

CIVIC IDENTITY, CIVIC SKILLS, AND CIVIC KNOWLEDGE: THE ROLE OF  
ADOLESCENT SCHOOL EXPERIENCES IN FACILITATING CIVIC  
ENGAGEMENT IN ADULTHOOD

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## **ABSTRACT**

Kristina M. Patterson: Civic Identity, Civic Skills, and Civic Knowledge: The Role of Adolescent School Experiences in Facilitating Civic Engagement in Adulthood  
(Under the direction of Gary Henry)

In the following three studies, we explore approaches to increase civic engagement in the United States by examining the relationship between adolescent school experiences and civic engagement in adulthood. First, we examine the relationship between the civic identity development opportunities presented in various extracurricular activities and civic engagement in adulthood. We find that participation in instrumental activities, such as student government, student newspaper, or yearbook, which likely work through all four mechanisms of civic identity development, is associated with an increased likelihood of nearly all measures of civic engagement in adulthood, and that these effects persist up to fourteen years. We also find positive relationships between participation in expressive activities, such as band, chorus, and drama, and academic and hobby clubs and civic engagement in adulthood. These findings suggest a need for additional research to better understand the civic identity development opportunities presented in these various extracurricular activities.

Second, we examine student access to a range of civic education courses. We find some evidence that schools with higher concentrations of racial/ethnic minorities and low income students offer less access to civic education courses, however, these relationships are not linear and are not consistent across course categories. We find that students experiencing poverty and students with low levels of parental education are less likely to take particular civic education

courses than their higher socioeconomic status peers within the same schools. Additional research is needed to understand the mechanisms which lead certain groups of students to take (or not take) particular civic education courses.

Finally, we examine the impact of taking a range of civic education courses in high school on civic participation in adulthood. We find evidence that high school civic education coursework contributes to an individual's likelihood of civic engagement in adulthood. In particular, Experiential Learning courses and Civic Skills Development courses are associated with an increased likelihood of participating in a range of civic activities, up to fourteen years after the course was taken. We suggest future research to examine differential effects of civic education coursework across subgroups of students and school contexts.

To my son, Radford Montgomery Patterson-Marcinkevich.

You were infinitely patient as I ate, drank, and slept over the keyboard as my defense date approached, and ensured that I take an occasional break to play with toy farm animals, cars, or trains, which likely saved my sanity. May you grow up to be meaningfully engaged in civic life!

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I started my doctoral program with an interest in addressing racial and economic inequality, and associated breakdowns in American democracy, without a clear idea of where to focus. During my first year in the program, an article by Peter Levine helped me recognize civic engagement as a focus for my work. I began to follow his work and the work of CIRCLE, which helped me to bring together my research and my background as a social studies teacher in a way that was meaningful to me. I thank Peter for his suggestions as well as commendations which helped me to know I was on the right track with my research to make a contribution to the field.

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## OVERVIEW

The decline of civic participation in the United States over the past several decades has received much attention in the scholarly literature in a range of disciplines. In an essay, which evolved into a widely read book, *Bowling Alone*, Robert Putnam summarized, “By almost every measure, Americans’ direct engagement in politics and government has fallen steady and sharply over the last generation” (1995, p. 68). This essay has been cited more than 16,000 times in the literature, ranging from political science, economics, sociology, and psychology to organizational theory and management to epidemiology journals. Levels of civic participation are down since the 1970’s across a range of activities (National Conference on Citizenship, 2008). The United States ranks near the bottom in a global survey of voter turnout and very few Americans have engaged in any civic activity beyond voting (American National Election Survey; Pintor and Gratschew, 2002). While levels of volunteer activity have actually increased, a small minority of Americans participate in any volunteer activity (Corporation for National and Community Service and the National Council on Citizenship, 2010).

Perhaps of even more concern than the overall decline, disparities in civic participation across demographic groups have been widely documented. African American and Hispanic individuals participate at a lower rate than their White peers (Verba, Burns, and Schlozman, 2003; Verba, Schlozman, and Brady, 1995). Much of the disparities along racial/ethnic lines has been attributed to socioeconomic inequalities (Verba, Burns, and Schlozman, 2003; Wolfinger and Rosenstone, 1980). The American Political Science Association noted such inequalities in civic participation, they convened a task force, headed by Theda Skocpol, which after reviewing

available literature on civic participation concluded that there are “disturbing deficits and trends that undermine the promise of American democracy” (APSA Task Force on Inequality and American Democracy, 2004, p. 20).

Not only is broad participation in civic life the keystone of American democratic ideals, the very promise of American life, civic engagement is related to a number of positive outcomes for individuals and communities. Individuals who participate in civic life develop skills and social networks which contribute to their likelihood of employment (Spera et al, 2013). Communities with higher levels of civic engagement enjoy economic and social benefits as well, such as higher employment rates, better governance, and better physical health (National Council on Citizenship et al, 2011).

From a research as well as a policy perspective, adolescence offers the most promising avenue to reverse these trends. An individual’s civic identity and attitudes toward political participation develop largely during the “impressionable years” of adolescence and strengthen into adulthood (Sears and Levy, 2003). Due to mandatory schooling laws and widespread publicly funded education, adolescence offers opportunities for interventions aimed at increasing and equalizing civic participation in the United States. Interventions are easily implemented during adolescence and perhaps more importantly, these interventions are likely to have lasting impacts.

The proclivity for civic engagement is developed through three key mechanisms: the development of the skills and knowledge needed for effective participation, the development of civic identity, and the development of both internal and external efficacy. Internal efficacy refers to the belief in one’s ability to successfully and effectively participate in civic action and external efficacy refers to the belief that political institutions are likely to respond to citizen demands



(Niemi, Craig, and Mattei, 1991). Extant literature supports that the high school curriculum and extracurricular activities activate all three mechanisms and may lead to future civic participation, if structured well. A number of studies have demonstrated a positive relationship between school extracurricular activity participation and adult civic participation (Fredricks and Eccles, 2006; Hart et al, 2007; Kirlin, 2003; McFarland and Thomas, 2006; Verba, Schlozman, and Brady, 1995). Literature in developmental psychology suggests that this relationship is facilitated through opportunities for civic identity development included in these activities. Civic identity refers to the connection to a community and acceptance of the rights and responsibilities that come with community membership, and is developed through learning and practicing skills as well as exposure to adult role models, and both pathways are present to varying degrees in extracurricular activities (Atkins and Hart, 2003; Erikson, 1980). Civic education literature has demonstrated a positive relationship between approaches to civic education such as service learning, experiential learning, discussion of social and political issues, and civic skills development and the skills, knowledge, attitudes, and commitments that predict adult civic participation (Kahne, Chi, and Middaugh, 2006; Kahne, Crow, and Lee, 2013; Kahne and Spote, 2008; Feldman, Pasek, Romer, and Jamieson, 2007; Torney-Purta, 2002). While these approaches may be beneficial in promoting future civic engagement, these classroom learning opportunities may not be equally available to all students (Jacobsen, Frankenberg, and Lenhoff, 2012; Kahne and Middaugh, 2008).

### **The dissertation approach**

The goals of policy research include the evaluation of policy alternatives and the impact of interventions and we often use Rubin's Causal Model or the potential outcomes framework in order to estimate these impacts. Under this model, it must be possible that each member of the

study population could be assigned to either treatment condition (e.g., receive an intervention or not receive the intervention) and has one potential outcome associated with each condition. In order to address the Fundamental Problem of Causal Inference, which is that each individual can be exposed to only one treatment condition, we statistically construct comparable groups (Holland, 1986). When using observational data, as we do in this dissertation, we must seek to understand and statistically model the mechanisms by which individuals are assigned to or select into treatment in a way that their potential outcomes are not correlated with their treatment condition (Morgan and Winship, 2007; Steiner et al, 2010). In this dissertation, we employ several methodological approaches in order to produce an unbiased causal effect estimate of two “treatments,” extracurricular activity participation and civic education coursework, on civic engagement in adulthood.

In contrast, many civic engagement scholars are current or former practitioners, and the knowledge gained through this experience influences their research approach. They may seek to describe, understand mechanisms, and design or improve interventions but they are not always seeking the broad generalizability of the policy research scholar. Often the focus is to document and describe the current civic engagement landscape in some way, or on the design and assessment of small scale interventions where measures can be taken prior to the intervention and after the intervention, or on broader topics, but with a more philosophical approach. With a few notable exceptions, the rigorous quantitative methods which would allow for causal inference are often lacking in civic engagement scholarship.

This dissertation applies the rigorous quantitative methodology expected of public policy scholars to questions of the relationship between adolescent experiences and adult civic engagement. I use an interdisciplinary theoretical approach employed in both policy and civic

engagement work, by drawing on work in political science, developmental psychology, political participation, sociology, social psychology, and civic education. By creating a public use dataset which will open the *National Longitudinal Study of Adolescent Health* to a broader research audience, I was also able to incorporate an act of public service, which I assert should be the hallmark of a publicly funded graduate education.

In Chapter 1, we examine extracurricular activity participation in adolescence from the perspective of the civic identity development opportunities presented in various activities. We find that participation in instrumental activities, such as student government or yearbook, which focus on achieving a collective goal and participation in expressive activities, such as band, chorus, or drama, where the focus is to produce a performance, predicts an increased likelihood of participating in a range of civic activities in adulthood. These findings offer insight as to the importance of particular civic identity opportunities to future civic participation. We also find that neighborhood context can impact this relationship, offering avenues for future research which ties into extant civic engagement literature concerning civic identity development.

In Chapter 2, we examine student access to a range of civic education courses. The civic engagement and civic education literature assumes the existence of an opportunity gap in the availability of civic learning opportunities, and we find that the availability of particular civic education courses is related to school context and individual characteristics. We note a non-linear relationship between school racial/ethnic and socioeconomic composition and the availability of particular civic education courses. We find that racial/ethnic minorities and lower socioeconomic status students are likely to be affected by lack of course availability as they are more represented at schools which offer less course access. Even when controlling for course availability, we find that students experiencing poverty and students with low levels of parental

education are less likely to take particular civic education courses than their higher socioeconomic status peers.

In Chapter 3, we examine the impact of taking a range of civic education courses in high school on civic participation as an adult. We find evidence that high school civic education coursework contributes to an individual's likelihood of civic engagement in adulthood. In particular, Experiential Learning courses and Civic Skills Development courses contribute to the likelihood of participating in a range of civic activities, up to fourteen years after the course was taken. We find evidence that courses influence civic engagement through various mechanisms, and that different mechanisms are applicable to particular types of civic activities. We offer a number of suggestions for future research to clarify and extend these findings.

Taken as a whole, this dissertation demonstrates my command of the interdisciplinary theoretical approach and the advanced quantitative methodologies expected of a public policy scholar while making a substantial contribution to the civic engagement and civic education literature. I am able to offer both policy recommendations and a range of possibilities for future research.

# **CHAPTER 1: EXAMINING THE ROLE OF ADOLESCENT CIVIC IDENTITY DEVELOPMENT OPPORTUNITIES IN EXPLAINING PATTERNS OF CIVIC ENGAGEMENT IN ADULTHOOD<sup>1</sup>**

## **INTRODUCTION**

As a thriving democracy depends on an active and engaged citizenry, the disengagement from civic life in America over the past several decades has been cause for concern. The National Conference on Citizenship's 2008 Civic Health Index reports that levels of community participation are down significantly since the 1970's. The International Institute for Democracy and Electoral Assistance (IDEA) ranks the United States 120th out of 169 countries in a global survey of average voter turnout (Pintor and Gratschew, 2002). Data from the American National Election Studies indicates that a very small percentage of Americans have ever engaged in political activity beyond voting. For example, in 2008, 9% of respondents indicated that they had attended a political meeting and only 4% indicated that they had worked for a party or candidate. A cluster analysis using a cross-national sample of adolescents indicated that the most prevalent attitude among U.S. youth is "disaffected," described as an indifference toward political action and a low level of belief in the importance of participating in community action (Torney-Purta, 2009). Fewer than 8% of Americans report that they have worked with their neighbors to address a community problem (Corporation for National and Community Service and the National Council on Citizenship, 2010).

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<sup>1</sup>Kristina M. Patterson is the sole author on all papers included in the dissertation. The pronoun "we" is used to refer to the author throughout, as is convention in academic journals.

Optimistic scholars argue that many studies simply fail to measure the forms of engagement that are most common among millennials (those born between 1980-2000), such as internet activism, political consumerism such as boycotting and buycotting (buying products from companies based on their political, social, or environmental policies), and protest activity (Dalton, 2008; Zukin, Keeter, Andolina, Jenkins, and Delli Carpini, 2006). However, as civic engagement scholar David E. Campbell aptly states, “whether you think the glass is half empty...or half full..., there is still a half a glass left to fill.” (2012, p.2). First, while participation in some forms of civic engagement, such as volunteerism, have increased, participation remains low--fewer than 27% of Americans report that they perform volunteer work (Corporation for National and Community Service and National Council on Citizenship, 2010). Second, more conventional forms of political participation, like voting and electoral participation, are essential for representative democratic government to function. Finally, and perhaps most importantly, we see vast inequalities in levels of civic engagement across demographic groups.

Disparities in civic engagement based on race/ethnicity and immigrant generation are even more worrisome than the overall decline. Many studies have found civic engagement to be correlated with race/ethnicity and immigration status-- the general tendency is that racial and ethnic minorities and immigrants participate less than their white and native-born counterparts. On average, African-Americans participate in slightly fewer political and civic acts than Whites, while Latinos participate in half the number of political and civic acts as Whites (Verba, Schlozman, and Brady, 1995). Native born U.S. citizens are more likely to volunteer and to engage in community activities than foreign-born citizens and non-citizens, even when controlling for income and educational attainment (Foster-Bey, 2008). In 2012, voter turnout

among African Americans surpassed White voter turnout for the first time, however, voting rates among Asian and Hispanic voters remained considerably lower than both of the other racial groups (File, 2013).

When explaining these racial/ethnic and immigrant generation differences in participation rates, most often the focus is on some component of family socioeconomic status. For example, in a widely cited study of voting behavior, Wolfinger and Rosenstone (1980) found differences in voter turnout to be related to socioeconomic status, race, and ethnicity. They find that racial and ethnic disparities in voter turnout can be largely attributed to differences in educational attainment (Wolfinger and Rosenstone, 1980). Verba, Burns, and Schlozman (2003) explain differences in political participation between Latinos, African-Americans, and non-Hispanic Whites partially through parental education, finding that inequalities in political participation are transferred from generation to generation. Verba, Schlozman, and Brady (1995) explain civic participation partially as a function of available resources, which include money, time, as well as civic skills, which are often a function of educational attainment. Aspects of socioeconomic status, however, offer little guidance as to policy levers to facilitate civic engagement. As Justice Sandra Day O'Connor states, "effective participation by members of all racial and ethnic groups in the civic life of our Nation is essential if the dream of one Nation, indivisible, is to be realized" (*Grutter v. Bollinger*, 2003). Broad and meaningful civic participation is fundamental to the success of the American political system. In order to inform policy that is likely to facilitate civic engagement, it is important to understand the various individual, school, and neighborhood characteristics which correlate with civic engagement, but more importantly what correlates of civic engagement we can proximally impact through policy.

Using the *National Longitudinal Study of Adolescent Health* (Add Health), this study aims to examine the impact of adolescent civic identity development opportunities on civic engagement in adulthood. This study adds to the literature by using nationally representative longitudinal data to examine the impact of adolescent school-based experiences on adult civic engagement. Identifying those characteristics which predict civic engagement will allow us to determine the best interventions, where to target interventions, as well as to isolate various effects on civic engagement in order to develop statistical models to better evaluate the impact of these interventions.

## **BACKGROUND AND LITERATURE REVIEW**

For the purpose of this study, civic engagement is defined broadly as “any act intended to improve or influence a community” (Levine, 2014). Conceptually, the proclivity for civic engagement is developed through three main pathways: the development of human capital, social capital, and civic identity. The Civic Voluntarism Model provides a foundation for this study which also draws from work in social psychology, developmental psychology, political participation, and civic education (Verba, Schlozman, and Brady, 1995). Investigating the ways socioeconomic status affects political action, Verba and colleagues (1995) assert that individual participation in political acts is a function of resources, engagement, and recruitment. They sum up the reasons that individuals do not participate as, “because they can’t; because they don’t want to; or because nobody asked” (Verba et al, 1995, p. 15). “They can’t” indicates a lack of resources and civic skills that would allow one to participate, which will be examined in subsequent chapters of this dissertation. “Don’t want to” indicates a lack of engagement, possibly due to a lack of civic identity, that the individual does not identify as a community member and accept the rights and responsibilities of community membership, which is the focus



of this essay. “Nobody asked” indicates a lack of social capital, specifically a social network that promotes a norm of participation and facilitates recruitment efforts, which will also be examined in this essay.

In the following sections, we first explain our reasoning for focusing on experiences in the school environment as important predictors of civic engagement into adulthood. We then define the concept of civic identity, discuss the mechanisms through which identity is developed throughout adolescence, and present research evidence focused on the opportunities for civic identity development offered through participation in school extracurricular activities. Finally, we discuss and present research evidence regarding other experiences in adolescence which may impact the relationship between school extracurricular activity participation and civic identity development. Social capital in the school such as the size and participation level of the student’s social network may affect recruitment into extracurricular activities and school belonging or connectedness, an aspect of school social capital, is also an indicator of a nascent civic identity. The family, neighborhood, and religious institutions are sources of social capital, and may also offer opportunities for civic identity development which serve as a complement or substitute to those offered through school extracurricular activities.

### **Why focus on the school?**

Examining the impact of aspects of the school environment on civic engagement makes sense both theoretically and practically. Support for the “impressionable years” theory demonstrates that identity and attitudes toward political participation develop during adolescence and young adulthood, and strengthen into adulthood (Sears and Levy, 2003). Individual and social identity develops throughout adolescence and the development of a civic identity is important to future civic participation, as identity defines social roles and normative behavior.

William Damon, Director of the Center on Adolescence at Stanford University, notes that adolescence is considered a period of identity formation in nearly all theories of human development, “the specific beliefs and commitments, of course, may change over the subsequent years, but the initial formulation of them during adolescence always has ranked as a key landmark of human development” (Damon, 2012, p. 127).

Civic identity is defined as a feeling of connection to a community, as well as to the rights and more importantly, the responsibilities associated with community membership (Atkins and Hart, 2003). Social capital, which we address as one of the main factors confounding the relationship between extracurricular participation and civic identity development, is broadly defined as relationships between individuals that facilitate certain actions by the individuals (Coleman, 1988). The school community is the adolescent’s main social network and community tie. Not only do they spend a large portion of their time at school, the school is uniquely the adolescent’s community, rather than an extension of the parent’s community the way a neighborhood may be. From a social capital perspective, the school is a set of institutionalized relationships (Bourdieu, 1986). From an identity development perspective, the school is the most important influence on the development of identity in the school age child (Erikson, 1968).

From a practical standpoint, we can make policy to modify the school environment. We can institute programs and legislation focused on individuals within schools. Due to mandatory public schooling laws, adolescence offers opportunities for widespread policy intervention. This intersection of theoretical and practical justification suggests that understanding how school experiences predict adult civic engagement offers the most promising avenue for increasing and equalizing civic engagement in the United States. In short, not only do we have the opportunity

to make policy to affect the school environment, this is a developmental period where this policy is most likely to have a lasting impact on the individual.

### **Civic Identity**

Civic identity refers to the connection to a community, and acceptance of the rights and responsibilities that come with community membership (Atkins and Hart, 2003). Civic identity has three components: 1. membership or a sense of belonging to the community, 2. rights to which one is entitled by virtue of that membership, and 3. responsibilities of members for participation in the community (Atkins and Hart, 2003; Hart, Richardson, and Wilkenfeld, 2011). In this definition, we consider a community as one that is defined by geography with members in physical proximity, such as a neighborhood, a school, or a country (Atkins and Hart, 2003). We may expect civic identity to develop in the same ways as any aspect of identity. In the school age adolescent, Erikson (1968) points to the importance of a sense of industry in identity development, that is the ability to make or do things and do them well. During this developmental stage, identity is developed by learning skills and using these skills alongside others (Erikson, 1980). Young people need to develop a sense of competence as well as a sense of belonging to develop a positive identity—individuals develop both personal and collective identities (Erikson, 1968). Adolescents “need to feel that they are of some special kind (tribe or nation, class or caste, family, occupation, or type) whose insignia they will wear with vanity and conviction” and the school provides this place to develop a sense of belonging (Erikson, 1968, p. 240). Identity theory examines the role of identity in behavior through role identity. People identify with certain roles, which carry expectations of behavior. Positive feelings about identity come from how well the individual fulfills a salient role (Hogg, Terry, and White, 1995). When an individual feels they belong in a particular social category, they define themselves in terms of

the characteristics of that category and behave consistently with this definition (Hogg et al, 1995). Participation in extracurricular activities is expected to contribute to the development of civic identity as the student fills the role of participant, and comes to see themselves as a member of the club and the school community. Activities that require individuals to work cooperatively, to confront new situations, deal with conflict, solve problems, make decisions, and examine their values are opportunities for identity development and students indicate that these developmental opportunities are offered in extracurricular activities (Newman and Rutter, 1983). Youniss and Yates (1997) found that civic identity develops in adolescents through community service because adolescents work together and address problems, and certainly this is true of school-based extracurricular activities as well, particularly instrumental activities where the focus is to achieve a collective goal beyond providing activities for its members (examples include student newspaper, yearbook, student government, and debate team).

Scholarship specifically focusing on civic identity points to the importance of civic role models, of interacting with adults who model civic participation, in the development of civic identity (Atkins and Hart, 2003; Youniss, McClellan, and Yates, 1997; Youniss et al, 1999). Through time spent with the sponsor or coach, extracurricular activities offer exposure to positive adult role models (Zaff, Moore, Papillo, and Williams, 2003). Someone who is a coach or sponsor is involved in their community, so we would expect these adults to serve as civic role models, and facilitate the development of civic identity. Eccles and colleagues (2003) find positive effects on identity development from extracurricular participation and suggest these effects may come from spending time with positive adult role models. Feldman and Matjasko (2005) suggest that the positive impact of extracurricular activities on youth may be better understood by examining activities in terms of contact with positive adult role models.

Using the National Education Longitudinal Study (NELS) of 1988, Zaff and colleagues (2003) find that consistent participation in school based extracurricular activities in adolescence is correlated with voting and volunteering in adulthood. They do not differentiate between the types of activity, so opportunities for civic identity development cannot be meaningfully discussed as a mechanism for this relationship. Also using NELS, Hart and colleagues (2007) find that participation in extracurricular activities in 12<sup>th</sup> grade predicts voting and volunteer service in adulthood. Using data from Maryland, Fredricks and Eccles (2006) find that participating in school clubs and sports in 11<sup>th</sup> grade is associated with a range of civic participation activities a year after high school. Using Add Health and NELS data, McFarland and Thomas (2006) find that participating in particular activities in high school, those activities that require a significant time commitment and that focus on service, political activity, or public performance have a significant positive relationship to adult civic participation even after controlling for selection into these organizations. However, negative associations were found between participation in yearbook and cheerleading and adult civic engagement, making broad linkages about civic identity development opportunities difficult (McFarland and Thomas, 2006). In a review of the literature, Kirlin (2003) notes that there is a strong positive relationship between adolescent extracurricular involvement and adult civic engagement, and that this effect is stronger with instrumental activities, as opposed to expressive activities where the goal is to provide activities for members. Verba and colleagues (1995) find a positive relationship between participation in student government and other clubs during adolescence and adult civic participation, while finding a negative relationship between sports participation and adult civic engagement. Attributing this relationship to opportunities to develop civic skills, they find that participation in high school activities has a positive effect on participation in all civic and

political acts that require a time investment as well as voting, noting that the “continuing direct effect of...involvement in high school is striking” (Verba et al, 1995, p. 442). In addition to the direct effects on civic participation in adulthood, high school club participation has indirect effects on civic participation by impacting predictors of participation, such as income, civic skills, vocabulary, recruitment, political interest, and political information, even when controlling for educational attainment and job level (Verba et al, 1995). Verba and colleagues (1995) attribute this relationship to the opportunity to develop civic skills, which we consider as one mechanism through which extracurricular activity participation contributes to civic identity development.

Studies that differentiate activities often consider sports as expressive activities, however, we may expect that sports offer more opportunities for the development of civic identity through increased exposure to an adult role model and increased feelings of being a part of a school community than a hobby club, which may meet once per month offering little exposure to adult role models, and having little ties to the wider school community. Often the name of the school sports team is used interchangeably with that of the student body, i.e., the Eagles or the Warriors may refer to the sports team or simply the students overall, suggesting that sports participation facilitates a strong sense of belonging to the school community. Eccles and colleagues (2003) find a positive relationship between extracurricular activity participation and a range of positive outcomes such as educational attainment and lower incidence of alcohol and drug use and assert that identity development is a mediating factor in these positive outcomes. Hart and colleagues (1998) find that club and team membership is positively related to moral identity formation, which they define as a commitment to actions which benefit others, closely related to civic identity.

School extracurricular activities contribute to the development of a civic identity through contributing to a sense of belonging to the school community, through developing confidence in one's civic skills such as participating in a meeting, debate, and collective decision-making, through working collectively with others toward a goal, and through exposure to adult civic role models. We use a nationally representative dataset to examine the impact of the civic identity development opportunities of school-based extracurricular activities on a range of civic outcomes in adulthood. Following Feldman and Matjasko's (2005) advice that research regarding the impact of extracurricular activities on adolescent development could benefit from grouping activities based on qualitative differences, we contribute to the literature by categorizing extracurricular activities based on their opportunities for civic identity development: instrumental activities such as student government, student newspaper, yearbook, and debate team, offer a sense of belonging to the school community, opportunities to develop confidence in skills that may be relevant to future civic participation, to work collectively toward goals, and regular exposure to adult role models; high visibility sports such as football, basketball, and cheerleading offer a sense of belonging to the school community, opportunities to work collectively toward goals, and regular exposure to adult role models, lower visibility individual sports such as swimming and track and field offer regular exposure to adult role models, lower visibility team sports such as volleyball and field hockey offer opportunities to work collectively toward goals and regular exposure to adult role models, expressive activities such as band, chorus, and drama in which participants work toward producing a performance offer an opportunity to collectively work toward a goal as well as regular exposure to adult role models, while expressive activities such as academic or hobby clubs likely offer some opportunities to practice and develop confidence in civic skills, but limited exposure to adult role models due to

infrequent meeting. While all extracurricular activity involvement implies some sense of belonging to the school community, high visibility team sports such as football, basketball, and cheerleading are expected to have the highest impact on a sense of belonging to the school community, while expressive activities such as academic clubs, hobby clubs, band, and drama are expected to have the least impact—widely recognized stereotypes such as “band geek,” “drama nerd,” and “brainiac,” suggest that these activities encourage subculture identification rather than a sense of belonging to the wider school community.

### **Social Capital and Other Confounding Factors**

The most salient factor which may confound the relationship between civic development opportunities offered in extracurricular activities and civic engagement is social capital, defined as “features of social organization such as networks, norms, and social trust that facilitate coordination and cooperation for mutual benefit” (Putnam, 1995, p. 67). Some studies consider extracurricular participation as a measure or indicator of social capital, suggesting that extracurricular activity participation benefits adolescents because it provides access to a positive social network, viewing social capital as the mechanism through which extracurricular activity participation influences positive life outcomes (Broh, 2002; Smith, 1999). Other studies approach social capital as a mediator in the relationship between extracurricular participation and life outcomes (Crosnoe, 2001; Eccles and Barber, 1999; Mahoney, 2000). However, others demonstrate that the impact of this social capital is not always positive (Eccles and Barber, 1999; Hansen, Larsen, and Dworkin, 2003). We assert that extracurricular activities are best examined as civic identity development opportunities, and categorize activities based on these opportunities. Work by Dufur and colleagues (2013) supports our approach--while they consider extracurricular activity participation a measure of social capital, they note that the factor loading



on the school social capital construct is small, supporting that while related, extracurricular activity participation measures a different construct. While we view extracurricular activity participation as separate from social capital, we acknowledge that social capital is important to examine in our models. There is endogeneity in the relationship between extracurricular activity participation and social capital. Social capital is likely to be a determinant of participation in extracurricular activities, for example, students are likely to be recruited into activities by their social networks. At the same time, participation in extracurricular activities defines one's social network, students form social relationships with other students who participate in the same activities. Additionally, social capital is likely to impact civic engagement.

While not exclusively focused on civic participation, literature concerning social capital largely focuses on collective action. Many studies link community level social capital to collective action and better democratic government performance (Knack, 2002; Ostrom, 1994; Putnam, 1993; Putnam et al, 1995; Rydin and Pennington, 2000) and a smaller body of work demonstrates a relationship between individual level social capital and civic participation. Brehm and Rahn (1997) examine individual level social capital using structural equation modeling, and find that civic participation and interpersonal trust (an aspect of social capital) are mutually reinforcing, although the connection is stronger from participation to trust rather than the reverse. Kahne, Chi, and Middaugh (2006) investigate the potential of a high school civics curriculum to develop aspects of individual level social capital (norms of civic participation, social trust, and knowledge of social networks) and accept as given that these in turn will facilitate civic engagement. Using the Add Health dataset, Duke and colleagues (2009) find that a sense of connection to the school in adolescence, an indicator of social capital as well as civic identity, is correlated with civic participation in adulthood. Building on identity theory, a student

who feels a sense of school connectedness or belonging, in a school with a norm of participation (as measured by a high degree of extracurricular participation), will see participation as a characteristic of students and behave accordingly, that is, participate in extracurricular activities which develop his or her civic identity, further demonstrating the relationship between social capital and civic identity development (Hogg et al, 1995).

There is a lack of consensus in the literature on how to measure social capital. Some scholars focus on structural social capital, which focuses on the social networks and institutions that exist in a community, others focus on cognitive social capital, the “norms, values, attitudes, and beliefs” that contribute to collective action --the definition we use incorporates both forms (Uphoff, 2000, p. 218). Studies demonstrating the positive impact of adolescent social capital in the school community on life outcomes most often follow Coleman’s (1988) approach, focusing on aspects of relationships which allow adolescents to gain knowledge from adults (Dufur, Parcel, and Troutman, 2013; Parcel and Dufur, 2001; Teachman, Paasch, and Carver, 1997). Coleman (1988) found lower dropout rates among students at religious private schools, and attributed this largely to intergenerational closure, or relationships that exist between a child and adults outside of the family in the social network, asserting that religious based private schools are surrounded by a wider religious community with considerable adult and child interaction. This approach asserts that cognitive social capital is strongest when it is consistent and reinforced due to overlap in structural social capital. We acknowledge that this relationship between adolescents and adults is important, and approach it as one of the mechanisms of civic identity formation that is an aspect of extracurricular activities. We include a control for school type, including religious private schools, to control for Coleman’s idea of intergenerational closure.

Regarding how to operationalize social capital, Coleman (1988) advised that:

Social capital is defined by its function. It is not a single entity but a variety of different entities, with two elements in common: they all consist of some aspect of social structures, and they facilitate certain actions of actors...within the structure. (p. S98)

For this study, we focus on aspects of social capital which are expected to relate to our focal variables, civic identity development opportunities. Based on prior research, we expect social capital to predict our outcome of interest, civic engagement, through increased levels of interpersonal trust (Brehm and Rahn, 1997; Putman, 2001). We measure at the individual level to focus on the individual's access to available capital. We focus on the structural and cognitive aspects of the individual's access to that capital – the size of their personal social network, perceptions of school connectedness, and the level of extracurricular activity participation of their personal social network. The level of participation that exists within an individual's social network extends beyond the norm of participation and also indicates opportunities for recruitment into extracurricular activities, that is to say opportunities for civic identity development. An individual's perceptions of school connectedness, while an element of social capital, is indicative of the community membership and belonging aspect of civic identity as well. Additionally, as controls for school context, we include average levels of school connectedness and school level extracurricular participation, which aggregate these individual measures to the school level to measure the available cognitive social capital in the school community.

While the school is the focus of this study, and in many ways the most important community and social network to the adolescent, certainly there are other sources of both social capital and civic identity development in the adolescent's life. Family and neighborhood

characteristics may affect the likelihood of participating in extracurricular activities, the individual's ability to benefit from activities, and offer opportunities for development of civic identity, affecting our focal variables as well as the outcome of interest. Controlling for these confounding factors is important for isolating the effects of school-based factors on civic engagement.

In a prior study of civic engagement using Add Health, parent-family connection in adolescence was a significant predictor of civic engagement in adulthood, which supports that family characteristics are important to examine (Duke et al, 2009). Family income, parental education, and other aspects of the home environment have been found to predict extracurricular activity participation in adolescence as well as voluntary service in adulthood (Hart et al, 1998). As previously discussed, civic engagement is related to socioeconomic status – we may imagine that this works through a number of mechanisms. Family socioeconomic status, as measured by maternal education predicts participation in extracurricular activities (Barber, Stone, and Eccles, 2005; Eccles and Barber, 1999). In an examination of how family socioeconomic status affects future participation, Verba and colleagues (1995) find that parental education has an indirect effect on future political participation through influencing a person's own educational attainment, increased exposure to politics at home, and increased likelihood of participating in extracurricular activities, all of which predict future civic participation. Parental education also has a direct effect on future participation, meaning that even when controlling for these participatory factors, parental education continues to demonstrate a positive and significant effect on future civic engagement (Verba et al, 1995). Educational attainment is positively correlated with civic engagement, so higher levels of parental education indicates the likelihood of the availability of a civic role model in the home (Dee, 2004; Nie and Hillygus, 2001; Putnam,

2000). Having a politically engaged parent is also related to future civic participation, supporting the importance of having a civic role model in the home (Verba et al, 1995). Parental involvement in civic activities also predicts involvement in extracurricular activities (Smith, 1999). Family household structure, such as whether two parents or siblings are in the home, gives us some information on whether the adolescent has access to civic role models and civic identity development opportunities within the home (Andolina et al, 2003; Youniss et al, 2002). Children in single parent families are less likely to participate in extracurricular activities (Fredricks, 2012; McNeal, 1998), and it is likely that the number of siblings in a household influences participation in extracurricular activities as well, due to availability of transportation and recruitment opportunities based on activity participation by siblings. Having additional siblings in the home and having only one parent in the home both increase the likelihood of an adolescent dropping out of school by a large degree, which supports that having a larger household with less adult presence results in less transmission of human capital from parent to child and we may expect this to hold true for civic engagement, as well (Coleman, 1988). Few studies examine the impact of family characteristics in adolescence, beyond socioeconomic status, on civic participation in adulthood. In one such study, Pacheco and Plutzer (2008) found that not growing up in a two-parent household is negatively correlated with adult voter turnout.

At the neighborhood level, neighborhood concentrated disadvantage and neighborhood racial and ethnic segregation offer a measure of whether a social network exists that is likely to offer opportunities for the development of civic identity. An adolescent's neighborhood context affects the availability and quality of social capital, and may explain differences in civic engagement outcomes as well. Wilson's (1987) concepts of social isolation and concentrated disadvantage, that poor communities are isolated from resources and institutions that would help

their well-being, and are often in areas of concentrated poverty with a lack of social networks that can provide information, opportunities, and resources that promote social mobility, fit with the civic engagement literature. Wilson (1987) points to the lack of adult role models to offer opportunities, as well as to establish positive norms of behavior as a detrimental effect of living in a disadvantaged neighborhood. Incorporating civic engagement literature, this study uses Ainsworth's (2002) approach, rather than solely the index of disadvantage used by Wilson and colleagues, recognizing that neighborhood disadvantage, racial and ethnic segregation, and neighborhood social cohesion (or lack of) may influence outcomes through different mechanisms and in different ways. Students from high-poverty urban neighborhoods may have few adult civic role models (Atkins and Hart, 2003). Racial segregation increases the negative impact of neighborhood poverty on a number of outcomes – racially segregated neighborhoods have higher crime rates, higher childhood mortality rate, lower standardized test scores, and higher school dropout rates than simply impoverished neighborhoods (Massey, 1990). The impact of racial segregation on social capital and civic participation is less clear. A homogeneous neighborhood may fail to promote the norm of debate and contestation that is necessary for some forms of civic participation, as community members may have more similar issues and policy needs. Students in racial and ethnically segregated Black and Latino neighborhoods have been found to be less likely to be civically engaged (Gimpel, Lay, and Schuknecht, 2003). Conversely, a racially and ethnically homogeneous neighborhood may build on existing salient identities and promote the development of a stronger social network. Other work finds civic participation to be higher in homogeneous neighborhoods (Costa and Kahn, 2003). Sampson (2012) finds that both structural and social aspects of a neighborhood contribute to a sense of collective efficacy, that is social cohesion along with an expectation of

control over neighborhood issues, causing pervasive and lasting neighborhood effects on civic engagement, as well as other outcomes. We are able to control for neighborhood disadvantage, racial and ethnic segregation, and perceptions of neighborhood social cohesion in our models, as well as indicators of the availability of adult civic role models. We also control for any unexplained neighborhood effects by including neighborhood fixed effects in some models, limiting the comparison to respondents living in the same neighborhoods, to account for otherwise unobserved differences in neighborhoods.

Finally, participation in church activities may crowd out participation in school-based extracurricular activities, but offer similar civic identity development opportunities. Verba and colleagues (1995) note that churches may offer opportunities to develop civic skills, especially for the economically disadvantaged who may not have these opportunities through other means and note the importance of church participation to civic participation. Larson and colleagues (2006) found that students who participated in faith-based youth activities reported higher levels of identity development opportunities as well as social capital development opportunities, as compared to other extracurricular activities. Church activity participation in adolescence has been found to predict adult civic engagement (McFarland and Thomas, 2006). Church attendance has also been associated with higher levels of civic participation in adults and adolescents (Gibson, 2008; Smidt, 1999). We control for both church attendance and church activity participation in our models.

## **Hypothesis**

Our primary hypothesis for this study is that opportunities for civic identity development through participation in school-based extracurricular activities are positively associated with adult civic engagement. As discussed above, the mechanisms through which civic identity

develops in adolescence are: 1) a sense of belonging to a community (we focus on the school community); 2) developing confidence in skills relevant to civic participation, such as participating in a meeting, collaboration, debate, and collective problem-solving and decision-making<sup>2</sup>; 3) working collectively towards a goal; and 4) exposure to adult civic role models. Participation in instrumental activities such as student government and yearbook are expected to have the strongest relationship with civic engagement in adulthood due the presence of all four mechanisms, followed by participation in high visibility team sports such as football, basketball, or cheerleading, which work through three out of four mechanisms (a sense of belonging, working collectively towards a goal, and regular exposure to adult civic role models). Certainly team sports develop civic skills such as collaboration and team work and collective decision making, however, the relevance of these skills to civic participation may not be as evident to the student to develop confidence in applying these skills. The relationship between low visibility team sports and expressive activities with a performance component which both contribute to civic identity development through two mechanisms (working collectively towards a goal and exposure to adult civic role models), low visibility individual sports which are expected to contribute to civic identity development only through regular exposure to adult civic role models, and academic and hobby club participation which is expected to contribute to civic identity development through the opportunity to develop confidence in civic skills, and adult civic engagement will give us additional information as to the relative importance of each of the four mechanisms in the development of a civic identity. The examination of a range of civic participation activities will offer information as to the importance of civic identity and its

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<sup>2</sup>For more information on important civic skills, see Special Report: Civic Skills and Federal Policy (2010). *Around the CIRCLE: Research and Practice*. Available at [http://civicyouth.org/wp-content/uploads/2010/12/Civic-Skills-and-Federal-Policy\\_final.pdf](http://civicyouth.org/wp-content/uploads/2010/12/Civic-Skills-and-Federal-Policy_final.pdf)



mechanisms to various types of civic engagement. For example, we expect that civic identity as a whole may be particularly important to civic activities, a sense of community belonging may contribute to the likelihood of responsible citizenship activities, while the opportunity to practice civic skills may contribute to the likelihood of political voice activities. Finally, we expect these relationships may be confounded by school social capital, and family and neighborhood characteristics, as well as church activity participation.

## **METHODS**

### **Data**

This study uses data from the *National Longitudinal Study of Adolescent Health* (Add Health), a longitudinal study of a nationally representative sample of adolescents who were in grades 7-12 during the 1994-95 school year (Wave I) and have been followed into adulthood (Waves III and IV). Wave I includes several components: an In-School Questionnaire, an In-Home Questionnaire, a Parent Questionnaire, and a School Administrator Questionnaire, as well as constructed social network variables and contextual data merged by state, county, and census tract from the U.S. Census Bureau. Schools from 80 communities were selected for inclusion in the Add Health study, based on geographic region, urbanicity, school size, school type, and racial and ethnic makeup in order to be representative of U.S. schools overall. In order to include students from grades 7-12, high schools were usually paired with feeder middle schools, for a total of 132 schools. The In-School Questionnaire was administered to all students of participating schools, other than those students who were absent on the day the survey was administered, totaling more than 90,000 observations. The In-School Questionnaire included questions regarding demographic characteristics, parents' education, household structure, and extracurricular activities. In addition, each student was able to nominate up to 5 male and 5

female friends which allowed for the creation of a Social Network dataset. All participating schools have a completed School Administrator Questionnaire, with questions about school policies, teacher characteristics, and characteristics of the student body. In-Home Interviews were conducted for a core sample of approximately 200 students from each pair of schools, stratified by grade and race, as well as additional students from some oversampled groups (four ethnic oversamples, all students from 16 schools, disabled students, and pairs of siblings living in the same household), for a sample of 20,745 adolescents. Parent Questionnaires were administered to a parent or guardian during the In-Home Interviews and over 85% of participants have a corresponding parent questionnaire. Data from the 1990 U.S. Census was merged in at the census block level to create a Neighborhood Context dataset. A supplemental study used data from the Common Core of Data, Private School Survey, the U.S. Census Bureau, and the Office of Civil Rights to create a School Context dataset to correspond to Wave I. Follow up interviews were conducted on Wave I In-Home Interview respondents in 2001-2002 when participants were 18-26 (Wave III). Interviews conducted at Wave III collected data on education, work, income, debt, a range of health issues, and civic participation, with a 77.4% retention rate, for a total of 15,197 responses. Follow up interviews were conducted again on Wave I In-Home Interview respondents in 2008 when most study participants were 24-32 (Wave IV). Interviews conducted at Wave IV included questions on a number of topics, including civic participation, with an 80.3% retention rate from Wave I, for a total of 15,701 responses.<sup>3</sup>

All individual student characteristics including demographic characteristics, family characteristics, civic identity development opportunities, and social capital measures, school

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<sup>3</sup>Participants were also interviewed one year after Wave I, with similar questions as Wave I, however, Wave II data was not used in the present study.

context variables, and neighborhood context variables come from the Wave I data and associated constructed datasets. Adult civic engagement outcomes come from the Wave III and Wave IV data. This allows us to evaluate how opportunities for the development of civic identity during adolescence (Wave I) influence civic outcomes in adulthood (Wave III & Wave IV). See Table 1.1 for a complete list of variables included in our analyses. (For more information on the Add Health study design, see Harris, 2013).

### **Analytic Sample**

All individuals from Wave I of Add Health who have an In-Home Questionnaire, and In-School Questionnaire, and either a Wave III or Wave IV interview included in the data will constitute the analytic sample of 13,168 individuals: 11,274 individuals in Wave III and 11,654 individuals in Wave IV (9,760 individuals appear in both Wave III and Wave IV). The sample is nearly 60% White, approximately 18% Black, most of whom are U.S. born, 15.6% Hispanic, distributed among immigrant generations, and nearly 6% Asian, most of whom are first or second generation immigrants. Over 94% of the sample attended public school. Approximately 15% of the sample are from households where the parents have less than a high school education, 26% of the sample are from households where the parents' highest level of education is a high school diploma, and nearly 38% of the sample are from households where the parents have a college degree. Just over 78% of the sample are from two-parent households and the mean household size is 4.3 individuals. (See Table 1.2 for means and linearized standard errors for all variables.)

We began with a sample of 13,197, and dropped 29 respondents due to missing all information on the outcome measures. Multiple imputation was used to account for missing data

on all variables for which data was missing for more than 3% of observations<sup>4</sup>, which includes social network variables, church participation, and parental activity involvement at the individual level, and proportion of economically disadvantaged students and student-teacher ratio at the school level. While complete case analysis can be used if missing information is missing completely at random (MCAR,) meaning that missingness is not related to either the observed or the missing values on variables, if missing data is not MCAR, missing data can induce bias in estimates (Shadish, Cook, and Campbell, 2002). Based on Little's (1988) test for MCAR and examination of the relationship between key variables and missing data in our dataset, we determined that our data is not MCAR. Multiple imputation, where missing values are replaced with values predicted by other variables in the data set, maintaining the variance and covariance of the original variable, was originally advocated to address missing data in our exact situation--complex survey data where the data collector is separate from the data user (Rubin, 1987; Rubin, 1996).

We use Rose and Fraser's (2008) approach and the inclusive design supported by Collins and colleagues (2001), which includes variables associated with the missing variables as well as variables associated with missingness, to determine our imputation model. We created ten datasets with imputed values on missing data, analyzed them separately, and adjusted the coefficients and standard errors of our estimation models based on Rubin's (1987) recommendations, using the MI ESTIMATE command in Stata 14 (Collins, Schafer, and Kam, 2001; Schafer and Graham, 2002). Proportion of economically disadvantaged students and student-teacher ratios are arguably missing at random (MAR), or related to observed data but not

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<sup>4</sup>This threshold was determined as some variables with small amounts of missing information were needed for our imputation model.

to missing data, since this data was merged from an administrative dataset and filled in with multiple years of data, however, parental involvement in activities and church participation may be missing not at random (MNAR), meaning that missingness is related to the value of the missing data. We may imagine that either a parent who is involved in civic activities or a parent who has to work two jobs and therefore is not able to be involved in civic organizations may not have been home to complete the parent questionnaire and therefore, has missing information on this variable and a respondent who is very religious or conversely, who is not religious may be less willing to divulge information on their church participation, based on perceived societal views of religious involvement. Multiple imputation has been shown to reduce bias in estimates even when data is MNAR (Collins, Schafer, and Kam, 2001; Rose and Fraser, 2008).

## **Measures**

In this section, we describe the outcome variables, the focal variables, and the covariates used in our analyses. (See Table 1.1 for a complete list of covariates included in our models)

*Outcome Variable: Civic Engagement.* We estimate individual analytic models for several measures of civic engagement. First, an indicator variable, coded 1 for any civic engagement at Wave III, was created. Following Keeter and colleagues' (2002) typology, indicator variables of three types of civic engagement at Wave III were created: a civic indicator, coded 1 if a respondent performed volunteer work; an electoral indicator, coded 1 if a respondent registered to vote, voted, or contributed money to a party or candidate; a political voice indicator, coded 1 if a respondent contacted a government official or attended a political rally. Following Westheimer and Kahne (2004), a "personally responsible citizen" indicator was created, coded 1 if a respondent donated blood or was a registered organ donor. An indicator variable, coded 1 for any civic engagement at Wave IV was created. Indicator variables for two

types of civic engagement at Wave IV were created: a civic indicator, coded as 1 if a respondent indicated they spent at least 1 hour on volunteer or community service work over the past 12 months (approximately 64% of respondents indicated they spent 0 hours volunteering; and a voting indicator, coded as 1 if a respondent reported voting in statewide elections often (17.38% of the sample), or always (25.29% of the sample).

*Focal Variables: Civic Identity.* Civic identity development is measured by participation in extracurricular activities. Building on Hart and colleagues' (2007) classification of extracurricular activities and incorporating qualitative descriptions based on available civic development opportunities, extracurricular participation indicator variables were created for participation in instrumental activities (student government, student newspaper, yearbook, debate team, honor society, and vocational clubs), performance based expressive activities (band, orchestra, chorus, and drama), academic and hobby clubs (French club, German club, Computer club, Science club, and similar clubs), high visibility team sports (basketball, football, cheerleading), low visibility team sports (baseball, volleyball, field hockey, soccer), and low visibility individual sports (swimming, track, wrestling, tennis). These are not mutually exclusive categories, so the comparison is to individuals who did not participate in that type of activity. An indicator variable for those that did not participate in any activities will also be included to evaluate whether there is an impact of non-participation on future civic engagement.

*School Social Capital.* School social capital is measured by the size of an individual's social network, extracurricular participation within the social network, and individual perceptions of school connectedness. Individual social network is measured by the number of in-nominations, that is the number of people in the school nominating the student as a friend (each Add Health participant could nominate up to 5 males and 5 females). Extracurricular

participation within the social network is measured by the mean number of activities in which the social network participates (each participant could state they participated in 0-10 activities). An index of perception of school connectedness was created by summing the responses to a number of questions on the in-school questionnaire about the support the respondent felt from their school environment: whether they feel close to people at school, whether they feel like a part of the school, whether they were happy to be at their school, whether teachers at school treat students fairly, and whether they feel safe at school (McNeely, Nonnemaker, and Blum, 2002; Resnick et al, 1997). This index had high internal consistency [Cronbach's  $\alpha=0.76$ ].

*School Context:* We control for school context with a number of variables: school type (public, private religious, and private non-religious,) percent of teachers with an advanced degree, school size and school size squared to account for a non-linear relationship between school size and our outcome, racial and ethnic makeup, economic disadvantage, measured as percent of students qualifying for the federal free lunch program, urbanicity, percent of single parent households, perceptions of school safety, measured as the proportion of students replying “agree” or “strongly agree” to “I feel safe in my school,” student teacher ratio, region of the country (South, West, Midwest, Northeast, overall perceptions of school connectedness, measured as the school level mean on the school connectedness index, and level of extracurricular participation, measured as the proportion of students who stated they participated in at least one school club, sports team, or organization.

*Individual Characteristics.* We control for a number of individual characteristics including race/ethnicity, immigrant generation, gender, grade point average, grade level, number of hours worked for pay per week, church activity participation, age at Wave I, and citizenship at Wave III or IV. Following Perreira, Harris, and Lee (2006), and filling in respondents who

identified as American Indian from in-home interview data, a six category race/ethnicity was created from the respondent's self-reported racial/ethnic identity. For the small number of respondents (<4%) who self-reported multiple racial/ethnic backgrounds, the parents' racial/ethnic identification was used, and the mother's racial/ethnic background was assigned in cases in which parents were of different races/ethnicities. Categories include Non-Hispanic White, Non-Hispanic Black, Hispanic, Non-Hispanic Asian, Non-Hispanic American Indian, and Other. Also consistent with Harris, Perreira, and Lee (2006), indicator variables were created for First Generation Immigrants (foreign born) and Second Generation Immigrants (U.S. born children of foreign born parents), and Third Generation or later (U.S. born children of U.S. born parents). Puerto Rican respondents are considered foreign born if they were born in Puerto Rico. Grade point average was calculated out of 4 points from self-reported grades in four core subjects (English, Math, Science, and Social Studies). Two indicator variables were created for church activity participation: one for those that attend church services but do not participate in activities, one for those that participate in activities and attend church services. The referent category is those that neither attend nor participate in activities. A small number of respondents indicated that they participated in church activities but did not attend church services; these respondents were combined with those that both attend services and participate in church activities as the category was too small to yield meaningful results. Age at Wave I was created by using respondent's self-reported age, and filling in missing data by computing age as the difference between respondent's birth date and the interview date. Naturalized citizenship at Wave III or IV was measured by whether the respondent naturalized prior to the associated wave of data collection (natural born citizenship is captured by immigrant generation).



*Family Characteristics:* We control for parental education, family structure, size of household, and parental involvement in voluntary organizations. Parent's Education is measured as the highest level of education either of the respondent's parents have completed, categories include less than high school, high school graduate, and some college, with college graduate as the referent category. Family Structure is measured as an indicator variable of a single parent household, coded as 1 if the respondent lives in a single parent household, with a two parent (whether adoptive, biological, or step) household as the referent category. Size of Household is measured as a continuous variable indicating the number of individuals living in the household. Parental involvement in voluntary organizations is measured as an indicator variable, coded 1 if the respondent's parent indicated they were involved in any voluntary organization (parent-teacher organization, a military veterans organization, a labor union, hobby club, or civic organization).

*Neighborhood Characteristics.* We include a number of neighborhood characteristics, intended to capture neighborhood opportunities for civic identity development, which may serve as a complement or a substitute for school-based opportunities and therefore, may bias our estimates if not included. We control for neighborhood level concentrated disadvantage, racial and ethnic segregation, proportion of adults with college degrees, proportion of female headed households, neighborhood mobility, urbanicity, and individual perceptions of neighborhood social cohesion. All neighborhood level measures are from the Add Health contextual database, which links data by census tract to respondents' addresses at Wave I, and were measured at the census block level. Following Wilson (1987), two variables were used to create an indicator variable of concentrated disadvantage, coded as 1 if the neighborhood has a high proportion (>23.9%) of persons living below the poverty line and a high level of unemployment (>10.9%).

The referent category is “not disadvantaged” (Wilson, 1987). A neighborhood is considered racially/ethnically segregated if it has a below average ( $<0.255$ ) score on the racial dispersion measure (0=completely homogeneous – 1= each racial category has equal frequencies).

Proportion of adults with college degrees is a continuous measure, as is the proportion of female headed households. Neighborhood mobility is a continuous variable, measured as the proportion of households in the neighborhood that moved in within the past five years. An indicator variable for urban neighborhood was created, coded as 1 if the neighborhood is completely urban, meaning all individuals in the block group lived inside of urbanized areas, according to the U.S. Census Bureau Census of Population and Housing, 1990. The referent category is “not completely urban” (Billy, Wenzlow, and Grady, 1998). An individual index of perception of neighborhood social cohesion was created by summing the responses to four questions: whether they know most of the people in their neighborhood, whether they have stopped on the street to talk with a neighbor in the past month, whether people in the neighborhood look out for each other, and whether they feel safe in the neighborhood (Buckner, 1988; Robinson and Wilkinson, 1995). This index had high internal consistency [Cronbach’s  $\alpha=0.72$ ].

## **Analysis Plan**

In this study, the goal is to isolate the effects of the treatment, civic identity development opportunities in adolescence, on the outcome of interest, civic engagement in adulthood. As is common in empirical policy work, we use Rubin’s Causal Model (RCM), also known as the potential outcomes framework. Under this model, it must be possible that each member of the study population could be assigned to either treatment condition and has one potential outcome associated with each condition. In this study, the treatment is the previously defined categories of extracurricular activities and the potential outcomes for each individual would be: civically

engaged if treated, not civically engaged if not treated; not civically engaged if treated, civically engaged if not treated; civically engaged whether treated or not treated; and not civically engaged whether treated or not treated, conditional upon school social capital and other confounding factors. To address the Fundamental Problem of Causal Inference, which is that each individual is potentially exposable to only one treatment condition (Holland, 1986), in empirical work in public policy and other social sciences, we statistically construct comparable groups to assign to treatment conditions. In an ideal study, we would randomly sample students from the target population of U.S. high school students and assign them at random to extracurricular activities, however, we are using observational data so this is not possible. The probability sampling utilized by Add Health yields a dataset with high external validity or generalizability to the target population. However, the ability to infer a causal relationship between the treatment and outcome or produce an unbiased causal effect estimate must be addressed (Holland, 1986; Rubin, 2008; Shadish, Cook, and Campbell, 2002). Since we are not able to assign students to the various extracurricular activities, we must instead seek to understand and model the mechanisms by which individuals are selected into treatment (Morgan and Winship, 2007). We seek “strongly ignorable assignment to treatment,” meaning that we have included a set of covariates in our model such that an individual’s potential outcomes are not correlated with their assignment to a treatment condition (Steiner et al, 2010). Our biggest threat to internal validity comes from selection bias, or the idea that the group that participates in these extracurricular activities may be fundamentally different than the group that does not participate in these activities in ways that may affect future civic engagement (Shadish, Cook, and Campbell, 2002). Shadish and colleagues (2008) found that using covariate adjustment can greatly (84-94%) reduce selection bias as compared to estimates from randomized experiments.

In comparing choice sets of variables to reduce bias, Steiner and colleagues (2010) found that the best approach to reducing selection bias is to include those covariates which are correlated with both selection into treatment and the outcome of interest. In the context of this study, covariates which predict participation in extracurricular activities and are associated with future civic engagement should be included in any models to reduce selection bias. Due to the extensive measures available in the Add Health dataset, we are able to include covariates the literature has identified as key determinants of student participation in extracurricular activities and that conceptually may be correlated with civic engagement in adulthood (often indirectly), as well as additional variables to control for sorting into schools and neighborhoods.

We address three sources of selection bias by including covariates at the individual, school, and neighborhood levels. First, participation in extracurricular activities is voluntary, students self-select into these activities. We recognize that extracurricular participation measures both the civic identity development opportunities offered in these activities and selection into these activities, or motivation to participate, and attempt to control for this motivation through a rich set of covariates which have been determined to predict participation in extracurricular activities. We are concerned in essence that due to this motivation aspect, a disproportionate number of the “civically engaged whether treated or not treated” students will end up in treatment (participating in extracurricular activities) and a disproportionate number of the “not civically engaged whether treated or not treated” students will end up not participating, causing bias in our results. We include the following individual characteristics which the prior empirical literature has demonstrated predict participation in extracurricular activities in all models (for a review of this literature, see Feldman and Matjasko, 2005): age (Garton and Pratt, 1991; McNeal, 1998), grades (Jordan and Nettles, 2000; Marsh and Kleitman, 2002), hours

worked per week (McNeal, 1999), and race/ethnicity and gender (Darling, 2005; Eccles and Barber, 1999; Hart et al, 1998; Mahoney and Cairns, 1997; Marsh and Kleitman, 2002; McNeal, 1998; McNeal, 1999). Age at school entry may affect educational attainment (Angrist and Krueger, 1992) and the relationship between educational attainment and civic engagement is well documented in the literature (Converse, 1972; Dee, 2004; Nie and Hillygus, 2001; Wolfinger and Rosenstone, 1980). Grades likely reflect a combination of innate ability and academic motivation, both which may predict educational attainment, indirectly affecting civic engagement, while this motivation may directly affect future civic participation. Hours worked per week is an indicator of socioeconomic status and a student may have opportunities for civic development in the context of his or her job. Differences in patterns of civic participation by socioeconomic status (Verba, Burns, and Schlozman, 2003; Wolfinger and Rosenstone, 1980), gender (Center for American Women and Politics, 2015; Jenkins, 2005), and by race/ethnicity (File, 2013; Verba, Schlozman, and Brady, 1995) have been documented.

Additionally, students are not randomly assigned to schools--parents choose particular school systems, choose to live in particular areas with access to particular schools, choose private schools rather than neighborhood public schools, or even use a family member's address to register students in a preferable school. The availability of particular extracurricular activities, and likely the quality of the civic development opportunities presented in these activities is not randomly distributed across the sample. We address this source of bias by controlling for a number of school context variables: racial and ethnic makeup, economic disadvantage, perceived school safety, school type (public, private-religious, and private non-religious), proportion of teachers with advanced degrees, school size, student-teacher ratio, proportion of single parent families, urbanicity, and proportion who participate in extracurricular activities.

School context may be indicative of overall school quality, therefore affect the quality of civic skill development offered in the curriculum and future educational attainment which is associated with civic engagement. We gain additional benefit by including many of these variables in our models as the literature demonstrates that school size (Conover and Searing, 2002; Crosnoe, Johnson, and Elder, 2004; Jordan and Nettles, 2000; Lay, 2007; Marsh and Kleitman, 2002; McNeal, 1998), urbanicity, school safety, proportion of teachers with advanced degrees, pupil teacher ratio, proportion of single parent households, and school level socioeconomic status (McNeal, 1999) predict participation in extracurricular activities. Proportion of students who participate in activities also addresses selection into activities as overall participation rates affect the likelihood of any one student's participation. Higher levels of participation may make it more likely that a student participates, however, in schools with lower overall participation, a different type of student, e.g. a student with higher motivation to participate, may select into activities and this propensity for "joining"/participation may affect future civic participation as well. We also used complementary school fixed effects models to check the robustness of our estimates and remove any unobserved differences between schools which may introduce bias into our results. Fixed effects models limit the comparison to students within the same schools, holding constant the average effects on civic engagement of attending a particular school. Finally, people are not randomly sorted into neighborhoods. They exercise choice which then affects which schools are attended, which other civic identity development opportunities are present, what social capital is available in the neighborhood, and may have additional direct effects on civic engagement (Sampson, 2012). We address this third source of selection bias by controlling for a number of neighborhood context variables: economic disadvantage, racial/ethnic segregation, urbanicity, and perceptions of neighborhood

social cohesion. In addition to the previously discussed impacts on future civic engagement, neighborhood social cohesion may also be correlated with participation in extracurricular activities (Feldman and Matjasko, 2005). We also used complementary neighborhood fixed effects models to check the robustness of our estimates and remove any unobserved differences in neighborhoods which may introduce bias into our results, by limiting the comparison to student within the same neighborhoods.

First, we conduct descriptive analysis. We calculate weighted means and linearized standard errors, adjusted for survey design, for all of our covariates (See Table 1.2). We then calculate our dependent variables by type of activity participation and note any significant differences between participants and non-participants (See Table 1.3). We then evaluate the relationship between adolescent civic identity development opportunities and civic engagement in adulthood using a series of two-level linear probability models, to account for the nesting of students within schools. We chose a linear probability model, as opposed to a logistic regression model, to allow for the estimation of a two-level model, as well as to be able to easily compare results between this model and the school and neighborhood fixed effects models. Finally, we conduct two sets of complementary models as robustness checks: one with school fixed effects and one with neighborhood fixed effects. These complementary models will limit the comparison of students to others within the same schools and neighborhoods and remove any unobserved effects of school and neighborhood context.

We estimate a model with a dichotomous measure of any civic engagement at Wave III as the dependent variable, then with a dichotomous measure of one of four categories of civic engagement at Wave III as the dependent variable, with a dichotomous measure of any civic engagement at Wave IV as the dependent variable, and finally with a dichotomous measure of

one of two categories of civic engagement at Wave IV. This will allow us to evaluate the impact of the various extracurricular activities on various types of civic engagement activities.

The following model will be estimated for each category of civic engagement:

$$p(CE_{it}) = \beta_0 + \beta_1 CivicID_{ist-1} + \beta_2 Social_{ist-1} + \beta_3 X_i + \beta_4 Family_{it-1} + \beta_5 School_{st-1} + \beta_6 Nbrhd_{int-1} + \mu_s + \epsilon_{is}$$

Where  $p(CE_{it})$  is the probability of individual  $i$  of any civic engagement or a particular type of civic engagement for individual  $i$  at time  $t$ ;

*CivicID* is a vector of civic identity development variables indicating that an individual participated in an instrumental activity, expressive activity, academic or hobby club, high visibility sport, low visibility team sport, low visibility individual sport, or no activities;

*Social* is a vector of school social capital variables which include perceptions of school connectedness, size of social network, social network participation in extracurricular activities, measured during adolescence (time  $t-1$ );

$X_i$  is a vector of individual characteristics which include hours worked per week, church participation), grade level, GPA, naturalized citizenship status at time of outcome, age at Wave I, race/ethnicity, immigrant generation, and gender;

*Family* is a vector of family characteristics which include parents' education, family size, family composition, and parental involvement in voluntary organizations measured during adolescence (time  $t-1$ );

*School* is a vector of school characteristics which include average school connectedness, proportion of students who participate in extracurricular activities, racial and ethnic makeup, proportion of economically disadvantaged students, perceived school safety, proportion of single parent families, school type (public, private-religious, private-nonreligious), proportion of teachers with advanced degrees, size, size squared, student-teacher ratio, urbanicity, and geographic region measured at the school level during respondent's adolescence (time  $t-1$ );



*Nbrhd* is a vector of neighborhood characteristics which include concentrated disadvantage, racial/ethnic segregation, perceptions of neighborhood social cohesion, and urbanicity measured during respondent's adolescence (time t-1).

All analyses are weighted to account for design effects in the sampling of Add Health, with weights scaled for use in two-level models (using the PWIGLS Method 2 command in Stata 14), and standard errors are cluster-adjusted at the school level to account for non-independence of the observations within schools (Chen and Chantala, 2014).

## **FINDINGS**

Table 1.3 displays results from descriptive analysis, comparing civic engagement rates between participants in each type of activity to non-participants, as well as comparing individuals who participated in no extracurricular activities to those who participated in at least one activity. Those who participated in at least one extracurricular activity participate in all types of civic engagement activities at both Wave III and Wave IV at a higher rate than those who participated in no activities. Participants in instrumental activities, expressive activities, and academic and hobby clubs participate in all types of civic engagement activities at both Wave III and Wave IV at a higher rate than those who did not participate in those activities. Participants in high visibility sports participate in civic and electoral activities at Wave III and all types of civic engagement activities at Wave IV at a higher rate than those who did not participate in high visibility sports. Participants in low visibility team sports participate in civic and personally responsible citizenship activities at Wave III and civic activities at Wave IV at a higher rate than those who did not participate in low visibility team sports. Participants in low visibility individual sports participate in all civic engagement activities at Wave III and in civic activities at Wave IV at a higher rate than those who did not participate in low visibility individual sports.

Table 1.4 displays results from two-level linear probability models. Instrumental activity participation is associated with increased likelihood of all measures of civic engagement at both Wave III and Wave IV, with the exception of personally responsible citizenship activities at Wave III.

Expressive activity participation is associated with increased likelihood of all measures of civic engagement at both Wave III and Wave IV, with the exception of electoral activities at Wave III, although weakly associated with both political voice and personally responsible citizenship activities at Wave III.

Academic and hobby club participation is associated with increased likelihood of participating in political voice and personally responsible citizenship activities at Wave III, overall civic engagement at Wave IV, and both volunteering and voting regularly in state elections at Wave IV.

High visibility team sports participation is associated with increased likelihood of voting regularly in state elections at Wave IV.

Low visibility team sports participation is associated with increased likelihood of personally responsible citizenship activity at Wave III.

Low visibility individual sports participation is associated with increased likelihood of volunteering at Wave IV.

Regarding potential confounding characteristics, school connectedness has a small positive impact on the likelihood of civic, electoral, and personally responsible citizenship activities at Wave III, and on overall civic engagement at Wave IV. The level of participation within an individual's school social network has a small positive impact on the likelihood of personally responsible citizenship activities at Wave III and volunteering at Wave IV.

Participation in church services only has a positive impact on overall civic engagement at Wave IV. Participation in church activities has a positive impact on the likelihood of electoral activities at Wave III and both volunteering and voting regularly in state elections in Wave IV. Interestingly, a comparison of student characteristics of various activity participants (see Appendix Table A1) demonstrates that rather than crowding out school extracurricular activities, students tend to participate in both church and school activities, so this positive impact would often be in addition to the positive impact of school activities.

Those with parents with lower levels of parental education (high school diploma or less) are considerably less likely to be engaged at both Wave III and Wave IV than those with parents with college degrees. Parental involvement in voluntary organizations has a positive impact on all types of civic activity other than political voice, where we see no relationship.

School context seems to have little impact on civic engagement in adulthood. Average levels of school connectedness are associated with a decreased likelihood of participation in civic activities at both Wave III and Wave IV, but an increased likelihood of participation in personally responsible citizenship activities at Wave III. Individuals who attended private non-religious schools are more likely to be engaged in all civic activities at both Wave III and Wave IV, however, this is a small sample (<2% of our sample) and this coefficient is likely capturing idiosyncratic qualities of these schools and students which impact future civic engagement.

An individual's perception of neighborhood social cohesion demonstrates a small positive impact on Wave IV civic engagement and living in a disadvantaged neighborhood in adolescence demonstrates a positive impact on voting regularly in state elections at Wave IV. The proportion of adults with a college degree demonstrates a large positive impact on electoral activity at Wave III and overall civic engagement at Wave IV, which seems to be driven by

voting regularly in state elections, although this coefficient is not statistically significant.

Mobility in the neighborhood in adolescence has a negative impact on personally responsibility citizenship activity at Wave III and voting regularly in state elections at Wave IV.

A student's grade point average in adolescence demonstrates a positive and significant relationship with all civic engagement types at both Wave III and Wave IV. Finally, first generation immigrants have a lower likelihood of all types of civic engagement than third generation or later individuals, however, if they naturalize as citizens, this negative relationship almost disappears.

Table 1.5 displays results from school fixed effects models. Results from school fixed effects models are largely consistent with those from the two-level models, which suggests that we have adequately controlled for the effects of school context on civic engagement and any confounding effects of school context with the covariates included in the model. This similarity also indicates that the availability of opportunities to participate in activities does not affect the impact of these activities on civic engagement, supporting that we have adequately controlled for selection bias based on non-random assignment to schools. Coefficients are similar in magnitude and identical in direction; the only differences are in statistical significance, which could be an artifact of the slight change in sample size between the two models. Following advice from the American Statistical Association warning against relying solely on p-values for policy decisions, we consider the results between the two models similar (Wasserstein and Lazar, 2016).

Table 1.6 displays results neighborhood fixed effects models. Results from neighborhood fixed effects models demonstrate that there are aspects of neighborhood context for which we have not controlled which bias our original two-level model estimates, leading us to potentially overstate the effects of instrumental activity participation on civic engagement at

Wave IV, for example, and underestimate the effects of academic and hobby club participation on civic engagement at Wave III.

## **DISCUSSION**

This study advances the literature on civic identity and civic engagement as well as the role of school extracurricular activities in promoting civic engagement by offering some insight as to the mechanisms through which various activities may impact the proclivity for civic engagement. We do find an impact on civic engagement that is plausibly attributable to the civic identity development opportunities offered through participation in various extracurricular activities. These findings offer a number of directions for both policy and future research.

As hypothesized, instrumental activity participation, which is expected to have the highest degree of civic identity development opportunities by working through all four mechanisms, has a positive impact on a range of civic activities in young adulthood. For example, instrumental activity participation predicts a 3.4% increase in the likelihood of any civic engagement activities in young adulthood and a 6% increase in the likelihood of volunteering in young adulthood. This impact persists into later adulthood, predicting a 2.2% increase in the likelihood of any civic engagement activity, although this persistence may be impacted by unobserved neighborhood factors. While we see no impact of participation in high visibility team sports on civic engagement in young adulthood, expressive activity participation has a positive impact on a range of civic activities in young adulthood. This may signal the importance of working on a collective goal that is produced for the wider community, such as a musical or drama performance, rather than a collective goal that primarily benefits participants, such as a sports team win where team members get credit for the win. An examination of the individual characteristics of participants of the various activity types demonstrates that

expressive activity participants have the highest average rates of parental civic involvement of any activity type, and higher rates of participation in church activities than other activity types, which may indicate there are unobserved differences in the type of student who may participate in expressive activities which affects civic engagement (see Appendix Table A1). This is a plausible direction for future research.

Participation in academic and hobby clubs positively impacts the likelihood of political voice activities and personally responsible citizenship activities in early adulthood and both volunteering and voting in later adulthood. We may imagine that the opportunity to practice and gain confidence in civic skills such as learning how to attend a meeting, express an opinion, and deliberate may be particularly important for political voice activities. Additional research is warranted to understand the link between these activities and civic engagement that persists into later adulthood. Aspects of neighborhoods seem to particularly affect the impact of these activities. Our findings offer additional information regarding the relationship between sports participation and civic engagement. While we do not find the relationship between high visibility sports and civic engagement that we anticipated, we do find a positive impact of high visibility sports participation on voting regularly in state elections in later adulthood, for low visibility team sports on personally responsible citizenship activities, and for low visibility individual sports on volunteering in later adulthood. Certainly, this may be attributed to unobserved differences in the type of student drawn to these various sports, however, we may also consider that different types of coaches are drawn to different types of sports activities, therefore offering different civic role models, and this offers another avenue for future research.

The key directions for future research are first, to seek to better understand the civic identity development opportunities available in these various extracurricular activities in order to

understand the mechanisms which promote civic identity development and how these mechanisms predict civic engagement in adulthood. In this study, we make assumptions about the civic identity development opportunities included in various activities. An important next step would be to survey participants to determine the civic identity development opportunities available in various activities, and to determine whether these opportunities were consistent across schools. Ideally, these students could be followed into adulthood to determine if these civic identity opportunities predicted civic engagement. Second, qualitative work to better understand the determinants of participation in various activities would be beneficial. Extant literature tends to approach extracurricular activities as having a shared set of determinants, when in reality very different types of students may be drawn to instrumental activities, expressive activities, academic and hobby clubs, and sports. Qualitative research regarding the types of students who participate in various activities would allow us to better model selection into activities in future quantitative work.

We find evidence that aspects of neighborhood context affect the impact of school extracurricular activities on civic engagement. This finding is consistent with Sampson (2012) that there are aspects of neighborhoods that have lasting impacts on a number of life outcomes including civic engagement. Preliminary analysis indicated a need for additional variables to control for neighborhood effects and we have included all available variables which would likely impact both treatment and outcome. While we are able to control for the social cohesion aspect of collective efficacy, we do not have an available measure for the neighborhood expectations for social control aspect of collective efficacy which may impact future civic engagement (Sampson, 2012). This is a potential direction for future research.

An extension of this research would be to conduct additional research to better understand the link between civic adult role models and civic engagement. The positive relationship between parental education and parental involvement in voluntary activities and future civic engagement is consistent with prior literature and suggests the importance of civic role models. Some of the observed impacts of neighborhood context, such as the negative impact of neighborhood mobility and the positive impact of the proportion of college educated adults in the neighborhood, coupled with the differences between the two-level models and neighborhood fixed effects models, as well as work by Youniss and colleagues (1997) and Atkins and Hart (2003) support the importance of adult civic role models to civic identity development. While the family may be beyond the scope of policy and program interventions, additional research into the relationship between the availability of adult role models in the neighborhood and civic engagement would be informative. Certainly, interventions can be designed to make adult civic role models available in communities where they may be lacking. For example, though not specifically focused on civic role models, Big Brothers Big Sisters of America uses this approach.

Regarding the policy implications of this study, we find enough support for the positive impact of extracurricular activities on various civic engagement activities to conclude that schools should, as much as resources allow, offer a range of extracurricular opportunities, prioritizing instrumental and expressive activities, and focus on removing barriers to participation for all students, especially those who may not have access to other civic identity development opportunities. An examination of participants of various activities demonstrates that those students who do not participate in any extracurricular activities, on average, have lower GPA's and are more likely to be from families with lower levels of parental education and



are less likely to have parents who participate in civic activities, as compared to participants, therefore may particularly benefit from activity participation (see Appendix Table A1). First, determining the barriers to participation for groups with low activity participation rates as well as lower civic engagement as adults (e.g., low socioeconomic status students and low performing students), whether structural, such as lack of transportation or lack of recruitment into activities, or psychological, such as the view that students “like me” do not participate in these activities, and considering approaches to removing these barriers would likely provide long term benefit to these students.

Table 1.1: Covariates Used in Analyses

Individual and Family	School Level	Neighborhood Level
1. School connectedness	1. Mean school connectedness	1. Disadvantaged Neighborhood
2. Size of social network	2. Proportion who participate in activities	2. Racially/ethnically segregated
3. Social network participation	3. Race/ethnicity Proportions	3. Proportion of adults with college degree
4. Hours worked/week	4. Proportion qualified for free/reduced lunch	4. Proportion of households headed by females
5. Church service/activity participation	5. Perceived school safety	5. Mobility within 5 years
6. Grade	6. Proportion single parent families	6. Urbanicity
7. Grade point average (GPA)	7. School type	
8. Race/ethnicity	8. Proportion of teachers with advanced degrees	
9. Immigrant generation	9. School size	
10. Naturalized citizenship	10. School size squared	
11. Age at Wave I	11. Urbanicity	
12. Household size	12. Student/teacher ratio	
13. Two parent household	13. Geographic region	
14. Parental Education		
15. Perceptions of neighborhood social cohesion		

Table 1.2: Descriptive Statistics for Covariates

	Mean	S.E.
<b>Civic Identity Development Activities</b>		
Instrumental	0.234	0.010
Expressive	0.262	0.013
Academic/Hobby	0.310	0.011
High Visibility Sports	0.319	0.012
Low Visibility Team Sports	0.267	0.010
Low Visibility Individual Sports	0.265	0.013
No Activities	0.158	0.010
<b>School Social Capital</b>		
School Connectedness	18.577	0.085
Size of Social Network	4.412	0.128
Social Network Participation	2.168	0.062
<b>Individual Characteristics</b>		
Hours Worked/Week	6.574	0.382
Church - Services Only	0.329	0.013
Church - Activities	0.564	0.014
Middle School	0.269	0.038
Early High School (9th/10th)	0.433	0.023
Late High School (11th/12th)	0.327	0.020
GPA	2.824	0.027
<b>Race/Ethnicity</b>		
White	0.562	0.036
Hispanic	0.156	0.029
Black	0.177	0.023
Asian	0.057	0.014
American Indian	0.042	0.004
Other	0.005	0.001
Male	0.499	0.010
<b>Immigrant Generation</b>		
1st Generation	0.077	0.017
2nd Generation	0.134	0.017
3rd + Generation	0.789	0.032
Naturalized Citizenship at Wave 3	0.036	0.007
Naturalized Citizenship at Wave 4	0.035	0.007
Age (Wave I)	14.947	0.113
<b>Family Characteristics</b>		
Household Size	4.273	0.036
Two Parent Household	0.782	0.010
<b>Parental Education</b>		
< High School	0.151	0.016
High School Grad	0.260	0.012
Some College	0.212	0.009
College Graduate	0.377	0.019
Parent involved in civic organization	0.524	0.016

Table 1.2: Descriptive Statistics for Covariates, Continued

	<b>Mean</b>	<b>S.E.</b>
<b>School Context</b>		
Mean School Connectedness	15.531	0.211
Percent Participate in activities	0.829	0.007
Percent Hispanic	0.201	0.029
Percent Black	0.157	0.019
Percent Asian	0.056	0.010
Percent American Indian	0.036	0.002
Percent Other Race	0.046	0.003
Percent Economically Disadvantaged	0.261	0.019
Perceived School Safety	0.620	0.014
Percent Single Parent Families	0.294	0.010
Public	0.944	0.023
Private - Religious Affiliation	0.035	0.019
Private - Non-religious	0.015	0.012
Percent Teachers with Advanced Degrees	0.527	0.031
Size(/100)	10.139	0.770
Student/teacher ratio	19.009	0.398
<b>Urbanicity</b>		
Urban	0.325	0.055
Suburban	0.569	0.057
Rural	0.109	0.031
<b>Region</b>		
South	0.439	0.035
West	0.224	0.029
Midwest	0.194	0.032
Northeast	0.143	0.020
<b>Neighborhood Context</b>		
Perception of Neighborhood Cohesion	10.582	0.070
Disadvantaged Neighborhood	0.109	0.015
Segregated	0.525	0.036
Prop. of Adults with College Degree	0.243	0.010
Female Headed Households	0.071	0.003
Mobility within 5 years	0.480	0.011
Urban	0.592	0.044

Adjusted for survey design

Table 1.3: Civic Engagement by Extracurricular Activity Participation Type

	<b>Instrumental Activity Participants</b>		<b>Expressive Activity Participants</b>		<b>Academic/Hobby Club Participants</b>		<b>High Visibility Sports Participants</b>		<b>Low Visibility Team Sports Participants</b>		<b>Low Visibility Individual Sports Participants</b>		<b>Participate in No Activities<sup>1</sup></b>	
	Mean	S.E.	Mean	S.E.	Mean	S.E.	Mean	S.E.	Mean	S.E.	Mean	S.E.	Mean	S.E.
<b>Wave 3 (N=11,260)</b>	(N=3,039)		(N=2,958)		(N=3,704)		(N=4,055)		(N=3,206)		(N=3,053)		(N=1,707)	
Any Civic Engagement	0.920*	0.011	0.918*	0.007	0.900*	0.009	0.871*	0.011	0.875*	0.013	0.888*	0.011	0.768*	0.023
Civic	0.407*	0.017	0.392*	0.011	0.350*	0.016	0.324*	0.016	0.359*	0.016	0.363*	0.018	0.180*	0.014
Electoral	0.821*	0.015	0.798*	0.015	0.793*	0.015	0.766*	0.015	0.760	0.016	0.770*	0.015	0.647*	0.023
Political Voice	0.109*	0.014	0.087*	0.011	0.089*	0.010	0.062	0.009	0.061	0.008	0.076*	0.011	0.040*	0.009
Personally Responsible Citizenship	0.531*	0.021	0.530*	0.019	0.524*	0.019	0.447	0.017	0.516*	0.022	0.505*	0.021	0.377*	0.027
<b>Wave 4 (N=11,624)</b>	(N=3,160)		(N=2,652)		(N=3,857)		(N=4,142)		(N=3,273)		(N=3,169)		(N=1,812)	
Any Civic Engagement	0.856*	0.012	0.839*	0.012	0.841*	0.012	0.786*	0.013	0.783	0.016	0.816*	0.014	0.649*	0.019
Civic	0.501*	0.019	0.468*	0.016	0.488*	0.020	0.414*	0.015	0.432*	0.016	0.471*	0.019	0.255*	0.022
Voting	0.518*	0.020	0.504*	0.014	0.486*	0.019	0.461*	0.016	0.419	0.018	0.448	0.020	0.327*	0.022

\* indicates mean is statistically higher than those that do not participate in that activity type,  $p < 0.05$

1. Comparison is to those that participate in any extracurricular activities, \* indicates mean is statistically lower than those that do participate in activities,  $p < 0.05$

Table 1.4: Impact of High School Civic Identity Development Opportunities on Adult Civic Engagement,  
Results from Two- level Linear Probability Models

		<i>Wave 3 (N=10,156 individuals in 122 schools)</i>					<i>Wave 4 (N=10,489 individuals in 122 schools)</i>		
		<b>Any CE</b>	<b>Civic</b>	<b>Electoral</b>	<b>Political Voice</b>	<b>Personal Responsibility</b>	<b>Any CE</b>	<b>Civic</b>	<b>Voting</b>
		<i>Coefficient</i>	<i>Coefficient</i>	<i>Coefficient</i>	<i>Coefficient</i>	<i>Coefficient</i>	<i>Coefficient</i>	<i>Coefficient</i>	<i>Coefficient</i>
		<i>(S.E.)</i>	<i>(S.E.)</i>	<i>(S.E.)</i>	<i>(S.E.)</i>	<i>(S.E.)</i>	<i>(S.E.)</i>	<i>(S.E.)</i>	<i>(S.E.)</i>
<b>Civic Identity Development Activities</b>									
	Instrumental	0.034** (0.012)	0.061** (0.020)	0.051** (0.015)	0.044** (0.012)	0.025 (0.016)	0.022† (0.013)	0.046* (0.018)	0.047** (0.015)
	Expressive	0.041** (0.012)	0.061** (0.019)	0.025 (0.015)	0.021† (0.011)	0.028† (0.017)	0.035** (0.013)	0.034† (0.020)	0.070** (0.015)
	Academic/ Hobby	0.018 (0.012)	-0.005 (0.018)	0.021 (0.015)	0.020** (0.007)	0.048** (0.016)	0.031* (0.014)	0.061** (0.017)	0.035* (0.016)
	High Visibility Sports	0.014 (0.013)	-0.003 (0.018)	0.014 (0.013)	0.003 (0.009)	-0.008 (0.017)	-0.001 (0.015)	0.019 (0.016)	0.032* (0.014)
	Low Visibility Team Sports	0.008 (0.011)	0.024 (0.015)	-0.002 (0.017)	-0.010 (0.009)	0.036* (0.016)	-0.002 (0.015)	0.003 (0.018)	-0.022 (0.016)
	Low Visibility Individual Sports	0.003 (0.014)	0.014 (0.020)	-0.016 (0.015)	-0.003 (0.009)	0.012 (0.019)	-0.004 (0.016)	0.038* (0.019)	-0.021 (0.017)
	No Activities	-0.008 (0.020)	-0.014 (0.021)	-0.019 (0.021)	-0.014 (0.009)	0.006 (0.023)	-0.032 (0.025)	0.003 (0.023)	-0.014 (0.030)
<b>School Social Capital</b>									
	School Connectedness	0.002 (0.001)	0.007** (0.002)	0.005** (0.002)	0.002 (0.001)	0.005* (0.002)	0.004† (0.002)	0.003 (0.002)	0.003 (0.002)
	Size of Social Network	0.001 (0.002)	0.002 (0.002)	0.000 (0.002)	-0.002 (0.001)	-0.001 (0.002)	0.000 (0.002)	0.001 (0.002)	0.000 (0.002)
	Social Network Participation	0.003 (0.006)	0.006 (0.007)	0.006 (0.008)	-0.003 (0.005)	0.014† (0.008)	0.003 (0.009)	0.014† (0.008)	0.009 (0.008)

Table 1.4: Impact of High School Civic Identity Development Opportunities on Adult Civic Engagement,  
Results from Two- level Linear Probability Models, Continued

	Wave 3 (N=10,156 individuals in 122 schools)					Wave 4 (N=10,489 individuals in 122 schools)		
	Any CE	Civic	Electoral	Political Voice	Personal Responsibility	Any CE	Civic	Voting
	Coefficient (S.E.)	Coefficient (S.E.)	Coefficient (S.E.)	Coefficient (S.E.)	Coefficient (S.E.)	Coefficient (S.E.)	Coefficient (S.E.)	Coefficient (S.E.)
<b>Individual Characteristics</b>								
Hours	0.001	-0.000	0.001†	0.001†	0.001	0.000	0.001	0.001
Worked/Week	(0.001)	(0.000)	(0.001)	(0.000)	(0.001)	(0.001)	(0.001)	(0.001)
Church - Services	0.022	-0.003	0.012	0.004	0.027	0.076**	0.018	0.046
Only	(0.025)	(0.026)	(0.026)	(0.012)	(0.026)	(0.028)	(0.026)	(0.026)
Church - Activities	0.036	0.022	0.046	0.004	0.020	0.095**	0.067**	0.065*
	(0.022)	(0.027)	(0.026)	(0.010)	(0.028)	(0.026)	(0.023)	(0.023)
Grade Level	0.026*	0.003	0.029**	-0.007	-0.003	0.033**	0.013	0.023†
	(0.011)	(0.011)	(0.011)	(0.008)	(0.011)	(0.010)	(0.009)	(0.009)
GPA	0.033**	0.089**	0.026**	0.017**	0.028*	0.066**	0.074**	0.041**
	(0.009)	(0.010)	(0.009)	(0.006)	(0.012)	(0.008)	(0.010)	(0.010)
<b>Race/Ethnicity (White is reference)</b>								
Hispanic	0.022	0.007	-0.004	0.006	-0.056*	0.032	0.038	0.072*
	(0.023)	(0.035)	(0.029)	(0.014)	(0.026)	(0.033)	(0.038)	(0.031)
Black	0.001	-0.007	0.045*	-0.018	-0.169*	0.081**	0.008	0.104**
	(0.017)	(0.023)	(0.021)	(0.012)	(0.025)	(0.019)	(0.023)	(0.028)
Asian	0.009	-0.032	-0.062†	-0.021	-0.089*	-0.056	0.003	-0.112
	(0.029)	(0.036)	(0.037)	(0.023)	(0.045)	(0.035)	(0.040)	(0.040)
American Indian	-0.005	-0.087*	-0.022	0.059	-0.050	0.024	0.023	0.093*
	(0.024)	(0.038)	(0.033)	(0.037)	(0.042)	(0.041)	(0.048)	(0.044)
Other	-0.019	-0.072	-0.067	-0.058**	-0.009	0.154†	-0.054	-0.029
	(0.085)	(0.097)	(0.111)	(0.017)	(0.113)	(0.079)	(0.139)	(0.118)
Male	-0.009	0.013	-0.009	0.028**	-0.053**	-0.035*	-0.042**	-0.015
	(0.010)	(0.014)	(0.013)	(0.007)	(0.013)	(0.015)	(0.016)	(0.013)

Table 1.4: Impact of High School Civic Identity Development Opportunities on Adult Civic Engagement,  
Results from Two- level Linear Probability Models, Continued

		<i>Wave 3 (N=10,156 individuals in 122 schools)</i>					<i>Wave 4 (N=10,489 individuals in 122 schools)</i>		
		<b>Any CE</b>	<b>Civic</b>	<b>Electoral</b>	<b>Political Voice</b>	<b>Personal Responsibility</b>	<b>Any CE</b>	<b>Civic</b>	<b>Voting</b>
		<i>Coefficient (S.E.)</i>	<i>Coefficient (S.E.)</i>	<i>Coefficient (S.E.)</i>	<i>Coefficient (S.E.)</i>	<i>Coefficient (S.E.)</i>	<i>Coefficient (S.E.)</i>	<i>Coefficient (S.E.)</i>	<i>Coefficient (S.E.)</i>
<b>Immigrant Generation (3+ is reference)</b>									
1st Generation		-0.314** (0.046)	-0.010 (0.039)	-0.519* (0.039)	-0.002 (0.028)	-0.205** (0.039)	-0.340** (0.049)	-0.072* (0.036)	-0.216** (0.045)
2nd Generation		-0.022 (0.018)	-0.024 (0.024)	-0.021 (0.024)	-0.018 (0.013)	-0.107** (0.029)	0.012 (0.022)	-0.011 (0.027)	-0.031 (0.035)
Naturalized		0.286** (0.057)	0.072 (0.054)	0.437** (0.054)	-0.002 (0.031)	0.166** (0.044)	0.344** (0.043)	0.089* (0.039)	0.156** (0.051)
Citizenship at Wave									
Age (Wave I)		-0.015 (0.010)	-0.023* (0.010)	-0.001 (0.010)	0.005 (0.006)	-0.002 (0.009)	-0.011 (0.008)	-0.007 (0.009)	0.006 (0.012)
<b>Family Characteristics</b>									
Household Size		0.015** (0.005)	-0.008 (0.006)	-0.014** (0.005)	-0.001* (0.003)	-0.005 (0.008)	-0.014** (0.005)	-0.005 (0.005)	-0.012* (0.006)
Two Parent		-0.000 (0.016)	-0.004 (0.020)	0.001 (0.021)	0.002 (0.009)	-0.026 (0.019)	0.024 (0.017)	0.025 (0.016)	0.013 (0.021)
Household									
<b>Parental Education (College Grad =reference)</b>									
< High School		-0.063** (0.021)	-0.094** (0.031)	-0.028 (0.031)	-0.039** (0.012)	-0.062** (0.028)	-0.096** (0.031)	-0.075** (0.026)	-0.112** (0.032)
High School Grad		-0.058** (0.015)	-0.082** (0.020)	-0.075** (0.018)	-0.024* (0.011)	-0.088** (0.021)	-0.081** (0.020)	-0.065** (0.017)	-0.085** (0.023)
Some College		-0.009 (0.013)	-0.080** (0.020)	-0.002 (0.016)	-0.021* (0.009)	-0.028 (0.021)	-0.034* (0.020)	-0.030 (0.018)	-0.061** (0.022)
Parent involved in		0.033** (0.013)	0.038* (0.015)	0.054** (0.016)	0.006 (0.008)	0.019 (0.017)	0.051** (0.015)	0.040* (0.018)	0.052** (0.015)
civic organization									



Table 1.4: Impact of High School Civic Identity Development Opportunities on Adult Civic Engagement,  
Results from Two- level Linear Probability Models, Continued

		<i>Wave 3 (N=10,156 individuals in 122 schools)</i>					<i>Wave 4 (N=10,489 individuals in 122 schools)</i>		
		<b>Any CE</b>	<b>Civic</b>	<b>Electoral</b>	<b>Political Voice</b>	<b>Personal Responsibility</b>	<b>Any CE</b>	<b>Civic</b>	<b>Voting</b>
		<i>Coefficient (S.E.)</i>	<i>Coefficient (S.E.)</i>	<i>Coefficient (S.E.)</i>	<i>Coefficient (S.E.)</i>	<i>Coefficient (S.E.)</i>	<i>Coefficient (S.E.)</i>	<i>Coefficient (S.E.)</i>	<i>Coefficient (S.E.)</i>
<b>School Context</b>									
Mean School		0.006	-0.010†	-0.004	0.001	0.013†	-0.008	-0.008†	-0.010
Connectedness		(0.004)	(0.006)	(0.007)	(0.004)	(0.007)	(0.005)	(0.005)	(0.007)
% Participate in		0.127	-0.221	0.117	-0.037	0.058	0.044	0.121	0.266
activities		(0.190)	(0.189)	(0.026)	(0.104)	(0.190)	(0.190)	(0.167)	(0.192)
% Hispanic		0.009	-0.114	0.061	0.020	-0.048	-0.019	-0.037	-0.287**
		(0.063)	(0.0763)	(0.0773)	(0.056)	(0.063)	(0.084)	(0.069)	(0.088)
% Black		0.020	-0.057	0.057	0.113*	0.233*	0.062	0.117	-0.025
		(0.077)	(0.090)	(0.101)	(0.050)	(0.116)	(0.079)	(0.082)	(0.109)
% Asian		-0.258*	0.214	-0.250	-0.081	-0.403*	-0.108	-0.039	0.254
		(0.130)	(0.157)	(0.237)	(0.089)	(0.186)	(0.118)	(0.153)	(0.174)
% American Indian		0.299	0.279	0.678	-0.052	0.490	-0.189	0.682*	-0.738†
		(0.294)	(0.281)	(0.488)	(0.179)	(0.466)	(0.256)	(0.318)	(0.397)
% Other Race		0.718	-0.797*	1.230†	-0.225	0.741	0.071	-0.130	-0.647
		(0.345)	(0.343)	(0.039)	(0.223)	(0.458)	(0.319)	(0.347)	(0.443)
% Economically		-0.012	-0.054	0.039	-0.010	0.020	-0.034	-0.086	0.105
Disadvantaged		(0.068)	(0.1058)	(0.203)	(0.074)	(0.110)	(0.070)	(0.090)	(0.093)
Perceived School		-0.070	0.054	0.203	-0.078	-0.309†	0.085	0.038	0.187
Safety		(0.105)	(0.146)	(0.105)	(0.079)	(0.178)	(0.097)	(0.107)	(0.139)
% Single Parent		0.004	0.061	-0.129	-0.257†	-0.541*	-0.111	-0.484*	0.313
Families		(0.169)	(0.242)	(0.234)	(0.14769)	(0.268)	(0.186)	(0.201)	(0.276)
Private - Religious		0.014	-0.007	0.033	0.003	-0.052	0.049	0.017	0.170**
Affiliation		(0.027)	(0.035)	(0.034)	(0.017)	(0.055)	(0.031)	(0.031)	(0.062)
Private - Non-		0.087	0.178**	0.125*	0.092**	0.237**	0.060	0.097*	-0.021
religious		(0.046)	(0.046)	(0.061)	(0.035)	(0.071)	(0.040)	(0.045)	(0.043)
% Teachers with		0.043†	-0.001	-0.008	0.012	-0.065	-0.040	-0.066*	0.022
Advanced Degrees		(0.026)	(0.033)	(0.041)	(0.018)	(0.049)	(0.030)	(0.026)	(0.034)

Table 1.4: Impact of High School Civic Identity Development Opportunities on Adult Civic Engagement,  
Results from Two- level Linear Probability Models, Continued

		<i>Wave 3 (N=10,156 individuals in 122 schools)</i>					<i>Wave 4 (N=10,489 individuals in 122 schools)</i>		
		<b>Any CE</b>	<b>Civic</b>	<b>Electoral</b>	<b>Political Voice</b>	<b>Personal Responsibility</b>	<b>Any CE</b>	<b>Civic</b>	<b>Voting</b>
		<i>Coefficient</i>	<i>Coefficient</i>	<i>Coefficient</i>	<i>Coefficient</i>	<i>Coefficient</i>	<i>Coefficient</i>	<i>Coefficient</i>	<i>Coefficient</i>
		<i>(S.E.)</i>	<i>(S.E.)</i>	<i>(S.E.)</i>	<i>(S.E.)</i>	<i>(S.E.)</i>	<i>(S.E.)</i>	<i>(S.E.)</i>	<i>(S.E.)</i>
	Size	0.000	0.003	0.015	0.002	0.004	0.009	0.012*	-0.021
		(0.006)	(0.007)	(0.008)	(0.004)	(0.008)	(0.006)	(0.006)	(0.008)
	Size squared	-0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.022
		(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
	Student/teacher ratio	0.005	-0.003	0.001	0.002	0.003	-0.002	-0.004	0.004
		(0.003)	(0.004)	(0.003)	(0.003)	(0.006)	(0.003)	(0.004)	(0.004)
<b>Urbanicity</b>									
<b>(Urban is reference)</b>									
	Suburban	0.008	-0.035	0.007	-0.012	-0.091**	-0.029	-0.047*	-0.007
		(0.018)	(0.025)	(0.025)	(0.015)	(0.028)	(0.019)	(0.022)	(0.024)
	Rural	0.010	0.043	-0.008	-0.019	-0.103*	-0.028	-0.050	-0.041
		(0.026)	(0.037)	(0.030)	(0.018)	(0.052)	(0.028)	(0.032)	(0.034)
<b>Region</b>									
<b>(South is reference)</b>									
	West	-0.057*	0.067	-0.068	0.017	0.029	0.032	0.066†	0.071†
		(0.029)	(0.041)	(0.048)	(0.025)	(0.054)	(0.032)	(0.034)	(0.036)
	Midwest	-0.028	-0.019	-0.062	0.014	0.080*	0.009	-0.025	0.010
		(0.027)	(0.027)	(0.039)	(0.014)	(0.039)	(0.019)	(0.025)	(0.025)
	Northeast	-0.060*	0.036	-0.083	0.023	-0.057	-0.064**	-0.054*	-0.043
		(0.024)	(0.029)	(0.042)	(0.018)	(0.039)	(0.024)	(0.025)	(0.031)
<b>Neighborhood Context</b>									
	Neighborhood Cohesion	0.000	0.003	0.001	-0.001	0.000	0.005†	0.006*	0.008*
		(0.002)	(0.003)	(0.003)	(0.002)	(0.004)	(0.003)	(0.003)	(0.003)
	Disadvantaged Neighborhood	0.005	0.027	0.018	0.001	0.025	0.062**	0.018	0.073**
		(0.033)	(0.024)	(0.028)	(0.010)	(0.028)	(0.021)	(0.034)	(0.027)
	Segregated	-0.018	0.005	-0.007	-0.011	-0.003	-0.009	-0.015	0.014
		(0.014)	(0.019)	(0.019)	(0.013)	(0.017)	(0.017)	(0.022)	(0.023)

Table 1.4: Impact of High School Civic Identity Development Opportunities on Adult Civic Engagement,  
Results from Two- level Linear Probability Models, Continued

	<i>Wave 3 (N=10,156 individuals in 122 schools)</i>					<i>Wave 4 (N=10,489 individuals in 122 schools)</i>		
	<b>Any CE</b>	<b>Civic</b>	<b>Electoral</b>	<b>Political Voice</b>	<b>Personal Responsibility</b>	<b>Any CE</b>	<b>Civic</b>	<b>Voting</b>
	<i>Coefficient (S.E.)</i>	<i>Coefficient (S.E.)</i>	<i>Coefficient (S.E.)</i>	<i>Coefficient (S.E.)</i>	<i>Coefficient (S.E.)</i>	<i>Coefficient (S.E.)</i>	<i>Coefficient (S.E.)</i>	<i>Coefficient (S.E.)</i>
Prop. of Adults with	0.079	0.050	0.173**	0.034	0.027	0.108*	-0.033	0.077
College Degree	(0.050)	(0.063)	(0.063)	(0.041)	(0.068)	(0.054)	(0.068)	(0.071)
Female Headed	0.157	0.221	0.207†	0.101	-0.086	-0.026	-0.043	-0.131
Households	(0.112)	(0.139)	(0.118)	(0.084)	(0.149)	(0.105)	(0.135)	(0.129)
Mobility within 5	-0.063†	-0.003	-0.060	-0.006	-0.082†	-0.087*	-0.039	-0.106†
years	(0.037)	(0.048)	(0.045)	(0.028)	(0.049)	(0.038)	(0.047)	(0.056)
Urbanicity	-0.015	-0.032†	-0.024	-0.010	-0.025	-0.006	-0.019	-0.016
(not urban is reference)	(0.016)	(0.019)	(0.022)	(0.012)	(0.021)	(0.017)	(0.018)	(0.022)

† indicates statistical significance  $p < 0.10$ ; \* indicates statistical significance  $p < 0.05$ ; \*\* indicates statistical significance  $p < 0.01$

Note: Model uses imputed data

Table 1.5: Impact of High School Civic Identity Development Opportunities on Adult Civic Engagement, Results from School Fixed Effects Models

Wave 3 (N=10,227)		Any Civic Engagement		Civic		Electoral		Political Voice		Personal Responsibility	
		Coeff.	S.E.	Coeff.	S.E.	Coeff.	S.E.	Coeff.	S.E.	Coeff.	S.E.
<b>Civic Identity Development Activities</b>											
	Instrumental	0.032**	0.012	0.061**	0.020	0.048**	0.016	0.043**	0.012	0.022	0.016
	Expressive	0.041**	0.012	0.062**	0.019	0.025†	0.015	0.019†	0.012	0.026	0.017
	Academic/Hobby	0.016	0.013	-0.011	0.018	0.021	0.015	0.020*	0.008	0.045**	0.017
	High Visibility Sports	0.014	0.014	-0.005	0.018	0.015	0.013	0.004	0.009	-0.007	0.017
	Low Visibility Team Sports	0.007	0.011	0.025	0.015	-0.002	0.017	-0.009	0.009	0.034*	0.016
	Low Vis. Individual Sports	0.004	0.014	0.014	0.020	-0.017	0.015	-0.003	0.009	0.011	0.019
	No Activities	-0.010	0.020	-0.012	0.022	-0.019	0.021	0.017†	0.010	0.003	0.023
<b>Wave 4 (N=10,559)</b>											
		Any Civic Engagement		Civic		Voting					
		Coeff.	S.E.	Coeff.	S.E.	Coeff.	S.E.				
<b>Civic Identity Development Activities</b>											
	Instrumental	0.023†	0.013	0.049**	0.018	0.045**	0.015				
	Expressive	0.038**	0.013	0.031	0.020	0.074**	0.016				
	Academic/Hobby	0.019	0.013	0.052**	0.017	0.022	0.016				
	High Visibility Sports	-0.004	0.015	0.018	0.017	0.031*	0.014				
	Low Visibility Team Sports	-0.003	0.015	0.004	0.018	-0.019	0.016				
	Low Vis. Individual Sports	-0.003	0.016	0.041*	0.019	-0.020	0.016				
	No Activities	-0.033	0.025	-0.003	0.023	-0.017	0.030				

Differences in statistical significance from Two Level Models highlighted, Standard errors clustered by school

† indicates statistical significance p<0.10; \* indicates statistical significance p<0.05; \*\* indicates statistical significance p<0.01

Table 1.6: Impact of High School Civic Identity Development Opportunities on Adult Civic Engagement Results from Neighborhood Fixed Effects Models

Wave 3 (N=10,183)		Any Civic Engagement		Civic		Electoral		Political Voice		Personal Responsibility	
		Coeff.	S.E.	Coeff.	S.E.	Coeff.	S.E.	Coeff.	S.E.	Coeff.	S.E.
<b>Civic Identity Development Activities</b>											
	Instrumental	0.008	0.015	0.058**	0.022	0.032†	0.018	0.042**	0.012	0.010	0.021
	Expressive	0.036*	0.014	0.064**	0.023	0.024	0.021	0.017	0.015	0.039	0.023
	Academic/Hobby	0.032†	0.016	0.012	0.022	0.034†	0.018	0.028*	0.013	0.042†	0.024
	High Visibility Sports	0.008	0.017	0.020	0.025	0.014	0.019	0.002	0.014	-0.004	0.022
	Low Visibility Team Sports	0.005	0.015	0.034	0.022	-0.009	0.023	-0.004	0.012	0.053**	0.019
	Low Vis. Individual Sports	0.001	0.015	0.021	0.021	-0.022	0.020	-0.003	0.015	0.026	0.028
	No Activities	-0.003	0.022	0.031	0.026	-0.013	0.027	0.014	0.011	0.039	0.031
<b>Wave 4 (N=10,518)</b>		<b>Any Civic Engagement</b>		<b>Civic</b>		<b>Voting</b>					
		Coeff.	S.E.	Coeff.	S.E.	Coeff.	S.E.				
<b>Civic Identity Development Activities</b>											
	Instrumental	0.014	0.018	0.031	0.027	0.038	0.023				
	Expressive	0.055**	0.018	0.045*	0.021	0.081**	0.020				
	Academic/Hobby	0.043*	0.019	0.072**	0.025	0.034	0.021				
	High Visibility Sports	-0.014	0.018	0.028	0.021	0.017	0.018				
	Low Visibility Team Sports	0.003	0.021	0.002	0.026	-0.009	0.020				
	Low Vis. Individual Sports	0.015	0.019	0.050*	0.021	-0.021	0.022				
	No Activities	-0.014	0.034	0.025	0.032	0.014	0.038				

Differences in statistical significance or direction of coefficient from Two Level Models highlighted, Standard errors clustered by school

† indicates statistical significance  $p < 0.10$ ; \* indicates statistical significance  $p < 0.05$ ; \*\* indicates statistical significance  $p < 0.01$

## **CHAPTER 2: WHO HAS ACCESS TO CIVIC EDUCATION OPPORTUNITIES? EXAMINING THE RELATIONSHIP BETWEEN HIGH SCHOOL SOCIAL STUDIES COURSE TAKING AND INDIVIDUAL AND SCHOOL CHARACTERISTICS**

### **INTRODUCTION**

Over the past several decades, much scholarship has focused on the overall decline in civic engagement in the United States. Disparities in civic engagement based on race/ethnicity, immigrant generation, and socioeconomic status are perhaps of even more concern. African American and Hispanic individuals demonstrate lower levels of political and civic participation than Whites (Verba, Schlozman, and Brady, 1995). While voter turnout among African Americans has risen in recent years, Hispanic and Asian voter turnout is considerably lower than White voter turnout (File, 2013). Third generation or later U.S. citizens (U.S. born children of U.S. born parents) are more likely to engage in civic activities than children of immigrants (Foster-Bey, 2008). High income individuals participate in political and civic activities at nearly three times the rate of low income individuals (File, 2013). Scholars have posited several mechanisms for racial, ethnic, and socioeconomic disparities in civic engagement, such as access to civic resources, recruitment opportunities, educational attainment, and availability of civic role models (Atkins and Hart, 2003; Converse, 1972; Verba, Schlozman, and Brady, 1995; Wolfinger and Rosenstone, 1980). However, research suggests that these differences in civic engagement can be partially explained by differential access to high school social studies courses.

The social studies curriculum is the most widely available means of developing the skills, knowledge, and attitudes that are needed for future civic participation. While the development of informed citizens is a goal of all public schooling, this is the primary goal of social studies courses. According to the National Council for the Social Studies (2010), “the aim of social studies is the promotion of civic competence—the knowledge, intellectual processes, and democratic dispositions required of students to be active and engaged participants in public life.” Scholarship in civic education supports that high school curricular opportunities, including classroom discussion of social and political issues and current events, experiential learning, and service learning, promote attitudes, commitments, knowledge, and skills that contribute to future civic participation (Campbell, 2008; Kahne, Chi, and Middaugh, 2006; Kahne, Crow, and Lee, 2013; Kahne and Sporte, 2008; McDevitt and Kioussis, 2006; Metz and Youniss, 2005; Niemi and Junn, 1998; Pasek, Feldman, Romer, and Jamieson, 2008; Torney-Purta, 2002). A wide body of literature on tracking indicates that there are racial, ethnic, and socioeconomic differences in academic course placement (Gamoran, 1992; Mickelson and Everett, 2008; Oakes, 2005; Rees, Argys, and Brewer, 1996; Yonezawa, Wells, and Serna, 2002). While much of the tracking literature focuses on math, science, advanced courses (Advanced Placement and International Baccalaureate), and overall course level, scholarship in civic education suggests that these racial, ethnic, and socioeconomic differences in access to learning opportunities extends to social studies courses, as well. Understanding student access to particular courses is important due to the opportunities for improved life outcomes associated with these courses. The tracking literature demonstrates that high school coursework affects college enrollment, performance, and graduation, as well as labor market outcomes, and literature in civic education supports that adult civic engagement is also affected by high school coursework (Adelman,

2006; Long, Conger, and Iatarola, 2012; Long, Iatarola, and Conger, 2009; Rose and Betts, 2004).

This study uses the *National Longitudinal Study of Adolescent Health* (Add Health) to examine the individual and school characteristics that predict student access to high school social studies courses that are likely to facilitate future civic participation. This study offers contributions to two distinct lines of scholarship. First, it adds to the tracking literature by using nationally representative data to examine student access to particular social studies courses, notably absent from extant scholarship which focuses on math, English, science, and overall course level (e.g., remedial, honors, and Advanced Placement). In addition, it adds to the civic education literature; while most studies specific to civic education rely on student self-reported data or qualitative data on a limited sample, and focus solely on classroom practices, this study uses nationally representative course-taking data from administrative sources to apply rigorous quantitative methods to the question of course access. Finally, identifying those characteristics which predict course enrollment will allow us to better control for selection bias in order to develop statistical models to better evaluate the impact of high school social studies course-taking on adult civic engagement in the subsequent study.

## **LITERATURE REVIEW**

We begin with an examination of the literature documenting disparities in overall course-taking related to student race/ethnicity and socioeconomic status and the various life outcomes affected by these disparities. We then offer evidence that these racial/ethnic and socioeconomic disparities extend to civic education. We discuss literature examining the impact of school level race/ethnicity and socioeconomic status on course access and enrollment, and offer evidence that these school level factors affect civic education, as well. We end with a brief discussion of the



expected relationship between civic education coursework and civic engagement, an important life outcome that may be impacted by these disparities.

### **Individual Student Characteristics and Course Access**

It is well known that students are not randomly assigned to classes (Clotfelter, Ladd, and Vigdor, 2005; Collins and Gan, 2013; Conger, 2005; Kalogrides, Loeb, and Beteille, 2013; Rivkin, Hanushek, and Kaine, 2005). Administrators make teacher and student assignments, guidance counselors influence choices about course enrollment, with input based on parent, teacher, and student preferences. Literature on value-added models often attempts to isolate the various determinants of student assignment to classrooms, both observed and unobserved (Koedel and Betts, 2011; Rothstein, 2009, 2010). A wide body of literature on tracking indicates that there are racial, ethnic, and socioeconomic differences in academic course placement. Much of the tracking literature can be summarized as follows: race and social class are correlated with a student's academic track placement, which influences which courses are available, courses taken, access to knowledge and skills, and instructional quality (Oakes, 1987). Nationally representative data from the National Educational Longitudinal Study finds that the majority of White students are enrolled in honors and academic tracks, while nearly half of Black and Hispanic students are in general or vocational courses in math, science, English, and social studies, and that these tracking patterns are consistent between schools (Rees et al, 1996). A study of Advanced Placement (AP) course enrollment in one school district found that racial and ethnic minorities were underrepresented in AP courses as compared to their representation in the student population and when compared to White (Non-Hispanic) students (Ndura, Robinson, and Ochs, 2003). A study of the Los Angeles Unified school district, a largely urban district serving predominantly low-income students of color, similarly found that Latino students and Black

students are disproportionately underrepresented in AP courses, while White and Asian students are overrepresented when compared to percentage of total enrollment. For example, Latino students represented 66% of total enrollment, but only 49% of AP course enrollment and Black students comprised 14% of total enrollment and only 8% of AP enrollment, while White students represented only 12% of total enrollment but 22% of AP enrollment (Solorzano and Ornelas, 2004).

Black, Hispanic, and poor students are more frequently found in low academic tracks, and this affects their self-esteem, their likelihood of dropping out of school, as well as their future employability and wage earning potential (Oakes, 2005). A qualitative study of how tracking decisions are made in high schools found that Latinos were often judged as the least qualified for academic work and were therefore placed in low level or vocational courses (Oakes and Guiton, 1995). From this study, the authors concluded that course offerings and student course assignment is partially a function of assumptions by school personnel about the relationship between race and the likelihood of school success (Oakes and Guiton, 1995). There is evidence that socioeconomic status may be as influential as perceived ability in the decision to assign students to particular courses. Using mixed methods, Gamoran (1992) found that among students with average test scores, students of higher socioeconomic status are more likely to be enrolled in honors English courses than those of lower socioeconomic status. Even when courses reflect students' choices in course enrollment, course taking patterns continue to exhibit racial, ethnic and socioeconomic disparities (Mickelson and Everett, 2008; Yonezawa et al, 2002). Kilgore (1991) found that the academic course enrollment of non-Hispanic White students more closely aligned with their academic aspirations than the courses of Black or Hispanic students.

Most studies of course tracking based on race/ethnicity and socioeconomic status focus on mathematics, English, and science courses and course rigor, however extant literature indicates that access to civic learning opportunities is also unequal along racial/ethnic and socioeconomic lines. Based on consistent, yet limited, empirical evidence, which comports with common wisdom, the existence of this civic opportunity gap is assumed by social studies education and civic education scholars and practitioners (Conklin et al, 2017; Kahne and Middaugh, 2008; Levinson, 2010). In a study of high school juniors and seniors in California, Kahne and Middaugh (2008) found differences in classroom civic learning opportunities along racial/ethnic lines. For example, African American students were less likely to discuss social issues and current events and reported fewer opportunities for experiential learning and Latino students reported fewer opportunities for service learning as well as fewer opportunities for experiential learning, as compared to White students. Based on nationally representative data from the National Assessment of Educational Progress (NAEP), opportunities for civic skill development are related to socioeconomic status--students of parents with higher levels of education report more opportunities for civic skill development (Condon, 2012). Condon (2012) also found that Black and Hispanic students were less likely to indicate they had an opportunity to practice civic writing skills as compared to White students in the 8th grade. Scores on the National Assessment of Educational Progress (NAEP) civics assessment indicate that there are differences in the level of civic knowledge, skills, and dispositions along racial and ethnic lines. Average NAEP civics assessment scores are considerably lower for students identified as African American or Latino than for students identified as White, Asian or Pacific Islander, which may indicate differences in the quality of civic education along racial/ethnic lines (Coley and Sum, 2012). Based on data from the International Association for the Evaluation of

Educational Achievement (IEA) Civic Education Study, an international assessment of civic knowledge and skills of 14-year old students in 28 countries, Torney-Purta and colleagues (2007) found that levels of political knowledge and civic skills were higher among non-Latino American ninth graders than Latino ninth graders. Classroom practices such as the study of multiple political topics in the classroom and open discussion of political issues were positively and significantly related to higher levels of political knowledge, suggesting that Latino students may have less access to courses which focus on these approaches to civic education (Torney-Purta, Barber, and Wilkenfeld, 2007). To date, however, no study has examined student access to particular civic education courses, nor how this access may differ based on race/ethnicity or socioeconomic status.

### **School Characteristics and Course Availability and Access**

In addition to individual student characteristics, school characteristics influence course offerings and the assignment of students to courses, and may interact with individual student characteristics to determine course access. A National Center for Education Statistics (NCES) study of course offerings and course enrollment found that school level proportions of racial/ethnic minorities and economically disadvantaged students affected both course offerings and enrollments; a higher concentration of Black students was associated with higher enrollment in lower-level math courses rather than advanced math courses (West, Miller, and Diodata, 1985). Additionally, enrollment in lower-level math courses was higher when the poverty concentration of the school was higher, while enrollment in high-level math courses was highest at schools with no disadvantaged students (West, Miller, and Diodata, 1985). High schools with high concentrations of low income and racial/ethnic minority students often offer fewer sections of college-preparatory and advanced courses and more general and remedial courses (Oakes,

1990). In contrast, Kilgore (1991) found that a higher proportion of Black students resulted in a higher proportion of students enrolled in higher academic tracks at the school.

Conversely, some studies have found that students at schools with higher proportions of high income students have a lower probability of being enrolled in high level courses due to demand for these courses (Garet and DeLany, 1988; Kilgore, 1991). Kilgore (1991) found that higher overall socioeconomic status of a school's student population resulted in a higher proportion of students in lower academic tracks. Differences in student academic achievement suggest there may be an interaction between student and school level characteristics that determine the quality of learning opportunities. For example, Black students at low-SES schools have lower scores on achievement tests than Whites, but Black students score similarly to White students at high-SES schools (Rumberger and Palardy, 2005).

A separate body of literature supports that civic learning opportunities are also influenced by school context. School level socioeconomic status and racial/ethnic composition are related to the availability of civic learning opportunities. Based on a nationally representative sample of ninth graders, Kahne and Middaugh (2008) found that students in classes with higher average socioeconomic status were nearly one and a half times more likely to engage in classroom discussion and nearly twice as likely to report having service learning opportunities than students in classes with lower average socioeconomic status. High poverty schools, defined as those where at least 50% of students are eligible for free or reduced-price lunch, are less likely to offer opportunities for service learning (Spring, Grimm, and Dietz, 2008). Using data from Chicago, Jacobsen and colleagues (2012) found that a higher level of poverty within a school was negatively related to perceived opportunities for the development of civic knowledge and skills, but that this effect was fully mediated by racial and ethnic segregation. Students in segregated

Black and segregated Latino schools perceive fewer opportunities for the development of civic knowledge and skills than those in integrated or majority White schools (Jacobsen, Frankenberg, and Lenhoff, 2012). Torney-Purta and colleagues (2007) found lower levels of civic knowledge at schools with high Latino enrollment. A qualitative study of the development of civic identity found that students at a racially diverse school were likely to develop a more complacent attitude toward civic participation, while students at a predominantly African American and Latino high school were likely to develop either an empowered or a discouraged civic identity suggesting there may be differences in civic education between the racially diverse school and the concentrated racial/ethnic minority school (Rubin, 2007). Civic education scholar Meira Levinson (2010) posits that the remedy for the “civic empowerment gap” is to offer more high quality civic learning opportunities, especially at schools with high concentrations of students from racial/ethnic minority backgrounds.

### **Social Studies Courses and Civic Engagement**

Literature on civic education and civic engagement has demonstrated a correlation between the civics curriculum and instructional methods and civic engagement. Experiential learning opportunities, service learning, opportunities for civic skill development, and open discussion of controversial social and political issues are correlated with proximal outcomes such as political knowledge, civic skills, attitudes, and commitments that predict adult civic participation (Kahne, Chi, and Middaugh, 2006; Kahne, Crow, and Lee, 2013; Kahne and Sporte, 2008; Feldman, Pasek, Romer, and Jamieson, 2007; Torney-Purta, 2002). A number of studies have demonstrated the positive relationship between political knowledge and civic participation (Delli Carpini and Keeter, 1996; Galston, 2001; Torney-Purta, 2002; Popkin and Dimock, 1999). Literature regarding the development of civic identity supports that courses in

Historically Marginalized Groups, or courses which focus on racial and ethnic minorities and women in the United States, have the potential to promote civic engagement for members of those groups (Erikson, 1968; Haste, 2004; Hogg et al, 1995; Torney-Purta, 2002; Zirkel, 2002). Civic education scholars and practitioners agree on the potential of a range of social studies courses, including American History courses and International/Multicultural Studies courses, to promote civic engagement (Gibson and Levine, 2003; Gould, 2011).

Guided by literature in civic education, civic engagement, social psychology, and developmental psychology, we examine access to eight types of social studies courses that are expected to facilitate civic engagement (referred to throughout this chapter collectively as civic education courses): Experiential Learning, Service Learning, Civic Skills Development, Social and Political Issues, Historically Marginalized Groups, International/Multicultural Studies, American History, and Political Knowledge Development (Billig, Roote, and Jesse, 2005; Delli Carpini and Keeter, 1996; Gibson and Levine, 2003; Gould, 2011; Haste, 2004; Hogg et al, 1995; Kahne, Chi, and Middaugh, 2006; Kahne and Sporte, 2008; Lay, 2007; Niemi and Junn, 1998; Pasek et al, 2008; Tajfel and Turner, 1979; Torney-Purta, 2002). (For more information regarding course content, see Table 2.1). The relationship between enrollment in these types of courses and adult civic engagement is explored in the subsequent chapter of this dissertation.

## **Hypothesis**

With a strong foundation in the tracking and civic education literature, the present study is largely exploratory. However, extant literature supports a few hypotheses, tentative though they may be. Our primary hypothesis for this study is that individual and school characteristics affect a student's access to particular high school social studies courses that are likely to facilitate future civic engagement. First, we expect schools with higher concentrations of

racial/ethnic minority students and higher concentrations of low-income students to offer less access to courses in Experiential Learning, Service Learning, Civic Skills Development, Social and Political Issues, and Political Knowledge Development. Second, we expect that African American and Latino students will be underrepresented as compared to non-Hispanic White students in courses in the following categories: Experiential Learning, Service Learning, Civic Skills Development, Social and Political Issues, and Political Knowledge Development (Coley and Sum, 2012; Kahne and Middaugh, 2008). Finally, we expect students from low-socioeconomic status (SES) families will have less access to these courses than their higher SES peers.

Though extant research does not support the development of a hypothesis concerning the expected relationship, due to their potential for promoting civic engagement, we also examine what school characteristics and individual characteristics impact access to and enrollment in courses in the following categories: Historically Marginalized Groups, American History, and International/Multicultural Studies. We expect that courses in American History and International/Multicultural Studies may follow similar patterns to the civic education courses discussed above, with Black, Hispanic, and low socioeconomic status students having less access to these courses. However, we expect that courses in Historically Marginalized Groups may follow a different pattern—as these courses are likely to be more in demand in schools with high proportions of racial/ethnic minorities and to students who identify as racial/ethnic minorities, we expect that these schools may offer more access to these courses and that Black and Hispanic students may be more represented in these courses than their White peers.



## **METHODS**

### **Data**

This study uses data from the *National Longitudinal Study of Adolescent Health* (Add Health), a longitudinal study of a nationally representative sample of adolescents who were in grades 7-12 during the 1994-95 school year (Wave I) and have been followed into adulthood (Waves III and IV). Wave I includes several components: an In-School Questionnaire, an In-Home Questionnaire, a Parent Questionnaire, and a School Administrator Questionnaire, as well as contextual data merged by state, county, and census tract from the U.S. Census Bureau. Schools from 80 communities were selected for inclusion in the Add Health study, based on geographic region, urbanicity, school size, school type, and racial and ethnic makeup in order to be representative of U.S. schools overall. In order to include students from grades 7-12, high schools were usually paired with feeder middle schools, for a total of 132 schools. The In-School Questionnaire was administered to all students of participating schools, other than those students who were absent on the day the survey was administered, totaling more than 90,000 observations. The In-School Questionnaire included questions regarding demographic characteristics, parents' education, household structure, and extracurricular activities. All participating schools have a completed School Administrator Questionnaire, with questions about school policies, teacher characteristics, and characteristics of the student body. In-Home Interviews were conducted for a core sample of approximately 200 students from each pair of schools, stratified by grade and race, as well as additional students from some oversampled groups (four ethnic oversamples, all students from 16 schools, disabled students, and pairs of siblings living in the same household), for a sample of 20,745 adolescents. Parent Questionnaires were administered to a parent or guardian during the In-Home Interviews and

over 85% of participants have a corresponding parent questionnaire. Data from the 1990 U.S. Census was merged in at the census block level to create a Neighborhood Context dataset. Follow up interviews were conducted on Wave I In-Home Interview respondents in 2001-2002 when participants were 18-26 (Wave III). Interviews conducted at Wave III collected data on education, work, income, debt, a range of health issues, and civic participation, with a 77.4% retention rate, for a total of 15,197 responses. Data from the In-Home Questionnaire and Parent Questionnaire from Wave I will be used for individual student characteristics, the In-School Questionnaire will be used for some school contextual data, and the remainder of the school contextual data is from the School Context dataset.

The *Adolescent Health and Academic Achievement Transcript Study* (AHAA) expanded the *National Longitudinal Study of Adolescent Health* at Wave III to create an educational database which can be used in conjunction with the Add Health database or on its own. The AHAA collected high school transcripts from the last high school attended from Add Health participants who participated in all three waves of data collection. The AHAA also collected course catalogs and used the transcripts and catalog descriptions to assign Classification of Secondary School Curriculum (CSSC) codes to each course taken by Add Health/AHAA participants, using the same procedures as the 2000 National Assessment of Educational Progress (NAEP) High School Transcript Studies (HSTS). The AHAA also created the School Context dataset to correspond to Wave I of Add Health, using data from the Common Core of Data, Private School Survey, the U.S. Census Bureau, and the Office of Civil Rights.

We conducted the *Study of Social Studies Coursetaking and Civic Engagement* as an ancillary study to Add Health, which used the AHAA transcript data to create categorical variables that place social studies courses in course categories that are expected to facilitate adult

civic engagement (Patterson, 2017, see Appendix B). We used the National Council for the Social Studies' definition of social studies to identify social studies courses, and applied this definition to the CSSC. Deductive coding of course titles, alternative titles and course descriptions were used to categorize each social studies course into one mutually exclusive category based on the primary focus of the course. Course categories include: (1) Experiential Learning, (2) Service Learning, (3) Civic Skills Development, (4) Social and Political Issues, (5) Historically Marginalized Groups, (6) American History, (7) International/Multicultural Studies, and (8) Political Knowledge Development. See Table 2.1 for definitions of each course category. All courses were coded by four coders and a kappa of 0.78 indicated a high degree of inter-coder agreement. This data was added to the Add Health dataset as public use data. (For more information on the *Study of Social Studies Coursetaking and Civic Engagement*, see Appendix B).

All individual student characteristics, including race/ethnicity, immigrant generation, English language proficiency, family socioeconomic status, and school context variables come from the Wave I Add Health data and associated constructed datasets. School level socioeconomic status, measured as the proportion of the school eligible for free or reduced price lunch, comes from the AHAA School Context dataset. Social studies coursetaking variables come from the *Study of Social Studies Coursetaking and Civic Engagement* data. All courses are attributed to the Add Health school which the student attended at Wave I, although transcripts include all courses taken in high school at any school attended by the respondent, which is a limitation of the data. (For more information on the Add Health study design, see Harris, 2013. For more information on the AHAA, see Muller et al, 2007.)

## Analytic Sample

All individuals from Wave I of Add Health who have an In-Home Questionnaire, and a transcript included in the data will constitute the analytic sample of 11,068 individuals. The sample is nearly 59% white, 14.7% Black, 16.8% Hispanic, and nearly 6% Asian and 78% are third generation or later immigrants (U.S. born children of U.S. born parents). Approximately 41% of the sample are from families where the parents have a high school education or less and 13% of the sample are from families that experienced poverty at Wave I (Table 2.2 for means and linearized standard errors for all variables, adjusted for survey design).

We began with a sample of 11,912 respondents. We lose 440 respondents due to missing information on appropriate survey weights to use in analysis. We lose an additional 149 respondents due to missing race/ethnicity and immigrant generation data and 255 due to missing parental education data. Multiple imputation was used to account for missing data on all variables for which data was missing for more than 3% of observations<sup>5</sup>, which includes income, poverty status, Picture Vocabulary Test scores at the individual level, and proportion of economically disadvantaged students and student-teacher ratio at the school level. While complete case analysis can be used if missing information is missing completely at random (MCAR), meaning that missingness is not related to either the observed or the missing values on variables, if missing data is not MCAR, missing data can induce bias in estimates (Shadish, Cook, and Campbell, 2002). Based on Little's (1988) test for MCAR and examination of the relationship between key variables and missing data in our dataset, we determined that our data is not MCAR. Multiple imputation, where missing values are replaced with values predicted by

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<sup>5</sup>This threshold was determined as some variables with small amounts of missing information were needed for our imputation model.

other variables in the data set, maintaining the variance and covariance of the original variable, was originally advocated to address missing data in our exact situation--complex survey data where the data collector is separate from the data user (Rubin, 1987; Rubin, 1996).

We use Rose and Fraser's (2008) approach and the inclusive design supported by Collins and colleagues (2001), which includes variables associated with the missing variables as well as variables associated with missingness, to determine our imputation model. We created ten datasets with imputed values on missing data, analyzed them separately, and adjusted the coefficients and standard errors of our estimation models based on Rubin's (1987) recommendations, using the MI ESTIMATE command in Stata 14 (Collins, Schafer, and Kam, 2001; Schafer and Graham, 2002). School level economic disadvantage and student-teacher ratio is arguably missing at random (MAR), or related to observed data but not to missing data, since this data was merged from an administrative dataset and filled in with multiple years of data, however, poverty status and Picture Vocabulary Test scores may be missing not at random (MNAR), meaning that missingness is related to the value of the missing data. We may imagine that someone experiencing poverty may be reluctant to divulge this information on a survey and that someone with lower English language proficiency may choose to be absent when the test was administered to avoid the experience of receiving a low score. Multiple imputation has been shown to reduce bias in estimates even when data is MNAR (Collins, Schafer, and Kam, 2001; Rose and Fraser, 2008).

## **Measures**

*Outcome Variables: Civic Education Access Index:* Following Solorzano and Ornelas (2004), we calculated an access index for each category of civic education course at the school level by dividing total number of observations of the particular course by the total number of

transcripts multiplied by four to account for students in all four years of high school and multiplying by the results by ten (for a more meaningful interpretation of this variable). The indices range from 0 to 11.41, and subject to sampling error and differences in the size of cohorts, corresponds to the number of available civic education courses per 10 students in a given school year. At the school level, we estimate eight analytic models, using the access index for each of eight categories of civic education courses as the outcome variable. Course categories include: (1) Experiential Learning, (2) Service Learning, (3) Civic Skills Development, (4) Social and Political Issues, (5) Historically Marginalized Groups, (6) International/Multicultural Studies, (7) American History, and (8) Political Knowledge Development (see Table 2.1 for course descriptions). These categories are mutually exclusive, and exclude courses considered standard social studies courses. As requirements vary between schools, and all schools require at least some social studies courses, in order to establish courses for comparison, we defined five course codes in Economics, American History, World History, Geography, and American Government which appeared on the most transcripts as the standard course of study (see Patterson, 2017 in Appendix B). These course codes would be classified as American History, International/Multicultural Studies, or Political Knowledge Development, based on course content, however, for the purposes of this study, they have been excluded from the appropriate category.

*Social Studies Coursetaking.* We estimate individual analytic models for eight categories of high school social studies courses. Indicator variables were created for each course category, coded as 1 if a participant took that type of course at any time during high school and 0 otherwise. The referent category is students who never took this type of course in high school. Course categories are listed above.

*Focal Variables: Race/Ethnicity, and Immigrant Generation.* Following Perreira, Harris, and Lee (2006), and filling in respondents who identified as American Indian from in-home interview data, a six category race/ethnicity variable was created from the respondent's self-reported racial/ethnic identity. For the small number of respondents (<4%) who self-reported multiple racial/ethnic backgrounds, we used the parents' racial/ethnic identification, and assigned the mother's racial/ethnic background in the cases in which parents were of different races/ethnicities. Categories include Non-Hispanic White, Non-Hispanic Black, Hispanic, Non-Hispanic Asian, and Non-Hispanic American Indian, and Other. Also consistent with Harris, Perreira, and Lee (2006), indicator variables were created for First Generation Immigrants (Foreign born) and Second Generation Immigrants (U.S. born children of foreign born parents), and Third Generation or later Immigrants (U.S. born children of U.S. born parents). Puerto Rican respondents are considered foreign born if they were born in Puerto Rico.

*Other Individual Characteristics.* Family socioeconomic status is measured in three ways. First, models will include the highest level of education either of the respondent's parents completed. Categories include less than high school (which includes GED), high school graduate, and some college, with college graduate as the referent category. Second, some models will include family income in thousands, others will examine family income by quintiles with both top and bottom quintiles divided into the highest or lowest 5% and remaining 15%. Third, as we are particularly interested in students from low socioeconomic status (SES) backgrounds, a poverty indicator variable was created, coded as 1, if a respondent's parent reported an income below the 1994 federal poverty line based on household size on the Parent

Questionnaire<sup>6</sup>, filled in with information from the In-Home, School, and Parent Questionnaires that either resident parent receives public assistance. These variables were combined to reduce the level of missing data on this variable, however, more than 12% of the analytic sample was missing both pieces of data and this missingness was addressed through multiple imputation. English Language Skills are measured by the respondent's score on the Add Health Picture Vocabulary Test (AHPVT), standardized by age, nearly 5% of the sample was missing this information, and missingness was addressed through multiple imputation.

*School Characteristics.* Racial/ethnic composition of the school is taken from the In-School questionnaire and filled in with data from the School Context dataset. Racial/ethnic composition is examined in three ways. Continuous variables for percentage Black, percentage Hispanic, percentage American Indian, and percentage Asian were created by dividing the number of respondents identifying as Black, Hispanic, American Indian, and Asian by the total number of students in the school, filling in with data from School Context data, collected as part of the AHAA transcript studies, using data from the *Common Core of Data* and the *Private School Survey*. Second, for some analyses, we divide racial/ethnic composition into quintiles, separating the top quintile into the top 5% and the remaining 15%. Finally, following Rumberger and Palardy (2005), indicator variables for concentrated Black and concentrated Hispanic were also created, coded as 1 if the proportion of students of that race/ethnicity was 1 or more standard deviations above the mean in each category. We construct a measure of racial diversity in the school, using the formula used by the U.S. Census Bureau, which is the probability that two random individuals in the sample are of different races, calculated as 1 -

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<sup>6</sup>In 1994, the federal poverty line in 1994 was \$7,360 for a family of one with \$2,480 for each additional household member.



$((\text{proportion White})^2 + (\text{proportion Black})^2 + (\text{proportion Hispanic})^2 + (\text{proportion Asian})^2 + (\text{proportion American Indian})^2 + (\text{proportion Other Race})^2)$ . School level socioeconomic status is examined in three ways. School level economic disadvantage is measured in 1994 as part of the AHAA transcript studies, using data from the *Common Core of Data* and the *Private School Survey* on the percentage of students in the school eligible for the free lunch program, filled in with data from subsequent years with missing data addressed through multiple imputation (Muller et al, 2008). Additionally, a high SES school indicator variable was created, coded as 1, if the proportion of students eligible for free lunch was 1 or more standard deviations below the mean ( $\leq 0.07$ ), indicating a lower than average proportion of students in the school are economically disadvantaged. A low SES school indicator variable was created, coded as 1, if the percentage of students eligible for free lunch was 1 or more standard deviations above the mean ( $\geq 0.45$ ). Some models will be estimated with both the continuous measures of racial and SES composition, as well as the indicator measures to determine if effects of these school level characteristics are incremental or depend on a concentration of race/ethnicity or SES. Following Kelly (2009), we transformed categories of parental education, from the In-School Survey into a continuous variable, representing years of education (8<sup>th</sup> grade or less=8; less than High School=10; GED=11; High School Graduate=12; Some College=14; College Graduate=16). Average school parental education was calculated as the mean of this variable within the school.

*Control Variables:* All individual level models control for respondent's gender with an indicator variable equal to 1 for males and 0 for females, respondent's age at Wave I, created by using respondent's self-reported age on the in-school questionnaire and filling in missing data by computing age as the difference between respondent's birth date and the interview date. School

and individual level models control for school context variables which the literature demonstrates may affect course offerings and course enrollment: school type (public, private non-religious, and private religious), school size, and school size squared, urbanicity (rural, urban, or suburban), teacher-pupil ratio, and percentage of teachers with advanced degrees (Conger et al, 2009; Kelly, 2009; Lee et al, 1997). Finally, models control for location of the school (South, West, Midwest, and Northeast).

### **Empirical Approach**

In this study, we aim to isolate the relationship between school level racial/ethnic composition and socioeconomic status and individual race/ethnicity and socioeconomic status on the likelihood of a student having taken a particular category of civic education course in high school, with a particular interest in racial/ethnic minorities and low socioeconomic status students. Due to limited empirical work on student enrollment in social studies courses, this paper is largely descriptive. We begin with descriptive analysis. We calculate weighted means and linearized standard errors, adjusted for survey design, for all of our covariates (see Table 2.2). In order to determine how race/ethnicity and socioeconomic status are related to access to particular civic education courses, we begin by comparing means on covariates, move to bivariate analysis, to covariate adjusted analysis, and then finally to school fixed effects analysis to address the following research questions:

1. What school characteristics are associated with the availability of particular civic education courses?

- a. How do schools which offer particular civic education courses differ from schools that do not offer these courses?

To examine research question 1a, we compare means on school characteristics, including racial/ethnic composition, school level socioeconomic status, school type, percentage of teachers with advanced degrees, school size, student-teacher ratio, and urbanicity, for schools that offer each of the eight categories of civic education courses to those schools that do not offer this type of course, noting any significant differences.

- b. How is school level racial/ethnic composition associated with civic education course availability?
- c. How is school level socioeconomic status associated with civic education course availability?

To examine research questions 1b and 1c, we first examine the mean civic education access index for each course type by school level racial/ethnic composition quintiles, dividing the top quintile into the top 5% and the remaining 15%, by school level economic disadvantage quintiles, dividing the top quintile (highest concentration of economically disadvantaged students) into the top 5% and the remaining 15%, and by school level average parental education, by quintile, dividing the lowest quintile (least average parental education) into the bottom 5% and the remaining 15%. We then examine the impact of school racial/ethnic composition and school level socioeconomic status on course offerings, by estimating two sets of equations (log-odds and linear regression) for each of eight categories of civic education courses, and each school level racial/ethnic composition and socioeconomic status variable:

$$\log \frac{p(CE_s)}{(1 - p(CE_s))} = \beta_0 + \beta_1 X_s$$

Where  $CE_s$  is a dichotomous variable, coded as 1 if a school offers the category of civic education course, and  $p(CE_s)$  is the probability of a school offering the category of civic education course;

$X_I$  is a school level variable: percentage Black, percentage Hispanic, concentrated Black school, concentrated Hispanic school, percentage Asian, percentage American Indian, percentage other race, percentage economically disadvantaged, high SES school, low SES school, or average level of parental education, with results reported as odds ratios, and;

$$AI_s = \beta_0 + \beta_1 X_s + \varepsilon$$

Where  $AI_s$  is the school's access index for the category of civic education course, and;  
 $X_I$  is one of the above listed school level variables.

- d. How does school level racial/ethnic composition and school level socioeconomic status predict the availability of particular civic education courses, controlling for other aspects of school context which may affect course availability, such as school size, school type, and student-teacher ratio?

Guided by results from our bivariate analysis, to examine research question 1c, we estimate the following covariate adjusted regression model for each category of civic education course:

$$AI_s = \beta_0 + \beta_1 Race\_SES_s + \beta_2 School_s + \varepsilon$$

Where  $AI_s$  is the school's access index for the category of civic education course;  
 $Race\_SES_s$  is a vector of school level racial/ethnic composition and school level socioeconomic status variables, listed above, and;

$School_s$  is a vector of other school level variables which may affect course offerings including size, school type, percentage of teachers with advanced degrees, student teacher ratio, and urbanicity.

2. What student characteristics are associated with civic education course-taking?
  - a. How do students who take particular civic education courses differ from students that do not take these courses?

To examine research question 2a. we compare means of individual and family characteristics for students who took each category of civic education course to those students who did not take that category of course, noting any significant differences.

- b. How is individual race/ethnicity and socioeconomic status associated with the likelihood of taking civic education courses?

To examine research question 2b., we estimate the following equation for each of eight categories of civic education courses, and each individual level race/ethnicity and socioeconomic status variable:

$$\log \frac{p(CE_i)}{(1 - p(CE_i))} = \beta_0 + \beta_1 X_i$$

Where  $CE_i$  is a dichotomous variable, coded as 1 if an individual took the category of civic education course in high school, and  $p(CE_i)$  is the probability of an individual taking this category of civic education course, and;

$X_i$  is an individual level variable: student identifies as Black, Hispanic, Asian, American Indian, or another race, parental education, family income, or family poverty status, with results reported as odds ratios.

- c. How does individual race/ethnicity and socioeconomic status predict the likelihood of taking particular civic education courses, controlling for school characteristics which may impact course-taking?

To examine research question 2c, we first use covariate adjustment to control for school characteristics which may affect course availability and student course enrollment. The covariate adjusted model will address residential differences between schools as well as observed differences which affect within school course assignment. We estimate the following covariate adjusted two-level linear probability model, accounting for the nesting of students in schools. We chose a linear probability model, as opposed to a logistic regression model, to allow for the estimation of a two-level model, as well as to be able to easily compare results between this model and the school fixed effects model.

$$p(CE_{is}) = \gamma_0 + \gamma_1 X_{is} + \gamma_2 AI_s + \gamma_3 School_s + \mu_s + \varepsilon_{is}$$

Where  $p(CE_{is})$  is the probability of individual  $i$  in school  $s$  taking this category of civic education course, and;

$X_{is}$  is a vector of individual level variables, including race/ethnicity and socioeconomic status as well as individual level controls, listed above;

$AI_s$  is the school's access index for the category of civic education course, and;

$School_s$  is a vector of school level racial/ethnic composition and school level socioeconomic status variables, as well as other school level variables which may affect course offerings and enrollment, listed above. We control for school level characteristics in addition to course availability, because school level characteristics may differentially impact the likelihood of course offerings and individual student enrollment in courses. For example, larger schools may be more likely to offer particular courses, but individual students may be less likely to enroll

in the courses (Conger et al, 2009; Lee et al, 1999). Higher SES schools may have more course availability, but an individual student may have less access to the course due to a high level of student interest in taking the courses and subsequent competition for spots in each course (Garet and DeLany, 1988; Kilgore, 1991).

Based on our overarching goal for this work of understanding adolescent experiences which predict individual civic engagement, our key outcome of interest is individual student civic education course-taking. To better understand the impact of individual characteristics on course-taking, we estimate one final set of models that address the reality that students attend different schools and each school has different course availability and potentially different mechanisms of course assignment. Failing to account for differences between schools may cause us to over- or under- estimate the impact of individual characteristics on course-taking.

Finally, we estimate a school fixed effects model for each category of civic education course, to remove all non-time varying differences between schools. This allows us to better examine the impact of individual race/ethnicity and socioeconomic status on a student's likelihood of taking these courses by limiting the comparison to students within the same schools. This approach removes the endogeneity of the opportunity to take the course due to course availability in the school or course assignment decision mechanisms which may vary between schools, allowing us to estimate the relationship between individual race/ethnicity and socioeconomic status and course-taking for only those students who would have had access to that type of course.

All analyses are weighted to account for design effects in the sampling of Add Health, with weights scaled for use in two-level models (using the PWIGLS Method 2 command in Stata

14) and standard errors are cluster-adjusted at the school level to account for non-independence of the observations within schools (Chen and Chantala, 2014).

## **FINDINGS**

Research Question 1a: How do schools which offer particular civic education courses differ from schools that do not offer these courses?

As seen in Table 2.3, overall, schools which offer civic education courses either have similar racial/ethnic compositions to schools which do not offer civic education courses or have higher concentrations of racial and ethnic minority students than those that do not, with the exception of Social/Political Issues and American History courses. On average, schools which do not offer Social/Political Issues courses have nearly double the percentage of Hispanic students than schools that do offer at least one section of these courses (17.9% vs. 9.3%).

Schools which have American History courses, beyond the standard course of study have nearly three times the percentage of Hispanic students, on average, as those schools which do not offer these courses (32.9% vs. 11.5%). Overall, levels of economic disadvantage tend to be similar between schools which offer civic education courses and those that do not. Average rates of economic disadvantage are higher among schools that offer Civic Skills Development courses (30.3% vs. 12.1%) and those that do not, as well as those that offer Political Knowledge Development courses beyond the standard course of study when compared to those schools that do not offer these courses (32.7% vs. 14.9%). As seen in Table 2.3, we also find some differences in school type, proportions of teachers with advanced degrees, school size, urbanicity, and geographic region between schools which offer civic education courses and those that do not offer these courses.



Research Question 1b: How is school level racial/ethnic composition associated with civic education course availability?

When examining civic education course availability, as measured by the access index, by percentage of Black students within a school, by quintile, for all course categories, other than Historically Marginalized Groups and American History courses beyond the standard course of study, course availability is much greater in schools with the lowest concentrations of Black students than those with the highest concentrations of Black students (see Figure 2.1). Schools composed of 0 to 0.48% Black students offer an average of 10.38 Service Learning courses and 1.47 Experiential Learning courses per 100 students and schools composed of 72.6% or more Black students offer an average of 1.73 Service Learning courses and 0.1 Experiential Learning courses per 100 students (the equivalent of 1 course per 1000 students). However, this is not a linear relationship--course access does not decrease as proportions of Black students increase, as seen in Table 2.4. Course access is often greatest in the fourth quintile, where Black students comprise 10.84%-26.37% of the student population, as seen with Experiential Learning courses, or even in the top quintile, where Black students comprise 27.07%-70.54% of the student population, as seen with International/Multicultural Studies courses.

Course access is greater in schools with the lowest concentrations of Hispanic students than those with the highest concentrations of Hispanic students in most courses categories (see Figure 2.2), however, access to Experiential Learning courses is much greater in schools where the composition of Hispanic students is greater than 65.7% than in those schools where the proportion is less than 3.9% (1.88 courses per 100 students vs. 0.23 courses per 100 students). As displayed in Table 2.4, the availability of Service Learning and American History courses is highest when the proportion of Hispanic students is between 34-65%.

We do not report findings from our bivariate analyses of school characteristics and civic education course access as we do not gain any additional information from these analyses and in some cases, the results from bivariate analysis may mask the relationship between school characteristics and course access. For example, an increased proportion of Black students is associated with less availability of American History courses, although small (an increase of 10 in the proportion of Black students is associated with approximately 1/3 fewer (-0.36) courses per 100 students, and on average, a concentrated Black school offers 2 (-2.013) fewer courses per 100 students or 20 fewer courses per 100 students when compared to a racially diverse school or a school with predominantly White students, however, as noted above, these courses are available in schools with very high concentrations of Black students ( $\geq 72.6\%$ ). These results are displayed in Appendix Table C1.

In terms of racial diversity, as seen in Figure 2.3, the availability of most categories of civic education courses is higher in the most racially diverse schools than the least racially diverse schools, other than Civic Skills Development courses and American History courses beyond the standard curriculum, and as seen in table 2.4, for Experiential Learning courses, International/Multicultural Studies courses, and Political Knowledge Development courses, course access is highest in schools in the top 5% for racial/ethnic diversity. For example, for Experiential Learning courses, schools in the lowest quintile for racial/ethnic diversity on average offer less than one (0.92) course per 100 students, while schools in the top 5% for racial/ethnic diversity, on average, offer more than 4 courses per 100 students.

Research Question 1c: How is school level socioeconomic status associated with civic education course availability?

When course access is examined by proportion of economically disadvantaged students within a school, as seen in Figure 2.4, all course types, with the exception of Historically Marginalized Groups and Social/Political Issues courses are more available in schools with fewer than 10% economically disadvantaged students (bottom quintile) than in schools with greater than 70% economically disadvantaged students (top 5%). As with racial and ethnic composition, this is not a linear relationship (see Table 2.5)--course access is often highest when proportions of economically disadvantaged students are a bit higher, as with American History courses and Civic Skills Development courses where on average, access is highest in schools with 30-40% economically disadvantaged students.

When course access is examined by school level average parental education levels, for Service Learning, Civic Skills Development, Social/Political Issues, American History, and Political Knowledge Development courses, course access is greater in schools with the highest average levels of parental education than those with the lowest levels of parental education (see Figure 2.5). However, as with racial/ethnic composition, course access does not increase in a linear way along with average parental education within a school and the greatest course access may be in the second quintile (average parental education=12.122-12.475 years) as seen with Service Learning courses (see Table 2.5). For International/Multicultural Studies courses, courses in Historically Marginalized Groups, and Experiential Learning courses, course access is greater in schools where the average level of parental education is 11.36 years or less, than in schools where the average level of parental education is 13.83 years or more. This is most pronounced with International/Multicultural Studies courses—schools with average levels of parental education of 13.83 years or more offer, on average 4.47 courses per 100 students and

schools with average levels of parental education of 11.36 years or less offer, on average, nearly 16 (15.82) courses per 100 students.

Research Question 1d: How does school level racial/ethnic composition and school level socioeconomic status predict the availability of particular civic education courses, controlling for other aspects of school context which may affect course availability, such as school size, school type, and student-teacher ratio?

In multivariate analysis, a higher proportion of Black students in a school is associated with a small decrease in the availability of Experiential Learning, Service Learning, and International/Multicultural Studies courses, however a higher proportion of Black students is associated with a small increase in the availability of both Historically Marginalized Groups courses and Political Knowledge Development courses, beyond the standard course of study (see Table 2.6). The magnitude of the coefficients is small, which may be due to the non-linear relationship discussed above--for example, an increase in the proportion of Black students in a school by 0.10 (e.g., from 0.20 to 0.30) is associated with the availability of one additional Political Knowledge Development course per 10,000 students.<sup>7</sup> A higher proportion of Hispanic students in a school is associated with an increase in the availability of both Service Learning courses and Historically Marginalized Groups courses, but a decrease in the availability of Social/Political Issues courses. An increase in the proportion of Hispanic students in a school by 0.10 (e.g., from 0.20 to 0.30) is associated with nearly 2 (1.76) additional Service Learning courses and more than 1 (1.19) additional Historically Marginalized Groups course per 100 students. An increase in racial/ethnic diversity is associated with a decrease in the availability of American History courses beyond the standard course of study. An increase in the proportion of

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<sup>7</sup>0.011\*0.10=increase of 0.0011 per 10 students (\*1000=increase of 1.1 per 10,000 students)

teachers with advanced degrees is associated with a decrease in the availability of American History courses and an increase in the availability of Civic Skills Development courses and International/ Multicultural Studies courses. On average, urban schools offer fewer courses in Service Learning and Historically Marginalized Groups than suburban schools, but more courses in International/Multicultural Studies.

Research Question 2a: How do students who take particular civic education courses differ from students that do not take these courses?

When comparing mean individual characteristics of students who took civic education courses and those who did not take these courses, as seen in Table 2.7, a few notable differences emerge. Black students are underrepresented in Service Learning courses and American History courses beyond the standard course of study. Black students are highly represented in Historically Marginalized Groups courses—more than half (51.3%) of the students who took these courses self-identified as Black, while less than 15% of the sample self-identified as Black. Hispanic students are underrepresented in Civic Skills Development courses, Social/Political Issues courses, and Political Knowledge Development courses beyond the standard course of study. On average, students who take Experiential Learning, Civic Skills Development, Social/Political Issues, American History, and International/Multicultural Studies courses have higher English language skills, as measured by Add Health Picture Vocabulary Test scores, than those who did not take these courses. Males are underrepresented in Experiential Learning courses, Service Learning courses, Civic Skills Development courses and Historically Marginalized Groups courses. Finally, on average, students who take American History courses and International/Multicultural Studies courses beyond the standard course of study tend to be from families with higher incomes than those who do not take these courses, and students from

families experiencing poverty are underrepresented in Experiential Learning courses, Service Learning courses, Social/Political Issues courses, and International/Multicultural Studies courses beyond the standard course of study.

Research Question 2b: How is individual race/ethnicity and socioeconomic status associated with the likelihood of taking civic education courses?

When examining bivariate odds ratios, as seen in Table 2.8, on average, a Black student is approximately 47% less likely to take a Service Learning course and over 46% less likely to take an American History course than a student of another race/ethnicity. On average, a Hispanic student is 40% less likely to take a course in Civic Skills Development and nearly 67% less likely to take a course in Social/Political Issues than a student of another race/ethnicity. On average, a student experiencing poverty is nearly 33% less likely to take a course in Experiential Learning, nearly 20% less likely to take a course in Service Learning, over 18% less likely to take a course in Civic Skills Development, 36% less likely to take a course in Social/Political Issues, and over 27% less likely to take a course in International/Multicultural Studies than a peer from a higher income family.

Research Question 2c: How does individual race/ethnicity and socioeconomic status predict the likelihood of taking particular civic education courses, controlling for course availability and school characteristics which may impact course-taking?

When controlling for course availability and school characteristics which may impact course-taking, we find little relationship between a student's individual characteristics and the likelihood of taking particular courses. We focus on results from the School Fixed Effects models as these control for course availability, by limiting comparison to students attending the same schools, estimating the relationship between individual race/ethnicity and socioeconomic

status and civic education course-taking, independent of the availability of these courses. Results are consistent with results from Two-level Linear Probability Models, displayed in Appendix Table C2. As seen in Table 2.9, on average, controlling for other individual characteristics which may impact course-taking, a Black student is nearly 10% (9.6%) more likely to take a course in Historically Marginalized Groups than a White student in the same school. A Hispanic student, on average, controlling for other individual characteristics which may impact course-taking is 3% more likely to take a course in Historically Marginalized Groups, but 4% less likely to take a course in American History and 5.5% less likely to take a course in Political Knowledge than a White student in the same school. An Asian student is 6.6% less likely to take a course in Service Learning than a White student in the same school. A student experiencing poverty is 1.6% less likely to take a course in Social/Political Issues than a similar student in the same school from a higher income family. A student from a family with parents with less than a high school education is 1.8% less likely to take a course in Historically Marginalized Groups, 7.3% less likely to take a course in American History, and 3.7% less likely to take a course in International/Multicultural Studies than a student in the same school with parents who have a college degree. A student from a family with parents who graduated high school is 1.2% less likely to take an Experiential Learning course and 4.2% less likely to take an American History course beyond the standard course of study as a student in the same school with parents who have a college degree.

## **DISCUSSION**

The relationship between individual and school characteristics and access to civic education courses is not as straightforward as we expected, but rather exhibits some complexities. While we do find some support for our hypotheses that schools with higher

concentrations of racial/ethnic minorities and higher concentrations of low income students offer less access to civic education courses and that Black students, Hispanic students, and low socioeconomic status students are underrepresented in civic education courses, these relationships are not linear and are not consistent across course categories. In short, it is not as simple as extant literature in tracking and civic education may lead us to expect. Below, we discuss how course availability and enrollment patterns may affect individual student course-taking of each course type based on race/ethnicity and socioeconomic status, and offer overall conclusions and next steps for research.

Students from families with lower level of parental education are less likely to take an Experiential Learning course than their peers from higher socioeconomic backgrounds. It is unclear how disparities in access to Experiential Learning courses will affect Black students, as compared to students of other race/ethnicities. Lack of access to Experiential Learning courses in schools with very high concentrations of Black students will predominantly affect Black students as they are more likely to attend these schools. However, schools which are the most racially/ethnically diverse offer the most access to these types of courses, and Black students tend to attend schools which are more racially diverse when compared to students of other race/ethnicities (see Appendix Table C3). Schools with the lowest levels of average parental education offer the most availability of these types of courses, however, when we control for course availability, students with parents who graduated high school are less likely to take these courses than students with parents with college degrees. More research is needed to understand the mechanisms which lead to these students not enrolling in Experiential Learning courses.

Black students and economically disadvantaged students are more likely to be impacted by lack of access to Service Learning and Civic Skills Development courses than students of



other race/ethnicities or socioeconomic backgrounds as these courses are least available at schools with the highest concentrations of Black students and economically disadvantaged students. Civic Skills courses are also the least available at the most racially diverse schools and Black students, on average, attend more racially diverse schools than students of other race/ethnicities. Hispanic students are also more likely to be impacted by lack of access to Service Learning courses than students of other race/ethnicities as these courses are least available at schools with the highest concentrations of Hispanic students. Once we control for course access, however, we see no relationship between individual characteristics and enrollment in Service Learning and Civic Skills courses. Extant literature demonstrates the link between classroom practices which are likely to be included in both of these types of courses and future civic engagement, so additional research is warranted to better guide decisions regarding course offerings at these schools with likely limited resources.

Black students, Hispanic students, and students from lower socioeconomic status backgrounds are more likely to be impacted by lack of access to courses in Social/Political Issues than their peers from other race/ethnicities and higher socioeconomic status families. Schools with the highest concentrations of Black students, Hispanic students, and schools with the lowest average levels of parental education offer the least access to these courses when compared to other schools. Hispanic students, on average, attend schools with lower average levels of parental education than non-Hispanic students (see Appendix Table C3). Even controlling for course availability, students experiencing poverty are less likely to take courses in Social/Political Issues. Literature supports the importance of the classroom discussion of social and political issues to future civic engagement, which warrants further research into the mechanisms which lead to students not enrolling in these courses, as well as to investigate the

relationship between course-taking and life outcomes to better guide decisions regarding course offerings at these schools with likely limited resources.

Historically Marginalized Groups courses are perhaps the most promising in terms of course access for Black students, which is particularly positive as Black students are likely to benefit from taking these courses, in terms of civic identity. These courses are most available at schools with the highest concentrations of Black students, although they are less available at schools with high concentrations of Hispanic students. Controlling for course availability, both Black and Hispanic students are more likely to take these courses than their peers of other race/ethnicities in the same schools. These courses, however, are less available at urban schools as compared to suburban schools and the majority of Hispanic students in our sample (69.7%) attend urban schools (see Table 2.9).

American History courses beyond the standard course of study are widely available at schools with the highest concentrations of Black students and at schools with high concentrations of Hispanic students. Controlling for course availability, Hispanic students are less likely to take these courses than their peers of other race/ethnicities in the same schools. Students with parents with a high school education or less are also less likely to take these courses than their peers in the same schools, with parents with college degrees. More research is needed into these courses, as these are perhaps the courses most likely to disempower youth identified as racial/ethnic minorities, depending on the method of presentation. To reach a sound policy recommendation in terms of course access, more work is needed to understand the quality of these courses and any links between these courses and life outcomes.

Black students, Hispanic students, and students from lower socioeconomic status backgrounds are more likely to be impacted by lack of access to courses in

International/Multicultural Studies and Political Knowledge beyond the standard course of study than their peers from other race/ethnicities and higher socioeconomic status families. These courses are the least available at schools with the highest concentrations of Black students, Hispanic students, and economically disadvantaged students, although access is highest when racial diversity is also highest, and Black students, on average, attend more racially diverse schools. Controlling for course availability, students of parents with less than a high school education or with some college are less likely to take International/Multicultural Studies courses than students with parents with a college degree.

Lack of access to Political Knowledge Development courses particularly impacts Hispanic students. In addition to the lack of availability of these courses at schools with high concentrations of Hispanic student, the availability of Political Knowledge Development courses is also at the lowest when average levels of parental education are below 11.36 years, as compared to schools with higher average levels of parental education. Hispanic students, on average, attend schools with lower levels of parental education, and even controlling for course availability, Hispanic students are less likely to take courses in Political Knowledge than their non-Hispanic peers in the same schools.

While the relationship between civic education course access, race/ethnicity and socioeconomic status is not as simple as racial/ethnic minorities and economically disadvantaged students are less likely to take civic education courses than their White and higher socioeconomic status peers, we do find that the lack of access to these courses disproportionately falls on Black students, Hispanic students, and students from lower socioeconomic status backgrounds. Course access is such that many civic education courses are less available in schools where high concentrations of Black, Hispanic, economically disadvantaged, or students

with low levels of parental education attend. This lack of access is more likely to impact racial/ethnic minorities and students of lower socioeconomic status – some that could most benefit from access to these courses as they may lack access to other means of development of civic identity and civic skills. Future research is needed to understand how these courses impact life outcomes in order to guide policy recommendations. While civic education literature supports approaches to civic education such as service learning, experiential learning, and civic skills development, as predictors of attitudes, knowledge, and commitments that promote civic engagement, no study has examined the link between this range of civic education courses and civic engagement. The following chapter of this dissertation explores the relationship between these civic education courses and civic engagement, but we may imagine that these courses impact other life outcomes as well. Finally, although most of the differences in course-taking are explained by course availability, we do still find some associations between individual characteristics and the likelihood of taking civic education courses. Additional research is needed to understand the mechanisms which cause certain groups of students to take or not take particular civic education courses.

### *Limitations*

While this study offers a considerable amount of information regarding access to civic education courses, it suffers from one major limitation. While transcripts contain all courses taken by each Add Health respondent in all high schools attended, these courses are attributed to the school the respondent attended during Wave I of Add Health data collection. We, therefore, attribute all courses to this school and use associated school level characteristics, which may cause the misestimation of the association between school characteristics, course access, and course-taking if the school context of these schools vary greatly.

Table 2.1: Description of Civic Education Courses

<b>Course Type</b>	<b>Primary Course Content</b>
Experiential Learning	This category includes courses that include “learning by doing.” Content of these courses is active and participatory. Courses include simulations, role playing, field trips, and field experiences.
Service Learning	This category includes courses which combine classroom instruction with community service to address a need in the community. Ideally, service learning courses include a reflection component, however, we are unable to discern this from course content descriptions.
Civic Skills Development	This category includes courses that focus on developing intellectual and participatory civic skills. Intellectual and participatory skills “encompass knowing how to identify, assess, interpret, describe, analyze, and explain matters of concern in civic life”, and include critical thinking, perspective taking, interpreting and critiquing media, expressing opinions, and identifying public problems (Campaign for the Civic Mission of Schools). Participatory skills “encompass knowing how to cope in groups and organizational settings, interface with elected officials and community representatives, communicate perspectives and arguments, and plan strategically for civic change” and include public speaking, using electoral and non-electoral means to express political opinion, and working in groups (Campaign for the Civic Mission of Schools).
Social/Political Issues	This category includes courses that focus on contemporary social and political issues and current events.
Historically Marginalized Groups	This category includes courses which focus on racial and ethnic minorities and women in the United States.
American History	This category includes courses which focus on the social, political, and economic development of the United States. The category includes survey courses, as well as courses focused on particular time periods or regions.
International/Multicultural Studies	This category includes courses which focus on the history, society, politics, economy, or culture of geographic regions outside of the United States. The category includes courses focused on international affairs and global issues.
Political Knowledge Development	This category includes courses in government, political science, and public policy which are focused on developing knowledge of principles, procedures, processes, institutions, rights, and other information about the political system.

Table 2.2: Descriptive Statistics for All Covariates, Full Sample

	Mean	S.E.
<b>Civic Education Coursetaking</b>		
Any Civic Education Course	0.891	0.021
Experiential Learning Course	0.036	0.007
Service Learning Course	0.196	0.022
Civic Skills Course	0.282	0.029
Social Issues Course	0.120	0.024
Historically Marginalized Groups Course	0.041	0.009
American History Course <sup>1</sup>	0.582	0.039
International/Multicultural Course <sup>1</sup>	0.380	0.043
Political Knowledge Course <sup>1</sup>	0.324	0.034
<b>Individual Characteristics</b>		
Race/Ethnicity		
White	0.587	0.037
Black	0.147	0.019
Hispanic	0.168	0.032
Asian	0.057	0.015
American Indian	0.035	0.004
Other	0.006	0.001
Immigrant Generation		
1st Generation	0.083	0.017
2nd Generation	0.135	0.016
3rd + Generation	0.782	0.032
Picture Vocabulary Test Score	102.090	0.702
Male	0.493	0.008
Age at Wave I	15.562	0.130
<b>Family Characteristics</b>		
Income (in thousands)	49.246	1.825
Poverty	0.130	0.011
Parental Education		
< High School	0.153	0.021
High School Grad	0.255	0.011
Some College	0.218	0.009
College Graduate	0.374	0.019

Adjusted for Survey Design

<sup>1</sup>Courses other than those considered standard course of study

Table 2.2: Descriptive Statistics for All Covariates, Full Sample, Continued

	Mean	S.E.
<b>School Course Access</b>		
Offers any Civic Education Course <sup>1</sup>	1.000	n/a
Civic Education Access Index <sup>2</sup>	0.888	0.048
Offers any Experiential Learning Course	0.513	0.053
Experiential Learning Access Index <sup>2</sup>	0.177	0.029
Offers any Service Learning Course	0.773	0.047
Service Learning Access Index <sup>2</sup>	1.012	0.124
Offers any Civic Skills Course	0.944	0.027
Civic Skills Access Index <sup>2</sup>	1.000	0.107
Offers any Social Issues Course	0.679	0.051
Social Issues Access Index <sup>2</sup>	0.360	0.071
Offers any Marginalized Groups Course	0.491	0.057
Marginalized Groups Access Index <sup>2</sup>	0.186	0.045
Offers any American History Course <sup>1</sup>	0.995	0.005
American History Access Index <sup>2</sup>	3.012	0.247
Offers any Intl/Multicultural Course <sup>1</sup>	0.983	0.008
International/Multicultural Access Index <sup>2</sup>	1.956	0.251
Offers any Political Knowledge Course <sup>1</sup>	0.994	0.005
Political Knowledge Access Index <sup>2</sup>	1.173	0.125
<b>School Characteristics</b>		
Proportion Black	0.137	0.016
Concentrated Black	0.126	0.033
Proportion Hispanic	0.204	0.031
Concentrated Hispanic	0.167	0.050
Proportion Asian	0.054	0.010
Proportion American Indian	0.034	0.002
Proportion Other Race	0.045	0.004
Racial/Ethnic Diversity	0.470	0.019
Proportion Economically Disadvantaged	0.237	0.018
High SES School	0.186	0.051
Low SES School	0.111	0.028
Average Parental Education (in years)	12.911	0.141

Adjusted for Survey Design

<sup>1</sup>Courses other than those considered standard course of study<sup>2</sup>Course Access Indices approximately measure course offerings per 10 students and range from 0-11.41

Table 2.2: Descriptive Statistics for All Covariates, Full Sample, Continued

		Mean	S.E.
<b>School Characteristics, continued</b>			
	Public	0.959	0.015
	Private - Religious Affiliation	0.027	0.012
	Private - Non-religious	0.009	0.007
	Prop. Teachers with Advanced Degrees	0.525	0.028
	Size(/100)	10.937	0.799
	Student/teacher ratio	19.471	0.386
Urbanicity			
	Urban	0.351	0.057
	Suburban	0.550	0.058
	Rural	0.099	0.029
Region			
	South	0.385	0.036
	West	0.255	0.033
	Midwest	0.244	0.034
	Northeast	0.116	0.020
Adjusted for Survey Design			



Table 2.3: How do schools which offer civic education courses differ from schools that do not offer these courses?

(N=131)		Experiential Learning		Service Learning		Civic Skills		Social/Political Issues			
School Characteristics		Offer	Do Not Offer	Offer	Do Not Offer	Offer	Do Not Offer	Offer	Do Not Offer		
Proportion Black		0.128	0.152	0.138	0.195	0.150	*	0.070	0.126	0.182	
Concentrated Black		0.137	0.155	0.145	0.187	0.160	*	0.000	0.156	0.139	
Proportion Hispanic		0.173	0.104	0.129	*	0.078	0.116	0.226	0.093	*	0.179
Concentrated Hispanic		0.093	0.014	0.040	*	0.000	0.036	0.023	0.033		0.039
Proportion Asian		0.043	*	0.019	0.022	0.023	0.022	0.021	0.022		0.022
Proportion American Indian		0.050	0.049	0.051	0.039	0.051	*	0.018	0.062	*	0.027
Proportion Other Race		0.051	0.041	0.043	0.044	0.044		0.030	0.041		0.048
Proportion Economically Disadvantaged		0.348	0.266	0.282	0.328	0.303	*	0.121	0.267		0.339
High SES School		0.105	0.134	0.136	0.068	0.129		0.097	0.140		0.094
Low SES School		0.224	0.186	0.203	0.160	0.213	*	0.000	0.144		0.319
Average Parental Education (in years)		12.811	12.727	12.741	12.807	12.814		11.684	12.741		12.766
Public		0.810	0.840	0.820	0.916	0.822	*	1.000	0.862		0.776
Private - Religious Affiliation		0.143	0.160	0.173	0.037	0.165	*	0.000	0.119		0.224
Private - Non-religious		0.037	0.000	0.004	0.047	0.010		0.000	0.015		0.000
% Teachers with Advanced Degrees		0.486	0.389	0.396	*	0.537	0.406	*	0.565	0.443	0.363
Size(/100)		5.266	*	2.768	3.072	*	5.818	3.43	3.426	3.534	3.232
Student/teacher ratio		17.650	15.710	16.082	17.136	15.775	*	23.701	15.314	18.142	
Urbanicity											
suburban		0.511	0.548	0.620	0.554	0.589	*	0.977	0.609	0.616	
urban		0.292	0.178	0.198	0.279	0.220	*	0.023	0.161	0.297	
rural		0.197	0.174	0.182	0.168	0.191	*	0.000	0.230	0.087	
Region											
South		0.369	0.289	0.287	0.470	0.316		0.214	0.265	0.396	
West		0.329	*	0.085	0.171	*	0.009	0.123	0.589	0.129	0.190
Midwest		0.226	0.444	0.400	0.295	0.410	*	0.000	0.482	0.206	
Northeast		0.076	0.181	0.143	0.227	0.151		0.197	0.124	0.208	

\*indicates means are statistically different,  $p < 0.05$ 

Adjusted for survey design

Table 2.3: How do schools which offer civic education courses differ from schools that do not offer these courses?, continued

(N=131)		Historically Marginalized Groups		American History		International/Multicultural		Political Knowledge	
School Characteristics		Offer	Do Not Offer	Offer	Do Not Offer	Offer	Do Not Offer	Offer	Do Not Offer
Proportion Black		0.200	0.096	0.144	0.181	0.127	0.209	0.170	* 0.024
Concentrated Black		0.225	0.082	0.150	0.168	0.136	0.201	0.174	* 0.030
Proportion Hispanic		0.138	0.109	0.115	* 0.329	0.132	0.093	0.127	0.099
Concentrated Hispanic		0.039	0.031	0.036	* 0.000	0.045	* 0.000	0.042	* 0.000
Proportion Asian		0.027	0.017	0.022	0.031	0.027	* 0.005	0.025	* 0.006
Proportion American Indian		0.064	* 0.036	0.051	* 0.006	0.044	0.067	0.043	0.081
Proportion Other Race		0.043	0.044	0.007	* 0.045	0.004	* 0.055	0.001	* 0.052
Proportion Economically Disadvantaged		0.316	0.261	0.292	0.217	0.315	0.226	0.327	* 0.149
High SES School		0.074	0.180	0.132	* 0.000	0.144	0.084	0.000	* 0.161
Low SES School		0.237	0.156	0.198	0.168	0.207	0.174	0.000	* 0.251
Average Parental Education (in years)		12.509	12.975	12.827	* 10.638	12.894	12.264	12.910	* 11.953
Public		0.847	0.819	0.826	* 1.000	0.783	* 1.000	0.799	* 1.000
Private - Religious Affiliation		0.127	0.181	0.161	* 0.000	0.201	* 0.000	0.000	* 0.186
Private - Non-religious		0.021	0.000	0.010	0.000	0.013	0.000	0.012	0.000
% Teachers with Advanced Degrees		0.391	0.439	0.408	* 0.608	0.416	0.415	0.427	0.359
Size(/100)		3.486	3.378	3.516	* 1.050	4.155	* 0.937	4.020	* 0.436
Student/teacher ratio		15.025	17.385	15.827	* 25.159	16.805	14.711	16.697	14.365
Urbanicity									
suburban		0.628	0.596	0.603	0.832	0.508	* 0.965	0.535	* 1.000
urban		0.236	0.183	0.216	* 0.000	0.269	* 0.000	0.249	* 0.000
rural		0.136	0.221	0.181	0.168	0.223	* 0.035	0.216	* 0.000
Region									
South		0.255	0.361	0.316	0.168	0.316	0.292	0.366	* 0.030
West		0.098	0.197	0.125	* 0.832	0.156	0.129	0.145	0.177
Midwest		0.469	0.310	0.400	* 0.000	0.330	0.579	0.306	* 0.793
Northeast		0.177	0.132	0.159	* 0.000	0.198	* 0.000	0.184	* 0.000

\*indicates means are statistically different, p&lt;0.05

Adjusted for survey design

Table 2.4: Mean Civic Education Course Access Index by School Level Racial/Ethnic Composition and Diversity, by Quintile

		Range	Experiential Learning	Service Learning	Civic Skills	Social Issues	Historically Marginalized Groups	American History	International /Multicultural	Political Knowledge
% African American	Lowest	0-0.48%	0.147	1.038	1.214	0.584	0.022	2.015	1.896	1.281
	Second	0.549-4.06%	0.182	1.389	0.985	0.561	0.139	3.941	2.468	1.046
	Third	4.07-10.76%	0.202	1.071	0.979	0.094	0.096	3.762	1.467	1.013
	Fourth	10.84-26.37%	0.226	0.941	0.834	0.280	0.135	2.330	1.954	1.601
	Highest (Remaining 15%)	27.07-70.54%	0.120	0.453	1.103	0.538	0.568	1.410	2.597	1.185
	Highest (Top 5%)	72.60-88.74%	0.010	0.173	0.781	0.047	0.831	3.727	0.447	0.911
% Hispanic	Lowest	0-3.9%	0.023	0.606	1.172	0.284	0.017	3.925	1.759	1.235
	Second	3.97-6.62%	0.081	0.642	1.372	0.508	0.149	2.468	2.089	1.220
	Third	6.80-14.19%	0.186	1.053	0.721	0.523	0.346	2.624	1.901	1.260
	Fourth	14.40-33.48%	0.329	0.947	0.951	0.366	0.242	2.555	2.321	1.389
	Highest (Remaining 15%)	34.04-65%	0.220	2.648	0.446	0.078	0.163	4.339	1.945	0.744
	Highest (Top 5%)	65.7-93.79%	0.188	0.198	1.336	0.009	0.044	3.470	0.745	0.660
Racial/Ethnic Diversity	Lowest	0.118-0.253	0.092	0.421	1.306	0.318	0.013	3.183	1.291	1.003
	Second	0.258-0.403	0.094	0.960	1.347	0.527	0.199	3.167	2.258	0.864
	Third	0.407-0.528	0.149	0.937	0.975	0.280	0.168	3.026	1.665	1.136
	Fourth	0.531-0.670	0.266	1.704	0.622	0.155	0.116	3.367	1.650	1.525
	Highest (Remaining 15%)	0.671-0.715	0.205	0.704	0.859	0.621	0.486	2.592	2.803	1.149
	Highest (Top 5%)	0.718-0.785	0.441	1.120	0.677	0.436	0.372	1.432	3.374	1.673

Table 2.5: Mean Civic Education Course Access Index by School Level Socioeconomic Status, by Quintile

		Range	Experiential Learning	Service Learning	Civic Skills	Social Issues	Historically Marginalized Groups	American History	International/Multicultural	Political Knowledge
% Economically Disadvantaged	Lowest	0-10%	0.159	0.986	1.242	0.384	0.023	2.979	2.291	0.970
	Second	15%	0.122	1.103	0.612	0.640	0.183	3.124	2.038	1.885
	Third	20-25%	0.334	1.654	0.653	0.257	0.126	2.984	2.154	0.988
	Fourth	30-40%	0.147	0.696	1.587	0.240	0.129	3.137	1.128	0.810
	Highest (Remaining 15%)	45-65%	0.226	0.723	0.681	0.314	0.423	2.578	1.599	1.488
	Highest (Top 5%)	70-85%	0.114	0.686	0.545	0.654	0.839	1.881	0.503	0.786
Average Parental Education	Lowest (Bottom 5%)	10.159-11.356	0.288	0.368	1.278	0.027	0.476	3.179	1.582	0.581
	Lowest (Remainin g 15%)	11.407-12.085	0.125	1.244	0.730	0.266	0.168	3.502	1.264	1.234
	Second	12.122-12.475	0.030	1.297	0.647	0.426	0.228	2.689	0.598	0.840
	Third	12.476-13.143	0.138	0.60	1.129	0.488	0.061	2.654	2.867	1.438
	Fourth	13.162-13.832	0.280	1.047	0.697	0.645	0.178	2.351	2.288	1.485
	Highest	13.833-16.846	0.132	1.055	1.498	0.189	0.208	3.612	0.390	0.894

Table 2.6: How is school level racial/ethnic composition and socioeconomic status associated with civic education course availability?  
Results from Multivariate Analysis

			Experiential Learning		Service Learning		Civic Skills		Social/Political Issues	
			Coeff.	S.E.	Coeff.	S.E.	Coeff.	S.E.	Coeff.	S.E.
<b>School Characteristics</b>										
	Proportion Black		-0.002	*	0.001	-0.008	†	0.004	-0.000	0.005
	Proportion Hispanic		0.332		0.201	1.763	*	0.872	0.374	1.006
	Proportion Asian		-0.482		0.617	-2.824		2.517	-1.724	1.982
	Proportion American Indian		-0.121		0.775	3.805		4.207	2.543	5.031
	Proportion Other Race		0.791		0.832	-3.422		4.431	6.134	4.084
	Racial/Ethnic Diversity		0.075		0.166	1.348		0.985	-0.563	0.876
	Prop. Economically Disadvantaged		0.143		0.133	-0.297		0.773	0.121	0.883
	Average Parental Education (in years)		0.046		0.032	0.247		0.167	0.026	0.159
	School Type (Public is reference)									
	Private - Religious Affiliation		-0.151		0.091	0.050		0.477	0.379	0.441
	Private - Non-religious		-0.135		0.130	-0.359		1.332	-0.351	0.827
	Prop. Teachers with Advanced Degrees		0.024		0.086	-0.651		0.566	1.256	†
	Size(/100)		0.024	*	0.012	-0.009		0.059	0.056	0.068
	Size squared		-0.000	*	0.001	-0.001		0.003	-0.003	0.003
	Student/teacher ratio		-0.008		0.011	0.006		0.070	0.021	0.071
	Urbanicity (suburban is reference)									
	urban		0.073		0.087	-0.676	*	0.331	-0.342	0.320
	rural		-0.062		0.049	0.376		0.381	0.143	0.328
	Region (South is reference)									
	West		0.274	*	0.124	1.517	*	0.610	-0.518	0.650
	Midwest		-0.039		0.061	0.634	*	0.288	0.646	†
	Northeast		-0.024		0.117	-0.195		0.391	-0.406	0.378

†p<0.10, \*p<0.05; \*\*p<0.01; Adjusted for Survey Design; Note: Uses Imputed Data

Table 2.6: How is school level racial/ethnic composition and socioeconomic status associated with civic education course availability?  
Results from Multivariate Analysis, Continued

			Historically Marginalized Groups				American History		International/Multicultural		Political Knowledge				
			Coeff.	S.E.	Coeff.	S.E.	Coeff.	S.E.	Coeff.	S.E.	Coeff.	S.E.			
<b>School Characteristics</b>															
Proportion Black			0.004	*	0.002		-0.014	0.010	-0.011	†	0.007	0.011	†	0.006	
Proportion Hispanic			1.199	**	0.418		-0.070	1.888	0.238		1.412	1.634		1.377	
Proportion Asian			-1.068		0.914		6.690	4.813	-0.564		5.272	-4.943	†	2.753	
Proportion American Indian			2.300		1.705		-2.480	7.951	-11.131	†	5.921	-8.136		5.657	
Proportion Other Race			1.878		1.782		-0.801	8.673	7.645		6.878	11.230	*	5.609	
Racial/Ethnic Diversity			0.579		0.441		-3.172	†	1.845		1.375	-0.406		1.253	
Prop. Economically Disadvantaged			0.307		0.293		-0.092		1.397		0.448	1.184		0.288	1.163
Average Parental Education (in years)			-0.012		0.061		-0.072		0.348		0.174	0.294		0.245	0.196
School Type (Public is reference)															
Private - Religious Affiliation			0.210		0.167		-0.199		0.836		-1.008	0.715		0.024	0.536
Private - Non-religious			1.114	*	0.490		3.478	*	1.627		0.431	1.227		-0.830	1.055
Prop. Teachers with Advanced Degrees			0.146		0.176		-2.591	*	1.021		2.061	*	0.852	0.456	0.672
Size(/100)			0.055	*	0.026		0.000		0.146		0.133	0.126		0.104	0.084
Size squared			-0.002		0.001		0.002		0.007		-0.006	0.006		-0.006	0.004
Student/teacher ratio			-0.041	†	0.024		-0.098		0.094		-0.067	0.075		-0.066	0.077
Urbanicity (suburban is reference)															
urban			-0.365	*	0.146		-0.365		0.530		1.063	*	0.514	-0.032	0.407
rural			0.032		0.095		-0.422		0.624		-0.051	0.404		0.563	0.555
Region (South is reference)															
West			0.077		0.172		1.028		0.976		1.252	†	0.718	0.702	0.593
Midwest			0.234	†	0.136		1.240	*	0.612		0.555	0.521		0.607	0.444
Northeast			-0.020		0.148		1.768	†	0.890		0.755	0.822		-0.789	0.497

†p<0.10, \*p<0.05; \*\*p<0.01; Adjusted for Survey Design; Note: Uses Imputed Data

Table 2.7: How do students who take particular civic education courses differ from students that do not take these courses?

		Experiential Learning			Service Learning			Civic Skills			Social/Political Issues				
		Took		Did Not Take	Took		Did Not Take	Took		Did Not Take	Took		Did Not Take		
Individual Characteristics															
Race/Ethnicity															
	White	0.578		0.587		0.560		0.593		0.667	*	0.555	0.697	*	0.572
	Black	0.116		0.149		0.092	*	0.161		0.134		0.152	0.123		0.150
	Hispanic	0.193		0.167		0.202		0.160		0.121	*	0.186	0.068	*	0.181
	Asian	0.079		0.056		0.091		0.048		0.038	*	0.064	0.062		0.056
	American Indian	0.034		0.036		0.049	*	0.032		0.032		0.037	0.047		0.034
	Other	0.000	*	0.006		0.006		0.006		0.007		0.005	0.002		0.006
Immigrant Generation															
	1st Generation	0.100		0.083		0.081		0.084		0.054	*	0.095	0.022	*	0.092
	2nd Generation	0.164		0.134		0.175		0.125		0.115		0.143	0.083	*	0.142
	3rd + Generation	0.736		0.783		0.744		0.791		0.831	*	0.762	0.896	*	0.766
	Picture Vocabulary Test Score	104.947	*	101.983		101.679		102.190		104.569	*	101.134	103.914	*	101.843
	Male	0.382	*	0.497		0.415	*	0.512		0.463	*	0.505	0.507		0.491
	Age at Wave I	15.394		15.565		15.387		15.601		15.516		15.576	15.406		15.580
Family Characteristics															
	Income (in thousands)	67.824		48.536		53.360		48.229		51.586		48.288	48.732		49.320
	Poverty	0.076	*	0.132		0.103	*	0.137		0.117		0.135	0.089	*	0.136
Parental Education															
	< High School	0.132		0.154		0.141		0.156		0.113	*	0.169	0.093	*	0.161
	High School Grad	0.156	*	0.259		0.228		0.262		0.243		0.26	0.293		0.250
	Some College	0.221		0.218		0.226		0.216		0.238		0.210	0.255	*	0.213
	College Graduate	0.491		0.369		0.404		0.366		0.406		0.361	0.359		0.376

\*indicates means are statistically different,  $p < 0.05$ ; Adjusted for Survey Design

Table 2.7: How do students who take particular civic education courses differ from students that do not take these courses?, Continued

		Historically Marginalized Groups			American History			International/Multicultural		Political Knowledge	
		Took		Did Not Take	Took		Did Not Take	Took		Did Not Take	
<b>Individual Characteristics</b>											
Race/Ethnicity											
	White	0.268	*	0.601	0.594		0.577	0.646		0.551	0.643
	Black	0.513	*	0.132	0.114	*	0.193	0.125		0.161	0.147
	Hispanic	0.142		0.169	0.174		0.159	0.138		0.186	0.119
	Asian	0.033		0.058	0.078	*	0.027	0.047		0.063	0.048
	American Indian	0.041		0.035	0.033		0.039	0.039		0.033	0.039
	Other	0.003		0.006	0.006		0.005	0.004		0.007	0.005
Immigrant Generation											
	1st Generation	0.058		0.084	0.088		0.077	0.068		0.093	0.057
	2nd Generation	0.139		0.135	0.145		0.121	0.132		0.137	0.115
	3rd + Generation	0.803		0.781	0.767		0.802	0.800		0.770	0.828
	Picture Vocabulary Test Score	99.048		102.221	103.457	*	100.220	104.662	*	100.510	103.146
	Male	0.410	*	0.496	0.483		0.506	0.494		0.492	0.495
	Age at Wave I	15.349		15.568	15.530		15.599	15.577		15.548	15.423
<b>Family Characteristics</b>											
	Income (in thousands)	40.830	*	49.595	52.051	*	45.436	55.224	*	45.488	50.828
	Poverty	0.184		0.128	0.115		0.151	0.105	*	0.146	0.117
Parental Education											
	< High School	0.136		0.154	0.148		0.16	0.111		0.179	0.123
	High School Grad	0.264		0.255	0.235	*	0.284	0.234		0.268	0.249
	Some College	0.255		0.216	0.221		0.213	0.216		0.219	0.236
	College Graduate	0.345		0.375	0.396		0.343	0.438	*	0.334	0.391

\*indicates means are statistically different, p&lt;0.05; Adjusted for Survey Design



Table 2.8: How is individual race/ethnicity and socioeconomic status associated with the likelihood of taking civic education courses?  
Bivariate Odds Ratios

(N=11,441)		Experiential Learning		Service Learning		Civic Skills		Social/Political Issues				
		Coeff.	S.E.	Coeff.	S.E.	Coeff.	S.E.	Coeff.	S.E.			
Individual Characteristics												
Race/Ethnicity												
	White	0.963	0.147	0.872	*	0.061	1.604	**	0.109	1.726	**	0.155
	Black	0.749	0.152	0.531	**	0.049	0.864	†	0.071	0.794	*	0.090
	Hispanic	1.195	0.231	1.331	**	0.124	0.600	**	0.066	0.331	**	0.053
	Asian	1.449	0.399	1.979	**	0.232	0.576	**	0.080	1.116		0.176
	American Indian	0.948	0.365	1.531	*	0.276	0.876		0.155	1.394		0.302
	Other	0.066	**	0.068		0.417	1.414		0.579	0.303	**	0.130
Immigrant Generation												
	1st Generation	1.236	0.368	0.969		0.129	0.548	**	0.086	0.219	**	0.055
	2nd Generation	1.266	0.257	1.478	**	0.144	0.775	*	0.087	0.544	**	0.078
	3rd + Generation	0.771	0.139	0.768		0.064	1.536	**	0.145	2.622	**	0.334
Family Characteristics												
	Income (in thousands)	1.004	**	0.001	*	0.001	1.002	*	0.001	1.000		0.001
	Poverty	0.673	†	0.153	*	0.087	0.817	*	0.080	0.640	**	0.100
Parental Education												
	< High School	0.836		0.188		0.092	0.627	**	0.068	0.531	**	0.083
	High School Grad	0.528	**	0.101	*	0.068	0.911		0.067	1.242	*	0.122
	Some College	1.019		0.188		0.089	1.177	*	0.095	1.268	*	0.134
	College Graduate	1.648	**	0.254	*	0.084	1.21	**	0.082	0.931		0.086

†p<0.10, \*p<0.05; \*\*p<0.01; Adjusted for Survey Design

Table 2.8: How is individual race/ethnicity and socioeconomic status associated with the likelihood of taking civic education courses?  
Bivariate Odds Ratios, Continued

Bivariate Odds Ratios, Continued													
		Historically Marginalized Groups			American History			International/Multicultural			Political Knowledge		
		Coeff.		S.E.	Coeff.		S.E.	Coeff.		S.E.	Coeff.		S.E.
Individual Characteristics													
Race/Ethnicity													
	White	0.243	**	0.386	1.072		0.064	1.488	**	0.093	1.412	**	0.089
	Black	6.962	**	0.941	0.539	**	0.039	0.748	**	0.058	0.998		0.076
	Hispanic	0.817		0.181	1.122		0.097	0.701	**	0.062	0.570	**	0.053
	Asian	0.560		0.225	3.086	**	0.458	0.745	*	0.089	0.766	*	0.095
	American Indian	1.164		0.399	0.840		0.143	1.192		0.223	1.175		0.231
	Other	0.437		0.228	1.143		0.451	0.592		0.249	0.735		0.326
Immigrant Generation													
	1st Generation	0.670		0.209	1.154		0.139	0.714	**	0.088	0.569	**	0.074
	2nd Generation	1.038		0.218	1.236	*	0.115	0.957		0.087	0.767	**	0.073
	3rd + Generation	1.142		0.206	0.812	**	0.063	1.194	*	0.092	1.528	**	0.122
Family Characteristics													
	Income (in thousands)	0.995	*	0.002	1.003	**	0.001	1.004	**	0.001	1.001		0.001
	Poverty	1.492	*	0.247	0.779	**	0.064	0.728	**	0.064	0.875		0.079
Parental Education													
	< High School	0.865		0.169	0.915		0.079	0.575	**	0.052	0.701	**	0.065
	High School Grad	1.051		0.148	0.774	**	0.051	0.825	**	0.059	0.954		0.067
	Some College	1.243		0.204	1.051		0.076	0.987		0.075	1.168	*	0.086
	College Graduate	0.876		0.122	1.251	**	0.079	1.552	**	0.098	1.117	†	0.071

†p<0.10; \*p<0.05; \*\*p<0.01; Adjusted for Survey Design

Table 2.9: How is individual race/ethnicity and socioeconomic status associated with the likelihood of taking civic education courses?  
Results from School Fixed Effects Models

	Experiential Learning		Service Learning		Civic Skills		Social/Political Issues	
	Coeff.	S.E.	Coeff.	S.E.	Coeff.	S.E.	Coeff.	S.E.
(N=11,068)								
<b>Individual Characteristics</b>								
Race/Ethnicity (White is reference)								
Black	-0.002	0.016	-0.001	0.013	0.019	0.024	0.001	0.014
Hispanic	-0.010	0.009	-0.025	0.018	-0.015	0.019	0.002	0.014
Asian	0.018	0.020	-0.066	†	0.039	0.012	0.036	0.013
American Indian	-0.015	0.015	0.001	0.031	0.000	0.033	0.014	0.024
Other	-0.007	0.012	0.036	0.078	0.177	*	0.083	-0.036
Immigrant Generation (3 <sup>rd</sup> + is ref.)								
1st Generation	0.000	0.017	-0.031	0.026	0.023	0.024	-0.016	0.017
2nd Generation	-0.004	0.011	0.023	0.019	0.007	0.018	-0.013	0.013
Picture Vocabulary Test Score	0.001	**	0.000	0.000	0.001	0.000	0.000	0.000
Male	-0.021	**	0.006	-0.069	**	0.017	-0.017	0.013
Age at Wave I	0.000	0.002	-0.008	*	0.003	-0.005	0.005	-0.002
<b>Family Characteristics</b>								
Income (in thousands)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Poverty	-0.004	0.008	-0.008	0.016	0.007	0.020	-0.016	†
Parental Education (College Grad is reference)								
< High School	-0.006	0.009	0.011	0.017	-0.027	0.021	0.007	0.014
High School Grad	-0.012	†	0.007	0.004	0.012	-0.012	0.017	0.004
Some College	-0.007	0.007	0.000	0.017	-0.004	0.014	0.013	0.010

†p<0.10; \*p<0.05; \*\*p<0.01; Adjusted for Survey Design; Note: Uses Imputed Data

Table 2.9: How is individual race/ethnicity and socioeconomic status associated with the likelihood of taking civic education courses?  
Results from School Fixed Effects Models, Continued

		Historically Marginalized Groups		American History			International/Multicultural		Political Knowledge			
		Coeff.	S.E.	Coeff.	S.E.		Coeff.	S.E.	Coeff.	S.E.		
<b>Individual Characteristics</b>												
Race/Ethnicity (White is reference)												
	Black	0.096	**	0.022	-0.039	0.024	0.005	0.014	0.006		0.026	
	Hispanic	0.030	*	0.012	-0.040	†	0.021	0.001	0.020	-0.055	**	0.019
	Asian	-0.011		0.013	0.027	0.035	0.015	0.022	0.002		0.030	
	American Indian	0.004		0.015	-0.023	0.030	0.057	†	0.031	-0.018		0.029
	Other	-0.017		0.022	0.038	0.060	0.028	0.104	-0.105	**	0.040	
Immigrant Generation (3 <sup>rd</sup> + is ref.)												
	1st Generation	0.013		0.011	0.055	*	0.024	-0.012	0.017	-0.013		0.026
	2nd Generation	0.018		0.012	0.013	0.023	-0.007	0.017	-0.003		0.019	
	Picture Vocabulary Test Score	0.000		0.000	0.004	**	0.001	0.002	**	0.000	†	0.001
	Male	-0.009		0.006	-0.027	*	0.011	0.002	0.011	-0.005		0.010
	Age at Wave I	0.002		0.002	-0.013	*	0.005	-0.008	0.005	-0.002		0.007
<b>Family Characteristics</b>												
	Income (in thousands)	0.000		0.000	0.000	0.000	0.000	0.000	0.000	0.000		0.000
	Poverty	-0.007		0.008	0.016	0.016	0.009	0.015	0.010		0.021	
Parental Education (College Grad is reference)												
	< High School	-0.018	†	0.010	-0.073	**	0.016	-0.037	*	0.017	-0.002	0.017
	High School Grad	-0.008		0.007	-0.042	**	0.014	-0.021		0.015	-0.011	0.013
	Some College	0.004		0.007	-0.010		0.018	-0.029	*	0.014	0.010	0.014

†p<0.10, \*p<0.05; \*\*p<0.01; Adjusted for Survey Design; Note: Uses Imputed Data

Figure 2.1: Civic Education Access by School Percentage of African American Students

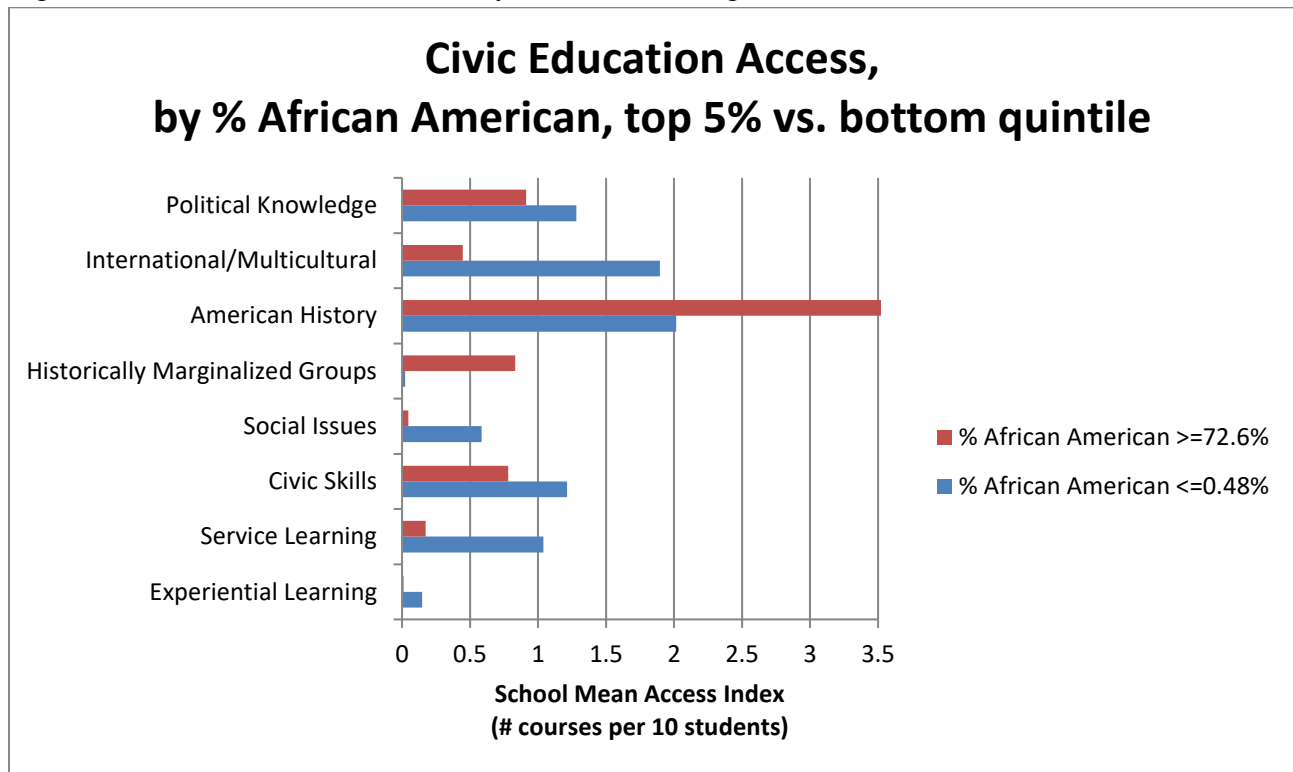


Figure 2.2: Civic Education Access by School Percentage of Hispanic Students

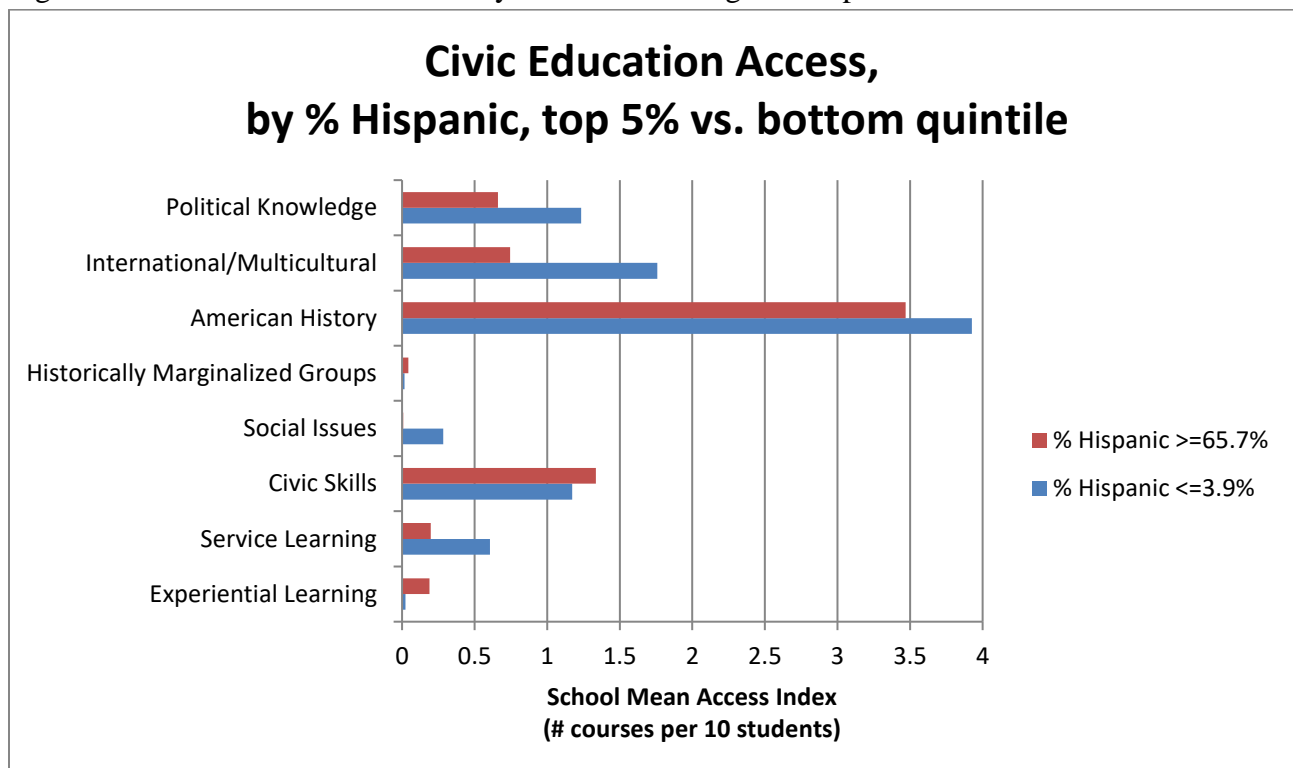


Figure 2.3: Civic Education Access by School Racial/Ethnic Diversity

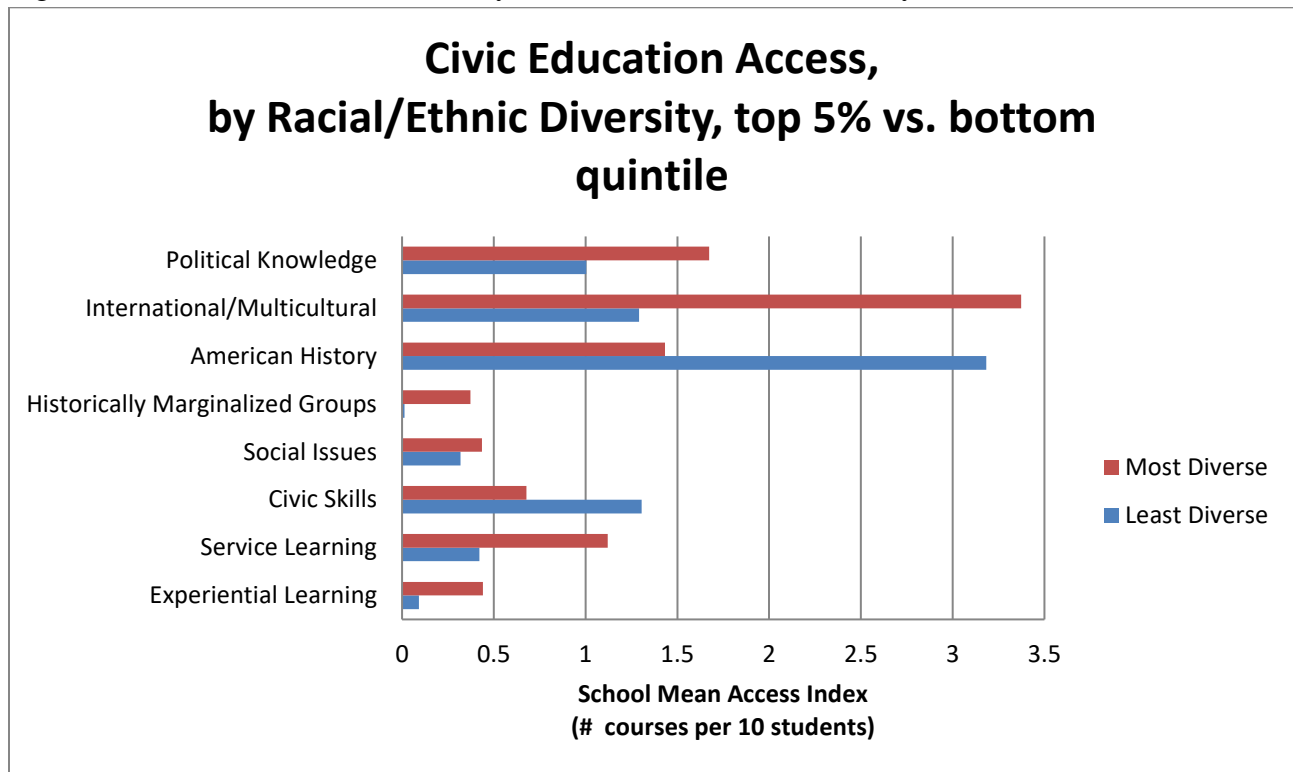


Figure 2.4: Civic Education Access by Percentage of Economically Disadvantaged Students

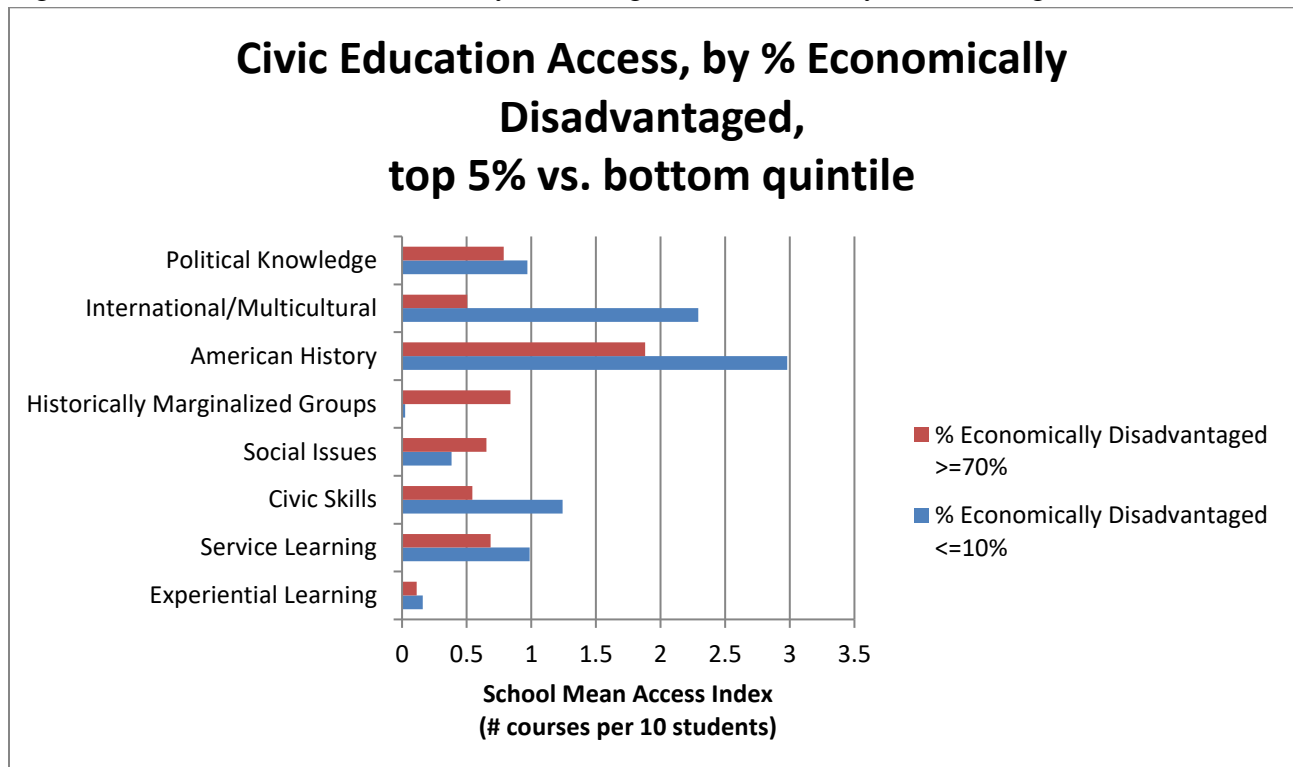
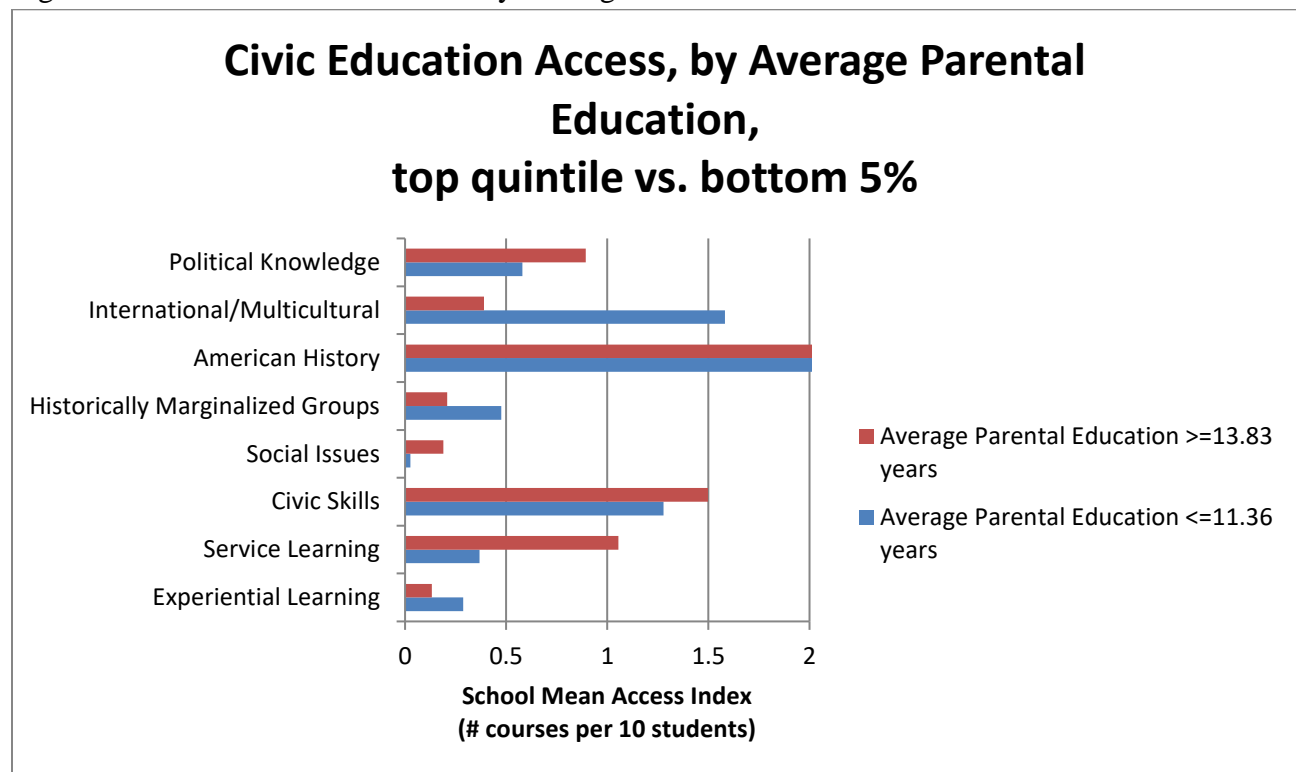


Figure 2.5: Civic Education Access by Average Parental Education



## **CHAPTER 3: EXAMINING THE RELATIONSHIP BETWEEN HIGH SCHOOL SOCIAL STUDIES COURSETAKING AND ADULT CIVIC ENGAGEMENT**

### **INTRODUCTION**

Much scholarship has documented the decline in civic engagement in the United States over the past several decades, as well as inequalities of civic participation across demographic groups. For example, Robert Putnam's *Bowling Alone* sparked widespread interest in the declining rates of civic participation in America. An essay by Putnam, several years prior to the publication of his book of the same name summarizes, "by almost every measure, Americans' direct engagement in politics and government has fallen steadily and sharply over the last generation" (Putnam, 1995, p. 68). This article has over 16,000 citations in the literature in a range of fields. The American Political Science Association noted such disparities in participation along racial/ethnic and socioeconomic lines that they convened a task force to review the data and literature on citizen participation which concluded that there are "disturbing deficits and trends that undermine the promise of American democracy" (APSA Task Force on Inequality and American Democracy, 2004, p. 20). For example, African American and Hispanic individuals demonstrate lower levels of political and civic participation than Whites and high income individuals participate in political and civic activities at nearly three times the rate of low income individuals (File, 2013; Verba, Schlozman, and Brady, 1995).

The social studies curriculum may offer the best opportunity for intervention to address these issues of civic participation. While the development of informed citizens is one goal for all public schooling, it is the primary goal of social studies courses. According to the



National Council for the Social Studies, “the aim of social studies is the promotion of civic competence—the knowledge, intellectual processes, and democratic dispositions required of students to be active and engaged participants in public life” (NCSS National Curriculum Standards, 2010). While much research has focused on the link between educational attainment and civic participation, fewer studies have attempted to look inside the “black box” of schooling to determine the aspects of curriculum and instruction that are correlated with future civic participation. Understanding the link between the high school curriculum and longer term civic engagement is important, due not only to the opportunities for widespread intervention, but also because the high school years are “impressionable years,” during which individuals are developing their civic identities which are likely to persist into adulthood (Sears and Levy, 2003).

Many schools have reduced instructional time in social studies to meet math and reading proficiency requirements of federal legislation, which creates an additional need to understand the impact of social studies instruction on civic engagement (Rentner et al, 2006). In a nationally representative survey, 71% of districts reported that they had reduced instructional time in at least one subject in order to allot more time to reading and math instruction and Social Studies was the most frequently cited subject in which instructional time was reduced (Rentner et al, 2006). This is of little surprise in the “if it’s not test, it’s not taught” post-No Child Left Behind education environment. As of the 2012-13 school year, only twenty-one states require students to take a standardized test in social studies and only nine states require students to pass this test as a prerequisite for high school graduation (Godsay, Henderson, Levine, and Littenberg-Tobias, 2012). Administrators more often said they reduced time in social studies

instruction than in art or music, the decline of which has been the subject of scholarship (Elpus, 2014; Heilig, Cole, and Aguilar, 2010; Rentner et al, 2006).

Extant literature in civic education demonstrates that instructional approaches such as classroom discussion of controversial topics and current events, experiential learning, civic skills development, and opportunities for service learning are correlated with the knowledge, attitudes, and commitments that are important for civic participation (Feldman et al, 2007; Kahne, Chi, and Middaugh, 2006; Kahne and Spote, 2008; Niemi and Junn, 1998; Pasek et al, 2008; Torney-Purta, 2002). Prior studies that have examined the effect of curriculum and instructional strategies on civic engagement have focused specifically on civics courses. *The Civic Mission of Schools*, a report published by the Center for Information and Research on Civic Learning and Engagement (CIRCLE) and the Carnegie Corporation of New York, based on a consensus of scholars representing a range of disciplines on “what is known and not known about civic education” (Gibson and Levine, 2003, p. 9) acknowledges that other courses may affect civic participation, and calls for additional research to determine which social studies courses are most important to civic engagement.

This study uses the *National Longitudinal Study of Adolescent Health* (Add Health) to examine the relationship between high school social studies courses and civic engagement in adulthood, controlling for course attributes, individual, and school factors that may affect this relationship. The study adds to the literature on civic education and civic participation by using a nationally representative sample to examine a range of social studies courses, rather than solely focusing on civics and by examining civic outcomes in adulthood, rather than more proximal outcomes such as commitments to future civic participation. This study also ties into the literature on tracking based on race/ethnicity and socioeconomic status by demonstrating an

important life outcome that may be affected by coursework that has not yet been examined in studies of course tracking/course availability based on race/ethnicity or socioeconomic status.

## **BACKGROUND AND LITERATURE**

After Langton and Jennings (1968) concluded that the number and type of high school civics courses had little effect on adult political participation, research into the relationship between social studies coursework and civic participation was largely halted for the remainder of the 20<sup>th</sup> century. However, even while they found no overall impact, they indicated that “under special conditions,” instruction in civics may have an impact on civic participation (Langton and Jennings, 1968, p. 866). More recent studies have demonstrated a correlation between the civics curriculum, instructional methods and civic engagement, helping to shed some light on the “special conditions” posited by Langton and Jennings. Specifically, experiential learning opportunities, service learning, opportunities for civic skills development, and open discussion of controversial social and political issues are correlated with certain proximal outcomes that predict adult civic participation (Kahne, Chi, and Middaugh, 2006; Kahne, Crow, and Lee, 2013; Kahne and Sporte, 2008; Feldman, Pasek, Romer, and Jamieson, 2007; Torney-Purta, 2002). The Campaign for the Civic Mission of Schools, a coalition of over sixty civic education organizations and scholars, building on the above referenced *Civic Mission of Schools* report, outlines several instructional strategies that are important in the development of engaged citizens, such as classroom instruction in a variety of social studies subjects, which provides students with the knowledge and skills needed for civic participation; discussion of current events and controversial social and political issues; service learning opportunities, which combine classroom instruction with community service; and experiential learning, such as opportunities for role playing and simulations of political activities (Gould, 2011). Classroom

civic learning opportunities have been found to have a positive impact on proximal outcomes, such as a student's commitment to civic participation, even when controlling for the student's prior level of civic commitment (Feldman et al, 2007; Kahne and Sporte, 2008).

### **Social Studies Courses and Civic Engagement**

Interest in the link between coursework and civic engagement was renewed after Niemi and Junn (1998) demonstrated that civics coursework which included instructional methods such as discussion of current events and participation in mock elections was correlated with increased political knowledge. Subsequently, a number of studies have demonstrated that curricular content is important in developing attitudes, skills, and knowledge that predict future civic participation. Inasmuch as the entire social studies curriculum is expected to develop the knowledge, skills, and civic identity that are important for future civic engagement, building on literature in civic education, civic engagement, and developmental psychology, we have identified eight distinct categories of social studies courses, based on their primary course content (Patterson, 2017; see Appendix B), identified collectively as civic education courses in the previous chapter, that are expected to promote civic engagement: Experiential Learning; Service Learning, Civic Skills Development, Social/Political Issues, Historically Marginalized Groups, American History, International/Multicultural Studies; and Political Knowledge Development courses. (See Table 3.1 for a description of these courses.) These courses likely promote civic engagement through three related mechanisms: the development of human capital through increased skills and knowledge, the development of internal and external efficacy, and the development of civic identity.

As introduced in Chapter 2 of this work, the Civic Voluntarism Model, which asserts that individual participation in political acts is a function of resources, engagement, and recruitment,

provides the foundation for this study (Verba, Schlozman, and Brady, 1995). Verba and colleagues (1995) assert that individuals participate because they have the resources, such as time, money, and civic skills to effectively participate, the interest, attitudes, and feelings of efficacy to motivate them to participate, and the social networks that mobilize them, summing up the reasons that individuals do not participate as, “because they can’t; because they don’t want to; or because nobody asked” (p. 15). Social studies coursework in each category listed above are expected to ameliorate the “can’t” through increased skills and knowledge, and the “don’t want to” through the development of internal and external efficacy and civic identity. Internal efficacy refers to the belief in one’s ability to successfully and effectively participate in civic action and external efficacy refers to the belief that political institutions are responsive to citizen demands (Niemi, Craig, and Mattei, 1991). As discussed in Chapter 2, civic identity refers to the connection to a community and the acceptance of the rights and responsibilities that come with community membership (Atkins and Hart, 2003). During adolescence, identity is developed, in part, by learning skills and using these skills alongside others, such as in Experiential Learning; Service Learning, Civic Skills Development, and Social/Political Issues courses (Erikson, 1980). Civic identity is also developed through exposure to civic role models, as would be likely in courses in American History and Historically Marginalized Groups, where students would learn stories of individuals navigating the political system (Atkins and Hart, 2003; Youniss, McClellan and Yates, 1997; Youniss et al, 1999). Certainly these mechanisms are mutually reinforcing—as mentioned, the opportunity to develop civic skills contributes to civic identity, increased political knowledge may contribute to internal efficacy, as the more one knows about the political system the more confident one may be in one’s ability to participate, and external efficacy, as one may gain knowledge about the past responsiveness of political institutions. Increased civic skills

would likely contribute to internal efficacy, as well. The relationships between each category of social studies coursework and the primary mechanisms that may lead to civic participation are detailed in the next several paragraphs. (See Figure 3.1 for a diagram of the Theory of Action).

In our study, Experiential Learning courses are defined as those where the primary course content is active and participatory. Courses include simulations, role playing, field trips, and field experiences. Experiential learning, or “learning by doing,” is widely accepted as a successful pedagogical approach in a range of disciplines (Kolb and Kolb, 2009). Personal experience is the most important contributor to the development of self-efficacy and both internal and external efficacy predict civic participation (Bandura, 1986; Caprara, Vecchione, Capanna, and Mebane, 2009; Lay, 2007; Zimmerman, 1989). Using data from the NAEP civics assessment, Niemi and Junn (1998) found that instructional methods which include simulations, such as mock elections, are correlated with increased political knowledge. Students in high school civics classrooms using a curriculum that includes experiential learning through the use of simulations and exposure to civic role models demonstrate significantly greater gains in civic attitudes such as commitment to personal responsibility, participation, and justice, as compared to students in comparison classrooms (Kahne, Chi, and Middaugh, 2006). Nascent literature on digital games and simulations supports that these civic simulations, such as *Real Lives*, which gives players the opportunity to experience life in another country, contribute to political interest and justice-oriented citizenship for participants, particularly low performing student participants (Bachen, Hernandez-Ramos, Raphael, and Waldron, 2015). The *Campaign for the Civic Mission of Schools*, based on consensus among scholars and practitioners on effective research-based civic learning practices, has identified simulations of democratic processes as one of six “proven practices” in high quality civic education, along with service learning and discussion of current

events and controversial issues (Gould, 2011). Experiential Learning courses are expected to promote civic engagement through increased skills and knowledge, and both internal and external efficacy (see Figure 3.1).

Service Learning courses combine classroom instruction with community service to address a need in the community. Ideally, high quality service learning courses would include a reflection component, however, we are unable to discern this from our coding of courses. Applying HLM models to data collected from students in Chicago, Kahne and Sporte (2008) found that students in classrooms with service learning opportunities were more likely to demonstrate commitment to future civic participation than students who did not have these curricular opportunities, and that these classroom opportunities had a greater impact than other predictors of civic engagement such as participation in extracurricular activities or parental discussion of politics, and even the student's prior civic commitment. An evaluation of the Constitutional Rights Foundation's *CityWorks*, a high school civics curriculum which includes service learning, found that exposure to this curriculum predicted gains in commitment to personally responsible citizenship over comparison classrooms (Kahne, Chi, and Middaugh, 2006). Using data from Philadelphia, *Student Voices*, a supplemental civics curriculum with ten lessons per semester, which combines service learning with a focus on problem solving within the political system, was found to have positive short term effects on political interest, political knowledge, and internal efficacy and positive long term effects (two years after the program) on efficacy and attentiveness to politics, which predicted higher voter turnout (Feldman, Pasek, Romer, and Jamieson, 2007; Pasek, Feldman, Romer, and Jamieson, 2008). A mixed methods study of a national sample of schools using service learning programs found that service learning had a significant positive effect on students' intention to vote (Billig, Root, and Jesse, 2005).

More recently, Kahne and colleagues (2013) found that curricular opportunities for service learning predict civic engagement in high school including voluntary activity, such as volunteer work or raising money for charity and expressive and youth-centered activities, such as participating in youth forums, peaceful protest, and working with others on a school issue, as well as a commitment to future participatory citizenship, defined as the belief that it is one's duty to be actively involved in local, state, and national issues (an aspect of civic identity). As mentioned above, The *Campaign for the Civic Mission of Schools*, includes service learning as one of six “proven practices” in high quality civic education (Gould, 2011). Service Learning courses are expected to promote civic engagement through increased skills, internal efficacy, and the development of civic identity (see Figure 3.1).

Civic Skills Development courses focus on developing intellectual and participatory skills needed for effective participation in civic life, such as critical thinking, media literacy, perspective taking, public speaking, expressing political opinions, and working in groups (Gould, 2011). Verba and colleagues (1995) note that civic skills are important to effective participation, “those who possess civic skills...are more likely to feel confident about exercising those skills in politics and to be effective—or, to use the economist's term, productive—when they do” (p. 305) and find that civic skills are predictors of civic participation. Findings from a study of *Student Voices*, a supplemental civics curriculum that includes open classroom discussion of political issues and the development of civic skills such as debate and media literacy, demonstrate that these classroom practices increase internal efficacy and political knowledge (Feldman et al, 2007). Follow up interviews were conducted with students nearly one and a half years after the program, and this impact persisted, contributing to political attentiveness and the likelihood of voting in the 2004 presidential election (Pasek et al, 2008). Civic Skills Development courses are



expected to promote civic engagement through increased skills, internal efficacy, and the development of civic identity (see Figure 3.1).

Social/Political Issues courses focus on contemporary social and political issues and current events. Certainly, these courses also develop civic skills, particularly perspective taking, discussion, and debate. Niemi and Junn (1998) found that classroom discussion of political issues was associated with higher levels of political knowledge, as measured by scores on the NAEP civics assessment. Building on Niemi and Junn's (1998) work, using data on United States 9<sup>th</sup> graders from the International Association for the Evaluation of Educational Achievement (IEA) Civic Education Study (CIVED), Campbell (2008) found that classroom discussion of political and social issues predicted higher civic proficiency and had positive effects on anticipated civic participation as an informed voter. In addition, an individual student's perceptions of open classroom discussion had strong positive effects on their anticipated civic participation in community activism, which includes activities such as volunteering, collecting money for charity, collecting signatures on a petition, and participating in a rally (Campbell, 2005 and 2008). In an international comparison of civic education in twenty-eight countries, using the IEA CIVED data, Torney-Purta (2002) found that a classroom climate that encourages discussion of political issues is associated with higher civic knowledge and a higher sense of engagement. Kahne and Sporte's (2008) work focusing on Chicago classrooms found that classroom civic learning opportunities, which included open discussion of controversial issues, had a strong positive impact on a student's commitment to future civic participation, even when controlling for prior levels of civic commitment. As noted above, this impact was even greater than other factors impacting civic commitment, such as discussion of politics at home or extracurricular activity participation (Kahne and Sporte, 2008). The *Student*

*Voices* curriculum, as referenced above, with demonstrated positive impacts which persist up to two years after taking the course, uses open discussion of controversial issues as a key instructional strategy (Feldman et al, 2007; Pasek et al, 2008). More recently, using data from Chicago and California, Kahne and colleagues (2013) found that open classroom discussion of social and political issues has a significant, positive effect on a student's intention to vote, a student's interest in politics, and perhaps more importantly, a student's belief that being actively involved in local, state, and national politics is "everybody's responsibility" (Kahne, Crow, and Lee, 2013, p. 425). As mentioned above, *The Campaign for the Civic Mission of Schools*, identifies discussion of current events and controversial issues as one of six "proven practices" in high quality civic education (Gould, 2011). Social/Political Issues courses are expected to promote civic engagement through increased skills and internal efficacy (see Figure 3.1).

Historically Marginalized Groups courses are defined as courses that focus on racial and ethnic minorities and women in the United States. Building on literature in social and developmental psychology, particularly theories of identity, social studies courses which focus on historically marginalized groups have the potential to promote civic participation by contributing to the development of a civic identity and internal and external political efficacy for members of those groups, i.e. racial and ethnic minorities and females. The standard social studies curriculum often focuses on wealthy and powerful white males, and if females or racial and ethnic minorities are included, it is often in a position of oppression or as an aside to the curriculum, which conveys the idea that many students who share those characteristics are not important to the political system, that the role of effective citizen is not open to them. Young people need to develop a sense of belonging to develop a positive identity—individuals develop both personal and collective identities (Erikson, 1968). Identity theory examines the function of

identity in behavior through role identity. People identify with certain roles, which carry expectations of behavior. Positive feelings about identity come from how well the individual fulfills a salient role (Hogg et al, 1995). When an individual feels they belong in a particular social category, they define themselves in terms of the characteristics of that category and behave consistently with this definition (Hogg et al, 1995). Both social identity and role identity are formed, in part, through observing role models (Zirkel, 2002).

In order to form a civic identity and develop both internal and external political efficacy, which are important for future civic participation, the adolescent must have experience with adults that they perceive to be “like them” as engaged citizens that are an important part of the political system. These civic role models may be adults in the adolescent’s life, but for those with less exposure to real life role models, historical role models may be particularly impactful. For members of historically marginalized groups (females and racial and ethnic minorities), courses which focus on these groups are expected to increase positive group identity by highlighting successful role models that are part of social groups with which the student already identifies. Seeing members of these groups successfully navigate the political and social system is expected to facilitate civic engagement by contributing to civic identity and increasing internal and external political efficacy. Research in political psychology supports the importance of the historical narrative to the development of the collective identity and a citizen identity (Haste, 2004).

The standard history curriculum provides no narrative that would encourage many students (females and racial and ethnic minorities, for example) to develop a civic identity or positive group identity. As historian James Loewen notes, the message of history courses is to be a good citizen but, “it does become something of a burden for students of color, children of

working class parents, girls who notice an absence of women who made history, or any group that has not already been outstandingly successful” (2007, p. 6). Courses focusing on historically marginalized groups are expected to contribute to the development of civic identity for members of these groups (racial/ethnic minorities and women) as the student is exposed to role models who successfully fill the role of civic participant. Torney-Purta (2002) concluded that students develop political identities around their salient identities, such as race, ethnicity, and gender, and noted the importance of role models in the development of this identity. For example, support for women’s rights was stronger in countries with many women represented in the national legislature, leading them to the conclusion that women legislators were role models, particularly for female students (Torney-Purta, 2002). Courses in Historically Marginalized Groups are expected to promote civic engagement through increased internal and external efficacy, and the development of civic identity (see Figure 3.1).

American History courses focus on the social, political, and economic development of the United States, both survey courses and courses which focus on particular time periods or regions. We specifically focus on those courses outside of the standard course of study. Since our data is from a range of school systems, all which mandate at least some social studies coursework, in order to establish a comparison group of students, we designated five course codes which appeared on the most transcripts as a standard course of study. This includes one specific course code of American History which appears in more than 28% of observations and we exclude it from this category (Patterson, 2017; see Appendix B). While it is rooted in accepted best practices in social studies and civic education, the present study is largely exploratory in regards to the link between American History courses and adult civic engagement. It is through U.S. History courses that students learn the people, places, and ideas that are

important to life in the United States, including political life. Historian Peter Stearns (1998) points out that history provides a sense of identity, and that the study of history is essential to responsible citizenship, to serve as a model for how people make decisions. For example, the North Carolina Social Studies Standard Course of Study acknowledges that history instruction is important in the development of identity and defines that the purpose of the discipline of history is that “it teaches the impacts of the past...in determining the options open to us” (p.7). *The Civic Mission of Schools* calls for increased instruction in U.S. history to develop engaged citizens, although acknowledges that the method of instruction has the potential to alienate students from political life, as discussed above (Gibson and Levine, 2003). Courses in American History have the potential to promote civic engagement through increased internal and external efficacy, and the development of civic identity, however these courses also have the potential to discourage civic engagement through decreased efficacy and alienation from civic life for some students, depending on the presentation (see Figure 3.1).

International/Multicultural Studies courses include courses which focus on the history, society, politics, economy, or culture of geographic regions outside of the United States, as well as courses on international affairs or global issues. Two International/Multicultural Studies course codes (World History and World Geography) appear in more than 40% of observations and are designated as part of the standard course of study and excluded from this category in models (Patterson, 2017; see Appendix B). In consideration of the call from civic education scholars for research to determine which social studies subjects contribute the most to civic engagement as well as the International Association for the Evaluation of Educational Achievement’s (IEA) identification of International Relations as one of the key domains of civic content knowledge, based on case studies from twenty-four countries, the present study explores

the relationship between these courses and civic engagement (Gibson and Levine, 2003; Torney-Purta, Schwille, and Amadeo, 1999; Torney-Purta, 2002). Courses in International/Multicultural Studies are expected to promote civic engagement through increased knowledge (see Figure 3.1).

Finally, Political Knowledge Development courses includes courses focused on developing the knowledge of principles, procedures, processes, institutions, rights, and other information about the American political system. One course code (American Government) is considered as part of the standard course of study and excluded from this category. Common wisdom suggests that a level of political knowledge is essential for participation in political life, a “prerequisite to successful political engagement” (Niemi and Junn, 1998, p. 9). A number of studies have established the positive relationship between political knowledge and civic participation (Delli Carpini and Keeter, 1996; Galston, 2001; Jung, Kim, and de Zuniga, 2011; Popkin and Dimock, 1999; Torney-Purta, 2002). Delli Carpini and Keeter (1996) find a strong relationship between political knowledge and the likelihood of voting. Popkin and Dimock (1999) go as far as to say that “the dominant feature of nonvoting in America is lack of knowledge about government” (Popkin and Dimock, 1999, p. 142). Torney-Purta (2002) established that political knowledge was a strong predictor of whether a student plans to vote. Jung and colleagues (2011) found that political knowledge was a significant predictor of political participation. Certainly there are other sources of political knowledge outside of the formal high school curriculum, however, for those students that do not pursue post-secondary education or have few opportunities outside of high school coursework to gain political knowledge, high school courses are a key source of this knowledge. Though they only evaluate civics courses, a course that is included in the Political Knowledge Development category, Niemi and Junn (1998) find positive effects of taking a civics course on political knowledge. Courses in Political

Knowledge are expected to promote civic engagement through increased knowledge and increased internal efficacy (see Figure 3.1).

The literature demonstrating the positive impact of particular instructional strategies, the goal of the social studies curriculum, and the consensus among scholars and practitioners that more work is needed to understand the link between social studies coursework and civic engagement undergird the potential significance of this study. The study as presented below addresses multiple gaps in the literature: small sample size, limited geographic focus, implausible causal effect estimates, and a focus on self-reported curriculum and instructional methods within civics courses, rather than a range of social studies courses.

### **Factors Affecting the Impact of Coursework**

Characteristics of the courses as well as individual and school characteristics may affect the relationship between high school social studies courses and adult civic engagement. For example, the timing of the coursework as well as the academic level of the coursework may affect the magnitude of impact that these courses have on future civic participation. Courses taken during the senior year may have more impact on adult civic outcomes than courses taken in earlier grades. Niemi and Junn (1998) found that civics courses taken during a student's senior year in high school resulted in greater gains in political knowledge than courses taken in 9<sup>th</sup> or 10<sup>th</sup> grades. Even in courses with similar curricular content, Advanced Placement (AP) courses may offer higher quality civic learning opportunities than non-AP courses, and therefore contribute to higher levels of civic engagement. In a study of U.S. Government courses in California, Kahne and Middaugh (2008) found statistically significant differences in the opportunities for open classroom discussion of social and political issues, simulations, and

opportunities to practice civic skills between AP classrooms and college prep classrooms, with AP students having more access to these learning opportunities.

An individual student's race/ethnicity and socioeconomic status as well as the racial and socioeconomic composition of the school may affect the quantity and quality of civic learning opportunities offered to the student, as well as the impact of these opportunities. The effects of course-taking could be heterogeneous by race/ethnicity, meaning courses may have a positive impact on civic engagement for an individual of one race and no effect or even a negative effect on civic engagement for an individual of another race. For example, as discussed briefly above, an American History course may promote civic engagement for a White male student, but hinder future civic participation for a Black female, depending on how the course content is presented. There may be heterogeneity of effects on individuals from different socioeconomic backgrounds as well. There is some evidence that the impact of these curricular opportunities may be even greater for low socioeconomic status students who may have less access to other opportunities for civic skills development than their higher income peers. For example, Hart and Atkins (2002) found that students from low-income urban areas have fewer opportunities for involvement in extracurricular activities than their suburban peers. Students from high-poverty urban neighborhoods may also have few adult civic role models to facilitate opportunities for civic skills development and the development of a civic identity (Atkins and Hart, 2003). While lower income students may gain additional benefit from certain curricular approaches, literature on inequality of civic learning opportunities supports that these courses may be of lower quality at high poverty, high minority schools. For example, students in classrooms with higher average socioeconomic status are more likely to have debates or discussions in their social studies classes and nearly twice as likely to participate in service learning activities than students in lower



income classrooms (Kahne and Middaugh, 2008). Additionally, Kahne and Middaugh (2008) found that African American and Latino students have fewer opportunities for classroom civic learning opportunities than their White peers. While this study focused on the individual students' race, Torney-Purta, Barber, and Wilkenfeld (2007) demonstrated that students at schools with large concentrations of Latino students have substantially lower levels of civic knowledge, and that much of this gap can be explained by classroom civic opportunities. We examine access to civic education courses in the previous chapter, and we include school characteristics that may affect the availability and quality of these courses in these analyses.

Racial composition of the classroom may affect students' perceptions of open political discussion. For example, racial diversity correlates with a lower perception of an open classroom climate, which includes discussion of political and social issues as well as how comfortable students are contributing their opinion during these discussions (Campbell, 2007). Both White and Black students report that their teachers encouraged less political discussion as the percentage of the other race increased in the classroom; White students reported less discussion as the percentage of Black students increased and Black students reported less discussion as the percentage of White students increased (Campbell, 2005).

## **Hypothesis**

Our primary hypothesis for this study is that taking particular types of social studies courses in high school will predict civic engagement in adulthood. We expect that taking high school courses in Experiential Learning, Service Learning, Civic Skills Development, Social and Political Issues, American History, International/Multicultural Studies, and Political Knowledge Development will be associated with increased civic participation in adulthood. We expect that taking high school courses on Historically Marginalized Groups will be associated with

increased civic participation in adulthood, particularly for individuals who identify as female or racial/ethnic minorities. The various mechanisms through which coursework promotes civic engagement are likely impact various civic engagement activities differently. For example, while civic identity is likely important for all civic activities, political knowledge, and both internal and external efficacy may be important for electoral activities, while internal efficacy and civic skills may be important for political voice activities. We may expect then for courses such as Experiential Learning to promote electoral activities and Social/Political Issues courses to promote political voice activities. Second, we expect that aspects of the courses as well as characteristics of the individuals and schools may impact this relationship between coursework and civic engagement. Based on prior literature, we expect that courses taken in 12<sup>th</sup> grade will more strongly predict adult civic engagement than courses taken earlier in high school and we expect that Advanced Placement social studies courses will have more impact on adult civic engagement than courses of other levels.

## **METHODS**

### **Data**

This study uses data from the *National Longitudinal Study of Adolescent Health* (Add Health), a longitudinal study of a nationally representative sample of adolescents who were in grades 7-12 during the 1994-95 school year (Wave I) and have been followed into adulthood (Waves III and IV). Wave I includes several components: an In-School Questionnaire, an In-Home Questionnaire, a Parent Questionnaire, and a School Administrator Questionnaire, as well as contextual data merged by state, county, and census tract from the U.S. Census Bureau. Schools from 80 communities were selected for inclusion in the Add Health study, based on geographic region, urbanicity, school size, school type, and racial and ethnic makeup in order to

be representative of U.S. schools overall. In order to include students from grades 7-12, high schools were usually paired with feeder middle schools, for a total of 132 schools. The In-School Questionnaire was administered to all students of participating schools, other than those students who were absent on the day the survey was administered, totaling more than 90,000 observations. The In-School Questionnaire included questions regarding demographic characteristics, parents' education, household structure, and extracurricular activities. All participating schools have a completed School Administrator Questionnaire, with questions about school policies, teacher characteristics, and characteristics of the student body. In-Home Interviews were conducted for a core sample of approximately 200 students from each pair of schools, stratified by grade and race, as well as additional students from some oversampled groups (four ethnic oversamples, all students from 16 schools, disabled students, and pairs of siblings living in the same household), for a sample of 20,745 adolescents. Parent Questionnaires were administered to a parent or guardian during the In-Home Interviews and over 85% of participants have a corresponding parent questionnaire. Data from the 1990 U.S. Census was merged in at the census block level to create a Neighborhood Context dataset. Follow up interviews were conducted on Wave I In-Home Interview respondents in 2001-2002 when participants were 18-26 (Wave III). Interviews conducted at Wave III collected data on education, work, income, debt, a range of health issues, and civic participation, with a 77.4% retention rate, for a total of 15,197 responses. Follow up interviews were conducted again on Wave I In-Home Interview respondents in 2008 when most study participants were 24-32 (Wave IV). Interviews conducted at Wave IV included questions on a number of topics, including civic participation, with an 80.3% retention rate from Wave I, for a total of 15,701 responses.<sup>8</sup>

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<sup>8</sup>Participants were also interviewed one year after Wave I, with similar questions as Wave I, however, Wave II data was not used in the present study.

The *Adolescent Health and Academic Achievement Transcript Study* (AHAA) expanded the *National Longitudinal Study of Adolescent Health* at Wave III to create an educational database which can be used in conjunction with the Add Health database or on its own. The AHAA collected high school transcripts from the last high school attended from Add Health participants who participated in all three waves of data collection. The AHAA also collected course catalogs and used the transcripts and catalog descriptions to assign *Classification of Secondary School Curriculum* (CSSC) codes to each course taken by Add Health/AHAA participants, using the same procedures as the 2000 National Assessment of Educational Progress (NAEP) *High School Transcript Studies* (HSTS). The AHAA also created the School Context dataset to correspond to Wave I of Add Health, using data from the Common Core of Data, Private School Survey, the U.S. Census Bureau, and the Office of Civil Rights.

We conducted the *Study of Social Studies Coursetaking and Civic Engagement* as an ancillary study to Add Health, which used the AHAA transcript data to create categorical variables that place social studies courses in course categories that are expected to facilitate adult civic engagement (Patterson, 2017; see Appendix B). We used the National Council for the Social Studies' definition of social studies to identify social studies courses, and applied this definition to the CSSC. Deductive coding of course titles, alternative titles and course descriptions were used to categorize each social studies course into one mutually exclusive category based on the primary focus of the course. Course categories include: (1) Experiential Learning, (2) Service Learning, (3) Civic Skills Development, (4) Social and Political Issues, (5) Historically Marginalized Groups, (6) American History, (7) International/Multicultural Studies, and (8) Political Knowledge Development. (See Table 3.1 for descriptions of each course category.) All courses were coded by four coders and a kappa of 0.78 indicated a high degree of

inter-coder agreement. This was an ancillary study to Add Health, and the data will be added to the Add Health dataset as public use data. (For more information on the *Study of Social Studies Coursetaking and Civic Engagement*, see Appendix B).

All individual student characteristics, including race/ethnicity, immigrant generation, English language proficiency, family socioeconomic status, and school context variables come from the Wave I Add Health data and associated constructed datasets. School level socioeconomic status, measured as the percentage of students qualifying for free and reduced price lunch, comes from the AHAA School Context dataset. Social studies coursetaking variables come from the *Study of Social Studies Coursetaking and Civic Engagement* data. (For more information on the Add Health study design, see Harris, 2013. For more information on the AHAA, see Muller et al, 2007.)

### **Analytic Sample**

All individuals from Wave I of Add Health who have an In-Home Questionnaire, either a Wave III or Wave IV interview, and a transcript included in the data will constitute the analytic sample of 8,957 individuals. We began with a sample of 9,360 respondents. 197 respondents are dropped as they have no social studies courses listed on their transcript. We lose 198 respondents due to missing information on appropriate survey weights to use in analysis and 8 respondents are dropped due to missing information on any dependent variables. Multiple imputation was used to account for missing data on all variables for which data was missing for more than 3% of observations<sup>9</sup>, which includes poverty status at the individual level, and proportion of economically disadvantaged students and student-teacher ratio at the school level. While complete case analysis can be used if missing information is missing completely at

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<sup>9</sup>This threshold was determined as some variables with small amounts of missing information were needed for our imputation model.

random (MCAR), meaning that missingness is not related to either the observed or the missing values on variables, if missing data is not MCAR, missing data can induce bias in estimates (Shadish, Cook, and Campbell, 2002). Based on Little's (1988) test for MCAR and examination of the relationship between key variables and missing data in our dataset, we determined that our data is not MCAR. Multiple imputation, where missing values are replaced with values predicted by other variables in the data set, maintaining the variance and covariance of the original variable, was originally advocated to address missing data in our exact situation--complex survey data where the data collector is separate from the data user (Rubin, 1987; Rubin, 1996).

We use Rose and Fraser's (2008) approach and the inclusive design supported by Collins and colleagues (2001), which includes variables associated with the missing variables as well as variables associated with missingness, to determine our imputation model. We created ten datasets with imputed values on missing data, analyzed them separately, and adjusted the coefficients and standard errors of our estimation models based on Rubin's (1987) recommendations, using the MI ESTIMATE command in Stata 14 (Collins, Schafer, and Kam, 2001; Schafer and Graham, 2002). School level economic disadvantage and student-teacher ratio is arguably missing at random (MAR), or related to observed data but not to missing data, since this data was merged from an administrative dataset and filled in with multiple years of data, however, poverty status may be missing not at random (MNAR), meaning that missingness is related to the value of the missing data. We may imagine that someone experiencing poverty may be reluctant to divulge this information on a survey. Multiple imputation has been shown to reduce bias in estimates even when data is MNAR (Collins, Schafer, and Kam, 2001; Rose and Fraser, 2008).

The sample is nearly 59% white, 14.7% Black, 16.8% Hispanic, and nearly 6% Asian and 78% are third generation or later immigrants (U.S. born children of U.S. born parents). Approximately 41% of the sample are from families where the parents have a high school education or less and 13% of the sample are from families that experienced poverty at Wave I. Less than 4% of the sample has taken a course in Experiential Learning; nearly 20% of the sample has taken a course in Service Learning; 28% of the sample has taken a course in Civic Skills; 12% of the sample has taken a course in Social or Political Issues; 4% has taken a course in Historically Marginalized Groups; 58% has taken a course in American History; 38% of the sample has taken a course in International/Multicultural Studies; and 32% of the sample has taken a course focusing on Political Knowledge Development. (See Table 3.2 for means and linearized standard errors for all variables, adjusted for survey design).

## **Measures**

In this section, we describe the outcome variables, the focal variables, and the covariates used in our analyses. The outcome of interest is civic engagement in adulthood. High school social studies courses are the main explanatory variables. Covariates include course, individual, and school characteristics that the literature supports may affect the impact of course-taking, as well as aspects of human capital, social capital, and civic identity that may affect course-taking and civic engagement outcomes (see Chapter 2).

*Outcome Variable: Civic Engagement.* Following Keeter and colleagues' (2002) typology, indicator variables of three types of civic engagement at Wave III were created: a civic indicator, coded 1 if a respondent performed volunteer work; an electoral indicator, coded 1 if a respondent registered to vote, voted, or contributed money to a party or candidate; a political voice indicator, coded 1 if a respondent contacted a government official or attended a political

rally. In addition, an indicator variable, coded 1 for any civic engagement at Wave III, was created. Following Westheimer and Kahne (2004), a “personally responsible citizen” indicator was created, coded 1 if a respondent donated blood or was a registered organ donor. Also, indicator variables for two types of civic engagement at Wave IV were created: a civic indicator, coded as 1 if a respondent indicated they spent at least 1 hour on volunteer or community service work over the past 12 months (approximately 64% of respondents indicated they spent 0 hours volunteering; and a voting indicator, coded as 1 if a respondent reported voting in statewide elections often (17.38% of the sample), or always (25.29% of the sample). An indicator variable, coded 1 for any civic engagement at Wave IV was also created.

*Focal Variables: Civic Education Course-taking.* Indicator variables were created for each course category, coded as 1 if a participant took that type of course at any time during high school and 0 otherwise. Course categories include: (1) Experiential Learning, (2) Service Learning, (3) Civic Skills Development, (4) Social and Political Issues, (5) Historically Marginalized Groups, (6) American History, (7) International/Multicultural Studies, and (8) Political Knowledge Development. These categories are mutually exclusive (see Table 3.1 for definitions). All courses were coded by 4 coders and a kappa of 0.78 indicated a high degree of inter-coder agreement (see Appendix B). We estimate individual models for each social studies course type, using the remaining course types as control variables in the models. We also estimate models with a dosage variable for total earned credits in that category, measured by Carnegie units. We include a control for number of standard social studies courses, as well, to isolate civic education content from overall social studies content and interest.



*Civic Education Course Characteristics.* Two indicator variables were created, related to the courses. One indicator variable is coded as 1 if a course was an Advanced Placement (AP) level course. Another indicator variable is coded as 1 if a course was taken in 12<sup>th</sup> grade.

*Individual Characteristics.* Following Perreira, Harris, and Lee (2006), and filling in respondents who identified as American Indian from in-home interview data, a six category race/ethnicity variable was created from the respondent's self-reported racial/ethnic identity. For the small number of respondents (<4%) who self-reported multiple racial/ethnic backgrounds, we used the parents' racial/ethnic identification, and assigned the mother's racial/ethnic background in the cases in which parents were of different races/ethnicities. Categories include Non-Hispanic White, Non-Hispanic Black, Hispanic, Non-Hispanic Asian, Non-Hispanic American Indian, and Other. Also consistent with Harris, Perreira, and Lee (2006), indicator variables were created for First Generation Immigrants (Foreign born) and Second Generation Immigrants (U.S. born children of foreign born parents), and Third Generation or later Immigrants (U.S. born children of U.S. born parents). Puerto Rican respondents are considered foreign born if they were born in Puerto Rico.

Family socioeconomic status is measured as the highest level of education either of the respondent's parents completed, categories include less than high school (which includes GED), high school graduate, and some college, with college graduate as the referent category. As we are particularly interested in students from low socioeconomic status (SES) backgrounds, a poverty indicator variable was created, coded as 1, if a respondent's parent reported an income below the 1994 federal poverty line based on household size on the Parent Questionnaire<sup>10</sup>, filled in with information from the In-Home, School, and Parent Questionnaires that either resident

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<sup>10</sup>In 1994, the federal poverty line in 1994 was \$7,360 for a family of one with \$2,480 for each additional household member.

parent receives public assistance. These variables were combined to reduce the level of missing data on this variable, however, more than 12% of the analytic sample was missing both pieces of data and this missingness was addressed through multiple imputation.

*Potential Confounding Variables (see Chapter 2):* Two indicator variables for extracurricular participation were created: one variable coded 1 if a respondent participated in any instrumental, expressive, or academic or hobby clubs and zero if not; one variable coded 1 if a respondent participated in sports and zero if not. An index of perception of school connectedness was created by summing the responses to a number of questions on the in-school questionnaire about the support the respondent felt from their school environment: whether they feel close to people at school, whether they feel like a part of the school, whether they were happy to be at their school, whether teachers at school treat students fairly, and whether they feel safe at school (McNeely, Nonnemaker, and Blum, 2002; Resnick et al, 1997). This index had high internal consistency [Cronbach's  $\alpha=0.76$ ]. Grade point average (GPA) was calculated out of 4 points from self-reported grades in four core subjects (English, Math, Science, and Social Studies). We constructed a social studies interest/aptitude measure, coded as 1 if the respondent's GPA in Social Studies was higher than the respondent's GPA in the remaining three core subjects, and zero if the two were equal, or the English, Math, Science GPA was higher. We also include a measure for other Advanced Placement courses, coded as 1 if the respondent took an English AP course, zero if not, in order to disentangle the impact of the characteristics of a civic education AP course from student ability or motivation

*School Context.* Racial/ethnic composition of the school is taken from the In-School questionnaire and filled in with data from the School Context dataset. Continuous variables for percentage Black, percentage Hispanic, percentage American Indian, and percentage Asian were

created by dividing the number of respondents identifying as Black, Hispanic, American Indian, and Asian by the total number of students in the school, filling in with data from School Context data, collected as part of the AHAA transcript studies, using data from the *Common Core of Data* and the *Private School Survey*. School level economic disadvantage is measured as the percentage of students in the school eligible for the federal free lunch program in 1994, filled in with data from subsequent years, collected as part of the AHAA transcript studies, using data from the *Common Core of Data* and the *Private School Survey*, with missing data addressed through multiple imputation (Muller et al, 2008).

Models control for a number of school context variables which may affect course enrollment and course quality: school type (public, private non-religious, and private religious), school size, and school size squared, urbanicity (rural, urban, or suburban), teacher-pupil ratio, and percentage of teachers with advanced degrees

*Other Control Variables.* All models control for respondent's gender with an indicator variable equal to 1 for males and 0 for females, respondent's age at Wave I, created by using respondent's self-reported age on the in-school questionnaire and filling in missing data by computing age as the difference between respondent's birth date and the interview date. Naturalized citizenship at Wave III or IV was measured by whether the respondent naturalized prior to the associated wave of data collection (natural born citizenship is captured by immigrant generation). Finally, models control for location of the school (South, West, Midwest, and Northeast).

### **Strategy for Estimating Effects of Social Studies Course Taking**

In this study, the goal is to isolate the effects of the treatment, social studies course-taking in adolescence, on the outcome of interest, civic engagement in adulthood. As is common in

empirical policy work, we use Rubin's Causal Model (RCM), also known as the potential outcomes framework. Under this model, each member of the study population must be potentially assigned to either treatment condition and has one potential outcome associated with each condition. In this study, the treatment is the previously defined categories of social studies courses and the potential outcomes for each individual would be: civically engaged if treated, not civically engaged if not treated; not civically engaged if treated, civically engaged if not treated; civically engaged whether treated or not treated; and not civically engaged whether treated or not treated, conditional upon school social capital and other confounding factors. To address the Fundamental Problem of Causal Inference, which is that each individual is potentially exposable to only one treatment condition (Holland, 1986), in empirical work in public policy and other social sciences, it is common to construct groups who receive and do not receive the "treatment" that are as similar as possible to remove differences between the groups that could confound or bias the estimate of the effect of treatment. In an ideal study, we would randomly sample students from the target population of U.S. high school students and assign them to courses at random, thus creating two statistical models of the target population. In this ideal case, the only difference between the two groups would be that one receives the treatment but the other does not. In the absence of treatment, the outcomes of the treated and untreated groups would be expected to be equal, except for chance.

However, we are using observational data so this is not possible. This probability sampling from the target population creates a valid statistical model of the target population and therefore yields a dataset with high external validity or generalizability to the target population of high school students in the U.S. However, the ability to infer a causal relationship between the treatment and outcome or produce an unbiased causal effect estimate must be addressed

(Holland, 2006; Rubin, 2008; Shadish, Cook, and Campbell, 2002). Since we are not able to assign students to the various courses, we must instead seek to understand and model the mechanisms by which individuals are selected into treatment (Morgan and Winship, 2007). We seek to identify one group that takes one of the social studies courses and one that does not such that we can assume that assignment to treatment is “strongly ignorable”. To do this, we must construct the two groups or add covariates, such that an individual’s potential outcomes are not correlated with their treatment condition (Steiner et al, 2010). The biggest threat to the validity of this assumption, often referred to as internal validity, comes from selection bias, or that the group of students that takes these particular courses may be different than the group that does not take these courses in ways that may affect future civic engagement (Shadish, Cook, and Campbell, 2002). Shadish and colleagues (2008) found that using a specific type of covariate adjustment can greatly (84-94%) reduce selection bias as compared to estimates from randomized experiments. In comparing choice sets of variables to reduce bias, Steiner and colleagues (2010) found that including covariates which are correlated with both selection into treatment and the outcome of interest reduce bias in the effect estimates to the point it was negligible.

We address two sources of selection bias by including appropriate covariates at the individual and school levels. We begin by acknowledging students are not randomly assigned to courses. Course-taking reflects school assignment to courses, as well as a degree of student choice, particularly since we focus on those courses beyond the standard course of study which would be required of every student. We recognize that the outcomes that we include in this study are potentially affected by both the skill, knowledge, and civic identity development opportunities offered in these courses and selection into these courses. We control for the

motivation to not only take the course, but perform well in the course, which may affect the impact of the course, as well as predict future civic engagement, by including overall student grade point average from Wave 1. Additionally, we control for social studies aptitude and interest by including a variable which indicates that a student's social studies GPA at Wave 1 was higher than his or her combined GPA in other core subjects. We aim to separate the impact of this motivation and aptitude or interest to avoid bias in the estimates of the impact of the course. We are concerned in essence that due to this motivation aspect, the results from those students who would be "civically engaged whether treated or not treated" would upwardly bias our estimates of impact of courses, or conversely, the results from those (low motivation or low social studies aptitude/interest) students who would be "not civically engaged whether treated or not treated" would downwardly bias our estimates of impact of courses.

Additionally, students are not randomly assigned to schools--parents choose particular school systems, choose to live in particular areas with access to particular schools, choose private schools rather than neighborhood public schools, or even use a family member's address to register students in a preferable school. The availability of particular courses, and likely the quality of the civic development opportunities presented in these courses is not randomly distributed across the sample. We address this source of bias by controlling for the access index for each type of civic education course and a number of school context variables: racial and ethnic makeup, to control for the opportunity to take the course, school racial/ethnic composition, school racial/ethnic diversity, school level economic disadvantage, school type (public, private-religious, and private non-religious), proportion of teachers with advanced degrees, school size, student-teacher ratio, urbanicity, and geographic region. School context may be indicative of overall school quality, therefore affect the quality of civic skill development

offered in the curriculum and future educational attainment which is associated with civic engagement. We also used school fixed effects models to remove any unobserved differences between schools which may introduce bias into our results. Fixed effects models limit the comparison to students within the same schools, holding constant the average effects on civic engagement of attending a particular school.

First, we conduct descriptive analysis. We calculate weighted means and linearized standard errors, adjusted for survey design, for all of our covariates (See Table 3.2). We then calculate our dependent variables by course category and note any significant differences between students taking that type of course and students who did not take that type of course (See Table 3.3). We then evaluate the relationship between course-taking in adolescence and civic engagement in adulthood using a series of two-level linear probability models, to account for the nesting of students within schools. Finally, we conduct a set of complementary school fixed effects models as robustness checks, which limit the comparison of students to others within the same schools and remove any unobserved effects of school context.

We estimate the following models with a dichotomous measure of any civic engagement at Wave III as the dependent variable, then with a dichotomous measure of each of four categories of civic engagement at Wave III as the dependent variable, with a dichotomous measure of any civic engagement at Wave IV as the dependent variable, and finally with a dichotomous measure of each of two categories of civic engagement at Wave IV. This will allow us to evaluate the impact of civic education courses on various types of civic engagement.

$$\Pr(CE_{it}) = \beta_0 + \beta_1 \text{CivicEd}_{ist-1} + \beta_2 \text{SSC}_{ist-1} + \beta_3 X_{is} + \beta_4 Z_{st-1} + \mu_s + \varepsilon_i$$

Where  $CE_{it}$  is civic engagement in adulthood and  $\Pr(CE_{it})$  is the probability of the respondent participating in that form of civic engagement ( $CE=1$ );

$CivicEd_{ist-1}$  is a vector of student civic education course-taking characteristics which includes the total number of civic education courses, an indicator variable for a civic education course taken in 12<sup>th</sup> grade, and an indicator variable for taking an Advanced Placement civic education course;

$SSC_{ist-1}$  is the number of standard social studies courses taken in high school;

$X_{is}$  is a vector of individual characteristics which includes race/ethnicity, immigrant generation, gender, parents' education, poverty, school connectedness, age at Wave I, GPA, social studies interest/aptitude, Advanced Placement course other than Civic Education, extracurricular activity participation, mobility, and naturalized citizenship status at time of outcome;

$Z_{st-1}$  is a vector of school characteristics which include the overall civic education access index, racial and ethnic makeup (including racial/ethnic diversity), proportion of economically disadvantaged students, school type (public, private-religious, private-nonreligious), proportion of teachers with advanced degrees, size, size squared, student-teacher ratio, urbanicity, and geographic region measured at the school level during respondent's adolescence (time t-1).

The following models were also estimated to examine the impact of specific civic education courses on various types of civic engagement activities.

$$\Pr(CE_{it}) = \beta_0 + \beta_1 Course_{ist-1} + \beta_2 SSC_{ist-1} + \beta_3 X_{is} + \beta_4 Z_{st-1} + \mu_s + \varepsilon_i$$

Where  $CE_{it}$  is civic engagement in adulthood and  $\Pr(CE_{it})$  is the probability of the respondent participating in that form of civic engagement ( $CE=1$ );

$Course_{ist-1}$  is a vector of characteristics of student civic education course-taking in the course category, which includes an indicator variable for whether the student took each type of civic education course, whether a civic education course was taken in 12<sup>th</sup> grade, and whether a



civic education course was Advanced Placement. Additional models will be estimated with the number of credits earned in the course category, rather than the indicator variable, to evaluate dosage effects;

$SSC_{ist-1}$  is the number of standard social studies courses taken by the student;

$X_{is}$  is a vector of individual characteristics which includes race/ethnicity, immigrant generation, gender, parents' education, poverty, school connectedness, age at Wave I, GPA, social studies interest/aptitude, and naturalized citizenship status at time of outcome;

$Z_{st-1}$  is a vector of school characteristics which include the civic education access indices for each course category, racial and ethnic makeup (including racial/ethnic diversity), proportion of economically disadvantaged students, school type (public, private-religious, private-nonreligious), proportion of teachers with advanced degrees, size, size squared, student-teacher ratio, urbanicity, and geographic region measured at the school level during respondent's adolescence (time  $t-1$ ).

All analyses are weighted to account for design effects in the sampling of Add Health, with weights scaled for use in two-level models (using the PWIGLS Method 2 command in Stata 14) and standard errors are cluster-adjusted at the school level to account for non-independence of the observations within schools (Chen and Chantala, 2014).

## **FINDINGS**

### *Descriptive Analysis (See Table 3.3)*

Comparing average levels of civic engagement between those who had taken each category of civic education course in high school and those that had not taken a course from that category, taking an International/Multicultural Studies course is most consistently related to civic engagement after high school, with average participation rates higher than that expected by chance in 6 of 8 measured categories than those who did not take a course in this category, followed by taking an American History course, with average participation rates higher than that expected by chance in 5 of 8 measured categories than those who did not take a course in this category. This relationship persists for the measures taken at Wave IV.

A higher proportion of individuals who took a course in Historically Marginalized Groups, International/Multicultural Studies, or Political Knowledge participated in overall civic engagement activities at Wave III than those who did not take these courses in high school. A higher proportion of individuals who took a course in Experiential Learning, Civic Skills, American History, or International/Multicultural Studies participated in civic acts (volunteer work) than those that did not take such a course. A higher proportion of individuals who took a course in Experiential Learning, American History, or International/Multicultural Studies participated in political voice acts, such as contacting a government official or attending a rally, than those that did not take these courses.

Higher participation rates among course-takers persist for Wave IV measures for Historically Marginalized Groups, American History, and International/Multicultural Studies courses. A higher proportion of individuals who took a course in American History or International/Multicultural Studies participated in overall civic engagement activities and

volunteering at Wave IV than those who did not take these courses. A higher proportion of individuals who took courses in Historically Marginalized Groups, American History, or International/Multicultural Studies voted regularly in state elections at Wave IV than those who did not take these courses.

We find no differences, beyond those that would be expected by chance, in participation in electoral acts nor personally responsible citizenship acts, between those that took civic education courses and those that did not.

*Impact of number of civic education courses (See Table 3.4)*

In multivariate analysis, the number of civic education courses taken in high school has a small positive effect on overall civic engagement and electoral acts at Wave III, as well as voting regularly in state elections at Wave IV. The number of standard social studies courses has a positive effect on electoral activities at Wave III, overall civic engagement and voting regularly in state elections at Wave IV. Taking an AP civic education course has a positive effect on electoral activities and political voice activities at Wave III and voting regularly in state elections at Wave IV. We find no effect of taking a civic education course in 12<sup>th</sup> grade.

We find that overall GPA has a positive impact on nearly all measures of civic engagement at both Wave III and Wave IV. Interestingly, the social studies interest/aptitude measure has a small but significant negative impact on overall civic engagement at Wave III, and a negative impact on personally responsible citizenship at Wave III and volunteering at Wave IV, although these results do not reach statistical significance. Taking an AP course other than a Civic Education course has a positive effect on civic, electoral, and political voice activities at Wave III.

*Impact of particular civic education courses (See Tables 3.5, 3.6, and 3.7)*

In order to examine the impact of the civic education courses, removing the effect of course availability and other characteristics of school context which may impact civic education, we focus on findings from our school fixed effects models, presented in Tables 3.6 and 3.7.

While we find no impact of taking any particular category of civic education course on overall civic engagement at Wave III, earned credits in American History and International/Multicultural Studies demonstrate a positive impact on overall civic engagement at Wave III. On average, controlling for other factors which impact civic engagement, earning one additional credit in American History, (usually the equivalent of two semesters or a year long course) beyond the standard course of study, predicts a 2.6% increase in the likelihood of any civic engagement at Wave III, and earning one additional credit in International/Multicultural Studies predicts a 3.3% increase in the likelihood of any civic engagement at Wave III.

Taking a course in Civic Skills Development has a positive impact on civic activities at Wave III. On average, controlling for other factors which may impact civic engagement, taking a Civic Skills Development course in high school predicts a 3.7% increase in the likelihood of civic activity participation at Wave III, with no additional impact of earned credits. Earned credits in American History have a positive impact on civic activities at Wave III. On average, controlling for other factors, one additional credit in American History, beyond the standard course of study, predicts a 3.4% increase the likelihood of participating in civic activities at Wave III.

We find the broadest impact of civic education coursework on electoral activities at Wave III. Taking an Experiential Learning course has a positive impact on electoral activities at Wave III, as does earned credits in Experiential Learning. On average, controlling for other

factors, taking an Experiential Learning course in high school predicts a 7.7% increase in the likelihood of electoral activity participation at Wave III, and one additional earned credit in Experiential Learning predicts a 6.5% increase in electoral activity participation at Wave III. On average, controlling for other factors, taking a Civic Skills Development course predicts a 2.9% increase in the likelihood of electoral activity participation at Wave III, with no additional impact of earned credits. On average, earning one additional American History credit, controlling for other factors predicts a 3.8% increase in the likelihood of electoral activity participation at Wave III. On average, controlling for other factors, taking a course in Political Knowledge Development predicts a 3.7% increase in the likelihood of electoral activity participation at Wave III, with no additional impact of earned credits. Taking an AP civic education course and the number of standard social studies courses also demonstrate a positive impact on electoral activity participation at Wave III.

Taking an Experiential Learning course has a positive impact on political voice activity participation at Wave III. On average, controlling for other factors which may impact civic engagement, taking an Experiential Learning course in high school predicts a 6.4% increase in the likelihood of political voice activity participation at Wave III, with no additional impact of earned credits. Earned credits in Service Learning demonstrate a negative impact on political voice activity at Wave III. On average, controlling for other factors which may impact civic engagement, one additional earned credit in Service Learning predicts a 2.2% decrease in the likelihood of political voice activity participation at Wave III.

Earned credits in Experiential Learning demonstrate a positive effect on personally responsible citizenship activities. On average, controlling for other factors which may impact civic engagement, one additional credit in Experiential Learning predicts a 6.2% increase of the

likelihood of personally responsible citizenship activities in Wave III. On average, controlling for other factors, taking a Civic Skills Development course predicts a 3.4% decrease in the likelihood of personally responsible citizenship, and an additional earned credit of Civic Skills Development predicts a 3.6% decrease in the likelihood of personally responsible citizenship at Wave III. On average, controlling for other factors, taking a Historically Marginalized Groups course predicts a 6.1% increase in the likelihood of personally responsible citizenship at Wave III. The number of standard social studies courses also has a small positive impact on the likelihood of personally responsible citizenship activities at Wave III.

A few categories of civic education courses demonstrate an impact on the likelihood of civic engagement at Wave IV. On average, taking a Political Knowledge Development course in high school, predicts a 2.8% increase in the likelihood of civic engagement activities overall at Wave IV, controlling for other factors. The number of standard social studies courses also has a small positive impact on the likelihood of civic engagement at Wave IV. Taking a Social/Political Issues course demonstrates a negative impact on civic activity at Wave IV. On average, taking a Social/Political Issues course predicts a 6% decrease in the likelihood of civic activity participation at Wave IV. Earned credits in International/Multicultural Studies courses demonstrate a positive impact on voting regularly in state elections at Wave IV. On average, controlling for other factors, one additional credit in International/Multicultural Studies predicts a 5% increase in the likelihood of voting regularly in state elections at Wave IV. The number of standard social studies courses also has a small positive impact on the likelihood of voting regularly in state elections at Wave IV.

## DISCUSSION

We do find evidence that high school civic education coursework contributes to an individual's likelihood of civic engagement in adulthood. Some course types demonstrate an impact with just one course, such as Experiential Learning courses and Civic Skills Development courses, while other course categories, American History and International/Multicultural Studies seem to have a dosage effect, requiring additional earned credits to have an impact. Moreover, some types of courses, particularly Experiential Learning and Civic Skills Development courses, contribute to future civic engagement in a way that standard social studies courses do not. While at first, one may consider the contribution of civic education courses quite small, a 3-4% increase in the likelihood of civic participation that persists for up to eight years, even fourteen years in some categories, after receiving the "treatment," we assert is indicative of a powerful intervention. Certainly, additional work is desirable, particularly to understand the dosage effect seen with some course types, however, the results from this study offer a great deal of support for the potential of civic education coursework in high school to promote civic engagement in adults. We note some positive impacts of Advanced Placement courses, consistent with prior studies, however, as we also see a positive impact on civic engagement of AP courses outside of civic education, this impact may not be due to the content of AP civic education courses, but rather improved skills available across the AP curriculum, or of innate ability or academic motivation of the student which in turn impacts later engagement. This is another avenue for additional research to disentangle the content and instructional approaches of these courses from other factors.

As anticipated, different categories of civic education courses contribute to different types of civic participation. Experiential Learning courses, for example, contribute to the

likelihood of political voice activities. This supports our expectations of the mechanisms through which Experiential Learning courses may work, as political voice activities, for example, writing a letter to a congressman, would require civic skills, knowledge, and both internal and external efficacy. Interestingly, any social studies course promotes electoral activity, although certain civic education course, such as Experiential Learning are particularly impactful, which offers some insight into the various mechanisms which may be triggered throughout the standard social studies curriculum. Electoral activity relies on very little skill, but a great deal of external efficacy. Participation in electoral activity may also be indicative of a traditional civic identity, rather than a participatory identity, offering some insight into the civic identity development opportunities which may be included in the standard curriculum, as compared to civic education coursework (Parker, 1996; Westheimer and Kahne, 2004). Civic Skills Development courses may develop a more participatory civic identity, as indicated by the impact on civic activity participation. Future research explicitly examining the mechanisms, and the relationship of each mechanism to civic activities, would be an interesting next step in this research and would provide information on how to best structure a well-rounded civic education curriculum in order to improve skills and knowledge, and contribute to internal and external efficacy, as well develop civic identity. Ensuring that all mechanisms are triggered would likely lead to improved civic engagement outcomes for a range of activities.

Next steps for this research include examining differential effects of civic education coursework for various subgroups of students and in various school contexts, especially for those course categories for which we find few significant relationships with civic engagement. If effects vary across subgroups or school contexts, an average effect may be difficult to detect. A subgroup analysis, limited to racial/ethnic minorities and females would be particularly



informative for Historically Marginalized Groups courses. Future research examining a broader range of civic activities, for example boycotting and buycotting, that is avoiding or actively buying products from companies based on their social, political, or environmental policies, or working informally with others to address a local problem, may offer a more complete picture of the relationship between high school coursework and civic engagement. Interviews for Wave V of Add Health data are currently being conducted, and this data may allow for examination of additional civic activities.

Finally, the negative impact that we find of some categories of coursework warrants additional study. While we may expect no relationship between these courses and civic engagement if these courses were of low quality, we should not expect that they would adversely impact civic engagement. For example, taking a Social/Political Issues course has a negative effect on volunteer activity in Wave IV and taking a Civic Skills Development course has a negative effect on personally responsible citizenship activities at Wave III. More work is needed to determine if the courses are presented in a way that is alienating students from civic life, radicalizing them in ways that move them away from the forms of participation measured in this dataset, or alternatively, this relationship is misattributed to the courses and is actually related to characteristics of the students who take these courses.

## **Limitations**

While the study adds to the civic education literature by examining the relationship between course-taking in a range of civic education courses and civic engagement in adulthood, we acknowledge some limitations. First, all courses are categorized based on title and descriptions, which essentially tell us what *should* be included in the course, however, we have no information on actual classroom practices, some of which are undoubtedly more impactful

than others and which undoubtedly vary between schools. Second, even though transcripts were collected for all schools attended by Add Health participants, all courses are attributed to the Add Health school the respondent attended at Wave I of data collection, so aspects of school context which may affect course impact may be misattributed. We do include a control for mobility, however, it only captures mobility prior to Wave I of data collection. We have no indication of mobility throughout the respondent's high school experience. Finally, although we have taken many steps to control for selection bias, due to the use of an administrative dataset, we recognize that we are not able to fully account for unobserved differences between those students who choose to take these courses and those that do not, especially those differences which may also impact civic engagement (interest in politics, for example).

Table 3.1: Description of Civic Education Courses

<b>Course Type</b>	<b>Primary Course Content</b>
Experiential Learning	This category includes courses that include “learning by doing.” Content of these courses is active and participatory. Courses include simulations, role playing, field trips, and field experiences.
Service Learning	This category includes courses which combine classroom instruction with community service to address a need in the community. Ideally, service learning courses include a reflection component, however, we are unable to discern this from course content descriptions.
Civic Skills Development	This category includes courses that focus on developing intellectual and participatory civic skills. Intellectual and participatory skills “encompass knowing how to identify, assess, interpret, describe, analyze, and explain matters of concern in civic life”, and include critical thinking, perspective taking, interpreting and critiquing media, expressing opinions, and identifying public problems (Campaign for the Civic Mission of Schools). Participatory skills “encompass knowing how to cope in groups and organizational settings, interface with elected officials and community representatives, communicate perspectives and arguments, and plan strategically for civic change” and include public speaking, using electoral and non-electoral means to express political opinion, and working in groups (Campaign for the Civic Mission of Schools).
Social/Political Issues	This category includes courses that focus on contemporary social and political issues and current events.
Historically Marginalized Groups	This category includes courses which focus on racial and ethnic minorities and women in the United States.
American History	This category includes courses which focus on the social, political, and economic development of the United States. The category includes survey courses, as well as courses focused on particular time periods or regions.
International/Multicultural Studies	This category includes courses which focus on the history, society, politics, economy, or culture of geographic regions outside of the United States. The category includes courses focused on international affairs and global issues.
Political Knowledge Development	This category includes courses in government, political science, and public policy which are focused on developing knowledge of principles, procedures, processes, institutions, rights, and other information about the political system.

Table 3.2: Descriptive Statistics for All Covariates

	Mean	S.E.
<b>Civic Education Coursetaking</b>		
Number of Civic Education Courses	3.425	0.190
Took Experiential Learning Course	0.035	0.007
Service Learning Course	0.186	0.022
Civic Skills Course	0.268	0.026
Social Issues Course	0.126	0.025
Historically Marginalized Groups Course	0.048	0.010
American History Course <sup>1</sup>	0.586	0.040
International/Multicultural Course <sup>1</sup>	0.355	0.042
Political Knowledge Course <sup>1</sup>	0.330	0.036
Credits Earned in Civic Education Courses	1.754	0.089
Took AP Course	0.119	0.013
Took Civic Education Course in 12th Grade	0.511	0.026
<b>Individual Characteristics</b>		
Race/Ethnicity		
White	0.614	0.038
Black	0.149	0.028
Hispanic	0.166	0.022
Asian	0.059	0.015
American Indian	0.042	0.004
Other	0.012	0.002
Immigrant Generation		
1st Generation	0.077	0.180
2nd Generation	0.129	0.016
3rd + Generation	0.794	0.031
Picture Vocabulary Test Score	102.877	0.720
GPA	2.869	0.024
School Connectedness	18.676	0.086
Extracurricular Activity Participation	0.547	0.014
Sports Participation	0.557	0.013
Mobility	0.222	0.016
Male	0.499	0.010
Citizenship at Wave 3	0.035	0.007
Age (Wave I)	14.977	0.113

Adjusted for Survey Design

<sup>1</sup>Courses other than those considered standard course of study

Table 3.2: Descriptive Statistics for All Covariates

	Mean	S.E.
<b>Family Characteristics</b>		
Poverty	0.137	0.012
Parental Education		
< High School	0.134	0.016
High School Grad	0.256	0.013
Some College	0.216	0.009
College Graduate	0.394	0.019
<b>School Characteristics</b>		
% Black	0.163	0.020
% Hispanic	0.196	0.028
% Asian	0.063	0.011
% American Indian	0.043	0.002
% Other Race	0.036	0.003
Racial Diversity	0.486	0.019
% Economically Disadvantaged	0.253	0.019
Public	0.947	0.021
Private - Religious Affiliation	0.033	0.017
Private - Non-religious	0.013	0.010
% Teachers with Advanced Degrees	0.533	0.031
Size(/100)	10.183	0.753
Student/teacher ratio	19.132	0.393
Urbanicity		
urban	0.329	0.056
suburban	0.559	0.058
rural	0.112	0.033
Region		
South	0.417	0.035
West	0.235	0.030
Midwest	0.205	0.034
Northeast	0.143	0.020

Adjusted for Survey Design

Table 3.3: Mean Civic Engagement by Civic Education Course Category for Individuals who Took Civic Education Courses

	Full Sample		Experiential Learning		Service Learning		Civic Skills		Social/Political Issues	
Wave 3 (N=8957)	Mean	S.E.	Mean	S.E.	Mean	S.E.	Mean	S.E.	Mean	S.E.
Any Civic Engagement	0.858	0.011	0.882	0.040	0.843	0.019	0.877	0.018	0.858	0.026
Civic	0.304	0.011	0.402	* 0.050	0.301	0.023	0.342	* 0.018	0.293	0.017
Electoral	0.744	0.014	0.811	0.048	0.725	0.025	0.775	0.020	0.771	0.035
Political Voice	0.064	0.007	0.149	* 0.040	0.049	0.011	0.066	0.010	0.045	0.011
Personally Responsible Citizenship	0.465	0.019	0.479	0.062	0.463	0.029	0.478	0.024	0.490	0.026
Wave 4 (N=7810)										
Any Civic Engagement	0.772	0.011	0.836	0.037	0.790	0.018	0.791	0.015	0.779	0.024
Civic	0.389	0.015	0.454	0.047	0.413	0.023	0.398	0.020	0.394	0.024
Voting	0.694	0.012	0.740	0.046	0.700	0.019	0.712	0.016	0.692	0.020

	Historically Marginalized Groups		American History		International/Multicultural Studies		Political Knowledge	
	Mean	S.E.	Mean	S.E.	Mean	S.E.	Mean	S.E.
Wave 3 (N=8957)								
Any Civic Engagement	0.901	* 0.021	0.866	0.015	0.879	* 0.014	0.886	* 0.011
Civic	0.280	0.034	0.332	* 0.016	0.348	* 0.018	0.320	0.016
Electoral	0.789	0.038	0.759	0.016	0.756	0.018	0.781	0.014
Political Voice	0.067	0.024	0.075	* 0.009	0.090	* 0.015	0.071	0.012
Personally Responsible Citizenship	0.417	0.047	0.486	0.023	0.467	0.027	0.484	0.028
Wave 4 (N=7810)								
Any Civic Engagement	0.821	0.029	0.794	* 0.012	0.798	* 0.015	0.783	0.015
Civic	0.371	0.039	0.416	* 0.018	0.426	* 0.022	0.396	0.021
Voting	0.756	* 0.034	0.714	* 0.014	0.723	* 0.017	0.710	0.019

Adjusted for survey design

\* indicates mean is statistically different than those that did not take that category of course ,  $p < 0.05$

Table 3.4: Impact of Number of Civic Education Courses on Civic Engagement, Results from Two-Level Linear Models

Wave 3 (N=8639)										
	Any CE		Civic		Electoral		Political Voice		Personal Responsibility	
	Coeff.	S.E.	Coeff.	S.E.	Coeff.	S.E.	Coeff.	S.E.	Coeff.	S.E.
<b>Civic Education Coursetaking</b>										
Number of Civic Education Courses	0.005†	0.003	0.006	0.004	0.009*	0.004	-0.002	0.002	0.003	0.005
Number of Standard Social Studies Courses	0.006	0.005	0.002	0.004	0.017**	0.006	0.002	0.003	0.007	0.005
Took AP Civic Education Course	0.029	0.022	0.048	0.032	0.042†	0.023	0.050*	0.025	0.031	0.037
Took Civic Education Course in 12th Grade	-0.005	0.014	-0.001	0.017	0.004	0.020	0.009	0.009	-0.003	0.019
<b>Individual Characteristics</b>										
Race/Ethnicity (White is Reference)										
Black	0.022	0.023	0.026	0.022	0.076**	0.023	0.007	0.014	-0.126**	0.029
Hispanic	0.027	0.026	0.027	0.029	-0.017	0.031	0.015	0.019	-0.025	0.030
Asian	0.012	0.030	-0.088*	0.041	-0.081*	0.040	-0.025	0.027	-0.031	0.043
American Indian	0.010	0.027	-0.099*	0.043	-0.013	0.037	0.087*	0.043	0.032	0.048
Other	-0.020	0.086	-0.044	0.126	-0.069	0.117	0.064	0.105	0.175	0.118
Immigrant Generation (3+ is Reference)										
1st Generation	-0.268**	0.055	0.041	0.043	-0.486**	0.063	0.019	0.030	-0.192**	0.049
2nd Generation	-0.013	0.020	-0.029	0.027	0.005	0.031	-0.016	0.016	-0.145**	0.038
Picture Vocabulary Test Score	0.002	0.001	0.002**	0.001	0.003**	0.001	0.001	0.000	0.004**	0.001
GPA	0.027**	0.009	0.080**	0.013	0.020†	0.011	0.007	0.006	0.018	0.014
Social Studies Interest/Aptitude	-0.013**	0.011	0.003	0.016	0.004	0.011	0.015	0.011	-0.008	0.016
Took AP Course other than Civic Education	0.016	0.016	0.058*	0.028	0.055*	0.026	0.061*	0.026	0.030	0.031

Table 3.4: Impact of Number of Civic Education Courses on Civic Engagement, Results from Two-Level Linear Models, Continued

Wave 3 (N=8639)										
	Any CE		Civic		Electoral		Political Voice		Personal Responsibility	
	Coeff.	S.E.	Coeff.	S.E.	Coeff.	S.E.	Coeff.	S.E.	Coeff.	S.E.
School Connectedness	0.003	0.002	0.008**	0.002	0.007**	0.003	0.001	0.001	0.004	0.003
Extracurricular Activity Participation	0.059**	0.012	0.064**	0.017	0.065**	0.017	0.014†	0.008	0.035†	0.018
Sports Participation	0.032**	0.012	0.028†	0.015	0.013	0.014	-0.006	0.008	0.050**	0.019
Mobility	-0.021	0.017	0.004	0.022	-0.011	0.021	0.001	0.013	0.040†	0.022
Male	-0.005	0.012	0.010	0.018	0.018	0.015	0.029**	0.008	-0.070**	0.016
Naturalized Citizenship at Wave 3	0.258**	0.078	0.064	0.078	0.445**	0.065	-0.016	0.028	0.170**	0.046
Age (Wave I)	0.004	0.004	-0.019**	0.006	0.018**	0.006	0.002	0.004	0.008	0.006
<b>Family Characteristics</b>										
Poverty	-0.007	0.018	-0.030	0.023	-0.011	0.021	-0.005	0.010	0.018	0.024
Parental Education (College Grad is Reference)										
< High School	-0.044†	0.024	-0.085**	0.031	-0.015	0.032	-0.035**	0.013	-0.045	0.030
High School Grad	-0.059**	0.016	-0.092**	0.024	-0.080**	0.019	-0.019	0.014	-0.067**	0.018
Some College	-0.017	0.013	-0.076**	0.022	-0.015	0.018	-0.021†	0.011	-0.029	0.022



Table 3.4: Impact of Number of Civic Education Courses on Civic Engagement, Results from Two-Level Linear Models,  
Continued

Wave 3 (N=8639)										
	Any CE		Civic		Electoral		Political Voice		Personal Responsibility	
	Coeff.	S.E.	Coeff.	S.E.	Coeff.	S.E.	Coeff.	S.E.	Coeff.	S.E.
<b>School Characteristics</b>										
% Black	0.113†	0.059	0.055	0.074	0.079	0.082	0.046	0.046	0.070	0.094
% Hispanic	-0.022	0.074	-0.092	0.085	0.060	0.072	0.011	0.050	-0.148	0.103
% Asian	-0.217	0.146	0.221	0.159	-0.253	0.239	-0.010	0.134	-0.416*	0.206
% American Indian	0.324	0.261	0.509	0.324	0.460	0.435	-0.081	0.218	0.761	0.524
% Other Race	0.408	0.304	-0.337	0.349	1.170†	0.629	0.063	0.258	0.989*	0.485
Racial Diversity	0.030	0.066	-0.086	0.064	-0.021	0.090	0.017	0.050	0.089	0.109
% Economically Disadvantaged	-0.100	0.069	-0.047	0.086	-0.043	0.097	-0.024	0.071	-0.138	0.138
Civic Education Access Index	-0.003	0.014	-0.028	0.019	0.016	0.016	0.007	0.010	-0.018	0.024
School Type (Public is Reference)										
Private - Religious Affiliation	0.003	0.023	-0.024	0.026	0.063*	0.031	-0.002	0.016	-0.059	0.057
Private - Non-religious	-0.003	0.038	0.109*	0.048	0.070	0.055	0.107*	0.048	0.208**	0.075
% Teachers with Advanced Degrees	0.021	0.029	-0.030	0.037	-0.025	0.045	0.014	0.021	-0.112†	0.060
Size(/100)	-0.003	0.007	-0.001	0.007	0.011	0.009	0.002	0.004	-0.007	0.011
Size Squared	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Student/teacher ratio	0.005	0.003	-0.001	0.004	0.003	0.004	0.005*	0.003	0.008	0.005
Urbanicity (Suburban is Reference)										
urban	-0.031†	0.017	0.011	0.023	-0.050*	0.025	-0.009	0.016	0.055†	0.032
rural	0.011	0.024	-0.014	0.029	-0.024	0.025	-0.004	0.013	0.047	0.046
Region (South is Reference)										
West	-0.080**	0.030	0.036	0.039	-0.116*	0.051	-0.024	0.023	-0.068	0.063
Midwest	-0.042†	0.025	-0.015	0.025	-0.065†	0.038	0.003	0.013	0.026	0.045
Northeast	-0.049†	0.027	0.030	0.026	-0.050	0.039	0.010	0.017	-0.098*	0.044

†p<0.10, \*p<0.05, \*\*p<0.01

Uses Imputed Data

Table 3.4: Impact of Number of Civic Education Courses on Civic Engagement, Results from Two-Level Linear Models, Continued

Wave 4 (N=7547)						
	Any CE		Civic		Voting	
	Coeff.	S.E.	Coeff.	S.E.	Coeff.	S.E.
<b>Civic Education Coursetaking</b>						
Number of Civic Education Courses	0.003†	0.003	0.002	0.005	0.010**	0.003
Number of Standard Social Studies Courses	0.009	0.005	-0.003	0.005	0.013**	0.005
Took AP Civic Education Course	0.028	0.023	0.045	0.038	0.065*	0.030
Took Civic Education Course in 12th Grade	0.006	0.015	-0.006	0.019	-0.013	0.016
<b>Individual Characteristics</b>						
Race/Ethnicity (White is Reference)						
Black	0.132**	0.026	0.023	0.028	0.137**	0.031
Hispanic	0.010	0.040	0.006	0.035	0.062 †	0.036
Asian	-0.071*	0.035	-0.033	0.035	-0.153**	0.044
American Indian	0.034	0.039	0.050	0.055	0.060	0.043
Other	0.131*	0.066	-0.069	0.169	0.109	0.176
Immigrant Generation (3+ is Reference)						
1st Generation	-0.311**	0.052	0.003	0.045	-0.221**	0.048
2nd Generation	0.017	0.025	-0.020	0.035	-0.050	0.038
Picture Vocabulary Test Score	0.003**	0.001	0.001	0.001	0.003**	0.001
GPA	0.065**	0.010	0.078**	0.011	0.032**	0.012
Social Studies Interest/Aptitude	0.021	0.015	-0.005	0.018	0.018	0.019
Took AP Course other than Civic Education	0.017	0.019	0.006	0.033	0.013	0.033

Table 3.4: Impact of Number of Civic Education Courses on Civic Engagement, Results from Two-Level Linear Models, Continued

		Wave 4 (N=7547)					
		Any CE		Civic		Voting	
		Coeff.	S.E.	Coeff.	S.E.	Coeff.	S.E.
School Connectedness		0.007**	0.003	0.007**	0.003	0.007**	0.002
Extracurricular Activity Participation		0.085**	0.016	0.085**	0.016	0.088**	0.018
Sports Participation		0.030†	0.015	0.030†	0.015	0.032*	0.015
Mobility		-0.010	0.017	-0.010	0.017	-0.036	0.025
Male		-0.007	0.016	-0.007	0.016	-0.016	0.017
Naturalized Citizenship at Wave 3		0.301**	0.051	0.301	0.051	0.140*	0.054
Age (Wave I)		0.014**	0.005	0.014	0.005	0.028**	0.007
<b>Family Characteristics</b>							
Poverty		-0.026	0.021	-0.026	0.021	-0.016	0.026
Parental Education (College Grad is Reference)							
< High School		-0.102**	0.029	-0.102**	0.029	-0.117**	0.035
High School Grad		-0.099**	0.020	-0.099**	0.020	-0.105**	0.024
Some College		-0.044*	0.020	-0.044†	0.020	-0.067**	0.024

Table 3.4: Impact of Number of Civic Education Courses on Civic Engagement, Results from Two-Level Linear Models,  
Continued

		Wave 4 (N=7547)					
		Any CE		Civic		Voting	
		Coeff.	S.E.	Coeff.	S.E.	Coeff.	S.E.
<b>School Characteristics</b>							
	% Black	0.100	0.077	-0.011	0.072	0.194*	0.087
	% Hispanic	0.035	0.086	-0.074	0.079	-0.242**	0.087
	% Asian	-0.032	0.137	-0.002	0.205	0.155	0.177
	% American Indian	0.018	0.313	0.600†	0.360	-0.411	0.395
	% Other Race	0.147	0.319	0.064	0.421	-0.037	0.425
	Racial Diversity	-0.128†	0.066	-0.008	0.066	-0.101	0.088
	% Economically Disadvantaged	-0.113	0.077	-0.246**	0.093	0.162	0.106
	Civic Education Access Index	0.011	0.014	0.010	0.019	0.022	0.019
School Type (Public is Reference)							
	Private - Religious Affiliation	-0.009	0.025	0.006	0.030	0.163†	0.087
	Private - Non-religious	0.025	0.041	0.106*	0.052	-0.018	0.070
	% Teachers with Advanced Degrees	0.009	0.038	-0.064*	0.034	0.002	0.046
	Size(/100)	0.009	0.007	0.009	0.007	-0.006	0.009
	Size Squared	-0.001†	0.000	0.000	0.000	0.000	0.000
	Student/teacher ratio	-0.005	0.003	-0.003	0.004	0.004	0.004
Urbanicity (Suburban is Reference)							
	urban	0.013	0.019	0.030	0.024	-0.020	0.027
	rural	-0.018	0.037	-0.005	0.039	-0.041	0.034
Region (South is Reference)							
	West	0.036	0.038	0.019	0.039	0.053	0.041
	Midwest	-0.007	0.022	-0.041	0.028	-0.006	0.031
	Northeast	-0.061*	0.028	-0.099**	0.028	-0.025	0.035

†p<0.10, \*p<0.05, \*\*p<0.01

Uses Imputed Data

Table 3.5: Impact of Civic Education Course-taking on Civic Engagement, Results from Two-Level Linear Models

	Wave 3 (N=8639)									
	Any CE		Civic		Electoral		Political Voice		Personal Responsibility	
	Coeff.	S.E.	Coeff.	S.E.	Coeff.	S.E.	Coeff.	S.E.	Coeff.	S.E.
<b>Civic Education Coursetaking</b>										
Took Experiential Learning Course	0.013	0.031	0.039	0.044	0.075†	0.041	0.0633†	0.0327	0.054	0.047
Took Service Learning Course	-0.003	0.013	-0.022	0.027	-0.011	0.021	-0.0215	0.0143	-0.006	0.017
Took Civic Skills Course	0.018	0.013	0.040*	0.019	0.031†	0.016	0.0015	0.0101	-0.032	0.019
Took Social Issues Course	-0.010	0.030	-0.024	0.023	0.045	0.029	-0.0111	0.0112	-0.010	0.022
Took Historically Marginalized Groups Course	0.031	0.024	-0.040	0.034	-0.017	0.035	-0.0064	0.0206	0.055	0.037
Took American History Course <sup>1</sup>	0.006	0.018	0.015	0.017	0.021	0.020	0.0040†	0.0114	0.018	0.022
Took International/Multicultural Course <sup>1</sup>	0.026	0.017	0.030	0.021	0.007	0.024	0.0223	0.0133	0.028	0.023
Took Political Knowledge Course <sup>1</sup>	0.017	0.012	-0.003	0.017	0.040*	0.016	0.0011	0.0104	0.016	0.020
# of Standard Social Studies Courses	0.006	0.005	-0.002	0.004	0.018**	0.006	0.0025	0.0028	0.010	0.005
<b>Civic Education Access<sup>2</sup></b>										
Service Learning Access Index									-0.024*	0.012
Social/Political Issues Access Index										
Historically Marginalized Groups Access Index			0.059*	0.027					-0.099**	0.034
American History Access Index									0.014†	0.008
International/Multicultural Access Index										
Political Knowledge Access Index	0.012*	0.006								

1. Excluding courses considered standard course of study

2. All models control for access indices for each course category. Only those with statistically significant coefficients are reported here.

†p<0.10, \*p<0.05, \*\*p<0.01

Table 3.5: Impact of Civic Education Course-taking on Civic Engagement, Results from Two-Level Linear Models, Continued

	Wave 4 (N=7547)					
	Any CE		Civic		Voting	
	Coeff.	S.E.	Coeff.	S.E.	Coeff.	S.E.
<b>Civic Education Coursetaking</b>						
Took Experiential Learning Course	0.025	0.055	-0.009	0.049	0.045	0.039
Took Service Learning Course	0.005	0.019	0.002	0.024	0.005	0.026
Took Civic Skills Course	0.009	0.014	-0.004†	0.019	0.010	0.019
Took Social Issues Course	-0.028	0.029	-0.053	0.029	0.017	0.031
Took Historically Marginalized Groups Course	-0.010	0.020	-0.005	0.033	-0.023	0.036
Took American History Course <sup>1</sup>	0.006	0.019	-0.007	0.023	0.019	0.020
Took International/Multicultural Course <sup>1</sup>	-0.001	0.018	0.010	0.026	0.038†	0.023
Took Political Knowledge Course <sup>1</sup>	0.015	0.015	-0.026	0.018	0.009	0.021
# of Standard Social Studies Courses	0.010	0.006	-0.004	0.005	0.013**	0.005
<b>Civic Education Access<sup>2</sup></b>						
Service Learning Access Index						
Social/Political Issues Access Index	0.043*	0.018				
Historically Marginalized Groups Access Index	0.046*	0.022			0.076*	0.031
American History Access Index						
International/Multicultural Access Index						
Political Knowledge Access Index						

1. Excluding courses considered standard course of study

2. All models control for access indices for each course category. Only those with statistically significant coefficients are reported here.

†p<0.10, \*p<0.05, \*\*p<0.01

Table 3.6: Impact of Civic Education Course-taking on Civic Engagement, Results from School Fixed Effects Models

		Wave 3 (N=8639)									
		Any CE		Civic		Electoral		Political Voice		Responsibility	
Civic Education Coursetaking											
Experiential Learning Course		0.015	0.030	0.047	0.044	0.077 †	0.042	0.064 †	0.033	0.057	0.047
Service Learning Course		0.005	0.014	-0.023	0.029	-0.006	0.021	-0.024	0.015	-0.001	0.018
Civic Skills Course		0.016	0.014	0.037 †	0.020	0.029 †	0.017	0.002	0.011	-0.034 †	0.019
Social Issues Course		-0.004	0.034	-0.013	0.026	0.056	0.031	-0.006	0.012	-0.013	0.023
Historically Marginalized Groups Course		0.036	0.025	-0.043	0.036	-0.015	0.037	-0.003	0.021	0.061 †	0.036
American History Course <sup>1</sup>		0.003	0.021	0.012	0.021	0.025	0.022	0.002	0.014	0.020	0.024
International/Multicultural Course <sup>1</sup>		0.033	0.020	0.014	0.023	0.013	0.028	0.020	0.014	0.043	0.025
Political Knowledge Course <sup>1</sup>		0.012	0.014	-0.005	0.021	0.037 *	0.018	-0.002	0.011	0.008	0.022
Took AP Civic Education Course		0.039	0.028	0.041	0.035	0.048 †	0.027	0.052 †	0.028	0.033	0.037
Number of Standard Social Studies Courses		0.006	0.005	-0.002	0.005	0.016 *	0.007	0.003	0.003	0.011 †	0.006
Individual Characteristics											
Race/Ethnicity (White is Reference)											
Black		0.033 †	0.019	0.046 *	0.021	0.092 **	0.021	0.000	0.013	-0.120 **	0.029
Hispanic		0.034	0.026	0.031	0.031	-0.006	0.029	0.012	0.017	-0.020	0.031
Asian		0.025	0.033	-0.087 *	0.040	-0.068	0.043	-0.034	0.026	-0.032	0.045
American Indian		0.012	0.026	-0.089 *	0.041	-0.005	0.035	0.081 *	0.037	0.040	0.045
Other		-0.023	0.086	-0.060	0.120	-0.088	0.114	0.059	0.095	0.172	0.114
Immigrant Generation (3+ is Reference)											
1st Generation		-0.298 **	0.055	0.029	0.039	-0.501 **	0.061	0.019	0.032	-0.186 **	0.045
2nd Generation		-0.015	0.018	-0.027	0.026	0.006	0.030	-0.018	0.018	-0.136 **	0.036
Picture Vocabulary Test Score		0.002 **	0.001	0.002 **	0.001	0.002 **	0.001	0.001	0.000	0.004 **	0.001
GPA		0.021 *	0.009	0.072 **	0.013	0.013	0.010	0.004	0.007	0.012	0.013
Social Studies Interest/Aptitude		-0.008	0.012	0.010	0.017	0.010	0.012	0.016	0.010	-0.010	0.016
Took AP Course other than Civic Education		0.019	0.016	0.074 **	0.028	0.056 *	0.028	0.054 *	0.026	0.026	0.030
School Connectedness		0.002	0.002	0.009 **	0.002	0.007 **	0.002	0.002	0.001	0.004	0.003
Extracurricular Activity Participation		0.063 **	0.012	0.066 **	0.016	0.068 **	0.017	0.012	0.008	0.034 †	0.018
Sports Participation		0.030 *	0.012	0.034 *	0.014	0.011	0.013	-0.003	0.008	0.047 **	0.017
Mobility		-0.026	0.018	-0.004	0.022	-0.013	0.021	0.001	0.013	0.038 †	0.022
Male		-0.009	0.012	0.005	0.017	0.014	0.014	0.025 **	0.007	-0.073 **	0.015
Naturalized Citizenship at Wave		0.280 **	0.064	0.097	0.068	0.444 **	0.061	0.006	0.032	0.174 **	0.046
Age (Wave I)		0.004	0.004	-0.022 **	0.007	0.023 **	0.006	0.001	0.004	0.008	0.007
Family Characteristics											
Poverty		-0.009	0.018	-0.034	0.022	-0.011	0.021	-0.005	0.009	0.019	0.024
Parental Education (College Grad is Reference)											
< High School		-0.050 *	0.024	-0.064 *	0.028	-0.033	0.032	-0.028 *	0.013	-0.046	0.030
High School Grad		-0.057 *	0.015	-0.075 **	0.023	-0.080 **	0.019	-0.015	0.013	-0.067 **	0.019
Some College		-0.020	0.013	-0.073 **	0.021	-0.018	0.017	-0.018 †	0.011	-0.031	0.023

†p&lt;0.10, \*p&lt;0.05, \*\*p&lt;0.01

Uses Imputed Data

Table 3.6, continued: Impact of Civic Education Course-taking on Civic Engagement, Results from School Fixed Effects Models

		Wave 4 (N=7547 )					
		Any CE		Civic		Voting	
<b>Civic Education Coursetaking</b>							
Experiential Learning Course		0.029	0.058	0.004	0.050	0.052	0.040
Service Learning Course		0.011	0.020	0.009	0.024	0.004	0.026
Civic Skills Course		0.013	0.015	-0.004	0.020	0.010	0.020
Social Issues Course		-0.033	0.033	-0.060 †	0.034	0.033	0.034
Historically Marginalized Groups Course		-0.002	0.020	0.001	0.034	-0.025	0.038
American History Course <sup>1</sup>		0.004	0.022	-0.016	0.029	0.018	0.022
International/Multicultural Course <sup>1</sup>		0.006	0.021	0.035	0.029	0.031	0.025
Political Knowledge Course <sup>1</sup>		0.028 †	0.016	-0.030	0.019	0.010	0.022
Took AP Civic Education Course		0.044	0.027	0.070	0.045	0.047	0.033
Number of Standard Social Studies Courses		0.014 †	0.007	0.001	0.006	0.011 *	0.006
<b>Individual Characteristics</b>							
Race/Ethnicity (White is Reference)							
Black		0.148 **	0.025	0.039	0.027	0.145 **	0.031
Hispanic		0.044	0.042	0.015	0.039	0.068 †	0.035
Asian		-0.035	0.039	-0.028	0.036	-0.146 **	0.046
American Indian		0.042	0.039	0.033	0.051	0.067	0.041
Other		0.166 *	0.072	-0.024	0.151	0.071	0.165
Immigrant Generation (3+ is Reference)							
1st Generation		-0.338 **	0.052	0.016	0.042	-0.220 **	0.050
2nd Generation		0.025	0.027	0.003	0.035	-0.026	0.037
Picture Vocabulary Test Score		0.002 **	0.001	0.001	0.001	0.004 **	0.001
GPA		0.056 **	0.010	0.074 **	0.012	0.030 **	0.011
Social Studies Interest/Aptitude		0.030 *	0.015	-0.003	0.019	0.019	0.019
Took AP Course other than Civic Education		0.023	0.020	0.018	0.032	0.004	0.035
School Connectedness		0.008 **	0.003	0.005 †	0.003	0.007 **	0.002
Extracurricular Activity Participation		0.087 **	0.016	0.103 **	0.018	0.078 **	0.017
Sports Participation		0.022	0.015	0.056 **	0.019	0.039 **	0.015
Mobility		-0.033 †	0.018	-0.003	0.020	-0.033	0.026
Male		-0.014	0.016	-0.030	0.019	-0.024	0.016
Naturalized Citizenship at Wave		0.299 **	0.047	0.020	0.062	0.137 *	0.054
Age (Wave I)		0.011 †	0.006	0.007	0.008	0.031	0.008
<b>Family Characteristics</b>							
Poverty		-0.026	0.020	0.000	0.027	-0.018	0.026
Parental Education (College Grad is Reference)							
< High School		-0.116 **	0.031	-0.132 **	0.031	-0.120 **	0.034
High School Grad		-0.105 **	0.018	-0.089 **	0.020	-0.099 **	0.026
Some College		-0.040 *	0.019	-0.032	0.023	-0.068 **	0.025

†p&lt;0.10, \*p&lt;0.05, \*\*p&lt;0.01

Uses Imputed Data



Table 3.7: Impact of Civic Education Credits Earned on Civic Engagement, School Fixed Effects Models

Wave 3 (N=8639)

	Any CE		Civic		Electoral		Political Voice		Personal Responsibility	
	Coeff.	S.E.	Coeff.	S.E.	Coeff.	S.E.	Coeff.	S.E.	Coeff.	S.E.
<b>Civic Education Coursetaking</b>										
Experiential Learning Credits	0.003	0.027	0.019	0.040	0.065 *	0.027	0.018	0.021	0.062 †	0.033
Service Learning Credits	0.010	0.015	0.003	0.027	-0.005	0.020	-0.022 †	0.011	0.011	0.015
Civic Skills Credits	0.025	0.016	0.039	0.024	0.031	0.020	0.013	0.014	-0.036 †	0.019
Social Issues Credits	0.013	0.048	-0.023	0.033	0.073 †	0.043	-0.011	0.015	-0.014	0.033
Historically Marginalized Groups Credits	0.009	0.028	-0.038	0.051	-0.052	0.041	-0.008	0.014	0.062	0.039
American History Credits <sup>1</sup>	0.026 †	0.015	0.034 †	0.018	0.038 *	0.017	-0.004	0.012	0.009	0.018
International/Multicultural Credits <sup>1</sup>	0.033 *	0.015	0.012	0.018	0.030	0.019	0.019	0.012	0.027	0.017
Political Knowledge Credits <sup>1</sup>	0.003	0.013	-0.007	0.023	0.006	0.015	-0.007	0.010	0.005	0.029
Took AP Civic Education Course	0.030	0.026	0.030	0.037	0.044 †	0.025	0.055 *	0.027	0.037	0.039
Number of Standard Social Studies Courses	0.007	0.006	-0.001	0.005	0.017 *	0.007	0.003	0.003	0.010 †	0.006

<sup>1</sup>Excluding courses considered standard course of study

†p&lt;0.10, \*p&lt;0.05, \*\*p&lt;0.01

Note: Uses Imputed Data

Table 3.7: Impact of Civic Education Credits Earned on Civic Engagement, School Fixed Effects Models, Continued

Wave 4 (N=7,547)

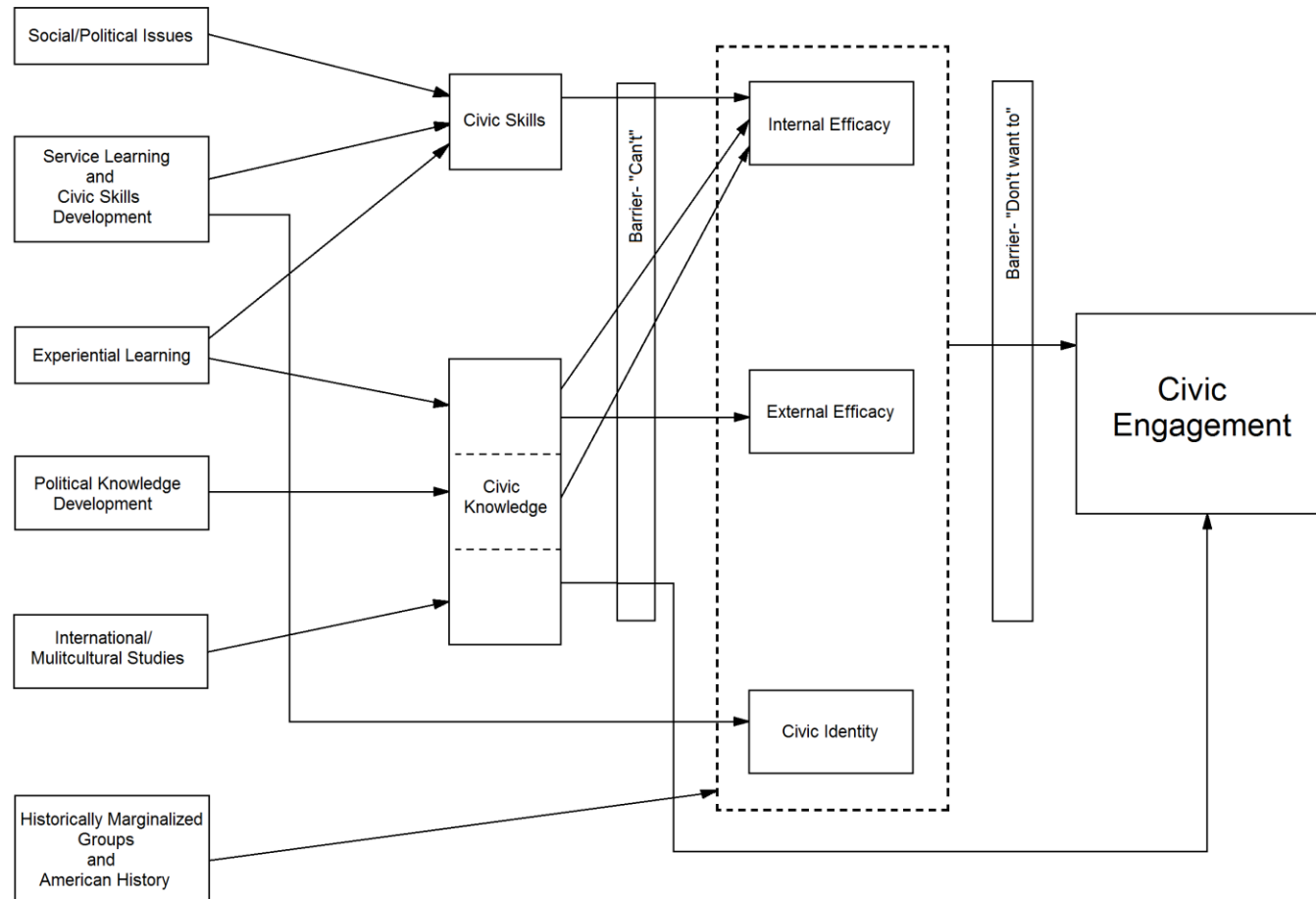
	Any CE		Civic		Voting	
	Coeff.	S.E.	Coeff.	S.E.	Coeff.	S.E.
<b>Civic Education Coursetaking</b>						
Experiential Learning Credits	0.028	0.038	0.030	0.033	0.044	0.036
Service Learning Credits	0.018	0.017	0.005	0.021	0.009	0.022
Civic Skills Credits	0.019	0.015	0.016	0.020	0.017	0.021
Social Issues Credits	-0.028	0.037	-0.057	0.049	0.064	0.048
Historically Marginalized Groups Credits	-0.012	0.030	0.004	0.040	-0.028	0.040
American History Credits <sup>1</sup>	-0.002	0.019	-0.007	0.023	0.022	0.016
International/Multicultural Credits <sup>1</sup>	0.002	0.017	0.021	0.022	0.051 **	0.016
Political Knowledge Credits <sup>1</sup>	0.011	0.017	-0.007	0.019	0.018	0.018
Took AP Civic Education Course	0.051 †	0.027	0.064	0.046	0.040	0.031
Number of Standard Social Studies Courses	0.013 †	0.007	0.001	0.006	0.014 *	0.006

<sup>1</sup>Excluding courses considered standard course of study

†p&lt;0.10, \*p&lt;0.05, \*\*p&lt;0.01

Note: Uses Imputed Data

Figure 3.1: Theory of Action



## **CHAPTER 4: CONCLUSION**

While this dissertation is presented as three separate essays, they share a common focus on the relationship between adolescent experiences and civic engagement in adulthood, therefore, we offer the following overall conclusions and policy recommendations. Our overarching conclusion is that adolescent experiences have powerful and long lasting effects on civic engagement in adulthood. Through extracurricular activities and the social studies curriculum, the school environment offers a number of promising avenues to increase civic engagement in the United States. The opportunities for the development of civic identity, civic skills, and civic knowledge offered through these school experiences can increase the likelihood of participation in a range of civic activities as much as fourteen years later. See Table 4.1 for an overview of our hypotheses and associated support.

As is the goal of public policy research, we offer a number of policy recommendations based on our findings. We recommend that high schools offer a range of extracurricular activities, ensuring to include instrumental activities, such as student government, student newspaper, and yearbook, and expressive activities, such as band, chorus, and drama. We recommend that schools not only offer these extracurricular activities, but make a concerted effort to encourage participation in these activities, with a focus on removing barriers to participation. Consistent with prior literature, our study demonstrates that there may be barriers to participation, particularly for low performing students, first and second generation immigrant

students, students from single parent households, and students from families with low levels of parental education (high school or less). These barriers may be structural, such as a lack of transportation, or psychological, such as not seeing oneself as the type of student who participates in a particular activity. As much as resources allow, schools should focus on overcoming these barriers to participation, especially for instrumental and expressive activities.

We recommend that schools offer a range of social studies courses, particularly those beyond the standard course of study, such as Experiential Learning and Civic Skills Development courses. We expected that schools with higher concentrations of students who identify as racial/ethnic minorities and higher concentrations of students from low-income families would offer less access to civic education courses. While we found some relationships between school racial/ethnic composition and school level socioeconomic status and civic education course availability, the larger issue is that these courses are simply not prevalent. Schools offer very little access to some particularly beneficial civic education courses. For example, we find the broadest benefits in terms of civic engagement from Experiential Learning courses, however, nearly half of the schools in our sample offer no Experiential Learning courses, and overall, schools offer an average of approximately one Experiential Learning course per one hundred students. Less than 4% of our sample took an Experiential Learning course in high school. Recognizing that available resources may limit a school's ability to offer separate civic education courses, we recommend that all social studies courses incorporate experiential learning approaches such as role playing, simulations, and field trips as well as the development of civic skills, such as group work, public speaking, perspective taking, critical thinking, and media literacy.

As with extracurricular activities, we recommend that schools examine and remove barriers to participation in civic education courses for all students. We find that even when civic education courses are available, relatively few students take these courses. For example, while most schools in our sample offered Civic Skills Development courses (94.4%), less than 27% of our sample took a Civic Skills Development course. We find that additional credits of American History courses, beyond the standard course of study, predict an increased likelihood of participating in civic and electoral acts in high school, however, less than 15% of our sample earned more than one credit in these courses, and more than 40% took no American History courses beyond the standard course of study. We find a positive impact of additional credits of Social/Political Issues Courses on electoral acts, however, most students did not take these courses at all, and less than 1% of the sample earned more than one credit in these courses. Even within the same schools, Hispanic students are less likely to take courses in American History beyond the standard course of study than their non-Hispanic White peers. Students in poverty are less likely to take courses in Social/Political Issues than their more affluent peers. This indicates the presence of structural and psychological barriers to participation in these courses which schools should seek to remove. These barriers could also be addressed by incorporating effective approaches to civic education in all social studies courses, even those in the standard course of study, as suggested above.

We offer a word of caution about Service Learning courses. Service Learning courses have been lauded as an effective approach to civic education, and are considered one of the “proven practices” in high quality civic education (Gould, 2011). These courses are available in over 75% of schools in our sample and nearly 20% of the students in our sample took a Service Learning course. While other studies demonstrate that these courses are positively associated

with a range of civic activities (Billig, Root, and Jesse, 2005; Kahne, Chi, and Middaugh, 2006; Kahne et al, 2013; Kahne and Sporte, 2008), we find no relationship between taking a Service Learning course in high school and civic engagement in adulthood for most civic activities, and we find a negative association between credits earned in Service Learning courses and the likelihood of participating in political voice activities in adulthood. We interpret these results to mean that Service Learning courses must be high quality to promote civic engagement, meaning they include a classroom reflection component and discussion of the root causes of issues (Commission on Youth Voting and Civic Knowledge, 2013).

Overall, we conclude that adolescent school experiences offer a promising avenue to address the crisis of democracy in the United States. In addition to the above policy recommendations, we suggest further research into aspects of these experiences which best promote civic engagement. Suggested lines of research include surveys or qualitative research to examine the opportunities for civic identity development presented in various extracurricular activities, and to examine the opportunities for the development of civic identity, internal and external efficacy offered in various civic education courses. Ideally, these students could be followed into adulthood to better understand how these mechanisms predict civic engagement in adulthood. In addition, research to better understand the determinants of participation in various extracurricular activities and enrollment in particular civic education courses would be beneficial. This would allow future research to more precisely control for selection into these activities and courses, as well as provide information on the various structural and psychological barriers that exist.

Table 4.1: Overview of Hypotheses

Hypothesis	Supported?
<b>Chapter 1</b>	
H1.1: Opportunities for civic identity development through participation in school-based extracurricular activities are positively associated with adult civic engagement.	Yes.
H1.1a: Participation in instrumental activities will have the strongest relationship with civic engagement in adulthood.	Yes.
H1.1b: Participation in high visibility team sports will have the second strongest relationship with civic engagement in adulthood.	No. Participation in expressive activities has the second strongest relationship with civic engagement in adulthood.
H1.2: Different mechanisms of civic identity development may be important for different types of civic activities.	Yes. For example, opportunities to develop confidence in civic skills seem to be particularly important for political voice activities.
H1.3: The relationship between school-based extracurricular activities and adult civic engagement may be confounded by school social capital, family and neighborhood characteristics, and church activity participation.	Yes.
<b>Chapter 2</b>	
H2.1: Schools with higher concentrations of racial/ethnic minority students will offer less access to civic education courses, such as Experiential Learning, Service Learning, Civic Skills Development, Social and Political Issues, and Political Knowledge Development.	Somewhat. While these courses are more available in schools with the lowest concentrations of Black or Hispanic students than those with the highest concentrations, this relationship is not linear. Schools with the highest concentrations of Hispanic students offer more access to Experiential Learning courses than those with low concentrations.
H2.2: Schools with higher concentrations of low-income students will offer less access to civic education courses.	Somewhat. While these courses are more available in schools with the lowest concentrations of economically disadvantaged students than those with the highest concentrations, this relationship is not linear.
H2.3: African American and Latino students will be underrepresented as compared to non-Hispanic White students in civic education courses.	Somewhat. African American students are underrepresented in Service Learning courses and Hispanic students are underrepresented in Civic Skills development, Social/Political Issues, and Political Knowledge Development courses.



Table 4.1: Overview of Hypotheses, continued

H2.4: Students from low-socioeconomic status (SES) families will have less access to civic education courses than their higher SES peers.	Somewhat. On average, a student experiencing poverty is less likely to take a course in Service Learning, Civic Skills development, and Social/Political Issues than a peer from a higher income family, however, this relationship is impacted by other student and school characteristics. On average, students from families with high school educated parents are less likely to take Experiential Learning courses than peers with college educated parents, controlling for other school and student characteristics.
<b>Chapter 3</b>	
H3.1: Taking high school courses in Experiential Learning, Service Learning, Civic Skills Development, Social and Political Issues, American History, International/Multicultural Studies, and Political Knowledge Development will be associated with increased civic participation in adulthood.	Yes, with the exception of Service Learning courses.
H3.1a: Taking high school courses in Historically Marginalized Groups will be associated with increased civic participation in adulthood, particularly for individuals who identify as female or racial/ethnic minorities.	Somewhat. Taking a course in Historically Marginalized Groups is associated with an increased likelihood of personally responsible civic activities. On average, females who took these courses demonstrate an increased likelihood of political voice acts and voting regularly in state elections, but a decreased likelihood of engaging in civic acts in adulthood.
H3.1b: Civic education courses taken in 12 <sup>th</sup> grade will more strongly predict adult civic engagement than courses taken earlier in high school.	No.
H3.1c: Advanced Placement courses will have more impact on adult civic engagement than courses of other levels.	Yes. However, Advanced Placement courses in other subjects also demonstrate a positive impact on civic engagement in adulthood.
H3.2: Different categories of civic education courses will impact different types of civic engagement activities, due to varied mechanisms.	Yes. For example, Experiential Learning courses contribute to the likelihood of political voice activities and Civic Skills Development courses contribute to the likelihood of civic activities in adulthood.

## APPENDIX A: ADDITIONAL RESULTS FROM CHAPTER 1

Appendix Table A1: Comparison of Student Characteristics by Activity Participation

	Full Sample	Instrumental	Expressive	Academic/ Hobby	High Visibility Sports	Low Visibility Team Sports	Low Visibility Individual Sports	No Activities <sup>1</sup>
<b>School Social Capital</b>								
School Connectedness	18.577	19.268 *	19.056 *	19.015 *	19.200 *	19.241 *	19.067 *	17.302 *
Size of Social Network	4.412	5.358 *	5.054 *	4.912 *	5.190 *	5.217 *	5.108 *	3.207 *
Social Network Participation	2.168	2.659 *	2.584 *	2.550 *	2.561 *	2.635 *	2.682 *	1.509 *
<b>Individual Characteristics</b>								
Hours Worked/Week	6.574	6.583	5.291 *	6.690	5.557 *	6.082 *	6.272	7.720 *
Church - Services Only	0.329	0.304 *	0.273 *	0.290 *	0.288 *	0.283 *	0.300 *	0.397 *
Church - Activities	0.564	0.618 *	0.663 *	0.628 *	0.618 *	0.619 *	0.608 *	0.448 *
Middle School	0.269	0.284	0.345 *	0.228 *	0.357 *	0.318 *	0.299 *	0.204 *
Early High School (9th/10th)	0.433	0.354 *	0.419	0.379 *	0.403	0.423 *	0.394	0.424 *
Late High School (11th/12th)	0.327	0.382 *	0.255 *	0.421 *	0.276 *	0.291 *	0.335 *	0.409 *
GPA	2.824	3.185 *	3.036 *	3.023 *	2.850 *	2.916 *	2.947 *	2.518 *
<b>Race/Ethnicity</b>								
White	0.562	0.591	0.639 *	0.507	0.496	0.615 *	0.560 *	0.465 *
Hispanic	0.156	0.123 *	0.094 *	0.142 *	0.108 *	0.134 *	0.097 *	0.236 *
Black	0.177	0.153 *	0.167	0.214 *	0.292 *	0.152 *	0.217	0.181 *
Asian	0.057	0.074 *	0.050	0.091 *	0.057 *	0.052 *	0.078	0.068
American Indian	0.042	0.052	0.046	0.036	0.040	0.041	0.040	0.042
Other	0.005	0.009	0.003	0.009 *	0.007	0.006	0.008	0.007
Male	0.499	0.358 *	0.372 *	0.369 *	0.551 *	0.484	0.511 *	0.457
<b>Immigrant Generation</b>								
1st Generation	0.077	0.069	0.045 *	0.083 *	0.044 *	0.047 *	0.056 *	0.104 *
2nd Generation	0.134	0.133	0.098 *	0.158 *	0.116 *	0.127 *	0.122 *	0.179 *
3rd + Generation	0.789	0.797	0.856 *	0.759 *	0.840 *	0.826 *	0.821 *	0.717 *
Age (Wave I)	14.947	14.973	14.530 *	15.157 *	14.653 *	14.725 *	14.889 *	15.349 *
<b>Family Characteristics</b>								
Household Size	4.273	4.288	4.243	4.373	4.373	4.407 *	4.37	4.377
Two Parent Household	0.782	0.812 *	0.796	0.781 *	0.757 *	0.805 *	0.797 *	0.740 *
<b>Parental Education</b>								
< High School	0.128	0.101 *	0.076 *	0.129 *	0.123 *	0.113 *	0.101 *	0.229 *
High School Grad	0.260	0.199 *	0.227 *	0.224 *	0.262	0.252 *	0.217 *	0.309 *
Some College	0.212	0.209	0.219	0.214	0.225	0.224	0.219	0.216
College Graduate	0.377	0.491 *	0.478 *	0.433 *	0.390 *	0.412 *	0.464 *	0.245 *
Parent involved in civic organization	0.524	0.612 *	0.619 *	0.563 *	0.571 *	0.590 *	0.592 *	0.388 *

\* indicates mean is statistically different than those that do not participate in that activity type ,  $p < 0.05$

1. Comparison is to those that participate in any extracurricular activities, \* indicates mean is statistically different than those that do participate in activities,  $p < 0.05$

**APPENDIX B: DOCUMENTATION FOR ADD HEALTH SOCIAL STUDIES AND CIVIC  
COURSEWORK DATA**

**National Longitudinal Study of Adolescent Health**

**Academic Transcript:**

**Social Studies and Civic Coursework Data**

**Kristina M. Patterson**

**2017**

**Filename:** ATRCVC

## **INTRODUCTION**

Add Health's ATRCVC data file consists of Academic Transcript data related to Social Studies and Civic Coursework. These data provide information on high school social studies courses taken by Add Health participants, with a specific focus on those courses that develop the skill, knowledge, and attitudes needed for civic participation. By coding courses using the definition of social studies offered by the National Council on Social Studies and course content which is supported in the literature as important for future civic participation, this database offers the opportunity to examine civic education in relation to individual, school, and neighborhood characteristics in adolescence as well as life outcomes into adulthood. Provided indicators of exposure to Experiential learning opportunities, service learning, opportunities for political skills development, and open discussion of controversial social and political issues may explain levels of civic participation in later life (Langton and Jennings, 1968).

### **Documentation Structure**

This document includes this INTRODUCTION, a DATA DICTIONARY describing the course variables available and their construction, a SOURCE DESCRIPTION of the data source used in the assembly of this data file, a standard CODEBOOK reporting variable values and frequencies, a list of references, and an Appendix.

### **Data Form**

ATRCVC is a course-by-student-level file. Each student has multiple records, one for each course on their transcript identified as a social studies course. The file includes 93,651 observations. It is important to note that if a student does not have a social studies course on her or his transcript, they do not appear in this data set.

### **Variable Naming Conventions**

With the exception of AID, all variables in this data file adhere to the following nomenclature:

1<sup>st</sup>, 2<sup>nd</sup>, and 3<sup>rd</sup> characters – Refer to the Academic Transcript source (ATR).

4<sup>th</sup>, 5<sup>th</sup>, and 6<sup>th</sup> characters – Identify the specific topic of interest: Social Studies and Civic Courses (CVC).

7<sup>th</sup> and 8<sup>th</sup> characters - The final two unique digits, ranging from range from (01) to (08), distinguish the eight variables comprising this data file.

## **DATA DICTIONARY**

### **Variable Construction**

According to the National Council for the Social Studies' (NCSS), social studies is: "...the integrated study of the social sciences and humanities to promote civic competence. Within the school program, social studies provides coordinated, systematic study drawing upon such

disciplines as anthropology, archaeology, economics, geography, history, law, philosophy, political science, psychology, religion, and sociology, as well as appropriate content from the humanities, mathematics, and natural sciences. The primary purpose of social studies is to help young people make informed and reasoned decisions for the public good as citizens of a culturally diverse, democratic society in an interdependent world” (NCSS Curriculum Standards Task Force, 2010). This definition was applied to the Classification of Secondary School Courses (CSSC) to determine which courses would be considered social studies courses. While most of the courses that were designated as social studies fall under the social studies subject area (STUB0400) according to the Secondary School Taxonomy (U.S. Department of Education, 1999), the classification includes some courses from other subject areas that fit the NCSS definition of social studies.

Extant literature in civic education, social psychology, and developmental psychology guided the creation of the following course categories:

- Experiential Learning (Niemi and Junn, 1998; Kahne, Chi, and Middaugh, 2006): This category includes courses that include “learning by doing.” Content of these courses is active and participatory. Courses include simulations, role playing, field trips, and field experiences.
- Service Learning (Kahne, Chi, and Middaugh, 2006; Pasek et al, 2008; Kahne and Spote, 2008; Billig, Roote, and Jesse, 2005): This category includes courses which combine classroom instruction with community service to address a need in the community. Ideally, service learning courses include a reflection component, however, we are unable to discern this from course content descriptions.
- Civic Skills Development (Gould, 2008): This category includes courses that focus on developing intellectual and participatory civic skills. Intellectual and participatory skills “encompass knowing how to identify, assess, interpret, describe, analyze, and explain matters of concern in civic life”, and include critical thinking, perspective taking, interpreting and critiquing media, expressing opinions, and identifying public problems (Campaign for the Civic Mission of Schools). Participatory skills “encompass knowing how to cope in groups and organizational settings, interface with elected officials and community representatives, communicate perspectives and arguments, and plan strategically for civic change” and include public speaking, using electoral and non-electoral means to express political opinion, and working in groups (Campaign for the Civic Mission of Schools).
- Social and Political Issues/Problems of Society (Niemi and Junn, 1998; Pasek et al, 2008): This category includes courses that focus on contemporary social and political issues and current events.
- Historically Marginalized Groups (Lay, 2007; Tajfel and Turner, 1979; Haste, 2004; Hogg et al, 1995): This category includes courses which focus on racial and ethnic minorities and women in the United States.
- American History (Gibson and Levine, 2003): This category includes courses which focus on the social, political, and economic development of the United States. The category includes survey courses, as well as courses focused on particular time periods or regions.

- International/Multicultural Studies (Torney-Purta, 2002): This category includes courses which focus on the history, society, politics, economy, or culture of geographic regions outside of the United States. The category includes courses focused on international affairs and global issues.
- Political Knowledge Development (Niemi and Junn, 1998; Delli Carpini and Keeter, 1996; Torney-Purta, 2002): This category includes courses in government, political science, and public policy which are focused on developing knowledge of principles, procedures, processes, institutions, rights, and other information about the political system.

Deductive coding of the course titles, alternative titles, and descriptions, was used to categorize each social studies course into one of these mutually exclusive categories based on the primary focus of the course. To ensure consistency with the social studies course variables that were created by AHAA (available in the Add Health EDUHS data file), an additional category of “other social science or humanities course” was added, in order to code all courses that fit with the NCSS definition of social studies (coded using the created categories) and all other courses that were identified by the Secondary School Taxonomy as social studies courses (coded as “other social science or humanities”). Additionally, indicator variables were created for experiential learning, civic skills development, and social and political issues, to capture those courses which contained this content, but not as the primary focus. (Analysis of inter-rater reliability indicated substantial agreement among coders in all course categories; see the Appendix).

## **Variable Description**

### **ATRCVC01**

Primary course content of social studies course listed on transcript. 1: Experiential Learning; 2: Service Learning; 3: Civic Skills Development; 4: Social and Political Issues/Problems of Society; 5: Historically Marginalized Groups; 6: American History; 7: International/Multicultural Studies; 8: Political Knowledge Development; 9: Other Humanities/Social Science. Category 9 is intended to ensure this data file is consistent with the Add Health EDUHS data file.

### **ATRCVC02**

Social studies course contains experiential learning. This variable has two values: 0, which indicates the course contains no experiential learning and 1, which indicates the course contains experiential learning. Courses where the primary focus is experiential learning (coded as category 1 for the variable ATRCVC01) have a value of 1 for this variable, as well as courses in other categories that contain experiential learning opportunities.

### **ATRCVC03**

Course contains civic skills development. This variable has two values: 0, which indicates the course contains no civic skills development and 1, which indicates the course contains civic skills development. Courses where the primary focus is civic skills development (coded as category 3 for the variable ATRCVC01) have a value of 1 for this variable, as well as courses in other categories that contain opportunities for civic skills development.

#### **ATRCVC04**

Course contains social and political issues/problems of society. This variable has two values: 0, which indicates the course does not contain social and political issues and 1, which indicates the course contains social and political issues. Courses where the primary focus is social and political issues/problems of society (coded as category 4 for the variable ATRCVC01) have a value of 1 for this variable, as well as courses in other categories that contain social and political issues.

#### **ATRCVC05**

Individual unique courses represent less than 0.01% to 12.27% of cases. This variable indicates that the course represents more than 5% of cases, and is therefore considered a standard social studies course. Five individual courses are considered standard social studies courses in this dataset. Together these courses constitute 42.8% of all cases, and offer one option for researchers to construct a comparison group.

This variable has two values: 0, which indicates the course is not a standard social studies course and 1, which indicates the course is a standard social studies course.

#### **ATRCVC06**

This variable lists the number of Carnegie credits the student earned for taking the course. This variable is taken directly from the Add Health EDUCOURS data file, and ranges from 0-27.

#### **ATRCVC07**

This variable lists the grade level in which the student took the course. This variable is taken directly from the Add Health EDUCOURS data file, and has the following values: 9, 10, 11, 12. Some students have different grade levels listed for courses taken in the same academic year.

#### **ATRCVC08**

This variable indicates the academic level of the course. This variable is taken directly from the Add Health EDUCOURS data file, and has the following values: 1, 2, 3, 4. The value 1 indicates an honors course; 2 indicates a regular course; 3 indicates a remedial course; and 4 indicates an Advanced Placement (AP) or an International Baccalaureate (IB) course.

### **SOURCE DESCRIPTION**

This data uses Academic Transcript data collected and coded by the Adolescent Health and Academic Achievement Study (AHAA), an ancillary study to the National Longitudinal Study of Adolescent Health. In 2001-2002, the AHAA collected high school transcripts for approximately 12,000 Add Health participants that were part of the Wave III sample. The Adolescent Health and Academic Achievement Study used the Classification of Secondary School Courses (CSSC) to code these transcripts. The Classification of Secondary School Courses (CSSC) was designed in 1982 for High School and Beyond (HS&B), and was used in the National Educational Longitudinal Study of 1988 (NELS), and all of the National Assessment of Educational Progress (NAEP) High School Transcripts Studies (HSTS). AHAA followed the procedures used by NCES to code transcripts and trained coders using training materials from the 2000 NAEP High School Transcripts Study (Muller et al, 2007). The AHAA coders used extensive information on course content from schools to code transcripts (Muller et al, 2007).

For more information on the AHAA, including study design, the relationship between AHAA and Waves of Add Health, and data coding procedures, please consult the AHAA website (<http://www.laits.utexas.edu/ahaa/>) and the User Documentation for the Add Health Education Data (Riegle-Crumb, C., Muller, C., Frank, K., and Schiller, K.S., 2005).

## **ACKNOWLEDGEMENTS**

This study uses the transcript data collected by the AHAA. In addition to the Add Health acknowledgment, researchers using this data file should include in each written report or other publication based on analysis of this data, the following statement:

The AHAA study was funded by grants from the National Institute of Child Health and Human Development (01 HD40428-02) to the Population Research Center, University of Texas at Austin, Chandra Muller (PI), and from the National Science Foundation (REC-0126167) to the Population Research Center, University of Texas at Austin, Chandra Muller and Pedro Reyes (Co-PI).



## CODEBOOK

Add Health: Study of Social Studies Coursework and Civic Engagement			
Number of observations: 93,651			

AID		Char	Respondent identifier NOTE: Smallest 5 and largest 5 values are displayed.
Frequency	Percent	Value	Label
10	0%	10316654	10316654
8	0%	10316952	10316952
10	0%	10506342	10506342
5	0%	10606128	10606128
4	0%	11316754	11316754
93559	100%	Values omitted	NOTE: Range of values omitted from display
7	0%	99886991	99886991
14	0%	99886994	99886994
16	0%	99886995	99886995
9	0%	99886996	99886996
9	0%	99886999	99886999

<b>ATRCVC01</b>		Num	Social Studies course category
Frequency	Percent	Value	Label
706	1%	1	Experiential Learning
5473	6%	2	Service Learning
4766	5%	3	Civic Skills Development
1670	2%	4	Social and Political Issues/Problems of Society
974	1%	5	Historically Marginalized Groups
25209	27%	6	American History
24324	26%	7	International/Multicultural Studies
12744	14%	8	Political Knowledge Development
17785	19%	9	Other Humanities/Social Science

<b>ATRCVC02</b>		Num	Social Studies course contains Experiential Learning
Frequency	Percent	Value	Label
82152	88%	0	no
11499	12%	1	yes

<b>ATRCVC03</b>		Num	Social Studies course contains Civic Skills Development
Frequency	Percent	Value	Label

85008	91%	0	no
8643	9%	1	yes

<b>ATRCVC04</b>		Num	Social Studies course contains Political Issues & Problems of society
Frequency	Percent	Value	Label
72292	77%	0	no
21359	23%	1	yes

<b>ATRCVC05</b>		Num	Course is a Standard Social Studies course
Frequency	Percent	Value	Label
53596	57%	0	no
40055	43%	1	yes

<b>ATRCVC06</b>		Num	Carnegie Credits earned for Social Studies course
Frequency	Percent	Value	Label
8849	9%	0.00	0.00 credits
2711	3%	0.25	0.25 credits
67937	73%	0.50	0.50 credits
70	0%	0.75	0.75 credits

14033	15%	1.00	1.00 credits
51	0%	1.25	1.25 or more credits

<b>ATRCVC07</b>		Num	Grade Level Social Studies course taken
Frequency	Percent	Value	Label
20365	22%	9	9th grade
19237	21%	10	10th grade
28153	30%	11	11th grade
25896	28%	12	12th grade

<b>ATRCVC08</b>		Num	Academic Level of Social Studies course
Frequency	Percent	Value	Label
6567	7%	1	honors course
84022	90%	2	regular course
255	0%	3	remedial course
2807	3%	4	Advanced Placement or International Baccalaureate course

## APPENDIX: Analysis of Inter-rater Reliability

Four coders were used to assign social studies course categories. Generally, course category codes were assigned based on the code assigned by the majority of coders. In cases where there was not consensus among coders, preference was given to the coders with specific knowledge of K-12 social studies curricula. Inter-rater reliability was assessed in two ways. First, Cohen's (1960) kappa was calculated for each pair of raters, and as suggested by Light (1971), the mean of these estimates was calculated to provide an overall index of inter-rater agreement (Table A.1). Second, following Landis and Koch (1977), a kappa-like statistic was calculated across all coders, providing an overall index of agreement, as well as for each course category, providing an index of inter-rater agreement for each code (Table A.2). Using Landis and Koch's (1977) guidelines for interpretation of kappa values, both methods of assessing inter-rater agreement or reliability indicated a substantial agreement between raters overall ( $0.61 < \kappa < 0.80$ ). Inter-rater agreement by course category ranged from substantial agreement ( $0.61 < \kappa < 0.80$ ) to near perfect agreement ( $\kappa > 0.81$ ).

Table A.1. Inter-rater Agreement Index, using Light's (1971) Method

	$\kappa$	Interpretation
<b>All Coders</b>	0.78	Substantial Agreement
<b>Coder 1-Coder 2</b>	0.82	Near Perfect Agreement
<b>Coder 1-Coder 3</b>	0.85	Near Perfect Agreement
<b>Coder 1-Coder 4</b>	0.82	Near Perfect Agreement
<b>Coder 2-Coder 3</b>	0.82	Near Perfect Agreement
<b>Coder 2-Coder 4</b>	0.67	Substantial Agreement
<b>Coder 3-Coder 4</b>	0.72	Substantial Agreement

Table A.2. Inter-rater Agreement Index, using Landis and Koch's (1977) Method

	$\kappa$	Interpretation
<b>Overall</b>	0.77	Substantial Agreement
<b>Experiential Learning</b>	0.82	Near Perfect Agreement
<b>Service Learning</b>	0.76	Substantial Agreement
<b>Civic Skills Development</b>	0.63	Substantial Agreement
<b>Social/Political Issues</b>	0.63	Substantial Agreement
<b>Historically Marginalized Groups</b>	0.88	Near Perfect Agreement
<b>American History</b>	0.89	Near Perfect Agreement
<b>International/Multicultural</b>	0.87	Near Perfect Agreement
<b>Political Knowledge</b>	0.76	Substantial Agreement

APPENDIX C: ADDITIONAL RESULTS FROM CHAPTER 2

Appendix Table C1: How is school level racial/ethnic composition and socioeconomic status associated with civic education course availability? Bivariate Analysis

		Experiential Learning		Service Learning		Civic Skills		Social Issues		Historically Marginalized Groups		American History		International/Multicultural		Political Knowledge	
		Coeff	S.E.	Coeff	S.E.	Coeff	S.E.	Coeff	S.E.	Coeff	S.E.	Coeff	S.E.	Coeff	S.E.	Coeff	S.E.
School Characteristics																	
	Proportion Black	-0.061	0.064	-1.594 **	0.371	-0.177	0.446	-0.247	0.001	0.552 †	0.303	-3.660 **	0.883	-0.889	0.658	0.825	0.006
	Concentrated Black	-0.076 *	0.032	-0.680 *	0.306	-0.032	0.217	-0.065	0.125	0.527 *	0.258	-2.013 **	0.523	-0.650 †	0.36	0.234	0.367
	Proportion Hispanic	0.523 **	0.192	1.088	0.980	-1.514 **	0.529	-0.625 *	0.252	0.826 †	0.485	-2.381	2.068	0.386	1.385	-0.723	1.138
	Concentrated Hispanic	0.135	0.100	0.855 *	0.331	-0.779 **	0.228	-0.299 **	0.071	0.207	0.28	-1.246	1.017	0.312	0.836	-0.342	0.514
	Proportion Asian	1.008 *	0.493	1.935	1.876	-3.611 **	1.259	1.049	1.341	0.743	0.581	0.988	4.637	5.636	3.981	-2.682	2.202
	Proportion American Indian	0.113	0.630	7.960 **	2.323	2.369	3.384	1.891	1.206	4.997 *	2.136	5.968	11.02	-10.811 *	4.839	-4.435	5.874
	Proportion Other Race	1.199	0.824	-0.390	4.063	-0.580	3.030	-1.184	1.363	1.138	0.943	2.449	12.687	9.066	7.350	3.939	7.088
	Racial/Ethnic Diversity	0.341 *	0.152	0.190	0.734	-1.079 *	0.531	-0.070	0.330	0.871 *	0.396	-3.060	1.944	0.504	1.351	-0.483	1.181
	Proportion Economically Disadvantaged	0.056	0.110	-0.986	0.682	0.023	0.444	0.145	0.352	0.871 *	0.377	-2.957 **	1.099	-1.027	0.768	0.313	0.782
	High SES School	0.023	0.084	0.070	0.578	0.065	0.368	-0.157	0.133	-0.151 *	0.076	0.337	0.753	0.992	0.619	0.245	0.591
	Low SES School	-0.019	0.043	-0.513	0.321	-0.281	0.247	0.009	0.212	0.468 †	0.245	-1.793 *	0.711	-0.731 *	0.368	0.361	0.401
	Average Parental Education (in years)	0.005	0.024	0.057	0.162	0.012	0.109	-0.039	0.042	-0.113 †	0.068	0.238	0.239	0.266 †	0.150	0.186	0.153

†p<0.1; \*p<0.05; \*\*p<0.01  
Adjusted for survey design  
Uses Imputed Data

Appendix Table C.2: How is individual race/ethnicity and socioeconomic status associated with the likelihood of taking civic education courses? Results from Linear Probability Models

		Experiential Learning		Service Learning		Civic Skills		Social Issues		Marginalized Groups		American History		International/ Multicultural		Political Knowledge	
Individual Characteristics																	
Race/Ethnicity (White is reference)																	
	Black	-0.001	0.016	-0.001	0.013	0.018	0.024	0.000	0.014	0.095 **	0.022	-0.038	0.024	0.005	0.014	0.005	0.026
	Hispanic	-0.009	0.009	-0.025	0.018	-0.015	0.019	0.002	0.014	0.030 *	0.012	-0.040 †	0.021	0.002	0.020	-0.054 **	0.018
	Asian	0.018	0.020	-0.064 †	0.039	0.012	0.036	0.013	0.020	-0.011	0.013	0.029	0.035	0.016	0.022	0.002	0.029
	American Indian	-0.014	0.014	0.001	0.031	0.001	0.033	0.013	0.024	0.004	0.015	-0.023	0.030	0.057 †	0.031	-0.017	0.029
	Other	-0.010	0.012	0.036	0.078	0.177 *	0.082	-0.037	0.035	-0.018	0.022	0.039	0.060	0.028	0.102	-0.106 **	0.039
Immigrant Generation (3rd+ is reference)																	
	1st Generation	0.000	0.017	-0.031	0.025	0.022	0.023	-0.016	0.017	0.012	0.010	0.055 *	0.024	-0.011	0.017	-0.014	0.026
	2nd Generation	-0.003	0.011	0.023	0.018	0.006	0.018	-0.013	0.013	0.018	0.011	0.013	0.022	-0.007	0.017	-0.003	0.019
	Picture Vocabulary Test Score	0.001 **	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.004 **	0.001	0.002 **	0.000	0.001 †	0.001
	Male	-0.021 **	0.006	-0.068 **	0.017	-0.017	0.013	-0.002	0.008	-0.009	0.006	-0.027 *	0.011	0.002	0.011	-0.005	0.010
	Age at Wave I	0.001	0.002	-0.008 **	0.003	-0.005	0.005	-0.002	0.005	0.002	0.002	-0.013 *	0.005	-0.008 †	0.005	-0.002	0.007
Family Characteristics																	
	Income (in thousands)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000 *	0.000	0.000	0.000	0.000	0.000
	Poverty	-0.004	0.009	-0.008	0.013	0.009	0.020	-0.016 †	0.010	-0.007	0.008	0.016	0.016	0.010	0.016	0.011	0.022
Parental Education (College Grad is reference)																	
	< High School	-0.006	0.009	0.008	0.017	-0.029	0.021	0.007	0.014	-0.018 †	0.010	-0.072 *	0.016	-0.037 *	0.017	-0.004	0.017
	High School Grad	-0.013 †	0.007	0.002	0.012	-0.013	0.017	0.005	0.012	-0.008	0.007	-0.042 *	0.014	-0.021	0.015	-0.011	0.013
	Some College	-0.007	0.007	-0.002	0.017	-0.004	0.014	0.013	0.010	0.004	0.007	-0.010	0.018	-0.029 *	0.014	0.010	0.014
School Characteristics																	
	% Black	-0.018	0.040	-0.155 †	0.085	-0.012	0.129	-0.062	0.095	0.119 *	0.058	-0.016	0.205	-0.005	0.144	0.014	0.188
	% Hispanic	0.076	0.061	0.247 †	0.146	0.143	0.190	-0.162 †	0.097	0.019	0.041	0.540 *	0.234	0.026	0.239	0.143	0.185
	% Asian	-0.332 **	0.118	-0.277	0.243	-0.159	0.348	0.258	0.327	0.045	0.114	0.025	0.580	-0.301	0.676	-1.670 **	0.486
	% American Indian	-0.163	0.245	-0.665	0.504	-0.058	0.806	1.094	0.766	0.393 †	0.216	-1.048	1.201	-1.926	1.192	-2.099	1.457
	% Other Race	0.359 †	0.203	-1.116 **	0.418	0.913	1.020	0.099	0.641	-0.059	0.215	0.383	1.107	-0.379	1.358	-0.561	1.235
	Racial/Ethnic Diversity	0.100 †	0.058	0.207 †	0.119	-0.177	0.182	-0.100	0.136	0.000	0.060	-0.237	0.304	0.132	0.266	0.589 *	0.252
	% Economically Disadvantaged	0.039	0.046	0.048	0.110	-0.057	0.189	0.046	0.138	0.039	0.082	-0.069	0.243	-0.011	0.153	-0.101	0.212
	Average Parental Education (in years)	0.002	0.014	0.025	0.032	0.023	0.034	-0.010	0.011	-0.004	0.010	-0.013	0.033	0.027	0.038	-0.009	0.034
School Type (Public is reference)																	
	Private - Religious Affiliation	-0.023	0.022	-0.041	0.073	-0.052	0.085	0.095	0.092	0.013	0.024	-0.064	0.141	-0.212	0.131	-0.132	0.094
	Private - Non-religious	-0.022	0.044	0.159	0.169	0.039	0.235	0.041	0.082	0.153 **	0.050	0.325	0.156	0.096	0.191	-0.080	0.163
	% Teachers with Advanced Degrees	0.005	0.022	-0.089	0.057	0.016	0.070	-0.019	0.057	0.031	0.022	-0.134	0.130	0.009	0.108	0.026	0.095
	Size(/100)	-0.001	0.003	-0.011	0.012	-0.008	0.015	0.020	0.014	0.002	0.005	0.032	0.022	-0.023	0.022	0.013	0.019
	Size squared	0.000	0.000	0.000	0.000	0.000	0.001	-0.001	0.000	0.000	0.000	-0.001	0.001	0.001	0.001	-0.001	0.001
	Student/teacher ratio	0.002	0.001	-0.006	0.004	0.003	0.008	-0.001	0.007	-0.004	0.003	-0.004	0.007	0.003	0.007	-0.005	0.006
Urbanicity (Suburban is reference)																	
	urban	-0.013	0.016	-0.119 *	0.053	-0.001	0.066	-0.012	0.055	-0.027	0.017	-0.179 *	0.073	-0.067	0.099	-0.261 **	0.070
	rural	0.000	0.015	-0.050	0.042	-0.095	0.080	-0.054	0.051	0.001	0.016	-0.110	0.128	-0.179 *	0.080	-0.143	0.078
Region (South is reference)																	
	West	0.024	0.020	0.394 **	0.060	-0.183 *	0.080	0.003	0.085	0.047 †	0.025	0.107	0.123	0.231 †	0.127	0.196 †	0.111
	Midwest	-0.013	0.013	0.153 **	0.044	0.240 **	0.072	0.025	0.073	0.064 *	0.029	0.139 †	0.083	0.327 **	0.090	-0.022	0.107
	Northeast	0.037	0.029	-0.026	0.039	-0.036	0.080	-0.030	0.055	0.046 *	0.020	0.049	0.109	0.338 **	0.125	0.004	0.106

\*p&lt;0.10, \*\*p&lt;0.05; \*\*\*p&lt;0.01

Adjusted for survey design

Uses Imputed Data

Appendix Table C3: Mean School Characteristics by Student Race/Ethnicity and Socioeconomic Status

	Full Sample	White	Black	Hispanic	Asian	American Indian	Poverty	Parented <=HS Grad	Parented College Grad
Proportion Black	0.137	0.088 *	0.387 *	0.104 *	0.130	0.091 *	0.209 *	0.151	0.127
Concentrated Black	0.126	0.054 *	0.513 *	0.057 *	0.121	0.079	0.230 *	0.151	0.100 *
Proportion Hispanic	0.204	0.111 *	0.191	0.517 *	0.293 *	0.160	0.283 *	0.250 *	0.161 *
Concentrated Hispanic	0.167	0.044 *	0.116	0.616 *	0.296	0.086	0.282 *	0.234 *	0.103 *
Race/Ethnic Diversity	0.470	0.433 *	0.536 *	0.477	0.638 *	0.486	0.480	0.469	0.473
Proportion Economically Disadvantaged	0.237	0.186 *	0.393 *	0.279 *	0.214	0.235	0.350 *	0.278 *	0.191 *
Average Parental Education (in years)	12.911	13.254 *	12.537 *	12.025 *	12.861	13.035	12.215 *	12.514 *	13.349 *

\* indicates mean is statistically significant from those students not in that category, p<0.05



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