002	0.005	0.026	0.058	0.097	0.091	.289*
	(.123)			(.036)[h]	(.131)			(.042)	(.108)			(.042)	(.123)			(.047)[h]
	[.021]			[.075]	[.068]			[.011]	[.028]			[.009]	[.022]			[.112]
Studied How Laws are Made	0.062	0.018	0.02	-0.027	-0.103	0.021	0.002	-.298*	0.069	0.06	0.064	0.188	-0.012	0.167	0.17	.491*
	(.147)			(.049)	(.151)			(.044)[h]	(.130)			(.042)	(.139)			(.048)
	[.016]			[-.006]	[-.028]			[-.092]	[.026]			[.069]	[-.004]			[.191]
Studied Political Parties	-0.164	0.006	0.014	0.212	-0.058	0.014	0.012	-.307*	-0.044	-0.006	0	-0.069	0.228	0.123	0.128	.347*
	(.139)			(.037)	(.139)			(.039)[h]	(.118)			(.048)	(.127)			(.057)[h]
	[-.040]			[.047]	[-.016]			[-.090]	[-.016]			[-.024]	[.087]			[.134]
Studied State and Local Gov't.	-0.233	-0.019	-0.027	-0.224	-0.1	0.048	0.025	-0.164	0.145	0.096	0.097	.349*	0.089	0.128	0.109	.197*
	(.129)			(.041)	(.130)			(.048)	(.109)			(.047)	(.118)			(.056)
	[-.057]			[-.062]	[-.028]			[-.051]	[.054]			[.129]	[.033]			[.077]

a) Civic education variable is the treatment effect. Nearest-neighbor matching methods with replacement were employed.
Individual matching analyses were conducted for each of the 6 treatment effects (civics education types).

b) Cartoon 2: Dependent variable =1 if student correctly interpreted a political cartoon about democracy.
Read Newspaper 1: Dependent variable =1 if respondent answered "sometimes" or "often" to "How often do you read articles in the newspaper about what is happening in this country?"

c) Coefficients, robust standard errors (in parentheses) and marginal effects (in brackets) from full probit models in Tables 37 and 38.

d) ATT= Average Treatment Effect on the Treated, interpreted as percentage points; "Treated" are those that report studying the above civic education topics.

e) ATE= Average Treatment Effect.

f) Coefficients are from matching-weighted probits. Marginal effects are in brackets.

g) Bootstrapped standard errors are in parentheses.
Significance is based on the bias-corrected confidence intervals and the matching-weighted probit analyses.

h) Significant in the matching-weighted probit but not the bias-corrected confidence interval.

i) Significant in the bias-corrected confidence interval but not the matching-weighted probit.

* significant at the α=.05 level.
All calculations used the "total weight" as provided in the survey data, except the matching-weighted probits.

Table 70
Monitoring the News (IEA/CivEd)
Matching Methods[a] - Females

	Read Newspaper 2 - Females				Read Newspaper 2 - Males				Watch TV - Females				Watch TV - Males			
	Probit Coefficient[c] (Std. Error)	ATT[d]	ATE[e]	Coefficient[f] (Std. Error)[g]	Probit Coefficient (Std. Error)	ATT	ATE	Coefficient (Std. Error)	Probit Coefficient (Std. Error)	ATT	ATE	Coefficient (Std. Error)	Probit Coefficient (Std. Error)	ATT	ATE	Coefficient (Std. Error)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
Civic Education variables:																
Studied Constitution	0.107	0.028	0.033	0.195	0.084	0.045	0.037	0.149	.427*	0.082	0.083	.277*	0.31	0.132	0.13	.703*
	(.141)			(.056)	(.153)			(.053)	(.163)			(.042)[h]	(.162)			(.043)
	[.042]			[.076]	[.033]			[.059]	[.117]			[.069]	[.093]			[.198]
Studied Congress	0.002	-0.003	-0.002	-0.133	-0.103	0.111	0.076	0.127	-.448*	-0.038	-0.046	-.433*	0.003	0.107	0.111	.407*
	(.144)			(.051)	(.166)			(.062)	(.175)			(.036)[h]	(.180)			(.039)
	[.001]			[-.052]	[-.041]			[.049]	[-.093]			[-.094]	[.001]			[.117]
Studied Presidency	0.07	-0.022	-0.012	-0.051	-0.052	0.072	0.038	0.052	0.029	0.023	0.027	-0.031	0.012	0.048	0.041	-0.029
	(.107)			(.044)	(.122)			(.050)	(.123)			(.035)	(.136)			(.037)
	[.027]			[-.019]	[-.021]			[.020]	[.007]			[-.007]	[.003]			[-.008]
Studied How Laws are Made	-0.145	0.046	0.041	0.155	-0.011	0.122	0.12	.443*	0.096	0.047	0.056	.398*	-0.069	0.07	0.087	.367*
	(.131)			(.041)	(.139)			(.047)	(.148)			(.035)	(.153)			(.038)[h]
	[-.056]			[.060]	[-.004]			[.175]	[.023]			[.073]	[-.019]			[.101]
Studied Political Parties	0.091	-0.053	-0.027	-0.069	.380*	0.076	0.074	0.138	0.048	-0.019	-0.003	-0.13	0.182	0.068	0.077	0.219
	(.116)			(.048)	(.126)			(.056)	(.136)			(.033)	(.139)			(.038)
	[.036]			[-.025]	[.150]			[.055]	[.011]			[-.027]	[.053]			[.061]
Studied State and Local Gov't.	0.127	0.055	0.063	.260*	0.006	0.056	0.043	-0.011	0.216	0.045	0.047	-0.001	-0.035	0.052	0.049	0.175
	(.107)			(.045)[h]	(.118)			(.054)	(.125)			(.035)	(.130)			(.035)
	[.050]			[.100]	[.002]			[-.004]	[.054]			[-.001]	[-.010]			[.049]

a) Civic education variable is the treatment effect. Nearest-neighbor matching methods with replacement were employed.
Individual matching analyses were conducted for each of the 6 treatment effects (civics education types).

b) Cartoon 2: Dependent variable =1 if student correctly interpreted a political cartoon about democracy.
Read Newspaper 1: Dependent variable =1 if respondent answered "sometimes" or "often" to "How often do you read articles in the newspaper about what is happening in this country?"

c) Coefficients, robust standard errors (in parentheses) and marginal effects (in brackets) from full probit models in Table 38.

d) ATT= Average Treatment Effect on the Treated, interpreted as percentage points; "Treated" are those that report studying the above civic education topics.

e) ATE= Average Treatment Effect.

f) Coefficients are from matching-weighted probits. Marginal effects are in brackets.

g) Bootstrapped standard errors are in parentheses.
Significance is based on the bias-corrected confidence intervals and the matching-weighted probit analyses.

h) Significant in the matching-weighted probit but not the bias-corrected confidence interval.

i) Significant in the bias-corrected confidence interval but not the matching-weighted probit.

* significant at the α=.05 level.
All calculations used the "total weight" as provided in the survey data, except the matching-weighted probits.

Table 71
Monitoring the News and Group Discussion Skills (IEA/CivEd)
Matching Methods[a] - Females

	Listen to Radio - Females				Listen to Radio - Males				People Own Age - Females				People Own Age - Males			
	Probit Coefficient[c] (Std. Error)	ATT[d]	ATE[e]	Coefficient[f] (Std. Error)[g]	Probit Coefficient (Std. Error)	ATT	ATE	Coefficient (Std. Error)	Probit Coefficient (Std. Error)	ATT	ATE	Coefficient (Std. Error)	Probit Coefficient (Std. Error)	ATT	ATE	Coefficient (Std. Error)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
Civic Education variables:																
Studied Constitution	0.104	0.138	0.135	.464*	-.335*	0.1	0.08	.278*	0.124	0.07	0.082	.329*	-0.077	0.047	0.049	.383*
	(.142)			(.048)	(.162)			(.044)	(.157)			(.048)[h]	(.164)			(.043)[h]
	[.041]			[.180]	[-.129]			[.097]	[.039]			[.105]	[-.026]			[.118]
Studied Congress	-0.037	0.099	0.075	-0.113	0.14	0.069	0.084	.362*	-0.078	0.085	0.071	0.145	-0.24	0.034	0.015	-0.146
	(.145)			(.047)	(.176)			(.061)[h]	(.161)			(.043)	(.179)			(.051)
	[-.015]			[-.042]	[.052]			[.135]	[-.026]			[.042]	[-.082]			[-.041]
Studied Presidency	.296*	0.127	0.133	.325*	0.009	0.064	0.042	0.057	0.211	0.119	0.106	.379*	0.186	0.063	0.042	-0.013
	(.105)			(.044)	(.125)			(.047)	(.116)			(.034)	(.132)			(.043)
	[.117]			[.128]	[.003]			[.020]	[.067]			[.112]	[.060]			[-.004]
Studied How Laws are Made	0.134	0.104	0.123	.543*	0.071	0.112	0.093	0.163	0.184	0.068	0.073	0.179	-0.131	0.034	0.028	0.049
	(.128)			(.047)[h]	(.146)			(.048)	(.144)			(.044)	(.149)			(.048)
	[.053]			[.214]	[.026]			[.053]	[.058]			[.053]	[-.044]			[.014]
Studied Political Parties	0.062	0.082	0.08	0.133	.415*	0.126	0.122	.324*	0.074	0.033	0.033	.269*	.485*	0.137	0.117	.438*
	(.116)			(.045)	(.133)			(.048)[h]	(.125)			(.044)[h]	(.140)			(.038)
	[.025]			[.052]	[.150]			[.116]	[.024]			[.086]	[.150]			[.119]
Studied State and Local Gov't.	-0.065	0.026	0.018	-0.035	0.068	0.101	0.099	.301*	-0.131	0.005	0.017	.295*	0.064	0.052	0.044	0.063
	(.107)			(.048)	(.122)			(.058)[h]	(.113)			(.043)[h]	(.128)			(.047)
	[-.025]			[-.014]	[.025]			[.111]	[-.043]			[.099]	[.021]			[.019]

a) Civic education variable is the treatment effect. Nearest-neighbor matching methods with replacement were employed. Individual matching analyses were conducted for each of the 6 treatment effects (civics education types).

b) Listen: Dependent variable =1 if respondent answered "sometimes" or "often" to "How often do you listen to news broadcasts on the radio?"
Dependent variable =1 if respondent answered "sometimes" or "often" to "How often do you have discussions of what is happening in U.S. government with people your own age / your parents / your teachers?"

c) Coefficients, robust standard errors (in parentheses) and marginal effects (in brackets) from full probit models in Tables 38 and 39.

d) ATT= Average Treatment Effect on the Treated, interpreted as percentage points; "Treated" are those that report studying the above civic education topics.

e) ATE= Average Treatment Effect.

f) Coefficients are from matching-weighted probits. Marginal effects are in brackets.

g) Bootstrapped standard errors are in parentheses.
Significance is based on the bias-corrected confidence intervals and the matching-weighted probit analyses.

h) Significant in the matching-weighted probit but not the bias-corrected confidence interval.

i) Significant in the bias-corrected confidence interval but not the matching-weighted probit.

* significant at the α=.05 level.
All calculations used the "total weight" as provided in the survey data, except the matching-weighted probits.

Table 72
Group Discussion Skills (IEA/CivEd)
Matching Methods[a] - Females

	Parents - Females				Parents - Males				Teachers - Females				Teachers - Males			
	Probit Coefficient[c] (Std. Error)	ATT[d]	ATE[e]	Coefficient[f] (Std. Error)[g]	Probit Coefficient (Std. Error)	ATT	ATE	Coefficient (Std. Error)	Probit Coefficient (Std. Error)	ATT	ATE	Coefficient (Std. Error)	Probit Coefficient (Std. Error)	ATT	ATE	Coefficient (Std. Error)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
Civic Education variables:																
Studied Constitution	0.057	0.061	0.059	0.103	-0.142	0.066	0.07	.396*	0.075	0.105	0.111	.501*	-0.034	0.044	0.062	.308*
	(.145)			(.044)	(.158)			(.050)[b]	(.144)			(.054)	(.153)			(.047)[b]
	[.022]			[.040]	[-.055]			[.155]	[.028]			[.186]	[-.013]			[.117]
Studied Congress	-0.006	0.051	0.036	-0.125	.343*	0.19	0.155	.336*	0.173	0.09	0.084	0.168	0.082	0.105	0.101	.329*
	(.146)			(.050)	(.169)			(.061)	(.145)			(.049)	(.165)			(.054)
	[-.002]			[-.049]	[.135]			[.130]	[.066]			[.065]	[.032]			[.130]
Studied Presidency	.244*	0.172	0.144	.435*	0.214	0.216	0.174	.554*	0.095	0.108	0.118	.530*	0.138	0.076	0.107	.450*
	(.106)			(.043)	(.122)			(.047)	(.108)			(.041)	(.120)			(.047)[h]
	[.093]			[.171]	[.084]			[.216]	[.036]			[.193]	[.054]			[.172]
Studied How Laws are Made	0.005	0.02	0.026	-0.071	0.189	0.135	0.141	.428*	-0.149	0.08	0.078	.242*	-0.037	0.058	0.063	.267*
	(.129)			(.044)	(.140)			(.050)	(.131)			(.053)	(.138)			(.050)[h]
	[.002]			[-.027]	[.075]			[.169]	[-.054]			[.092]	[-.014]			--
Studied Political Parties	-0.106	-0.026	-0.008	-0.021	-0.121	0.048	0.055	0.192	0.043	0.145	0.149	.491*	0.043	0.137	0.123	.294*
	(.118)			(.044)	(.130)			(.045)	(.119)			(.047)	(.125)			(.052)
	[-.039]			[-.007]	[-.047]			[.076]	[.016]			[.187]	[.017]			[.117]
Studied State and Local Gov't.	.218*	0.11	0.117	.432*	-0.151	0.146	0.118	.320*	0.212	0.117	0.129	.474*	.294*	0.122	0.135	.425*
	(.108)			(.045)	(.120)			(.053)	(.109)			(.040)	(.116)			(.051)
	[.083]			[.164]	[-.059]			[.126]	[.080]			[.174]	[.116]			[.165]

a) Civic education variable is the treatment effect. Nearest-neighbor matching methods with replacement were employed.
Individual matching analyses were conducted for each of the 6 treatment effects (civics education types).

b) Dependent variable =1 if respondent answered "sometimes" or "often" to "How often do you have discussions of what is happening in U.S. government with people your own age / your parents / your teachers?"

c) Coefficients, robust standard errors (in parentheses) and marginal effects (in brackets) from full probit models in Table 39.

d) ATT= Average Treatment Effect on the Treated, interpreted as percentage points; "Treated" are those that report studying the above civic education topics.

e) ATE= Average Treatment Effect.

f) Coefficients are from matching-weighted probits. Marginal effects are in brackets.

g) Bootstrapped standard errors are in parentheses.
Significance is based on the bias-corrected confidence intervals and the matching-weighted probit analyses.

h) Significant in the matching-weighted probit but not the bias-corrected confidence interval.

i) Significant in the bias-corrected confidence interval but not the matching-weighted probit.

* significant at the α=.05 level.
All calculations used the "total weight" as provided in the survey data, except the matching-weighted probits.

Table 73
Political Interpretation Skills - Political Leaflets (IEA/CivEd)
Matching Methods[a] - Non-College

	Leaflet 1 - College				Leaflet 1 - Non-College				Leaflet 2 - College				Leaflet 2 - Non-College			
	Probit Coefficient[c] (Std. Error)	ATT[d]	ATE[e]	Coefficient[f] (Std. Error)[g]	Probit Coefficient (Std. Error)	ATT	ATE	Coefficient (Std. Error)	Probit Coefficient (Std. Error)	ATT	ATE	Coefficient (Std. Error)	Probit Coefficient (Std. Error)	ATT	ATE	Coefficient (Std. Error)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
Civic Education variables:																
Studied Constitution	0.373	0.048	0.048	0.097	0.261	0.122	0.107	.468*	0.23	0.061	0.061	.388*	.514*	0.118	0.111	.328*
	(.197)			(.028)[i]	(.177)			(.058)[h]	(.193)			(.028)	(.183)			(.054)[h]
	[.055]			[.009]	[.085]			[.155]	[.031]			[.042]	[.158]			[.106]
Studied Congress	-0.417	0.041	0.037	.281*	-0.228	0.079	0.059	0.218	0.097	0.049	0.045	0.218	-0.174	0.094	0.083	.284*
	(.215)			(.028)	(.203)			(.057)	(.201)			(.024)[i]	(.214)			(.058)[h]
	[-.042]			[.032]	[-.070]			[.071]	[.012]			[.022]	[-.048]			[.087]
Studied Presidency	0.237	0.027	0.021	-0.086	.306*	0.148	0.124	.335*	0.072	-0.003	-0.002	-.268*	-0.006	0.077	0.059	0.088
	(.140)			(.025)	(.150)			(.053)	(.144)			(.021)[h]	(.163)			(.057)
	[.031]			[-.014]	[.097]			[.110]	[.009]			[-.033]	[-.001]			[.027]
Studied How Laws are Made	.491*	0.045	0.053	.442*	-0.133	0.023	0.025	-0.033	0.083	0.023	0.028	0.276	-0.177	0.081	0.07	.321*
	(.167)			(.025)[h]	(.167)			(.058)	(.168)			(.051)[i]	(.177)			(.063)[h]
	[.076]			[.045]	[-.041]			[-.010]	[.010]			[.021]	[-.048]			[.094]
Studied Political Parties	-.510*	-0.001	-0.01	-.299*	-0.053	0.055	0.046	0.234	-.321*	-0.012	-0.011	-0.169	0.12	0.031	0.043	0.162
	(.174)			(.027)[h]	(.156)			(.053)	(.158)			(.021)	(.167)			(.055)
	[-.051]			[-.042]	[-.016]			[.073]	[-.034]			[-.019]	[.034]			[.045]
Studied State and Local Gov't.	-0.15	0.031	0.02	0.08	0.193	0.087	0.084	0.058	-0.055	0.008	-0.004	-0.182	0.08	0.069	0.083	0.121
	(.153)			(.027)	(.152)			(.058)	(.145)			(.026)	(.163)			(.061)
	[-.017]			[.010]	[.062]			[.019]	[-.006]			[-.026]	[.023]			[.033]

"College" are those students who expect to complete a four-year college degree.

a) Civic education variable is the treatment effect. Nearest-neighbor matching methods with replacement were employed.
Individual matching analyses were conducted for each of the 6 treatment effects (civics education types).

b) Leaflet 1: Dependent variable =1 if student correctly interpreted which party issued the political leaflet.
Leaflet 2: Dependent variable=1 if student correctly interpreted what leaflet issuers think about taxes.

c) Coefficients, robust standard errors (in parentheses) and marginal effects (in brackets) from full probit models in Table 40.

d) ATT= Average Treatment Effect on the Treated, interpreted as percentage points; "Treated" are those that report studying the above civic education topics.

e) ATE= Average Treatment Effect.

f) Coefficients are from matching-weighted probits. Marginal effects are in brackets.

g) Bootstrapped standard errors are in parentheses.
Significance is based on the bias-corrected confidence intervals and the matching-weighted probit analyses.

h) Significant in the matching-weighted probit but not the bias-corrected confidence interval.

i) Significant in the bias-corrected confidence interval but not the matching-weighted probit.

* significant at the α=.05 level.
All calculations used the "total weight" as provided in the survey data, except the matching-weighted probits.

Table 74
Political Interpretation Skills - Political Leaflets and Cartoons (IEA/CivEd)
Matching Methods[a] - Non-College

	Leaflet 3 - College				Leaflet 3 - Non-College				Cartoon 1 - College				Cartoon 1 - Non-College			
	Probit Coefficient[c] (Std. Error)	ATT[d]	ATE[e]	Coefficient[f] (Std. Error)[g]	Probit Coefficient (Std. Error)	ATT	ATE	Coefficient (Std. Error)	Probit Coefficient (Std. Error)	ATT	ATE	Coefficient (Std. Error)	Probit Coefficient (Std. Error)	ATT	ATE	Coefficient (Std. Error)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
Civic Education variables:																
Studied Constitution	-0.033	0.009	0.007	-0.031	.458*	0.129	0.126	.342*	0.36	0.021	0.028	0.194	.416*	0.152	0.129	0.269
	(.152)			(.034)	(.166)			(.064)	(.209)			(.025)	(.186)			(.050)[i]
	[-.009]			[-.007]	[.176]			[.132]	[.043]			[.012]	[.100]			[.077]
Studied Congress	0.025	0.044	0.033	-0.002	-0.091	0.076	0.087	.292*	-0.272	0.018	0.023	0.071	-0.413	0.021	0.05	0.141
	(.154)			(.038)	(.188)			(.070)[h]	(.227)			(.022)	(.218)			(.037)
	[.007]			[-.001]	[-.034]			[.109]	[-.023]			[.004]	[-.082]			[.024]
Studied Presidency	0.103	0.042	0.035	0.147	-0.09	0.136	0.078	0.21	0.043	0.045	0.035	0.047	.446*	0.102	0.1	.335*
	(.108)			(.030)	(.144)			(.058)[i]	(.157)			(.022)[i]	(.170)			(.049)
	[.028]			[.041]	[-.033]			[.083]	[.004]			[.006]	[.100]			[.081]
Studied How Laws are Made	-0.029	-0.001	-0.005	-0.067	-0.185	0.042	0.033	0.076	0.25	0.034	0.037	0.185	0.098	0.145	0.131	.410*
	(.133)			(.039)	(.160)			(.063)	(.179)			(.025)	(.184)			(.057)
	[-.007]			[-.018]	[-.068]			[.029]	[.028]			[.012]	[.021]			[.099]
Studied Political Parties	0.146	0.019	0.011	0.01	0.275	0.122	0.114	.373*	-0.192	0.023	0.017	-0.173	0.102	0.122	0.117	.573*
	(.121)			(.032)	(.149)			(.061)[h]	(.170)			(.026)[i]	(.172)			(.051)
	[.041]			[.002]	[.104]			[.142]	[-.017]			[-.016]	[.022]			[.124]
Studied State and Local Gov't.	-.266*	-0.036	-0.042	-.253*	0.045	0.089	0.093	0.036	0.061	0.045	0.044	.295*	0.189	0.082	0.109	.466*
	(.114)			(.031)[h]	(.143)			(.061)	(.155)			(.022)	(.169)			(.054)
	[-.068]			[-.069]	[.017]			[.013]	[.006]			[.026]	[.042]			[.090]

"College" are those students who expect to complete a four-year college degree.

a) Civic education variable is the treatment effect. Nearest-neighbor matching methods with replacement were employed.
Individual matching analyses were conducted for each of the 6 treatment effects (civics education types).

b) Leaflet 3: Dependent variable=1 if student correctly interpreted what policy the issuers of the leaflet favor.
Cartoon 1: Dependent variable=1 if student correctly interpreted a political cartoon about a political leader.

c) Coefficients, robust standard errors (in parentheses) and marginal effects (in brackets) from full probit models in Tables 40 and 41.

d) ATT= Average Treatment Effect on the Treated, interpreted as percentage points; "Treated" are those that report studying the above civic education topics.

e) ATE= Average Treatment Effect.

f) Coefficients are from matching-weighted probits. Marginal effects are in brackets.

g) Bootstrapped standard errors are in parentheses.
Significance is based on the bias-corrected confidence intervals and the matching-weighted probit analyses.

h) Significant in the matching-weighted probit but not the bias-corrected confidence interval.

i) Significant in the bias-corrected confidence interval but not the matching-weighted probit.

* significant at the α=.05 level.
All calculations used the "total weight" as provided in the survey data, except the matching-weighted probits.

Table 75
Political Interpretation Skills - Political Cartoons and Monitoring the News (IEA/CivEd)
Matching Methods[a] - Non-College

	Cartoon 2 - College				Cartoon 2 - Non-College				Read Newspaper 1 - College				Read Newspaper 1 - Non-College			
	Probit Coefficient[c] (Std. Error)	ATT[d]	ATE[e]	Coefficient[f] (Std. Error)[g]	Probit Coefficient (Std. Error)	ATT	ATE	Coefficient (Std. Error)	Probit Coefficient (Std. Error)	ATT	ATE	Coefficient (Std. Error)	Probit Coefficient (Std. Error)	ATT	ATE	Coefficient (Std. Error)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
Civic Education variables:																
Studied Constitution	0.268	0.129	0.12	.430*	-0.074	0.109	0.08	.391*	0.003	0.085	0.081	.207*	-0.071	0.03	0.032	0.222
	(.156)			(.041)	(.170)			(.059)	(.138)			(.049)[h]	(.164)			(.057)
	[.068]			[.110]	[-.026]			[.146]	[.001]			[.078]	[-.027]			[.087]
Studied Congress	-0.07	0.038	0.04	0.143	0.276	0.085	0.091	.364*	0.013	0.199	0.163	.239*	-0.007	0.071	0.06	0.255
	(.166)			(.035)	(.189)			(.069)[h]	(.139)			(.043)	(.183)			(.069)
	[-.015]			[.031]	[.100]			[.130]	[.004]			[.095]	[-.003]			[.101]
Studied Presidency	0.148	0.046	0.047	0.165	0.156	0.082	0.041	-0.049	0.122	0.081	0.079	.201*	-0.017	0.049	0.06	.252*
	(.115)			(.030)[i]	(.147)			(.054)	(.100)			(.035)	(.143)			(.057)[h]
	[.035]			[.038]	[.055]			[-.018]	[.045]			[.075]	[-.006]			[.098]
Studied How Laws are Made	0.064	0.004	0.019	0.233	-0.192	0.05	0.05	0.089	-0.045	0.081	0.074	0.04	0.197	0.071	0.053	-0.156
	(.138)			(.042)	(.162)			(.062)	(.120)			(.046)	(.157)			(.064)
	[.015]			[.039]	[-.067]			[.031]	[-.016]			[.015]	[.077]			[-.062]
Studied Political Parties	-0.185	-0.022	-0.018	-0.093	0.048	0.057	0.09	.399*	0.067	0.11	0.105	.197*	0.027	0.039	0.029	-0.034
	(.130)			(.029)	(.152)			(.065)[h]	(.107)			(.040)	(.147)			(.063)
	[-.041]			[-.019]	[.017]			[.131]	[.024]			[.075]	[.010]			[-.013]
Studied State and Local Gov't.	-0.136	0.019	0.019	.201*	-0.241	-0.022	-0.047	-.272*	0.154	0.105	0.105	.284*	0.068	0.087	0.086	0.25
	(.117)			(.031)[h]	(.144)			(.061)[h]	(.097)			(.039)	(.140)			(.062)
	[-.030]			[.043]	[-.084]			[-.099]	[.056]			[.106]	[.026]			[.098]

"College" are those students who expect to complete a four-year college degree.

a) Civic education variable is the treatment effect. Nearest-neighbor matching methods with replacement were employed.
Individual matching analyses were conducted for each of the 6 treatment effects (civics education types).

b) Cartoon 2: Dependent variable =1 if student correctly interpreted a political cartoon about democracy.
Read Newspaper 1: Dependent variable =1 if respondent answered "sometimes" or "often" to "How often do you read articles in the newspaper about what is happening in this country?"

c) Coefficients, robust standard errors (in parentheses) and marginal effects (in brackets) from full probit models in Tables 41 and 42.

d) ATT= Average Treatment Effect on the Treated, interpreted as percentage points; "Treated" are those that report studying the above civic education topics.

e) ATE= Average Treatment Effect.

f) Coefficients are from matching-weighted probits. Marginal effects are in brackets.

g) Bootstrapped standard errors are in parentheses.
Significance is based on the bias-corrected confidence intervals and the matching-weighted probit analyses.

h) Significant in the matching-weighted probit but not the bias-corrected confidence interval.

i) Significant in the bias-corrected confidence interval but not the matching-weighted probit.

* significant at the α=.05 level.
All calculations used the "total weight" as provided in the survey data, except the matching-weighted probits.

Table 76
Monitoring the News (IEA/CivEd)
Matching Methods[a] - Non-College

	Read Newspaper 2 - College				Read Newspaper 2 - Non-College				Watch TV - College				Watch TV - Non-College			
	Probit Coefficient[c] (Std. Error)	ATT[d]	ATE[e]	Coefficient[f] (Std. Error)[g]	Probit Coefficient (Std. Error)	ATT	ATE	Coefficient (Std. Error)	Probit Coefficient (Std. Error)	ATT	ATE	Coefficient (Std. Error)	Probit Coefficient (Std. Error)	ATT	ATE	Coefficient (Std. Error)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
Civic Education variables:																
Studied Constitution	0.121	0.123	0.114	.199*	0.099	0.076	0.056	0.119	.445*	0.066	0.083	.348*	.368*	0.023	0.044	0.179
	(.134)			(.046)	(.165)			(.069)	(.151)			(.041)[h]	(.182)			(.053)
	[.048]			[.079]	[.039]			[.046]	[.123]			[.079]	[.117]			[.042]
Studied Congress	0.053	0.169	0.128	0.012	-0.221	0.011	0.008	0.045	-0.087	0.083	0.087	.624*	-.521*	-0.009	0.017	0.058
	(.136)			(.042)[i]	(.185)			(.070)	(.160)			(.037)	(.207)			(.055)
	[.020]			[.004]	[-.088]			[.018]	[-.020]			[.131]	[-.145]			[.014]
Studied Presidency	0.024	0.057	0.052	0.104	-0.077	0.044	0.035	0.127	-0.086	0.024	0.043	.244*	0.177	0.063	0.048	0.037
	(.098)			(.039)	(.140)			(.062)	(.116)			(.030)[h]	(.157)			(.054)
	[.009]			[.041]	[-.030]			[.050]	[-.020]			[.053]	[.053]			[.011]
Studied How Laws are Made	-0.159	0.008	0.007	-0.076	0.073	-0.038	-0.039	-0.202	-0.095	0.024	0.028	0.018	0.165	0.097	0.055	-0.005
	(.118)			(.047)	(.159)			(.059)	(.138)			(.035)	(.169)			(.054)[i]
	[-.062]			[-.030]	[.029]			[-.080]	[-.022]			[.004]	[.050]			[-.001]
Studied Political Parties	0.142	0.056	0.054	0.021	.353*	0.057	0.044	0.188	0.17	0.123	0.12	.445*	-0.096	-0.011	-0.023	-.341*
	(.105)			(.041)	(.147)			(.060)	(.121)			(.035)	(.163)			(.049)[h]
	[.056]			[.008]	[.139]			[.074]	[.043]			[.122]	[-.028]			[-.102]
Studied State and Local Gov't.	0.146	0.07	0.073	.196*	-0.068	-0.029	-0.012	-0.174	0.169	0.075	0.087	.352*	0.05	-0.009	0.011	-0.042
	(.095)			(.039)[h]	(.139)			(.070)	(.111)			(.031)	(.153)			(.053)
	[.058]			[.077]	[-.027]			[-.069]	[.042]			[.090]	[.015]			[-.011]

"College" are those students who expect to complete a four-year college degree.

a) Civic education variable is the treatment effect. Nearest-neighbor matching methods with replacement were employed. Individual matching analyses were conducted for each of the 6 treatment effects (civics education types).

b) Cartoon 2: Dependent variable =1 if student correctly interpreted a political cartoon about democracy.
Read Newspaper 1: Dependent variable =1 if respondent answered "sometimes" or "often" to "How often do you read articles in the newspaper about what is happening in this country?"

c) Coefficients, robust standard errors (in parentheses) and marginal effects (in brackets) from full probit models in Table 42.

d) ATT= Average Treatment Effect on the Treated, interpreted as percentage points; "Treated" are those that report studying the above civic education topics.

e) ATE= Average Treatment Effect.

f) Coefficients are from matching-weighted probits. Marginal effects are in brackets.

g) Bootstrapped standard errors are in parentheses. Significance is based on the bias-corrected confidence intervals and the matching-weighted probit analyses.

h) Significant in the matching-weighted probit but not the bias-corrected confidence interval.

i) Significant in the bias-corrected confidence interval but not the matching-weighted probit.

* significant at the α=.05 level.
All calculations used the "total weight" as provided in the survey data, except the matching-weighted probits.

Table 77
Monitoring the News and Group Discussion Skills (IEA/CivEd)
Matching Methods[a] - Non-College

	Listen to Radio - College				Listen to Radio - Non-College				People Own Age - College				People Own Age - Non-College			
	Probit Coefficient[c] (Std. Error)	ATT[d]	ATE[e]	Coefficient[f] (Std. Error)[g]	Probit Coefficient (Std. Error)	ATT	ATE	Coefficient (Std. Error)	Probit Coefficient (Std. Error)	ATT	ATE	Coefficient (Std. Error)	Probit Coefficient (Std. Error)	ATT	ATE	Coefficient (Std. Error)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
Civic Education variables:																
Studied Constitution	-0.008	0.135	0.122	.279*	-0.198	0.065	0.055	0.047	-0.032	0.073	0.072	.440*	0.12	0.013	0.028	0.281
	(.134)			(.039)	(.168)			(.065)	(.146)			(.036)	(.175)			(.060)
	[-.003]			[.104]	[-.075]			[.016]	[-.011]			[.138]	[.037]			[.098]
Studied Congress	0.018	0.14	0.125	.350*	-0.112	0.121	0.099	0.196	-0.163	0.124	0.11	.481*	-0.034	0.058	0.034	0.074
	(.137)			(.042)	(.190)			(.072)[i]	(.148)			(.035)	(.200)			(.048)
	[.007]			[.132]	[-.042]			[.068]	[-.056]			[.135]	[-.011]			[.017]
Studied Presidency	0.127	0.084	0.078	.171*	.340*	0.151	0.112	0.23	.259*	0.075	0.078	.235*	0.162	0.08	0.058	.318*
	(.097)			(.041)	(.143)			(.054)[i]	(.107)			(.034)[h]	(.152)			(.050)[h]
	[.050]			[.066]	[.125]			[.078]	[.083]			[.076]	[.051]			[.092]
Studied How Laws are Made	0.041	0.073	0.065	0.03	0.253	0.035	0.021	-0.26	0.053	0.091	0.088	.197*	0.021	0.059	0.042	0.022
	(.118)			(.050)	(.164)			(.067)	(.129)			(.043)[h]	(.169)			(.058)
	[.016]			[.011]	[.092]			[-.090]	[.017]			[.057]	[.006]			[.004]
Studied Political Parties	.280*	0.125	0.125	.352*	0.052	0.029	0.042	0.105	.393*	0.135	0.12	.228*	-0.16	-0.023	-0.025	-.288*
	(.106)			(.039)	(.149)			(.061)	(.116)			(.038)	(.157)			(.053)[h]
	[.109]			[.136]	[.019]			[.039]	[.122]			[.065]	[-.052]			[-.076]
Studied State and Local Gov't.	-0.105	0.074	0.077	.294*	0.166	0.16	0.137	.270*	-0.128	0.025	0.025	0.083	0.094	-0.02	0.013	0.089
	(.096)			(.039)[h]	(.142)			(.059)	(.102)			(.038)	(.149)			(.061)
	[-.041]			[.116]	[.061]			[.094]	[-.043]			[.027]	[.030]			[.030]

"College" are those students who expect to complete a four-year college degree.

a) Civic education variable is the treatment effect. Nearest-neighbor matching methods with replacement were employed. Individual matching analyses were conducted for each of the 6 treatment effects (civics education types).

b) Listen: Dependent variable =1 if respondent answered "sometimes" or "often" to "How often do you listen to news broadcasts on the radio?"
Dependent variable =1 if respondent answered "sometimes" or "often" to "How often do you have discussions of what is happening in U.S. government with people your own age / your parents / your teachers?"

c) Coefficients, robust standard errors (in parentheses) and marginal effects (in brackets) from full probit models in Tables 42 and 43.

d) ATT= Average Treatment Effect on the Treated, interpreted as percentage points; "Treated" are those that report studying the above civic education topics.

e) ATE= Average Treatment Effect.

f) Coefficients are from matching-weighted probits. Marginal effects are in brackets.

g) Bootstrapped standard errors are in parentheses.
Significance is based on the bias-corrected confidence intervals and the matching-weighted probit analyses.

h) Significant in the matching-weighted probit but not the bias-corrected confidence interval.

i) Significant in the bias-corrected confidence interval but not the matching-weighted probit.

* significant at the α=.05 level.
All calculations used the "total weight" as provided in the survey data, except the matching-weighted probits.

Table 78
Group Discussion Skills (IEA/CivEd)
Matching Methods[a] - Non-College

	Parents - College				Parents - Non-College				Teachers - College				Teachers - Non-College			
	Probit Coefficient[c] (Std. Error)	ATT[d]	ATE[e]	Coefficient[f] (Std. Error)[g]	Probit Coefficient (Std. Error)	ATT	ATE	Coefficient (Std. Error)	Probit Coefficient (Std. Error)	ATT	ATE	Coefficient (Std. Error)	Probit Coefficient (Std. Error)	ATT	ATE	Coefficient (Std. Error)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
Civic Education variables:																
Studied Constitution	0.067	0.076	0.084	.384*	-0.168	0.013	0.018	.273*	-0.01	0.076	0.093	.438*	0.026	0.115	0.105	.347*
	(.137)			(.047)[h]	(.165)			(.058)[h]	(.135)			(.046)[h]	(.166)			(.062)[h]
	[.025]			[.143]	[-.067]			[.108]	[-.004]			[.159]	[.010]			[.137]
Studied Congress	0.205	0.212	0.199	.569*	-0.074	0.042	0.075	.507*	.303*	0.21	0.19	.439*	-0.214	0.042	0.037	0.041
	(.138)			(.048)	(.185)			(.070)[h]	(.136)			(.043)	(.187)			(.052)
	[.078]			[.223]	[-.029]			[.200]	[.118]			[.173]	[-.082]			[.016]
Studied Presidency	.335*	0.124	0.123	.264*	0.105	0.052	0.056	0.035	0.157	0.065	0.082	.290*	0.053	0.024	0.021	0.043
	(.098)			(.040)	(.139)			(.062)	(.097)			(.039)	(.145)			(.060)
	[.128]			[.102]	[.042]			[.014]	[.060]			[.109]	[.020]			[.016]
Studied How Laws are Made	0.028	0.099	0.107	.434*	0.196	0.124	0.102	0.159	-0.126	0.129	0.127	.484*	0.016	0.057	0.074	0.215
	(.119)			(.042)	(.157)			(.059)[i]	(.118)			(.044)	(.159)			(.063)
	[.010]			[.162]	[.077]			[.060]	[-.047]			[.184]	[.006]			[.084]
Studied Political Parties	-0.201	0.045	0.06	.204*	0.034	0.013	0.018	0.102	-0.016	0.123	0.123	.313*	0.176	0.071	0.08	.254*
	(.108)			(.037)[h]	(.146)			(.065)	(.106)			(.039)	(.149)			(.057)[h]
	[-.074]			[.076]	[.013]			[.040]	[-.006]			[.122]	[.068]			[.099]
Studied State and Local Gov't.	0.081	0.062	0.069	.215*	0.052	0.045	0.055	0.043	.254*	0.143	0.153	.507*	0.229	0.186	0.155	.271*
	(.097)			(.038)[h]	(.137)			(.067)	(.095)			(.037)	(.140)			(.055)
	[.030]			[.081]	[.020]			[.017]	[.098]			[.192]	[.089]			[.107]

"College" are those students who expect to complete a four-year college degree.

a) Civic education variable is the treatment effect. Nearest-neighbor matching methods with replacement were employed. Individual matching analyses were conducted for each of the 6 treatment effects (civics education types).

b) Dependent variable =1 if respondent answered "sometimes" or "often" to "How often do you have discussions of what is happening in U.S. government with people your own age / your parents / your teachers?"

c) Coefficients, robust standard errors (in parentheses) and marginal effects (in brackets) from full probit models in Table 43.

d) ATT= Average Treatment Effect on the Treated, interpreted as percentage points; "Treated" are those that report studying the above civic education topics.

e) ATE= Average Treatment Effect.

f) Coefficients are from matching-weighted probits. Marginal effects are in brackets.

g) Bootstrapped standard errors are in parentheses. Significance is based on the bias-corrected confidence intervals and the matching-weighted probit analyses.

h) Significant in the matching-weighted probit but not the bias-corrected confidence interval.

i) Significant in the bias-corrected confidence interval but not the matching-weighted probit.

* significant at the α=.05 level.
All calculations used the "total weight" as provided in the survey data, except the matching-weighted probits.

Table 79
Monitoring the News (NGI)
Matching Methods[a]

	Probit Coefficient[b] (Std. Error)	ATT[c]	ATE[d]	Coefficient[e] (Std. Error)[f]
	(1)	(2)	(3)	(4)
Newspapers - Females[g]				
Civic Education	-0.162	-0.076	-0.096	-0.336
	(.189)			(.085)
	[-.050]			[-.071]
Newspapers - Males				
Civic Education	0.056	0.038	0.028	-0.001
	(.171)			(.079)
	[.019]			[-.001]
Newsmagazines - Females				
Civic Education	0.052	-0.015	-0.026	-1.59
	(.308)			(.035)
	[.003]			[-.086]
Newsmagazines - Males				
Civic Education	-0.184	0.028	0.01	1.06
	(.305)			(.030)
	[-.014]			[0]
Watch TV - Females				
Civic Education	0.154	0.13	0.064	.698*
	(.184)			(.079)
	[.054]			[.204]
Watch TV - Males				
Civic Education	-0.032	0.039	0.043	0.102
	(.168)			(.078)
	[-.012]			[.038]
Radio - Females				
Civic Education	0.053	0.016	0.025	0.19
	(.176)			(.089)
	[.019]			[.070]
Radio - Males				
Civic Education	-0.062	-0.057	-0.01	0.377
	(.175)			(.080)
	[-.020]			[.132]

a) Civic education variable is the treatment effect. Nearest-neighbor matching methods with replacement were employed.

b) Coefficients from full probit models in Table 44.

c) ATT= Average Treatment Effect on the Treated, interpreted as percentage points; Treated are those that report studying civic education.

d) ATE= Average Treatment Effect.

e) Coefficients are from matching-weighted probits. Marginal effects are in brackets.

f) Bootstrapped standard errors are in parentheses. Significance is based on the bias-corrected confidence intervals and the matching-weighted probit analyses.

g) Newspapers: Read a newspaper 5, 6 or 7 days out of the past week.
Newsmagazines: Read a newspaper 5, 6 or 7 days out of the past week.
Watch: Watch the national news on television 5, 6 or 7 days out of the past week.
Listen: Listen to the news on the radio 5, 6 or 7 days out of the past week.

* significant at the α=.05 level.
All calculations used the "step weight" as provided in the survey data, except for the matching-weighted probits.

Table 80
Group Discussion and Monitoring the News (NGI)
Matching Methods[a]

	Probit Coefficient[b] (Std. Error)	ATT[c]	ATE[d]	Coefficient[e] (Std. Error)[f]
	(1)	(2)	(3)	(4)
Internet News - Females[g]				
Civic Education	0.239	0.084	0.057	.690*
	(.229)			(.053)
	[.040]			[.082]
Internet News - Males				
Civic Education	-0.26	-0.018	-0.013	-0.229
	(.201)			(.069)
	[-.059]			[-.041]
Work Informally - Females[h]				
Civic Education	0.201	-0.04	-0.075	-0.268
	(.179)			(.097)
	[.079]			[-.104]
Work Informally - Males				
Civic Education	0.293	0.18	0.145	.584*
	(.177)			(.088)
	[.114]			[.205]
Group Discussion - Females				
Civic Education	0.182	0.066	0.055	0.467
	(.234)			(.060)
	[.027]			[.048]
Group Discussion - Males				
Civic Education	0.017	0.044	0.015	-0.046
	(.220)			(.053)
	[.003]			[-.006]

a) Civic education variable is the treatment effect. Nearest-neighbor matching methods with replacement were employed.

b) Coefficients from full probit models in Tables 44 and 45.

c) ATT= Average Treatment Effect on the Treated, interpreted as percentage points; Treated are those that report studying civic education.

d) ATE= Average Treatment Effect.

e) Coefficients are from matching-weighted probits. Marginal effects are in brackets.

f) Bootstrapped standard errors are in parentheses. Significance is based on the bias-corrected confidence intervals and the matching-weighted probit analyses.

g) Internet: Read news on the internet 5, 6 or 7 days out of the past week.

h) Worked together informally, ever, with someone or some group to solve a community problem. Sometimes or very often talks about current events or news with family or friends.

* significant at the α=.05 level.
All calculations used the "step weight" as provided in the survey data, except for the matching-weighted probits.

Table 81
Communication Skills and Monitoring the News (NHES)
Matching Methods[a] - African-American

	Probit Coefficient[b] (Std. Error)	ATT[c]	ATE[d]	Coefficient[e] (Std. Error)[f]
	(1)	(2)	(3)	(4)
Read[g] - African-Americans				
Civic Education	0.02	-0.046	-0.028	-0.054
	(.173)			(.073)
	[.008]			[-.021]
Read - All others				
Civic Education	.290*	0.112	0.115	.352*
	(.069)			(.044)[i]
	[.115]			[.139]
Watch / Listen - African-Americans				
Civic Education	-0.021	-0.052	-0.035	-.460*
	(.188)			(.072)[i]
	[-.006]			[-.110]
Watch / Listen - All others				
Civic Education	.288*	0.063	0.071	.318*
	(.073)			(.038)[i]
	[.091]			[.096]
Letter[h] - African-Americans				
Civic Education	0.351	-0.024	-0.013	-0.026
	(.236)			(.042)
	[.057]			[-.002]
Letter - All others				
Civic Education	.209*	0.026	0.027	.249*
	(.098)			(.232)[i]
	[.027]			[.030]
Statement - African-Americans				
Civic Education	0.116	-0.012	0.007	0.024
	(.199)			(.060)
	[.031]			[.005]
Statement - All others				
Civic Education	0.025	-0.001	0.007	0.079
	(.078)			(.029)
	[.006]			[.019]

a) Civic education variable is the treatment effect. Nearest-neighbor matching methods with replacement were employed.

b) Coefficients from full probit models in Table 46.

c) ATT= Average Treatment Effect on the Treated, interpreted as percentage points; Treated are those that report studying civic education.

d) ATE= Average Treatment Effect.

e) Coefficients are from matching-weighted probits. Marginal effects are in brackets.

f) Bootstrapped standard errors are in parentheses. Significance is based on the bias-corrected confidence intervals and the matching-weighted probit analyses.

g) Student reads a newspaper or newsmagazine almost daily or at least once a week. Student watches television news or listens to radio news almost daily or at least once a week.

h) Student feels they could write a letter to someone in government that clearly gives their opinion. Student feels they could make a comment or statement at a public meeting.

i) Significant in the matching-weighted probit but not the bias-corrected confidence interval.

* significant at the α=.05 level.
All calculations used the "FYWT" weight as provided in the survey data, except for the matching-weighted probits.

Table 82
Communication Skills and Monitoring the News (NHES)
Matching Methods[a] - Latinos

	Probit Coefficient[b] (Std. Error)	ATT[c]	ATE[d]	Coefficient[e] (Std. Error)[f]
	(1)	(2)	(3)	(4)
Read[g] - Latinos				
Civic Education	.402*	0.211	0.208	.709*
	(.160)			(.077)
	[.159]			[.274]
Read - All others				
Civic Education	.223*	0.068	0.071	0.194
	(.070)			(.043)
	[.088]			[.077]
Watch / Listen - Latinos				
Civic Education	0.151	0.045	0.046	0.158
	(.171)			(.069)
	[.043]			[.045]
Watch / Listen - All others				
Civic Education	.247*	0.056	0.051	0.112
	(.074)			(.033)
	[.078]			[.036]
Letter[h] - Latinos				
Civic Education	0.267	0.047	0.047	0.225
	(.216)			(.054)
	[.040]			[.032]
Letter - All others				
Civic Education	.250*	0.02	0.019	0.125
	(.099)			(.023)
	[.033]			[.013]
Statement - Latinos				
Civic Education	.432*	0.036	0.056	0.127
	(.181)			(.063)
	[.117]			[.027]
Statement - All others				
Civic Education	-0.044	-0.015	-0.008	0.002
	(.080)			(.030)
	[-.011]			[.001]

a) Civic education variable is the treatment effect. Nearest-neighbor matching methods with replacement were employed.

b) Coefficients from full probit models in Table 47.

c) ATT= Average Treatment Effect on the Treated, interpreted as percentage points; Treated are those that report studying civic education.

d) ATE= Average Treatment Effect.

e) Coefficients are from matching-weighted probits. Marginal effects are in brackets.

f) Bootstrapped standard errors are in parentheses. Significance is based on the bias-corrected confidence intervals and the matching-weighted probit analyses.

g) Student reads a newspaper or newsmagazine almost daily or at least once a week. Student watches television news or listens to radio news almost daily or at least once a week.

h) Student feels they could write a letter to someone in government that clearly gives their opinion. Student feels they could make a comment or statement at a public meeting.

i) Significant in the matching-weighted probit but not the bias-corrected confidence interval.

* significant at the α=.05 level.
All calculations used the "FYWT" weight as provided in the survey data, except for the matching-weighted probits.

Table 83
Communication Skills and Monitoring the News (NHES)
Matching Methods[a] - Females

	Probit Coefficient[b] (Std. Error)	ATT[c]	ATE[d]	Coefficient[e] (Std. Error)[f]
	(1)	(2)	(3)	(4)
Read[g] - Females				
Civic Education	0.12	0.047	0.054	.175*
	(.089)			(.057)[i]
	[.048]			[.070]
Read - Males				
Civic Education	.406*	0.115	0.133	.360*
	(.094)			(.055)[i]
	[.160]			[.142]
Watch / Listen - Females				
Civic Education	0.174	0.052	0.057	.263*
	(.093)			(.046)[i]
	[.057]			[.082]
Watch / Listen - Males				
Civic Education	.330*	0.087	0.079	.357*
	(.100)			(.043)
	[.099]			[.104]
Letter[h] - Females				
Civic Education	0.188	0.015	0.015	0.114
	(.134)			(.026)
	[.021]			[.010]
Letter - Males				
Civic Education	.274*	0.048	0.051	.613*
	(.123)			(.033)[i]
	[.042]			[.062]
Statement - Females				
Civic Education	0.114	0.021	0.027	0.06
	(.102)			(.039)
	[.029]			[.014]
Statement - Males				
Civic Education	-0.074	-0.01	-0.001	0.056
	(.106)			(.035)
	[-.019]			[.012]

a) Civic education variable is the treatment effect. Nearest-neighbor matching methods with replacement were employed.

b) Coefficients from full probit models in Table 48.

c) ATT= Average Treatment Effect on the Treated, interpreted as percentage points; Treated are those that report studying civic education.

d) ATE= Average Treatment Effect.

e) Coefficients are from matching-weighted probits. Marginal effects are in brackets.

f) Bootstrapped standard errors are in parentheses. Significance is based on the bias-corrected confidence intervals and the matching-weighted probit analyses.

g) Student reads a newspaper or newsmagazine almost daily or at least once a week. Student watches television news or listens to radio news almost daily or at least once a week.

h) Student feels they could write a letter to someone in government that clearly gives their opinion. Student feels they could make a comment or statement at a public meeting.

i) Significant in the matching-weighted probit but not the bias-corrected confidence interval.

* significant at the α=.05 level.
All calculations used the "FYWT" weight as provided in the survey data, except for the matching-weighted probits.

Table 84
Communication Skills and Monitoring the News (NHES)
Matching Methods[a] - Low-Income

	Probit Coefficient[b] (Std. Error)	ATT[c]	ATE[d]	Coefficient[e] (Std. Error)[f]
	(1)	(2)	(3)	(4)
Read[g] - Low-income				
Civic Education	0.065	0.004	0.029	-0.001
	(.135)			(.067)
	[.026]			[-.001]
Read - All others				
Civic Education	.313*	0.109	0.111	.337*
	(.073)			(.046)[i]
	[.124]			[.133]
Watch / Listen - Low-income				
Civic Education	-0.001	-0.004	0.013	0.004
	(.145)			(.058)
	[-.001]			[.001]
Watch / Listen - All others				
Civic Education	.326*	0.056	0.058	.200*
	(.077)			(.036)[i]
	[.103]			[.062]
Letter[h] - Low-income				
Civic Education	.454*	0.021	0.034	0.306
	(.182)			(.041)
	[.077]			[.027]
Letter - All others				
Civic Education	0.159	0.013	0.012	0.157
	(.106)			(.021)
	[.019]			[.015]
Statement - Low-income				
Civic Education	0.116	0.083	0.096	.367*
	(.149)			(.062)[i]
	[.032]			[.098]
Statement - All others				
Civic Education	-0.06	-0.026	-0.018	-0.072
	(.084)			(.029)
	[-.015]			[-.016]

Respondents with household income $25,000 per year or less are low income.

a) Civic education variable is the treatment effect. Nearest-neighbor matching methods with replacement were employed.

b) Coefficients from full probit models in Table 49.

c) ATT= Average Treatment Effect on the Treated, interpreted as percentage points; Treated are those that report studying civic education.

d) ATE= Average Treatment Effect.

e) Coefficients are from matching-weighted probits. Marginal effects are in brackets.

f) Bootstrapped standard errors are in parentheses. Significance is based on the bias-corrected confidence intervals and the matching-weighted probit analyses.

g) Student reads a newspaper or newsmagazine almost daily or at least once a week. Student watches television news or listens to radio news almost daily or at least once a week.

h) Student feels they could write a letter to someone in government that clearly gives their opinion. Student feels they could make a comment or statement at a public meeting.

i) Significant in the matching-weighted probit but not the bias-corrected confidence interval.

* significant at the α=.05 level.
All calculations used the "FYWT" weight as provided in the survey data, except for the matching-weighted probits.

Table 85
Communication Skills and Monitoring the News (NHES)
Matching Methods[a] - Non-College

	Probit Coefficient[b] (Std. Error)	ATT[c]	ATE[d]	Coefficient[e] (Std. Error)[f]
	(1)	(2)	(3)	(4)
Read[g] - College				
Civic Education	.235*	0.138	0.13	.363*
	(.068)			(.045)[i]
	[.093]			[.144]
Read - Non-College				
Civic Education	0.249	0.099	0.118	.818*
	(.187)			(.092)[i]
	[.088]			[.300]
Watch / Listen - College				
Civic Education	.237*	0.057	0.061	.234*
	(.073)			(.035)
	[.073]			[.069]
Watch / Listen - Non-College				
Civic Education	0.224	0.088	0.11	.724*
	(.186)			(.095)[i]
	[.078]			[.223]
Letter[h] - College				
Civic Education	.212*	0.016	0.02	.229*
	(.097)			(.020)[i]
	[.028]			[.024]
Letter - Non-College				
Civic Education	0.448	0.11	0.066	-0.457
	(.244)			(.074)
	[.062]			[-.047]
Statement - College				
Civic Education	0.043	-0.008	0.003	0.009
	(.078)			(.027)
	[.011]			[.002]
Statement - Non-College				
Civic Education	-0.183	-0.172	-0.153	-1.03*
	(.194)			(.062)
	[-.056]			[-.191]

"College" are those students who think they will graduate from a four-year college.

a) Civic education variable is the treatment effect. Nearest-neighbor matching methods with replacement were employed.

b) Coefficients from full probit models in Table 50.

c) ATT= Average Treatment Effect on the Treated, interpreted as percentage points; Treated are those that report studying civic education.

d) ATE= Average Treatment Effect.

e) Coefficients are from matching-weighted probits. Marginal effects are in brackets.

f) Bootstrapped standard errors are in parentheses. Significance is based on the bias-corrected confidence intervals and the matching-weighted probit analyses.

g) Student reads a newspaper or newsmagazine almost daily or at least once a week. Student watches television news or listens to radio news almost daily or at least once a week.

h) Student feels they could write a letter to someone in government that clearly gives their opinion. Student feels they could make a comment or statement at a public meeting.

i) Significant in the matching-weighted probit but not the bias-corrected confidence interval.

* significant at the α=.05 level.
All calculations used the "FYWT" weight as provided in the survey data, except for the matching-weighted probits.

Table 86
Monitoring the News (ACPS)
Matching Methods[a] - Females

	Probit Coefficient[b] (Std. Error)	ATT[c]	ATE[d]	Coefficient[e] (Std. Error)[f]
	(1)	(2)	(3)	(4)
Television News[g] - Females				
Civic Education	0.291	0.007	0.007	0.12
	(.231)			(.076)
	[.078]			[.015]
Television News - Males				
Civic Education	-0.029	-0.055	-0.031	2.32*
	(.240)			(.067)[h]
	[-.007]			[.120]
Public Affairs - Females				
Civic Education	0.22	0.062	0.056	.692*
	(.225)			(.091)[h]
	[.069]			[.230]
Public Affairs - Males				
Civic Education	-0.064	-0.015	-0.027	-0.099
	(.201)			(.111)
	[-.023]			[-.028]
Newspaper - Females				
Civic Education	-0.042	0.066	0.052	-0.237
	(.259)			(.071)
	[-.008]			[-.065]
Newspaper - Males				
Civic Education	0.169	0.075	0.093	2.46
	(.262)			(.080)
	[.034]			[.190]

a) Civic education variable is the treatment effect. Nearest-neighbor matching methods with replacement were employed.

b) Coefficients from full probit models in Table 51.

c) ATT= Average Treatment Effect on the Treated, interpreted as percentage points; Treated are those that report studying civic education.

d) ATE= Average Treatment Effect.

e) Coefficients are from matching-weighted probits. Marginal effects are in brackets.

f) Bootstrapped standard errors are in parentheses. Significance is based on the bias-corrected confidence intervals and the matching-weighted probit analyses.

g) Respondent watches television news once a week or more. Respondent watches public affairs programming on television once a week or more. Respondent reads the newspaper once a week or more.

h) Significant in the matching-weighted probit but not the bias-corrected confidence interval.

* significant at the α=.05 level.
All calculations used the "wt2517" weight as provided in the survey data, except for the matching-weighted probits.

Table 87
Group Discussion and Communication Skills (ACPS)
Matching Methods[a] - Females

	Probit Coefficient[b] (Std. Error)	ATT[c]	ATE[d]	Coefficient[e] (Std. Error)[f]
	(1)	(2)	(3)	(4)
Local Discussion[g] - Females				
Civic Education	0.007	0.117	0.106	0.294
	(.215)			(.078)
	[.002]			[.091]
Local Discussion - Males				
Civic Education	0.362	0.24	0.24	.990*
	(.208)			(.086)
	[.142]			[.372]
National Discussion - Females				
Civic Education	0.139	0.133	0.133	0.26
	(.206)			(.081)
	[.055]			[.097]
National Discussion - Males				
Civic Education	0.443	0.275	0.263	1.01*
	(.233)			(.105)
	[.146]			[.313]
Letter[h] - Females				
Civic Education	.554*	0.029	0.043	0.286
	(.231)			(.068)
	[.164]			[.030]
Letter - Males				
Civic Education	-0.108	0.185	0.147	-0.037
	(.250)			(.110)
	[-.024]			[-.011]
Statement - Females				
Civic Education	.408*	0.154	0.17	.664*
	(.200)			(.077)
	[.157]			[.239]
Statement - Males				
Civic Education	0.079	0.145	0.139	1.30*
	(.220)			(.103)[i]
	[.020]			[.287]

a) Civic education variable is the treatment effect. Nearest-neighbor matching methods with replacement were employed.

b) Coefficients from full probit models in Table 52.

c) ATT= Average Treatment Effect on the Treated, interpreted as percentage points; Treated are those that report studying civic education.

d) ATE= Average Treatment Effect.

e) Coefficients are from matching-weighted probits. Marginal effects are in brackets.

f) Bootstrapped standard errors are in parentheses. Significance is based on the bias-corrected confidence intervals and the matching-weighted probit analyses.

g) Respondent discusses local politics or affairs with others every day, nearly every day, or once or twice a week. Respondent discusses national politics or affairs with others every day, nearly every day, or once or twice a week.

h) Respondent feels they could write a convincing letter to someone in government that expresses their point of view. Respondent feels they speak well enough to make an effective statement at a public meeting.

i) Significant in the matching-weighted probit but not the bias-corrected confidence interval.

* significant at the α=.05 level.
All calculations used the "wt2517" weight as provided in the survey data, except for the matching-weighted probits.

Table 88
Group Discussion and Communication Skills (ACPS)
Matching Methods[a] - Non-College

	Probit Coefficient[b] (Std. Error)	ATT[c]	ATE[d]	Coefficient[e] (Std. Error)[f]
	(1)	(2)	(3)	(4)
Local Discussion[g] - College				
Civic Education	0.185	0.146	0.14	.845*
	(.278)			(.090)[i]
	[.073]			[.327]
Local Discussion - Non-College				
Civic Education	0.421	0.072	0.102	**
	(.237)			
	[.137]			
National Discussion - College				
Civic Education	0.231	0.084	0.101	.839*
	(.281)			(.095)[i]
	[.080]			[.242]
National Discussion - Non-College				
Civic Education	.523*	0.015	0.085	**
	(.229)			
	[.201]			
Letter[h] - College				
Civic Education	-0.175	0.034	0.024	**
	(.326)			
	[-.027]			
Letter - Non-College				
Civic Education	0.389	0.129	0.137	**
	(.227)			
	[.138]			
Statement - College				
Civic Education	0.221	0.092	0.101	0.269
	(.287)			(.097)
	[.063]			[.067]
Statement - Non-College				
Civic Education	.605*	0.202	0.189	.788*
	(.231)			
	[.237]			[.300]

"College" are those respondents who have completed at least one year of college.

a) Civic education variable is the treatment effect. Nearest-neighbor matching methods with replacement were employed.

b) Coefficients from full probit models in Table 53.

c) ATT= Average Treatment Effect on the Treated, interpreted as percentage points; Treated are those that report studying civic education.

d) ATE= Average Treatment Effect.

e) Coefficients are from matching-weighted probits. Marginal effects are in brackets.

f) Bootstrapped standard errors are in parentheses. Significance is based on the bias-corrected confidence intervals and the matching-weighted probit analyses.

g) Respondent discusses local politics or affairs with others every day, nearly every day, or once or twice a week. Respondent discusses national politics or affairs with others every day, nearly every day, or once or twice a week.

h) Respondent feels they could write a convincing letter to someone in government that expresses their point of view. Respondent feels they speak well enough to make an effective statement at a public meeting.

i) Significant in the matching-weighted probit but not the bias-corrected confidence interval.

* significant at the α=.05 level.
** unable to calculate due to dropped covariates
All calculations used the "wt2517" weight as provided in the survey data, except for the matching-weighted probits.

Table 89
Monitoring the News (ACPS)
Matching Methods[a] - Non-College

	Probit Coefficient[b] (Std. Error)	ATT[c]	ATE[d]	Coefficient[e] (Std. Error)[f]
	(1)	(2)	(3)	(4)
Television News[g] - College				
Civic Education	-0.073	-0.03	-0.025	-0.808
	(.305)			(.076)
	[-.018]			[-.030]
Television News - Non-College				
Civic Education	0.168	-0.036	-0.018	**
	(.224)			
	[.047]			
Public Affairs - College				
Civic Education	-0.154	0.023	0.012	0.429
	(.253)			(.083)
	[-.058]			[.156]
Public Affairs - Non-College				
Civic Education	0.153	0.088	0.08	**
	(.229)			
	[.047]			
Newspaper - College				
Civic Education	-0.667	0.034	0.032	**
	(.400)			
	[-.070]			
Newspaper - Non-College				
Civic Education	0.385	0.061	0.056	**
	(.239)			
	[.108]			

"College" are those respondents who have completed at least one year of college.

a) Civic education variable is the treatment effect. Nearest-neighbor matching methods with replacement were employed.

b) Coefficients from full probit models in Table 54.

c) ATT= Average Treatment Effect on the Treated, interpreted as percentage points; Treated are those that report studying civic education.

d) ATE= Average Treatment Effect.

e) Coefficients are from matching-weighted probits. Marginal effects are in brackets.

f) Bootstrapped standard errors are in parentheses. Significance is based on the bias-corrected confidence intervals and the matching-weighted probit analyses.

g) Respondent watches television news once a week or more. Respondent watches public affairs programming on television once a week or more. Respondent reads the newspaper once a week or more.

h) Significant in the matching-weighted probit but not the bias-corrected confidence interval.

* significant at the α=.05 level.
** unable to calculate due to dropped covariates
All calculations used the "wt2517" weight as provided in the survey data, except for the matching-weighted probits.

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